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টেলিফনের নং ৪৯০৫৪৯৬, ফ্যাক্স : ৮৮০-২-৯৩৫৪৯৬
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Bangladesh Journal of Political Economy

VOLUME 22, NUMBERS 1 & 2, 2005

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Bangladesh Economic Association gratefully acknowledges the financial assistance provided by the Government of the People’s Republic of Bangladesh towards publication of this volume.

The price of this volume is Tk. 200, US $ 15 (foreign). Subscription may be sent to the Bangladesh Journal of Political Economy, c/o, Bangladesh Economic Association, 4/C, Eskaton Garden Road, Dhaka-1000. Telephone: 9345996. E-mail: becoa@bdlink.com Members and students certified by their concerned respective institutions (college, university departments) may obtain the Journal at 50% discount.

Cover design by: Syed Asrarul Haque (Shopen)

Printed by: Agami Printing & Publishing Co. 25/3 Green Road, Dhanmondi Dhaka-1205, Phone: 8612819

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Preface

It gives me immense pleasure to write this preface as the present volume (volume 22) of *Bangladesh Journal of Political Economy* goes to press. This volume contains papers presented at the 15th BEA biennial conference held in December 2004 and accepted for publication after internal and external review and modifications carried out as required to the satisfaction of the Editorial Board. In addition, to ensure the quality of articles published the review process has been strictly followed.

The articles finally included in this volume cover a wide range of subjects. It should, therefore, be useful to readers with interest in one or the other of the subjects covered, if not in all of them. In addition, the statements made at the inaugural session of the conference have been included.

Those papers, out of those presented at the 2004 biennial conference, which could not be included in this volume, are being reviewed again, some or all of which may be published in the *Samoiki*.

I wish to thank the authors of the articles included, the reviewers, and the members of the Editorial Board of the journal. Special thanks are due to Prof. Ayubur Rahman Bhuiyan and Dr. Tawfiq Ahmed Chowdhury, who, as members of the Editorial Board of the journal, carried out much more responsibilities than are usual for a member.

(Qazi Kholiquzzaman Ahmad)
President, Bangladesh Economic Association
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1। অর্থনীতির বিভিন্ন শাখায় তারিক এবং প্রায়োজিক বিষয়ে প্রবন্ধ প্রণয়ন করার জন্য প্রবন্ধকারদেরকে অনুরোধ জানানো হয়। ইংরেজী এবং বাংলা উভয় ভাষায় রচিত প্রবন্ধ জার্নালের জন্য গ্রহণ করা হবে।

2। Initial screening নির্বাহী সম্পাদকের একটি তালিকায় থাকবে, তবে প্রশ্নের নিয়মে সম্পাদনা পরিষদের অন্য সদস্যদের সহায়তা তিনি নেবেন। নির্ধারিত format মোতাবেক সংশোধনের জন্য এই পর্যায়ে প্রথম ভাবে short-listed প্রবন্ধকারদের কাছে প্রেরণ করা হবে।

3। অভ্যন্তরীণ reviewer সাধারণতঃ সম্পাদনা পরিষদের সদস্যদের মধ্য থেকেই মনোনীত হবে। বহির্ভঙ্গ reviewer সম্পাদনা পরিষদের সিদ্ধান্তক্রমে প্রবন্ধের বিষয়ের ভিত্তিতে সম্পাদনা পরিষদের বাইরে থেকে মনোনীত হবে, তবে তিনি দেশের অভ্যন্তরীণ বা বিদেশে অবস্থান করতে পারেন। সম্পাদনা উপদেষ্টা কমিটির সকল সদস্য reviewer হতে পারেন। তৃতীয় reviewer প্রয়োজন হলে সম্পাদনা পরিষদের বাইরে থেকে মনোনীত করা হবে।

4। ক) সমিতির বিবর্ধিত কনফারেন্সে উপস্থাপিত প্রবন্ধগুলো referral প্রক্রিয়ার মাধ্যমে জার্নালের জন্য বিবেচিত হবে।

খ) বিভিন্ন সময়ে সমিতি কর্তৃক আয়োজিত সেমিনারে পাঠিত অন্তর্ভুক্ত প্রবন্ধমূৃহ জার্নালের সম্পাদনা পরিষদের অনুমোদনক্রমে জার্নালে প্রকাশ করা যেতে পারে।

5। অর্থনীতি সমিতির সদস্য এবং সদস্য-বক্তারা যে কোন অংশী প্রাধান্যকে সহায়তা পাবেন। তবে সদস্যদের ক্ষেত্রে অংশী ফি (subscription fee) পঞ্জাব শাখাং রয়ে দেয়।

6। জার্নালের footnoting এবং writing style একত্রিত সংযোজিত হলো (জার্নালের শেয়াল)।

7। দেশের অভ্যন্তরীণ অবস্থানকারী উপদেষ্টা কমিটির সদস্যদেরকে বছরের দুইবার সম্পাদনা পরিষদের সভায় আমন্ত্রণ জানানো হবে।

8। ক) তিনটি কোঁটেশন সংগ্রহ করে সম্পাদনা পরিষদের সিদ্ধান্তক্রমে মুদ্রক প্রক্ষেপণ নির্বাচন করা হবে।

খ) প্রথম proof প্রেস দেখবে, পরবর্তীতে floppy তে প্রক্ষেপণ ফাইনাল proof দেখবে দেখবে।
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Vertical Integration in Bangladesh Agriculture:
The Case of Contract Farming for
High Value Food Products

M.A. Sattar Mandal*
Shubir Kanti Bairagi
Md. Saidur Rahman

I. Introduction

In Bangladesh, contract farming is a recent form of production organization, which integrates the producers of high value farm products with the domestic as well as international marketing outlets. Bangladeshi farmers, especially small and marginal farmers, generally face problems relating to inadequate input supplies, low technological adoption, poor yield and falling output prices at harvest. The problem becomes more acute for highly perishable products. Contract farming is seen as one feasible solution, which may integrate production by small farmers with assured marketing outlets and product prices and thus encourages the farmers to adopt high value enterprises. Also, the contract farming system may greatly circumvent the rapidly declining farm size and increasing land fragmentation through integration of production, input supplies and marketing functions in a more cost-effective manner. It is also claimed that a properly functioning contract farming has the potential to generate huge employment, especially for the women and farm income in general (Chadha and Gulati, 2003).

The contract farming has been in operation in different forms in different countries for a very long time. Hindustan Levers Ltd. for tomato, and Pepsico for potato and chillies in Indian Punjab and Haryana, Maxworth Fruits in Andhra

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1 This paper is a descriptive reflection on contract farming, awaiting more rigorous analysis as a part of an on-going research study. The contents on the contract broiler farming are based on the second author’s master’s thesis, while the materials for contract production of milk and vegetables are derived from various sources including personal interviews and field observations.

* The authors are respectively a Professor, a post-graduate research student and an Assistant Professor in the Department of Agricultural Economics, Bangladesh Agricultural University, Mymensingh.
Pradesh, Karnataka and Tamil Nadu, VST Natural Products Ltd. in Andhra Pradesh, Nijjer Agro Foods for tomato and Cadbury for milk products in Karnataka are a few notable examples. In Bangladesh also, contract farming for some products exists in some forms for ages. The notable ones include sugarcane production in mill zone areas, banana and flower production in recent years.

In more recent years, contract farming has been introduced more intensively by a number of private companies and NGOs as a part of their agribusiness ventures. Their primary focus is on high value agricultural products to cater to the needs of increasing urbanization and expanding international markets. BRAC has introduced contract growing of vegetables and fruits for export market and poultry and milk production for domestic market. PRAN has been promoting production of high value fruits and vegetables for domestic as well as export market. Aftab Bahumukhi Farm Ltd. (ABFL) is one of the commercial breeding farms that has introduced contract farming for broiler and layers production and integrated it with a supply chain to serve the urban consumers. Proshika has introduced contract farming for organic vegetable and fruit production mostly for the urban consumers.

Although the contract farming has been in practice for quite some time, there are issues that have not been adequately analyzed or understood. Some of the key questions that need to be addressed are as follows: Who are the contract growers and what are the contractual arrangements? To what extent the contract farming benefits the contract growers? Has the contract farming contributed to a reduction of price spread between the producers and the consumers? What needs to be done to improve the performance of contract farming in the changing nature of trade liberalization?

The present paper can not address the above issues in any greater detail precisely because it is a part of an on-going study and more empirical data need to be collected. The modest attempt of the paper is to give a reflection on contract farming with respect to three high value commodities such as contract broiler production, contract milk production and contract vegetable production.

II. Concept of Contract Farming

Contract farming involves contractual arrangements, written or verbal, between farmers and companies, specifying one or more conditions of production and/or marketing of an agricultural product. Contracting may be horizontal and vertical. If two or more different stages are tied together, this is ‘vertical contracting’. If two or more parts are tied into one at the same stage of operation, this is
‘horizontal contracting’. If both vertical and horizontal operations are tied together, this is ‘circular contracting’ (Roy, 1963).

For example, in the broiler chicken industry there are various stages of operation, such as: hatching egg flocks, hatcheries, feed mills, feed stores, broiler production, processing, wholesaling, retailing and finally, the consumer of chickens. Contracting on any one of these stages is ‘horizontal,’ while contracting between any two of these stages is ‘vertical’. Contracting involving both horizontal and vertical operations is called ‘circular’.

Conceptually, contract farming envisages five elements: (i) product specification in response to national or international markets; (ii) market specification, ensuring product delivery at agreed upon prices; (iii) resource supplies, including quality inputs, capital, credit and services; (iv) technical support, relating to production, harvesting and processing; and (v) risk sharing, specifying insurance against natural and market risks.

III. Case Study 1

3.1 Contract broiler farming

Aftab Bahumukhi Farm Ltd. (ABFL) introduced contract growing of poultry broilers and layers in 1994 in vast areas of Bhagalpur, Bajitpur in Kishoregonj district. By 2003, ABFL established 850 contract broiler farms, raising over 800,000 birds per month. The company has also 50 contract layer farms, rearing a flock size of 500 each. There is a simple agreement between a farmer (contract grower) and ABFL. According to the Agreements ABFL extends a full credit facility to the farmer, supply of day old chicks (DOC), all vaccines, medicines, feed along with expert supervision on regular basis. ABFL also undertakes the responsibilities for marketing their products and insurance coverage.

Apart from labour (nursing), a farmer (contract grower) builds a covered shed at his own cost ensuring congenial and healthy environment for proper growth of the birds under the direct supervision of the ABFL experts. The credit liability of a contract grower is adjusted against price of their products. On successful farming of layer birds through contract grower, the program was extended to the production of broiler. Subsequently, on the same terms and conditions, the programme was widened for taking up in groups and in batches of 1000 to 2000 DOC day old chicks. The birds eventually mature in 6 to 7 weeks time. ABFL buys back the broiler at fixed rate from the contract growers and markets live as well as dressed broilers through ABFL sales centres in Dhaka and Sylhet.
Figure 1: Poultry Supply Chain of ABFL

- Parent (Breeding) stock imported from France and Malaysia.
- Breeder (Parent) Contract Growing Farm [Parent stock at control house]
- Aftab Poultry Feed sales centre
- Aftab Poultry Feed mill
- Aftab Poultry Feed sold to Private Poultry Farms
- Aftab Day Old Chick Sales Centre
- ABFL services centre (Providing technical, contractual, supervisory services)
- Aftab Poultry Hatchery/Hatchery Complex hatchery
- Aftab Poultry Hatchery
- Contract Broiler Farm (Live birds)
- ABFL’s weighing Centre (Live birds)
- Aftab Poultry Hatchery
- Automatic Poultry Processing Plant
- Manual HALAL slaughtering
- Dhaka Sales Centre (dressed Broiler 80-90 Tk/kg) and Live Broiler (60-70 Tk/kg)
- Chicken Nuked (Processed 200Tk/kg)
- Sylhet Sales Centre Live Broiler (70-75 Tk/kg)
- Local sales centre (Live birds) 65Tk/kg
- Consumers

Source: Developed based on Field Survey, 2004
3.2 Main features of broiler chain

The broiler chain of ABFL primarily focuses on the production of broiler meat for the domestic market. The parent stocks are imported from overseas. The day-old broiler chicks are reared by broiler growers through contracts. The birds are then slaughtered and undergo handling, packing and processing using automatic machine. The final product is distributed to markets through own sales centre, which then sell the chicken meat to consumers or restaurants. Two different retail channels were explored- the market and own sales centre channels. The relationship with the local market is an open market sales centre arrangement, where the own sales centre assure delivery of product in terms of high quality and food safety. The main features of the broiler chain are depicted in Fig.1.

Indemnity and security: Insurance companies are reluctant to cover the risk of small poultry farms. To cover the risk of loss and safeguard the interest of the contract broiler growers in case of immature death of chicks by diseases or other cogent reasons, ABFL operates a contributory security fund. Farmers contribute Tk. 1 per chick to the fund. Payment out of the fund is made to the farmer at the rate of Tk. 20 per dead chick if the mortality rate is more than 10 percent, and if the mortality is less than 3 percent, 80 percent of farmers’ contribution is refunded.

3.3 Sales quantity and price of broiler products of ABFL

The production and sales of broilers under ABFL contract farming increased from 823 tons in 1999 to 2719 tons in 2002 and then decreased to 2457 tons in 2003. Sales quantity of live bird exhibited a strong negative correlation \(( r = -0.97)\) with

**Fig. 2: Year wise price and sale volume of live broiler**
the price of live bird. Figure 2 shows that during 1999 to 2003, the lowest price of live bird were observed in 2003 and lowest sales observed in 1999, but the highest sale quantity and highest price of live bird was observed in 2002 and 1999 respectively. In 2003 both price and quantity decreased because broiler production throughout the country was badly affected by the scare of bird flue. Despite falling price per unit, ABFL continued to increase its volume of production because larger volume with smaller profit margins still gave larger aggregate profits.

Sales quantity of whole dressed broiler exhibited a strong negative correlation \( r = -0.78 \) with the price of whole dressed broiler. Figure 3 shows that during 1999 to 2003, the lowest price of whole dressed broiler was observed in 1999 and lowest sales observed in 2003, but the highest sale quantity and highest price of whole dressed broiler was observed in 2000 and 1999, respectively.

![Fig. 3: Year wise price and sale volume of whole dressed broiler](image)

3.4 Land holding status of the contract broiler farmers

The contract broiler farmers came by and large from the small and medium farmsize categories. Table 1 shows that 12 out of 30 farmers surveyed had land up to 1 hectare; another 12 farmers had land between 1 and 2 hectares, while the remainder 6 had above 2 hectares of land. So, in terms of farm size, small and medium farmers accounted for four-fifths of all the contract growers under the survey. Since broiler farming needs some capital to begin with and also requires at least some land to construct broiler sheds, landless or very marginal farmers could not enter into this business. But many of the landless and marginal household members benefitted from extra employment generated through backward and forward linkages of extensive broiler farming in the area. Many of
the contract farmers had also other sources of income such as crop farming, part-time jobs, petty trades, etc

3.5 Gross margin

The contract farmers under the study reared an average of 5 batches of broilers per farm per year, average number of birds being 1936 per batch. Table 2 shows that the average gross margins were estimated at Tk. 105,977 per farm per year. Gross margins were calculated by deducting variable costs from gross return earned from the enterprise. The estimated costs and returns as well as an intensive case study of a typical broiler farmer showed that broiler farming under the contract system is profitable in a normal year, but the extent of profits can be diminished due to incidence of diseases or abrupt fall in broiler prices.

Table 1: Average land area per contract broiler farmer

<table>
<thead>
<tr>
<th>Size of land area (decimals)</th>
<th>No. of farmer</th>
<th>Average land area per farm (decimal)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Broiler Farm</td>
</tr>
<tr>
<td>50-100</td>
<td>2</td>
<td>12.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(13.72)</td>
</tr>
<tr>
<td>101-249</td>
<td>10</td>
<td>13.90</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(7.54)</td>
</tr>
<tr>
<td>250-500</td>
<td>12</td>
<td>10.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.94)</td>
</tr>
<tr>
<td>501-749</td>
<td>3</td>
<td>20.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(20.5)</td>
</tr>
<tr>
<td>above 750</td>
<td>3</td>
<td>33.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4.26)</td>
</tr>
</tbody>
</table>

Source: Field survey, 2004. Figures in the parentheses indicate percentages

Table 2: Gross margin, net return and benefit-cost ratio for broiler farms

<table>
<thead>
<tr>
<th>Items</th>
<th>Unit</th>
<th>All farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross return</td>
<td>Tk</td>
<td>540,738</td>
</tr>
<tr>
<td>Variable cost</td>
<td>Tk</td>
<td>434,761</td>
</tr>
<tr>
<td>Total cost</td>
<td>Tk</td>
<td>490,422</td>
</tr>
<tr>
<td>Gross margin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net return</td>
<td>Tk</td>
<td>50,316</td>
</tr>
<tr>
<td>BCR (undiscounted)</td>
<td>-</td>
<td>1.10</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2004
IV. Case Study 2

4.1 Contract growing of milk

BRAC sponsored milk cow rearing as a profitable enterprise under its livestock development programme since 1984. This helped increase milk production by the farmers but the major problem was the absence of enough facilities for marketing of all of the milk that were available at the local level. This prompted BRAC to establish a modern dairy plant in Gazipur in 1998. To feed the plant BRAC has so far established about 20 milk chilling plants more or less following the milk producers’ cooperatives model of Amul Dairy in India and Milk-Vita in Bangladesh.

BRAC dairy has so far organized a network of about 20,000 contract milk growers listed with about 50 milk producers’ society (MPS) in different locations of the country. Each MPS has 20-25 cow rearers / milk producers. About a half of the milk producers rear 1 cow each, 30 percent have 2-3 cows each, while another 20 percent rear 3-5 cows. BRAC as contractor provides essential services like artificial insemination, veterinary health care and medicines, quality feeds, improved animal husbandry training, and above all an ensured purchasing of milk from the farmers at a pre-determined price. Average milk production is 1.5-2 litres per cow per day. Milk produced by the individual cow rearers in the village is collected through designated milk collectors and assembled at the local chilling centres within one hour of milking to maintain cool chain. The MPS appoint the local milk collector who measure fat contents and also check adulteration. The individual producers are paid according to fat contents of their milk. The usual price paid in 2004 was at the rate of Taka 16.5 per litre of milk containing 4.5 percent fat. The collected milk is then transported from chilling plants to BRAC dairy plant at Gazipur by road milk trucker for processing, pasteurizing, packaging and so on.

Total production of processed milk per day rose from about 10,000 litres in 1998 to about 35,000 litres per day. The Arong (Brand name) dairy products include low fat fresh milk, chocolate milk, mango milk, butter, ghee, sweet yogurt, sour yogurt, UHT fresh milk, UHT chocolate milk, UHT mango juice, UHT strawberry yogurt, UHT orange yogurt, UHT mango milk and few others. These are marketed through a network of dealers.

The main features of BRAC contract growing of milk are that it facilitates quick collection of milk and reduces wastage, integrates small and dispersed milk producers with the main urban centre of demand, ensures higher milk prices than
usual at the growers level and supports expansion of milk production through micro-credit, technical support and quick marketing arrangements. However, the contract system is yet to gain full efficiency and improve productivity. For this it needs more investment in improvement of animal breed, increase in milk yield per cow, establishment of more chilling centres, upscaling of credit support, more favourable contracts with the farmers, and appropriate insurance policy for cow rearers.

V. Case Study 3

5.1 Contract farming for exportable vegetables

In 1997-98, BRAC started its contract farming for production of vegetables that can be grown in Bangladesh and have high demand in the European markets. Vegetable production is skill intensive, requires intensive care and management and is highly susceptible to weather variation. BRAC provides modern agricultural inputs, and technical training on vegetable production, harvesting, processing, packaging and handling. The contract growers are also advised and monitored so that they strictly adhere to the international standards of using chemicals in vegetable production. BRAC maintains their own modern vegetable pack house in Tongi.

Hortex Foundation assisted BRAC in developing a model zone at Chandina, Comilla for export oriented production and marketing of vegetables. By December 2002, BRAC integrated 0.16 million contract vegetable growers who grew export quality vegetables on over 27 thousand hectares of land. The major vegetables that are produced through the contract growers include French beans, Broccoli and Green chilli, Potato, etc. In 2002, BRAC has exported 621 tons of fresh vegetables and 350 tons of potatoes to the wholesalers and supermarkets in England, France, Germany, the Netherlands, Belgium and Italy in Europe, and the UAE, Bahrain, Singapore, Malaysia and Hong Kong in Asia. Total national export of vegetables stood at 12,761 metric tons in 2001-02.

The main features of vegetable contract farming are that it links the small Bangladeshi vegetable growers with international consumers and thus integrates the local producers with the international markets. At the operational level, once the contract is established good quality seeds and inputs are supplied to the farmers. As per advice from BRAC workers, vegetables are harvested and brought to the local assemblage point by the farmers. They are paid according to the grades and quality of produce but the average prices paid are usually little higher.
than the local market price. Fresh vegetables are then cleaned, graded, packed, stored, cooled and transported in refrigerated truck to the central pack house for onward transmission to air cargo for export market. At the local level, the vegetable growing has created enormous backward and forward linkages in supply chain management and created direct employment especially for women and girls in harvesting and processing of vegetables.

VI. Conclusions

6.1 Observations

The contract farming developed farmers’ capacity and confidence in taking up high value- high risk capital intensive agricultural enterprises. It also demonstrated high potential of poverty reduction through creating self-employment as well as paid employment for rural labour force, especially rural women and unemployed youth. The strongly upstream oriented supply chain of products allows a greater and better control of all the productive processes and improves the communication and decision-making among the chain’s partners. The product supply chains have proved to be reasonably successful in integrating numerous small producers with a chain linked to input supplies, food safety, hygienic standards and ultimately consumer’s preference. It has also been successful to some degree to protect the contract growers from unusual fall in prices by paying the guaranteed prices. Vegetable contract farming has also opened up opportunities for linking Bangladeshi small farm producers to broader international markets and began to increase export earnings through agricultural export diversification.

Agribusiness companies that we have discussed above have passed through a transition phase of establishing a new mode of production (i.e. high value product supply chain through contract farming). Now the main challenge for the companies is to consolidate their experience and bring about more dynamic elements of commercialization through upgradation of contract farmers’ business skills and also upscaling of their support in farmers’ training, capital supply and marketing services.

6.2 Prerequisites for Contract Farming

In a land scarce country like Bangladesh where distributivist land reform is not implementable, contract farming can be seen as a step towards integrating millions of small and marginal farmers with agricultural diversification with high
value products. For successful contract farming with high value products, Mandal (2004) identifies the following prerequisites. Firstly, in a particular locality there has to be a good number of farmers agreeing to operate under contract farming system, otherwise the private sector may not be interested to invest. As a matter of fact PRAN company investing a fruit processing plant in one northern district location faced serious resistance and hostility from the local farmers. Secondly, contracts have to be proper and legally structured so that any breach of contract can be challenged in legal way by either side. Thirdly, there has to be good infrastructure, roads, suitable transports, electricity supplies, etc. Fourthly, there is a need for legal system to protect the rights of the small producers and improve their bargaining power. There are allegations that if there is fall in market prices the guaranteed prices of produce are not always paid or paid with hassles. Fifthly, for linking contract growing of high value crops with international supply chain adequate provision for air- freight and cargo handling facilities have to be in place.
References


Hortex: *Hortex Newsletter*, various issues.


River Erosion and the Financial Losses of the Rural Households: Survey Results of Three Areas in Bangladesh

Md. Abul Quasem*

I. Introduction

Erosion of rivers is a common feature in our riverine country. Every year a huge amount of land is eroded along the banks of the rivers, more predominantly along the mighty rivers of Brahmaputra, the Jamuna, the Padma and the Meghna. Information available in this regard shows that during 1984-93 annual erosion amounted to 100 metres in length by the Jamuna on its left bank and 84 metres on right bank, while the Padma eroded 38 metres on the left and 120 metres on the right (Table I). Total amount of land eroded annually by the Jamuna was estimated to be 5020 hectares and that by the Padma was 1800 hectares. As a consequence the width of the rivers is increasing and at present the average width of the Jamuna stands at 11.22 kilometres.

Another small-scale study by Elahi, 1987 carried out in three Upazillas namely Chilmari, Kurigram and Bhola, the country’s worst possible eroded localities, recorded the erosions rate of 13.0, 22.75 and 10.83 percent of their land coverage, respectively, in the 1980s. According to his study, displaced population in those areas number 20.0, 15.8 and 18.6 percent, respectively, and total annual financial loss was estimated to be Tk. 200 million. It may also be noted that erosion washes away the roads, markets and different institutional buildings which cannot be replaced quickly because such re-constructions are costly and require millions of Taka besides difficulties in the availability of suitable land.

In addition to loss of land, people lose their valuable houses and trees and thus, become homeless. They are to shift and resettle elsewhere, which is costly and becomes almost impossible owing to scarcity of suitable housing plots. Many of them sometimes migrate to nearby towns for possible job opportunities leading to the growth of squatters in the country as observed in the towns of Gaibandha,

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Sirajgonj, Tangail, Jamalpur etc. Most of them are at hard-core poverty level having inadequate access to employment and income. As a whole, eroded households are hard hit and very poor and the economic condition of the landless living there is deplorable. The immediate question is can we not control river erosion? The answer is may be, but cost is abnormal and often beyond one’s financial capacity. Field experiments in terms of structural measures are, however, continuing at national level and the economic studies are, being carried out.

So far no rehabilitation programme for eroded households has been undertaken in the country. They, thus, are to rehabilitate themselves at their own cost which is too much expensive and often unbearable. Relief services provided by public and private agencies are too scanty and can hardly meet one month’s expenses for daily necessities. The present paper does not, however, intend to investigate into all the above questions. It plans simply to study the primary characteristics of the households that already experienced river erosion and to estimate their losses of land and other assets. It also tries to report their existing levels of living. The main objectives in specific are to:

(i) report the principal characteristics and occupations of eroded households vis-a-vis the non-eroded ones;
(ii) estimate annual household income and determine the poverty status,
(iii) explain the reasons for river erosion; and
(iv) suggest possible measures against the river erosion.

### Table 1: Bank Erosion and Accretion and Changes in width of the Major Rivers in Bangladesh during the Period 1984-93

<table>
<thead>
<tr>
<th>Item</th>
<th>Jamuna</th>
<th>Ganges</th>
<th>Padma</th>
<th>Upper Meghna</th>
<th>Lower Meghna</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bank Erosion Rate (metre/year)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Left Bank</td>
<td>100</td>
<td>-20</td>
<td>38</td>
<td>7</td>
<td>65</td>
</tr>
<tr>
<td>Right Bank</td>
<td>84</td>
<td>56</td>
<td>120</td>
<td>-9</td>
<td>180</td>
</tr>
<tr>
<td>2. Maximum Erosion (Metre/year)</td>
<td>780</td>
<td>665</td>
<td>620</td>
<td>Na</td>
<td>825</td>
</tr>
<tr>
<td>3. Bank Erosion (Hectare/year)</td>
<td>5020</td>
<td>2240</td>
<td>1800</td>
<td>50</td>
<td>1170</td>
</tr>
<tr>
<td>4. Bank Accretion (Hectare/year)</td>
<td>890</td>
<td>1010</td>
<td>230</td>
<td>50</td>
<td>400</td>
</tr>
<tr>
<td>5. Average width (metre)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1 1984</td>
<td>9720</td>
<td>4367</td>
<td>5690</td>
<td>3400</td>
<td>6660</td>
</tr>
<tr>
<td>5.2 1993</td>
<td>11220</td>
<td>4693</td>
<td>7120</td>
<td>3400</td>
<td>8900</td>
</tr>
<tr>
<td>6. Rate of Change in width (metre/year)</td>
<td>184</td>
<td>36</td>
<td>159</td>
<td></td>
<td>249</td>
</tr>
</tbody>
</table>

Source: Quoted from Sarker, and et al., 2003
The paper has been organized as follows. Following the introduction, survey methodology is described in Section II. In the third section survey findings are discussed. Income and poverty situation are examined in Section IV. The possible causes of river erosion and protection measures are briefly reported in Section V and VI, respectively. The paper ends with concluding remarks in Section VII.

II. Survey Methodology

The field survey was carried out in three purposively selected areas where construction of river protection structure was completed three years back. The areas benefited from the protection structures are largely Kamarjani in Gaibandha, Bahadurabad and Ghutail in Jamalpur. In Kamarjani the immediate benefited villages are Dhutichora and Kathihara and those in Bhadaurbad are Kulkandi and Muradabad. Ghutail on the other hand is a market area protected by the revetment. In all these villages and markets a complete census of households and business establishments was done. From the census households of each of the three selected localities, minimum 30% of households were selected at random. Total census households amount to 2790, from whom 904 samples or 32% of census establishments were selected as shown in Table 2.

In the selection of samples, the random sampling technique could not be strictly followed due to inconvenience in administering the survey. The proportional shares of establishments in the contiguous paras in the village ranging between 30 and 34 were covered. While selecting the samples particular attention was given to include all available occupational groups and women headed households so that the samples could be made as far as possible representative. To collect data a very short questionnaire was administered. The main questions included there are (i) erosion status of the households (ii) principal occupation of the household heads (iii) amount of losses incurred in the last five years preceding the field survey (iv) annual income etc.

<table>
<thead>
<tr>
<th>Study Area</th>
<th>Census Households and Establishments (No.)</th>
<th>Sample Households and Establishments (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Kamarjani</td>
<td>720</td>
<td>244</td>
</tr>
<tr>
<td>(ii) Bahadurabad</td>
<td>1315</td>
<td>431</td>
</tr>
<tr>
<td>(iii) Ghutail</td>
<td>755</td>
<td>229</td>
</tr>
<tr>
<td>All Areas</td>
<td>2790</td>
<td>904</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2004
III. Survey Findings

3.1 Households Eroded

Households living in the surveyed areas report losses of land, houses, trees and other assets due to river erosion. Most of the sample households experienced erosion of land. In the present study families who lost their houses and had to shift elsewhere for residential purpose are considered to be eroded households. The period considered for such erosion is five years preceding the survey of 2004. Losses of assets including houses and land occurred before five years were not taken into account in the current study.

Of the total sample households, 41 percent reported the erosion of houses, the highest being in Kamarjani, followed by Bahadurabad (Table-3). In Ghutail, one-third of them was eroded, although larger number of the samples mentioned of losses of land there.

<table>
<thead>
<tr>
<th>Study Area</th>
<th>Sample Households (No.)</th>
<th>Eroded Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Kamarjani</td>
<td>244</td>
<td>140 (57%)</td>
</tr>
<tr>
<td>(ii) Bahadurabad</td>
<td>431</td>
<td>190 (44%)</td>
</tr>
<tr>
<td>(iii) Ghutail</td>
<td>229</td>
<td>75 (33%)</td>
</tr>
<tr>
<td>All Areas</td>
<td>904</td>
<td>405 (41%)</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2004

3.2 Amount of land Eroded:

It is expected that the eroded households will be losing more land due to erosion than that of the non-eroded ones. The eroded households will also be more losers in terms of other assets including houses. Information collected shows that in the last five years an eroded household on average lost above three acres of land contrary to less than two acres by non-eroded families (Table-4). It is abnormally high in Ghutail. Value of other assets including houses, household articles, trees etc is also substantially high. Such losses by an eroded household was estimated to be Tk 22313 during five years or Tk. 4500 per year other than land. This is definitely unbearable for a poor household of the country.

The figures available with us are difficult to accept. It seems that the Survey Officers did not mention the period of five years as specified in the questionnaire.
3. Socio-economic Characteristics of the Eroded Households

3.1 The land ownership Distribution by Size.

The land ownership distribution of households finds the landless maximum (56% among the eroded and 46% among the non-eroded ones) followed by small land owners (Table-5) in both these types of households. The medium and the large land owners are few (5 and 1 percent, respectively) among the eroded cases while they are more than double among the non-eroded households. The existing pattern of land distribution in the study areas is almost similar to the country’s average situation.

The land distribution by ownership size, furthermore, shows that a higher proportion of the landless (51%) lost their land due to erosion and it is 60% in Kamarjani where marginal owners are also severely affected. Significant numbers of both marginal and small land owners are also affected by land loss (Table-6). In Bahadurabad the three small ownership groups (landless, marginal and small) are equally affected. The immediate question is what is the amount of land lost by each category of household.

<table>
<thead>
<tr>
<th>Study Area</th>
<th>Land lost (decimals)</th>
<th>Other Assets (Tk.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eroded Non-eroded</td>
<td>Eroded Non-eroded</td>
</tr>
<tr>
<td>(i) Kamarjani</td>
<td>104 65</td>
<td>10396 2897</td>
</tr>
<tr>
<td>(ii) Bahadurabad</td>
<td>88 8</td>
<td>12339 394</td>
</tr>
<tr>
<td>(iii) Ghutail</td>
<td>1236* 486*</td>
<td>67979 245</td>
</tr>
<tr>
<td>All Areas</td>
<td>312 184</td>
<td>22313 791</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2004

Table 4: Amount of Land (decimals) and other Assets ((Tk.) lost by an Eroded and Non-eroded Household (Average per Household)

<table>
<thead>
<tr>
<th>Study Area</th>
<th>Landless</th>
<th>Marginal</th>
<th>Small</th>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eroded</td>
<td>Non-Eroded</td>
<td>Eroded Non-Eroded</td>
<td>Eroded Non-Eroded</td>
</tr>
<tr>
<td>Kamarjani</td>
<td>37.1</td>
<td>32.9</td>
<td>27.9</td>
<td>22.4</td>
</tr>
<tr>
<td>Bahadurabad</td>
<td>63.3</td>
<td>55.7</td>
<td>10.6</td>
<td>9.5</td>
</tr>
<tr>
<td>Ghutail</td>
<td>68.8</td>
<td>38.8</td>
<td>11.3</td>
<td>22.4</td>
</tr>
<tr>
<td>All areas</td>
<td>55.6</td>
<td>45.8</td>
<td>16.5</td>
<td>16.3</td>
</tr>
</tbody>
</table>

Note: Landless (Upto 0.5 acre), marginal (0.51-1.0 acre); Small (1.0 to 2.5 acre), Medium (2.5-5.0 acres) and large (5.01 acres and above)

Source: Field Survey, 2004
3.2 Land Ownership Size

Regarding the land ownership size, the eroded households have lower size in all the three study areas. The difference in land size between eroded and non-eroded families is abnormal at Bahadurabad where the size of an eroded household is just half of that in non-eroded cases (Table-7). Surprisingly, the household of Ghutail have little cultivable land, reportedly eroded away overtime. The average size of holding of sample households is low (0.79 acre) at Bahadurabad and it is far below one acre (0.69 acre) in case of eroded households, which is too meagre for survival.

### Table 6: Proportion of Sample Households affected by Erosion by Land Size in the Study Areas

(Percentage of the Group)

<table>
<thead>
<tr>
<th>Study Area</th>
<th>Landless</th>
<th>Marginal</th>
<th>Small</th>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamarjani</td>
<td>59.8</td>
<td>62.9</td>
<td>56.5</td>
<td>38.1</td>
</tr>
<tr>
<td>Bahadurabad</td>
<td>49.4</td>
<td>47.7</td>
<td>50.6</td>
<td>27.3</td>
</tr>
<tr>
<td>Ghutail</td>
<td>48.2</td>
<td>21.4</td>
<td>26.0</td>
<td>9.5</td>
</tr>
<tr>
<td>All Areas</td>
<td>51.1</td>
<td>46.6</td>
<td>46.4</td>
<td>25.6</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2004

### Table 7: Land Owned and Cultivated Holding Operated by a Household

<table>
<thead>
<tr>
<th>Study Area</th>
<th>Land Owned (decimals)</th>
<th>Cultivated Holding (decimals)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kamarjani</td>
<td>120.0</td>
<td>128</td>
</tr>
<tr>
<td>1.1 Eroded</td>
<td>110</td>
<td>136</td>
</tr>
<tr>
<td>1.2 Non-eroded</td>
<td>140</td>
<td>113</td>
</tr>
<tr>
<td>2. Bahadurabad</td>
<td>117</td>
<td>97</td>
</tr>
<tr>
<td>2.1 Eroded</td>
<td>78</td>
<td>69</td>
</tr>
<tr>
<td>2.2 Non-Eroded</td>
<td>157</td>
<td>126</td>
</tr>
<tr>
<td>3. Ghutail</td>
<td>128</td>
<td>*</td>
</tr>
<tr>
<td>3.1 Eroded</td>
<td>86</td>
<td>*</td>
</tr>
<tr>
<td>3.2 Non-eroded</td>
<td>141</td>
<td>*</td>
</tr>
<tr>
<td>4. All areas:</td>
<td>119</td>
<td>79</td>
</tr>
<tr>
<td>4.1 Eroded</td>
<td>90</td>
<td>78</td>
</tr>
<tr>
<td>4.2 Non-eroded</td>
<td>148</td>
<td>80</td>
</tr>
</tbody>
</table>

Note: * Negligible

Source: Field Survey, 2004
3.3 Age and Education of the Household Heads:

It is surprising to find that socio-economic characteristics of the sample households, whether eroded or not, are almost similar, although minor differences exist among the study Areas. Average age of the household head is 42 years in the study areas and it is reportedly highest in Kamarjani. Family size is significantly lower in Bahadurabad compared to two other areas. Ghutail is found quite advanced in respect of literacy level where illiterate heads are only 14 percent contrary to 42% in the remaining other areas (Table-8).

(Table 8: Age, Education of the Households Head and the Family Size)

<table>
<thead>
<tr>
<th>Study Area</th>
<th>Age (years)</th>
<th>Education (%)</th>
<th>Family Size (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Illiterate</td>
<td>Secondary and above</td>
<td></td>
</tr>
<tr>
<td>1. Kamarjani</td>
<td>45</td>
<td>42</td>
<td>28</td>
</tr>
<tr>
<td>1.1 Eroded</td>
<td>46</td>
<td>45</td>
<td>25</td>
</tr>
<tr>
<td>1.2 Non-eroded</td>
<td>44</td>
<td>37</td>
<td>34</td>
</tr>
<tr>
<td>2. Bahadurabad</td>
<td>41</td>
<td>42</td>
<td>36</td>
</tr>
<tr>
<td>2.1 Eroded</td>
<td>42</td>
<td>38</td>
<td>40</td>
</tr>
<tr>
<td>2.2 Non-Eroded</td>
<td>41</td>
<td>47</td>
<td>32</td>
</tr>
<tr>
<td>3. Ghutail</td>
<td>42</td>
<td>14</td>
<td>64</td>
</tr>
<tr>
<td>3.1 Eroded</td>
<td>42</td>
<td>22</td>
<td>60</td>
</tr>
<tr>
<td>3.2 Non-eroded</td>
<td>42</td>
<td>10</td>
<td>66</td>
</tr>
<tr>
<td>4. All areas:</td>
<td>42</td>
<td>35</td>
<td>42</td>
</tr>
<tr>
<td>4.1 Eroded</td>
<td>43</td>
<td>38</td>
<td>37</td>
</tr>
<tr>
<td>4.2 Non-eroded</td>
<td>42</td>
<td>32</td>
<td>44</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2004

3.4 Occupational Distribution:

Occupational distribution of households has been examined on the basis of principal occupation of the household heads. Such distribution finds Kamajani, an agricultural area, while Ghutail as the non-agricultural one where only about 10% are farming households (Table-9). As a whole, 36% of households are farmers. There are of course wide differences among the study areas as well as between the eroded and the non-eroded households. In Bahadurabad, 30% are traders among the eroded households contrary to only 14% among the non-eroded ones, of whom significant numbers are occupied in agriculture (46%). In Kamarjani, traders are fewer among the eroded, perhaps because of serious financial constraint which is evidenced from high figures in wage works (Table 9), almost
three times of that among the non-eroded households there. It may be concluded that there is actually no definite occupational pattern between the eroded and the non-eroded households.

Table 9: Occupational Distribution of Households in the Study Areas

<table>
<thead>
<tr>
<th>Study Area</th>
<th>Farming</th>
<th>Wage Works</th>
<th>Trading</th>
<th>Service</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kamarjani</td>
<td>61.1</td>
<td>12.0</td>
<td>19.4</td>
<td>2.8</td>
<td>4.6</td>
</tr>
<tr>
<td>1.1 Eroded</td>
<td>61.4</td>
<td>15.7</td>
<td>15.7</td>
<td>2.1</td>
<td>5.0</td>
</tr>
<tr>
<td>1.2 Non-eroded</td>
<td>60.5</td>
<td>5.3</td>
<td>26.3</td>
<td>3.9</td>
<td>3.9</td>
</tr>
<tr>
<td>2. Bahadurabad</td>
<td>37.0</td>
<td>25.3</td>
<td>21.8</td>
<td>10.5</td>
<td>5.5</td>
</tr>
<tr>
<td>2.1 Eroded</td>
<td>28.1</td>
<td>24.6</td>
<td>29.6</td>
<td>11.1</td>
<td>6.5</td>
</tr>
<tr>
<td>2.2 Non-Eroded</td>
<td>45.8</td>
<td>25.9</td>
<td>13.9</td>
<td>10.0</td>
<td>4.5</td>
</tr>
<tr>
<td>3. Ghutail</td>
<td>9.3</td>
<td>19.3</td>
<td>63.4</td>
<td>7.9</td>
<td>——</td>
</tr>
<tr>
<td>3.1 Eroded</td>
<td>10.0</td>
<td>22.5</td>
<td>52.5</td>
<td>15.0</td>
<td>——</td>
</tr>
<tr>
<td>3.2 Non-eroded</td>
<td>8.8</td>
<td>17.7</td>
<td>69.4</td>
<td>4.1</td>
<td>——</td>
</tr>
<tr>
<td>4. All areas:</td>
<td>35.7</td>
<td>20.3</td>
<td>32.4</td>
<td>7.8</td>
<td>3.8</td>
</tr>
<tr>
<td>4.1 Eroded</td>
<td>35.8</td>
<td>21.2</td>
<td>29.4</td>
<td>8.8</td>
<td>4.8</td>
</tr>
<tr>
<td>4.2 Non-eroded</td>
<td>35.6</td>
<td>19.3</td>
<td>35.4</td>
<td>6.8</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2004

4.1 Annual Income

As far as annual income is concerned, it is quite low (Tk. 37808) per household in the study areas and it is the lowest at Kamarjani (Tk. 25808) as shown in Table 10. Income is high in Ghutail having Tk. 63848 for a household as it is a market area and the people there are mostly traders. It is again surprising to note that there are little differences in income between the eroded and non-eroded households. They may be because agriculture there contributes a small amount, to the extent of only 31% of their income. They are largely dependent on non-agricultural income indicating that income distributions of households in the study areas are different from elsewhere in the country. There are however, wide differences among the areas. In Kamarjani agriculture shares 55%, contrary to only 19% in Ghutail. There are also significant level of differences in agricultural income between eroded and non-eroded households at Ghutail and Bahadurabad (Table-10). Overall, the study areas have lower income and agriculture there has a small share in total household income.
4.2 Poverty Situation

Erosion prone areas are largely poor because of lack of employment opportunities and poorly developed agriculture. Furthermore, among all households eroded people are apprehended to be poorer and more poverty stricken. Information collected confirmed the hypothesis that about three-fourths of the eroded households live at below poverty level* compared to 64% among the non-eroded ones (Table II). It is also noteworthy that in the study areas as a whole over two-thirds (69%) of the households live at below poverty level against the country’s average of nearly half. It may also be noted that among these three areas Kamarjani is the poorest with 87% of their people at poverty level. Financial condition is, however, better in Ghutail but there farmers are worst affected.

Poverty does not affect all occupation groups by the same extent. Wage workers are observed to be worst sufferers as their employment opportunities are very limited besides existing poor wage rates. The data in this respect show that almost all wage working households as well as those from miscellaneous occupational groups live at below poverty level. A very high proportion of farmers in both the eroded and the non-eroded areas also suffer from poverty (Table-12). A bit better position is noticed with the service-holders at Bahadurabad and the traders at Ghutail. We may conclude here that the households residing in the erosion prone areas specially along the banks

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*(The usual poverty and the hard-core poverty lines are estimated to be Tk. 39120 and Tk. 33720 per household after adjustment of the country’s inflation rates based on the BBS estimate of the national poverty line for the rural people.)
Table 11: Households Living Below Poverty and at Hard-Core levels in the Study Areas

<table>
<thead>
<tr>
<th>Study Area</th>
<th>Below Poverty Level</th>
<th>At Hard-Core level</th>
<th>All Households</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eroded</td>
<td>Non-eroded</td>
<td>Eroded</td>
</tr>
<tr>
<td>Kamarjani</td>
<td>87.1</td>
<td>86.8</td>
<td>83.6</td>
</tr>
<tr>
<td>Bahadurabad</td>
<td>75.9</td>
<td>72.6</td>
<td>69.3</td>
</tr>
<tr>
<td>Ghutail</td>
<td>42.5</td>
<td>41.5</td>
<td>23.8</td>
</tr>
<tr>
<td>All areas</td>
<td>73.3</td>
<td>64.4</td>
<td>65.4</td>
</tr>
</tbody>
</table>

Table 12: Households Living Below Poverty Levels by Principal Occupation of the Household Heads

<table>
<thead>
<tr>
<th>Style Area</th>
<th>Farmers Wage Labours Traders Service Others Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kamarjani</td>
<td></td>
</tr>
<tr>
<td>1.1 Eroded</td>
<td>84.9 100.0 100.0 —— 100.0 87.1</td>
</tr>
<tr>
<td>1.2 Non-eroded</td>
<td>87.0 100.0 95.0 —— 100.0 86.8</td>
</tr>
<tr>
<td>2. Bahadurabad</td>
<td></td>
</tr>
<tr>
<td>2.1 Eroded</td>
<td>82.1 100.0 66.1 18.2 100.0 75.8</td>
</tr>
<tr>
<td>2.2 Non-Eroded</td>
<td>67.4 98.1 75.0 15.0 100.0 72.6</td>
</tr>
<tr>
<td>3. Ghutail</td>
<td></td>
</tr>
<tr>
<td>3.1 Eroded</td>
<td>100.0 33.0 21.4 91.7 —— 42.5</td>
</tr>
<tr>
<td>3.2 Non-eroded</td>
<td>100.0 65.4 25.5 83.3 —— 41.5</td>
</tr>
<tr>
<td>4. All areas:</td>
<td></td>
</tr>
<tr>
<td>4.1 Eroded</td>
<td>84.7 97.5 55.3 40.5 100.0 73.3</td>
</tr>
<tr>
<td>4.2 Non-eroded</td>
<td>76.1 87.8 44.0 27.6 100.0 64.4</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2004

of the big rivers like the Jamuna and the Padma are miserably poor and there over two-thirds of the people are living at below poverty level.

5. River Erosion

The study has made it clear that the river erosion is destroying the farm economy and making people poorer in the river bank areas of our country. It is usually believed that the erosion cannot be controlled as the big rivers are still active and unstable; and their channels are continuously shifting. It may be of interest to know the exact reasons for river erosion although it is commonly understood to be due to changes in the velocity of water flow which is but effected by many other factors as described below:
5.1 Causes of River Erosion

Modifications of water flow velocity, discharge, sediment load and river morphology in unstable river channels are major factors initiating erosion and deposition of silt. It also depends on the natural stability of the subsoil and its extent of changes. Successive erosion and deposition often leads to rapid changes in the river platform and slope. Changes in river bed elevation can also promote rapid bank erosion.

In general, surface erosion of river banks or along the river bed occurs if the driving erosive forces exceed the resistive forces of the individual grains or of the conglomerates in case of cohesive materials. The main factors responsible for surface erosion of river banks are as follows (Ministry of Water Resources, 2001):

(i) Current induced shear stress;
(ii) Wave loads (wind generated, ship and boat generated);
(iii) Seepage (excessive pore pressure);
(iv) Surface runoff;
(v) Mechanical action (desiccation, ship impact, activities of human and animals).

Shear stress induced by current flow is the main hydraulic erosion factor. It is again effected by primary and secondary current, irregularities in the cross sectional shape of the channel, changes in the roughness of the river bed etc. Obstructions to the flow as well as variations in the roughness of the river bank and/or river bed causes changes in the velocity distribution and the secondary flows. As a consequence, the river starts to develop bends and scouring occurs. The influence of wave action is important along the actual bank line, i.e. the transition between water and adjacent flood plain of a river.

5.2 Erosion places and its Timing

River erosion occurs more at the bend of the river and also near the bridge/culvert where the velocity of water flows is constrained, resulting in scouring there. Intensity of erosion is again higher in the bank line having meandering soils which are generally sandy and fragile. Deposits of sediments on the water channels, which restrict water flow causing diversion of the direction of current, also causes erosion of the chars and the banks.

In our country erosion generally occurs in the monsoon season when the speed of the current sharply rises due to excessive flow of water from upper riparians and
erodes away loose soil making holes in the river banks. Sudden receding of flood water level also causes erosion as at that time the degree of compaction of soil declines. Heavy deposition of silts at the late monsoon when elevates the river beds restricting the flow of water also erodes away the fragile river banks. Huge accumulation of sediments followed by development of bars and islands promotes widening and development of braided channels.

VI. Bank Protection Measures

In order to prevent erosion of river banks suitable measures are required. These may be either single or combined, structural and non-structural. In general there are three types of measures for erosion control. They are:

(i) River training measures which are intended to influence the flow conditions or channel properties downstream of the man made interventions;
(ii) Structures, which are aimed at reducing the hydraulic effects directly in front of an area to be protected, e.g., groynes, and
(iii) Structures, to protect the actual bankline without relevant active interference on water i.e., revetments.

Each of them must be designed properly to resist hydraulic loads and to prevent the river channels from uncontrolled changes. River training measures are the mechanisms which are built either on the main land or in the flood plain as attached chars or those built as floating structures.

Structural measures are of course highly expensive depending on the type of structure built against erosion. Cost estimates show that the revetment constructed at Bahadurabad against the Jamuna amounts to US$ 10,100 per metre and the groyne at Kamarjani costs US$ 6,900 (BETS, 2002). Protection structures constructed elsewhere in the country (Sirajgonj Town protection – US$ 29,300) are found more expensive. Of the two recently built structures, Bahadurabad one appears to be more effective. It is 800 metres long constructed at a cost of US$ 8.1 million which is expected to be immediately benefiting 1.5 sq. Kilometres or only 150 hectares. This sounds abnormal at least for farm land and perhaps not advisable. For town protection such structural measures may be suggested depending on the value of assets to be protected. Besides structural measures, the well-designed river training and continuous dredging may help regular flow of water through the existing streams. Also special plantation by bamboos and grass along the banks may help protect land from erosion, and farmers accordingly may be trained.
VII. Concluding Remarks

River erosion is a common feature along the banks of the rivers specially along the country’s mighty rivers. Such erosion destroys fertile cultivable land and make many people homeless and landless. Annual loss of land per household in the study areas is estimated to be 0.62 acre which is too much for a farm household. Besides land, total loss of other assets including houses amounts to over Tk. 22,000.00. The losers of land are again observed to be higher among the marginal land owners. Many of them overtime become wage workers as self employment opportunities are fewer there. Migrant workers are reportedly high from Kamarjani and Bahadurabad. Their living conditions are miserably poor as evidenced from their housing conditions, more prominently at Kamarjani. There about 85% of households are living below poverty level which is extraordinarily high. Economic conditions are more deplorable among the wage workers, all of whom are but poverty stricken. People at Ghutail are a bit better where over 60% are traders and their shares of income are significantly higher from non-agriculture (80%).

River protections, specially structural measures, are quite costly and it amounts to over US$ 10,000 per metre which is difficult to fund by the Bangladesh Government. Their maintenance operation is also not easy. Under the circumstances, people who are capable are expected to gradually shift to elsewhere in the country and take precautionary measures well ahead of erosion possibility following the erosion forecast, may be made by the Water Development Board or the Local Government. A long-term development plan may also be prepared for the erosion prone areas where creation of employment opportunities should be given top priority. Also well designed dredging may be undertaken in the critical areas of the channels towards regular flow of water through the existing streams. Special plantations by bamboos and grass on the riverbanks by the farm households may also help reduce the intensity of erosion.
References


Agricultural Diversification in Bangladesh: An Analysis of the Crop Sector

Jahangir Alam*

Abstract

This study has examined the extent of diversification in the crop sector of Bangladesh using the Simpson Index of diversity. Results show that the extent of crop diversification has increased in the country slowly over time. Meanwhile, the value of specialization index in rice cultivation has slowly declined. The diversification in crop sector was accompanied by diversity in the pattern of consumption of the people. The extent of crop diversification was promoted mainly through a steady increase in the intensity of cropping. This can be further enhanced with the introduction of new production technologies for secondary crops. There is also a need to expand the horizon of appropriate processing techniques and value addition facilities for promoting the pace of diversification of consumption in the country.

Introduction

The new seed-fertilizer-irrigation technology has favoured rice and wheat production for achieving self-sufficiency in food grains. As a result, production of food grains has increased at an annual rate of 2.8% over the last 31 years mainly due to research and development efforts since 1970s. Meanwhile, secondary crops including coarse grains, pulses, roots and tubers, oil seeds, and spices that occupy a significant portion of the cropped area became less attractive. These crops grown in less favoured environments were largely untouched by the growth process. As a result, production of some of these crops, for example, some minor food grains, pulses, oil seeds and spices have either exhibited a declining trend or could not keep pace with the population growth rate over the years. Eventually the country became more dependent on imports of these secondary crop products. Currently there is a strong realization that production of these crops has to be

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* Member-Director of the Bangladesh Agricultural Research Council (BARC), Farmgate, Dhaka. The views expressed in this article are those of the author’s.
promoted in the country for import substitution. These crops provide substantial opportunities for value addition after processing and creation of employment for men and women. Thus there is sufficient scope for diversification of the rural economy through promotion of secondary crops in Bangladesh.

The intensification of rice farming in Bangladesh has resulted in slowdown of productivity and degradation of soil in some regions. Areas under grazing and vegetation are increasingly being diminished due to extensive cultivation of rice. Moreover, indiscriminate use of fertilizers, pesticides and herbicides is not only destroying the quality of soil but also disturbing the habitat of fishes and beneficial insects. Furthermore, heavy extraction of surface and groundwater for irrigation during the dry season has caused many water bodies to go dry. This has accelerated the process of environmental degradation resulting in loss of productivity, biodiversity and increased vulnerability to natural disasters. Thus there has been a growing concern for possible destruction of the ecosystem and biological diversity due to intensive use of land and water resources for cultivation of HYV rice. The diversification of agriculture would help improve soil health, increase productivity, mitigate risk and protect the environment. This would also increase employment opportunities and income of the poor people in rural areas.

Conceptually, diversification of agriculture is considered as a shift of resources from rice to other cereal crops, from cereals to non-cereal crops, and from crops to non-crop (livestock, fisheries and forestry) agriculture. Farmers normally intend to diversify to minimize risk, stabilize income over seasons, optimize the use of land and other resources, maximize the portfolio of income and profit, change the food habit, increase protein intake, improve food security, promote export, substitute import, conserve natural resources, create employment opportunity and alleviate poverty. Diversification may not always imply movement of resources from low value commodity mix to a high value commodity mix, as it can increase the magnitude of specialization at the farm level and reduce the extent of diversity.

The main objective of this study is to determine the magnitude of diversification and to explore policy implications for promotion of agricultural diversification in Bangladesh. This paper, however, limits the scope of diversification to crop agriculture and indicates the use of resources in a large mix of diverse and complementary activities within the crop sector. The main resource in crop agriculture is land and the degree of diversification is reflected on the pattern of utilization of cultivated land. It is expected that land will be judiciously shared by a large number of crops under perfect diversification.
Materials and Methods

A number of methods have been used to quantify the magnitude of diversification. They include: (i) Herfindal Index, (ii) Simpson Index, (iii) Ogive Index, and (iv) Composite Entropy Index (Joshi, et al., 2003). With a view to assessing the degree of diversity in crop sector, Simpson Index was used in this study. The index is simple and provides a clear dispersion of crop agriculture in a particular region. The index ranges between 0 and 1. When there is complete diversification, the value of the index moves towards 1. The index was constructed as follows:

\[
S_{ID} = 1 - \sum_{i=1}^{n} P_{i}^2
\]

where \( S_{ID} \) is the Simpson Index of diversity and \( P_{i} \) is the proportionate area of \( \beta \)th crop in the gross cropped area. Several factors influence the nature and speed of diversification from staple food crop to other crops. These factors include rapid technological change in other crops, diversification in food demand, and improvement in rural infrastructure. To determine the speed of diversification in favour of a particular crop, annual growth rates of area, production and yield of that crop were examined.

The magnitude of diversification obtained by using Simpson Index was again examined from a different angle. This was done by calculating the extent of concentration in rice cultivation over the years. The ‘specialization index’ (SP) was of the following form:

\[
SP_{ij} = R_{ij} / R_{j}, \quad R_{ij} = A_{ij} / \bar{A}_{ij}, \quad R_{i} = A_{i} / \bar{A}_{i}
\]

\( SP_{ij} \): Specialization index of commodity i in region j
\( R_{ij} \): Proportion of commodity i in harvested area in region j
\( R_{i} \): Proportion of commodity i in harvested area in whole country
\( A_{ij} \): Harvested area of commodity i in region j
\( A_{i} \): Harvested area of commodity i in whole country

If \( SP_{ij} \) is more than 1, it means region j is specialized in commodity i in the country (Alam, 2004a).

For this study, data on the allocation of land to different crops were gathered from BBS (Various Years) and MOA (2003). These data on the allocation of land were then analyzed for three points of time covering the last three decades. The years chosen as reference for this analysis were normal crop years, free from natural hazards.
The diversification of crop agriculture depends, among other things, on the demand for secondary crop products. This was determined by using the anticipated population growth rate, growth rate of income and income elasticity of demand for these crops. The income elasticity of demand was computed from cross section consumption figures obtained through the Household Income and Expenditure Survey 2000 (BBS, 2003).

Results and Discussion

Simpson Index of diversity

This study assembled secondary data of land use over different crops for a period of 31 years from the Bangladesh Bureau of Statistics (BBS). For computation of SID, all crops grown in Bangladesh were grouped into eleven categories. They include rice, wheat, minor grains (maize and millets), pulses, tubers, oil seeds, spices, vegetables, sugarcane, jute, and other crops. Calculated SID for three normal years of the three decades showed an upward trend over time, from 0.37 in 1972-73 to 0.42 in 1989-90, and 0.43 in 2001-2002 (Table 1). Again, forty-four crops, including all secondary crops, were considered individually for SID computation without arranging them into groups. Time series data on land area under operation for different crops were taken from the Ministry of Agriculture (MOA, 2003). The analysis also showed that SID for the country slowly moved upward from 0.753 in 1971-72 to 0.768 in 2001-02 with fluctuation in different years. The values of SID averaged 0.755 for the seventies, 0.782 for the eighties, and 0.784 for the nineties, including first two years of the new millennium (Table A-1). This result supports Alam (2003) and Rahman et al. (2004), but contradicts Joshi, et al. (2003), who observed a downward movement of Simpson Index of crop diversity in Bangladesh. While it is recognized that Bangladesh has specialized in rice production over the years and about three-fourths of the area in the country are now under rice, it is also observed that within rice there is substantial diversity and the remaining one-fourth is highly diversified.
Results obtained from the calculation of SID were verified by calculating the Specialization Index (SP). Results of SP by region are placed in Table 2 for two agricultural census years, 1983-84 and 1996. It appears from the table that Bangladesh specialized in rice cultivation in three Divisions out of four in 1983-84. The value of SP for the country ranged between 0.961 and 1.649, indicating high specialization in rice cultivation. The SP values came down in 1996, ranging from 0.849 to 1.046 in greater 4 Divisions of the country. These results are consistent with our earlier results on crop diversification obtained from Simpson Index of diversity (SID).

### Table 1: Share (%) of different crops in total cropped acreage and SID over time.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>78.76</td>
<td>75.66</td>
<td>75.05</td>
</tr>
<tr>
<td>Wheat</td>
<td>0.98</td>
<td>4.28</td>
<td>5.54</td>
</tr>
<tr>
<td>Minor grains</td>
<td>0.78</td>
<td>0.63</td>
<td>0.79</td>
</tr>
<tr>
<td>Total grains</td>
<td>80.52</td>
<td>80.57</td>
<td>81.39</td>
</tr>
<tr>
<td>Pulses</td>
<td>2.57</td>
<td>5.32</td>
<td>3.34</td>
</tr>
<tr>
<td>Oil seeds</td>
<td>2.14</td>
<td>3.33</td>
<td>3.21</td>
</tr>
<tr>
<td>Spices</td>
<td>1.25</td>
<td>1.08</td>
<td>1.88</td>
</tr>
<tr>
<td>Vegetables</td>
<td>0.85</td>
<td>1.17</td>
<td>1.82</td>
</tr>
<tr>
<td>Tubers</td>
<td>1.17</td>
<td>1.22</td>
<td>2.06</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>1.05</td>
<td>1.35</td>
<td>1.21</td>
</tr>
<tr>
<td>Jute</td>
<td>7.34</td>
<td>3.91</td>
<td>3.41</td>
</tr>
<tr>
<td>Others</td>
<td>0.03</td>
<td>0.62</td>
<td>1.68</td>
</tr>
<tr>
<td>Cropping intensity</td>
<td>144.95</td>
<td>168.44</td>
<td>177.00</td>
</tr>
<tr>
<td>SID</td>
<td>0.37</td>
<td>0.42</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Source: BBS (Various Years), MOA (2003) and author’s calculation.

### Specialization Index

Results obtained from the calculation of SID were verified by calculating the Specialization Index (SP). Results of SP by region are placed in Table 2 for two agricultural census years, 1983-84 and 1996. It appears from the table that Bangladesh specialized in rice cultivation in three Divisions out of four in 1983-84. The value of SP for the country ranged between 0.961 and 1.649, indicating high specialization in rice cultivation. The SP values came down in 1996, ranging from 0.849 to 1.046 in greater 4 Divisions of the country. These results are consistent with our earlier results on crop diversification obtained from Simpson Index of diversity (SID).

### Table 2: Specialization index of rice cultivation in Bangladesh by region.

<table>
<thead>
<tr>
<th>Division</th>
<th>Value of index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1983-84</td>
</tr>
<tr>
<td>Chittagong</td>
<td>1.649</td>
</tr>
<tr>
<td>Dhaka</td>
<td>1.059</td>
</tr>
<tr>
<td>Khulna</td>
<td>1.453</td>
</tr>
<tr>
<td>Rajshahi</td>
<td>0.961</td>
</tr>
</tbody>
</table>
Crop diversification is promoted by area augmentation and crop substitution. Bangladesh does not have much fallow land for utilization and the total area under cultivation has been declining in recent years (from 9.32 million hectares in 1983-84 to 8.29 million hectares in 1996; that means 235 hectares per day) (BBS, 1999). The intensity of cropping has, however, been increasing steadily over time (Figure 1). This is certainly an important source of crop diversification. The other source of diversification is crop substitution. Over the years, area under rice and jute has declined, but the area under wheat and potatoes has increased (Table A-4). This is likely to proceed further if special policies are framed favouring the cultivation of secondary crops. It was observed during a field visit that those who diversify and cultivate their land most intensively are small farmers. They diversify their cropping pattern mainly to minimize risk and satisfy their consumption needs. Since most farmers in Bangladesh are small, diversification has been promoted in this country over the years due to pressing needs of the farmers. This can be further promoted by providing special extension services, supply of quality seed and other inputs, and credit support to the small farmers.

![Fig. 1: Intensity of cropping (%) in Bangladesh.](image)


**Diversification of Consumption**

Diversification of agriculture may be promoted through diversification in food consumption. For that reason the pattern of consumption of Bangladeshi people was examined from estimates given by household income and expenditure surveys over the nineties. The data have been summarized and placed in Table 3. It appears that considerable diversification has taken place in consumption of people during the last decade. The share of rice and wheat in total food basket has declined, while the share of potato and pulses has increased. This may lead to
further diversification of crop agriculture in future, if there are enough incentives to cultivate non-cereal crops. Currently potato growers are expanding production through an increase in area and yield mainly due to a break-through in the technological front. It indicates that there is a need to introduce appropriate technologies and create suitable institutions and infrastructure to accelerate the pace of diversification.

Recent market liberalization could have a positive impact on diversification through promotion of export and increase in prices of secondary crop products. But in the absence of appropriate processing techniques and value addition facilities that could not happen. Table A-2 shows that prices of all secondary crop products (maize, millets, lentil, potato and sweet potato) have declined in the world market and the magnitude of decline in real prices (in US dollar) was higher in Bangladesh. In the case of sweet potato, however, real prices showed an upward trend, but the area under this crop declined. The evidence suggests that a sort of domestic market adjustment may be required to support diversification. Moreover, appropriate measures would be needed to avail opportunities of diverse agriculture in several directions: geographically (increasing the magnitude of intensive cultivation in areas suitable for secondary crop production), horizontally

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Rice</td>
<td>472.8</td>
<td>481.6</td>
<td>416.0</td>
<td>464.3</td>
<td>479.0</td>
<td>390.3</td>
<td>458.54</td>
<td>478.84</td>
<td>372.66</td>
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<tr>
<td>Wheat</td>
<td>36.3</td>
<td>34.6</td>
<td>47.1</td>
<td>33.7</td>
<td>32.4</td>
<td>40.1</td>
<td>17.24</td>
<td>14.00</td>
<td>30.12</td>
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<tr>
<td>Potato</td>
<td>43.7</td>
<td>41.4</td>
<td>58.3</td>
<td>49.5</td>
<td>46.7</td>
<td>64.4</td>
<td>55.45</td>
<td>54.71</td>
<td>58.38</td>
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<tr>
<td>Pulses</td>
<td>17.9</td>
<td>17.3</td>
<td>21.7</td>
<td>13.9</td>
<td>12.9</td>
<td>19.4</td>
<td>15.77</td>
<td>14.97</td>
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<tr>
<td>Vegetables</td>
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<td>135.3</td>
<td>150.9</td>
<td>152.5</td>
<td>154.4</td>
<td>142.9</td>
<td>140.47</td>
<td>141.11</td>
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<td>9.0</td>
<td>16.4</td>
<td>9.8</td>
<td>8.4</td>
<td>17.0</td>
<td>12.82</td>
<td>11.24</td>
<td>19.11</td>
</tr>
<tr>
<td>Onion</td>
<td>11.9</td>
<td>11.2</td>
<td>17.0</td>
<td>11.6</td>
<td>9.9</td>
<td>20.2</td>
<td>15.41</td>
<td>14.08</td>
<td>20.72</td>
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<tr>
<td>Beef</td>
<td>5.2</td>
<td>4.5</td>
<td>9.9</td>
<td>6.6</td>
<td>4.9</td>
<td>15.0</td>
<td>8.30</td>
<td>6.87</td>
<td>13.98</td>
</tr>
<tr>
<td>Mutton</td>
<td>0.9</td>
<td>0.8</td>
<td>1.3</td>
<td>1.0</td>
<td>0.8</td>
<td>1.6</td>
<td>0.49</td>
<td>0.43</td>
<td>0.71</td>
</tr>
<tr>
<td>Chick-duck</td>
<td>2.0</td>
<td>1.9</td>
<td>3.1</td>
<td>4.0</td>
<td>3.4</td>
<td>7.5</td>
<td>4.50</td>
<td>3.52</td>
<td>8.41</td>
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<tr>
<td>Egg</td>
<td>4.7</td>
<td>4.6</td>
<td>5.8</td>
<td>3.2</td>
<td>2.6</td>
<td>5.9</td>
<td>5.27</td>
<td>4.61</td>
<td>7.89</td>
</tr>
<tr>
<td>Fish</td>
<td>34.5</td>
<td>32.5</td>
<td>47.8</td>
<td>43.8</td>
<td>42.2</td>
<td>51.7</td>
<td>38.45</td>
<td>37.83</td>
<td>40.89</td>
</tr>
<tr>
<td>Milk</td>
<td>19.1</td>
<td>18.5</td>
<td>23.2</td>
<td>32.3</td>
<td>30.3</td>
<td>42.1</td>
<td>29.71</td>
<td>28.99</td>
<td>32.59</td>
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<tr>
<td>Fruits</td>
<td>16.9</td>
<td>15.9</td>
<td>23.4</td>
<td>27.6</td>
<td>25.3</td>
<td>39.8</td>
<td>28.35</td>
<td>26.53</td>
<td>35.63</td>
</tr>
<tr>
<td>Sugar/Gur</td>
<td>8.8</td>
<td>8.5</td>
<td>10.8</td>
<td>9.2</td>
<td>9.1</td>
<td>10.1</td>
<td>6.85</td>
<td>6.37</td>
<td>8.78</td>
</tr>
<tr>
<td>Others</td>
<td>64.0</td>
<td>60.5</td>
<td>85.7</td>
<td>50.9</td>
<td>48.2</td>
<td>64.6</td>
<td>55.44</td>
<td>54.58</td>
<td>54.86</td>
</tr>
<tr>
<td>Total</td>
<td>886.2</td>
<td>878.1</td>
<td>938.4</td>
<td>913.9</td>
<td>910.5</td>
<td>932.6</td>
<td>920.06</td>
<td>898.68</td>
<td>861.69</td>
</tr>
</tbody>
</table>

Source: (BBS, 2003).
(increasing the spread of secondary crop cultivation), and vertically (increasing agro-processing opportunities for value addition). Besides, marketing network has to be established at home and abroad for increasing the demand for consumption of secondary crop products, which will ultimately encourage their domestic production.

**Income Elasticities and Demand for Secondary Crops**

Using 2000 Household Expenditure Survey (GOB, 2003a) data, this study has estimated income elasticity of demand for products from secondary crops. Overall income elasticity of demand for those products was less than one. The estimates of income elasticity of demand for pulses and tubers were 0.42 and 0.23, respectively, and the estimate for maize, barley and millets together was 0.62. The elasticities were high for lentil (0.89) and mung bean (0.98), moderate for fruits (0.63) and oil (0.58), low for vegetables (0.16) and gram (0.04), and negative for lathyrus (-0.26).

The elasticities are quite low for cereals (Table 4). With the achievement of self-sufficiency in rice production in recent years, the elasticities for rice and wheat have declined. These are likely to decline further towards the end of this decade. But the elasticities for other cereals, such as maize and millets are likely to increase slightly with the creation of facilities for value addition and development of livestock and food processing industries in the country.

A demand projection of some selected crops was made for the year 2010, which was based on growth rate of population, economic growth and income elasticity of demand. For population estimates, we used inter-census growth rate of 1.5% per annum between 1991 and 2001 as the base, then declining to 1.4% in 2005 and further to 1.3% in 2010. The aggregate per capita annual income growth was about 3.5% for ten years ending in June 2000. This growth rate is likely to continue through 2005 and will increase to 4% thereafter. Under such a situation, the required growth rate in production of maize and millets by the year 2010 would be 3.65%, the highest among cereals. Recent growth records for maize is quite impressive, but very disappointing for millets.

Income elasticity of demand for pulses has declined from 0.64 in 1995-96 to 0.42% in 2000. This will decline further to 0.31 in 2010. With increase in income, people will prefer consumption of more fish and livestock products to satisfy their protein requirements. As a result, the demand for lentil, mung and other pulses are likely to decline. But the income elasticity of demand for lathyrus will increase
due to its increased use as feed. Thus the annual growth rate in production of each
type of pulses has to be maintained between 1.34% and 4.30%, at par or well
above the population growth rate, if the increased demand has to be met from
domestic production. Currently, production of all pulses, except lentil and mung,
has been experiencing a negative growth rate.

The income elasticity for roots and tubers has declined to 0.23 in 2000 from 0.41
in 1995-96. This is likely to decline further to 0.15 in 2010. This gives a required
production growth rate of 1.9% over the next few years, much below the annual
growth rate of 7.63% achieved during the last decade.

The elasticities for vegetables, oil and fat, and fruits have declined over the years.
But till today, oil and fruits have moderately high income elasticity of demand.
Their recent average growth rates of production are much below the anticipated
required annual growth rates.

It appears that the current growth rates in production of maize, tubers and
vegetables match with the required growth rates in demand for those products.
But special promotional and incentive schemes are necessary to boost up
production of pulses, oil seeds, fruits and millets, as the current growth rates for
these products are well below the required growth rates.

Table 4: Income elasticities of demand for selected secondary crops and required
growth rates in production to meet the domestic demand.

<table>
<thead>
<tr>
<th>Crops</th>
<th>Income elasticities</th>
<th>Required growth rates (%)</th>
<th>Recent growth rates (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2000 (Actual)</td>
<td>2010 (Projected)</td>
<td>2001-2005</td>
</tr>
<tr>
<td>All cereals</td>
<td>0.08</td>
<td>0.04</td>
<td>1.68</td>
</tr>
<tr>
<td>Rice</td>
<td>0.04</td>
<td>0.02</td>
<td>1.41</td>
</tr>
<tr>
<td>Wheat</td>
<td>0.71</td>
<td>0.35</td>
<td>3.88</td>
</tr>
<tr>
<td>Other cereals (Maize and millets)</td>
<td>0.62</td>
<td>0.65</td>
<td>3.57</td>
</tr>
<tr>
<td>All Pulses</td>
<td>0.42</td>
<td>0.31</td>
<td>2.87</td>
</tr>
<tr>
<td>Lentil</td>
<td>0.89</td>
<td>0.72</td>
<td>4.51</td>
</tr>
<tr>
<td>Lathyrus</td>
<td>-0.26</td>
<td>0.01</td>
<td>0.49</td>
</tr>
<tr>
<td>Gram</td>
<td>0.04</td>
<td>0.04</td>
<td>1.41</td>
</tr>
<tr>
<td>Mung</td>
<td>0.93</td>
<td>0.75</td>
<td>4.65</td>
</tr>
<tr>
<td>Other pulses</td>
<td>0.15</td>
<td>0.11</td>
<td>1.93</td>
</tr>
<tr>
<td>Tubers</td>
<td>0.23</td>
<td>0.15</td>
<td>2.21</td>
</tr>
<tr>
<td>Vegetables</td>
<td>0.16</td>
<td>0.12</td>
<td>1.96</td>
</tr>
<tr>
<td>Oil and Fat</td>
<td>0.58</td>
<td>0.52</td>
<td>3.43</td>
</tr>
<tr>
<td>Fruits</td>
<td>0.63</td>
<td>0.55</td>
<td>3.61</td>
</tr>
</tbody>
</table>
Bangladesh is now self-sufficient in cereal production. Recent dietary pattern (Table A-3) suggests that a significant reduction in cereal consumption and production is desirable. At the same time, we need to increase production of vegetables, pulses, edible oil, fruits, sugar crops, fish, meat, eggs and milk. Because, we have a huge deficit in these consumable items. It is possible to have a significant increase in production of these crops and non-crop agricultural products provided new technologies are generated and policies are framed conducive to diversification.

**Crop Diversification Project**

Due to the priority given to the production of food-grain crops, particularly to rice, the acreage and production of non-cereal crops declined in 1970s and in 1980s. It was then felt necessary to give special attention to some selected non-cereal crops, such as tubers, pulses and oils for diversified consumption as well as import substitution. Consequently, a Crop Diversification Project (CDP) was undertaken jointly by the Government of Bangladesh and the Ministry of Development Cooperation of the Government of Netherlands, and the Canadian International Development Agency (CIDA) in 1989. The project had three main implementing agencies namely, Department of Agricultural Extension (DAE), Department of Agricultural Marketing (DAM) and Bangladesh Agricultural Research Institute (BARI). Crops included in the programme were:

- **Tubers**: potato, sweet potato, aroid;
- **Oilseeds**: mustard and rapeseed, groundnut, sesame, sunflower, soybean;
- **Pulses**: lentil, black gram, mung bean, chickpea, field pea, cow pea and pigeon pea.

The effect of CDP on production of a few secondary crops was positive. There was a modest increase in potato production, which was attributed to growth in acreage and yield. The yield of pulses and oilseeds had also increased mainly due to the adoption of improved production practices. These crops gave significantly higher yield in 130 upazilas covered by the project (Alam, 2004) than their national average yield. Nevertheless, the growth in total production of some of these crops remained very insignificant due to limited extension of these crops and a decline in acreage (Table A-4). The work of the project is still in progress under financial assistance of the Government. Such programmes are likely to be extended in future as Government policies are currently favouring diversification of the crop sector in Bangladesh.
Public Policies on Diversification

Government of Bangladesh has been encouraging diversification of agriculture in recent years. The Ministry of Agriculture in its agricultural policy document (GOB, 1999) stated that the crop production system dominated by rice is neither scientific nor acceptable from the economic point of view. The Ministry, therefore, emphasized the necessity of increasing the cultivation and production of other crops. The policy of Bangladesh government in this respect was also reflected in another document prepared earlier by the Planning Commission in which emphasis was given on increasing area and production of potato, sweet potato, pulses, oil seeds, spices, maize and millets (GOB, 1998).

The Fifth Five Year Plan (1997-02) categorically mentioned the desire of the government to introduce diversified cropping systems in order to free upland areas in winter season for non-rice crops. The plan envisaged crop rotation with shallow rooted crops by deep rooted ones and legumes followed by non-legumes to enrich and maintain soil fertility. Besides, the Plan intended to promote diversification of cropping pattern to enhance farmers’ income and to help maintain a better soil structure for long term sustainability. The draft poverty reduction strategy paper (PRSP) of the Ministry of Finance (GOB, 2003a) has also advocated for agricultural diversification with a view to rural employment generation and poverty alleviation in the country.

In spite of policy support and constant encouragement from the government for diversification, the index of diversification appeared to have achieved low level of scores over the years. Lack of technological advancement is the main constraint to diversification of crops. In order to accelerate technological progress, genetic upgradation of minor crops and development of HYVs would be urgently required for higher productivity in near future.

Conclusion

Diversification of agriculture is necessary to minimize risk, stabilize income, change the food habit, increase protein intake, promote export, substitute import, create employment opportunities and alleviate poverty. In Bangladesh, diversification of agriculture has been promoted slowly over time. As a result, diversification of food consumption has also been promoted. There is a need to expand appropriate processing techniques and value addition facilities to further promote the pace of diversification of consumption in future. It is also necessary to introduce new production technologies and create suitable institutions and infrastructure to accelerate the pace of diversification of products in the country.
References


### Table A-1: Values of Simpson Index of Diversity over time.

<table>
<thead>
<tr>
<th>Year</th>
<th>SID</th>
<th>Average of decade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971-72</td>
<td>0.753535</td>
<td></td>
</tr>
<tr>
<td>1972-73</td>
<td>0.782523</td>
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<tr>
<td>1973-74</td>
<td>0.756836</td>
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<tr>
<td>1974-75</td>
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<td>1975-76</td>
<td>0.739617</td>
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<td>1976-77</td>
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<tr>
<td>1977-78</td>
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<tr>
<td>1978-79</td>
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<td>1992-93</td>
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<tr>
<td>2001-02</td>
<td>0.768551</td>
<td>0.784145</td>
</tr>
</tbody>
</table>

Source: BBS (Various Years), MOA (2003) and author’s calculation.
Table A-2: Trend growth rates for real prices of CGPRT crops in the international market compared with Bangladesh during 1991-2001

<table>
<thead>
<tr>
<th>Crops</th>
<th>Market location</th>
<th>Annual growth rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize</td>
<td>USA</td>
<td>-4.83</td>
</tr>
<tr>
<td></td>
<td>India</td>
<td>-3.23</td>
</tr>
<tr>
<td></td>
<td>Bangladesh</td>
<td>-4.42</td>
</tr>
<tr>
<td>Millets</td>
<td>USA</td>
<td>-3.37</td>
</tr>
<tr>
<td></td>
<td>India</td>
<td>-4.44</td>
</tr>
<tr>
<td></td>
<td>Bangladesh</td>
<td>-1.37</td>
</tr>
<tr>
<td>Lentil</td>
<td>USA</td>
<td>0.33</td>
</tr>
<tr>
<td></td>
<td>Turkey</td>
<td>0.33</td>
</tr>
<tr>
<td></td>
<td>Nepal</td>
<td>0.20</td>
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<td></td>
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<td>-0.48</td>
</tr>
<tr>
<td>Potato</td>
<td>USA</td>
<td>-2.67</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>2.16</td>
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<td></td>
<td>Bangladesh</td>
<td>-5.09</td>
</tr>
<tr>
<td>Sweet potato</td>
<td>USA</td>
<td>-0.78</td>
</tr>
<tr>
<td></td>
<td>Australia</td>
<td>-1.64</td>
</tr>
<tr>
<td></td>
<td>Bangladesh</td>
<td>1.90</td>
</tr>
</tbody>
</table>

Note: Growth rates have been calculated by fitting semi-logarithmic trend lines. Source: FAO.

Table A-3: Current dietary pattern in Bangladesh compared with an expected pattern.

<table>
<thead>
<tr>
<th>Food items</th>
<th>Adequate intake 1 (grams)</th>
<th>Target intake 2 (grams)</th>
<th>Current intake 3 (grams)</th>
<th>Minimum required intake (grams)</th>
<th>Energy (Kcal)</th>
<th>Food gap (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>490</td>
<td>372</td>
<td>475.8</td>
<td>450</td>
<td>1555.2</td>
<td>70.2</td>
</tr>
<tr>
<td>Tubers</td>
<td>100</td>
<td>130</td>
<td>70.9</td>
<td>70</td>
<td>61.7</td>
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1 Bangladesh National Nutrition Council, Dhaka.
2 Ministry of Food, Dhaka.
3 BBS (2003).
Table A-4: Long-term growth rates in area, yield and production of some major crops and secondary crops in Bangladesh.

<table>
<thead>
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<td>Area</td>
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Note: Growth rates have been calculated by fitting semi-logarithmic trend lines.
Agriculture within Globalization and WTO: 
Politico-Economic Issues of 
Bangladesh Agriculture

Abul Barkat* 
Palash Kanti Das**

1. Onset

The word globalization means different things to different people. It is portrayed by many as an important route towards poverty elimination. The conventional indicators of globalization have always been in trade, foreign direct investment (FDI) and technological flow. However, the quasi-economic factors such as environment, ways of living and non-economic factors like social systems and values, governance are gaining momentum in the current globalization debate. The continuous negligence of globalization application for quasi and non economic factors keep the livelihoods concern of the people in the developing and least developed countries out of loop for getting benefits. One should not ignore that any force for development comes out from a complicated interaction between these economic, quasi and non economic factors. However, the globalization forces are always derived out from the conventional indicators and the birth of WTO is one of the major consequences.

If the concern of developing countries (DC) and least developed countries¹ (LDC) would be considered, agriculture would certainly play a pivotal role in improving the countries’ socio-economic condition, sustainable development, food security, and achieving self-sufficiency in food production. On other hand, it is the main source of potential domestic surplus for investment in other sectors with higher value added that are crucial for human development². Agriculture accounts for 70 percent of employment in LDCs and 30 percent in DCs³.

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  (Opinions expressed by the second author are his own, and in no way reflect the official position of Oxfam)
¹ Least developing countries is a subset of the developing countries
Like most developing countries, the Bangladesh’s economy is agriculture based. In fiscal year 2003-04, its gross contribution to GDP was 22.83 percent; 62.3 percent of total labour force is employed in agriculture. Moreover, despite growing urbanization, about 76 percent of our population still live in rural areas. This implies that our socio economic development still depends much on the rural sector. The agricultural sector provides the basis for food self sufficiency; forms imperative to ensure food availability to the people at affordable prices; and plays pivotal role in terms of nutrition intake and addressing the whole issue of hunger and famine.

The agricultural sector is going through a change. Due to increased population pressure the technological invasion is gripping more and more with a view to producing more food for the people, which means the available land, its distribution and utilisation are of great concern. On the other hand, the new face of Globalization through liberalisation has been creating new dimension in the context of trade (internal and/or external).

This paper focuses mainly on the crop sector and is divided into three parts. The first part discusses the major policy issues under WTO and the relevant experiences. The second part focuses on the current domestic situation. The third part examines the current situation of agricultural farmers and workers and attempts to show the process becoming marginalised in the process. Finally the conclusion delineates the potential implications under globalization.


Until the Uruguay Round (UR), Agriculture with food security and price stability of agricultural products was kept out of GATT. The developed economies at that time started to protect their agriculture sector by providing various supports to their farmers. As a result, these countries turned out as major exportes of their surplus food. Considering the ‘food security’ as the most important issue for DCs, there was a broad adoption of Import Substituting Strategy (ISI). However, one limitation could not be envisaged: the gradual rejection of protectionism in other sector cannot protect agriculture from liberalization. In this process, we see several pressures from international organizations such as IMF and World Bank on developing countries in the name of structural adjustment. In this course, while

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4 Bangladesh Economic Review 2004: p 71
5 Bangladesh Population Census 2001: p 28
developed countries finally realized that there are no more places left for DCs for exploitation, they agreed to include Agriculture. However, their long practiced protectionism still exists in different names. As a result, the world share of Agricultural exports from developing countries came down to 40 percent in 2001 from 40 percent in 1961. These new policies reveal that it does not have that much components to block developed countries protectionism practices under liberalization; which in turn works for the few TNCs dominating the world agricultural market. There could be three broad reasons: a) Subsidized rich countries’ export, b) high barriers to developed countries’ market, and c) downward pressure on world primary commodity prices.

2.1 Basic features of Agreement on Agriculture (AOA)

Three major elements that illustrate liberalization commitments under AOA are domestic support, export competition and market access.

*Domestic support* is any measure used by government to protect its industries from foreign competition. All the members are required to quantify all trade distorting domestic supports into “Aggregate Measurement of Support” (AMS). These commitments are also expressed in “Annual and final bound commitment level”. To be in compliance with the agreement, any member’s current level AMS should not exceed “Annual and final bound commitment level”. For any member AMS shall not exceed 5 percent of total value of agricultural production. And for developing countries this limit is 10 percent. However, there is a set of exemption policies and these are expressed in terms of coloured boxes: Amber, Blue and Green. Amber box contains all trade distorting domestic supports and that should be reduced by 20 percent. Under Blue box the minimal trade distorting policies are included – all direct payments under production limiting programs. The policies, which do not have no, or at most minimal trade distorting effects are under Green box. All these provisions experience a practice of the developed countries shifting their subsidies from amber to green. Over 60 percent of domestic support in OECD has been exempt from reduction commitments.

*Export subsidy/ies* is a tool used by the governments for decreasing the cost of production and/or increasing the level of production. However, in a liberalized

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7 Oxfam Briefing Paper: “Boxing Match in agricultural trade – Will WTO negotiations knock out the world’s poorest farmers?”
world economy export subsidy creates pressure on world prices. Under AOA, export subsidies are set to be reduced by 36 percent of the value of exports and volume of subsidized exports by 21 percent. The LDCs are exempted from reduction commitments in any field of domestic support and export subsidies.

The lack of market access is another obstruction for developing countries in the global economy. The provisions under market access spells out conversion of all non-trade barriers into tariffs and these tariffs are to be reduced by 36 percent. The LDCs are exempted from these commitments. However, tariff bound for Bangladesh set a uniform ceiling rate of 200% for all goods but 50 percent bound rate for 13 products.

2.2 Agreement on Sanitary and Phytosanitary Measures (SPS)

The agreement of SPS under WTO is considered to be the most controversial agreement as this is being used by the industrialised countries as another non tariff barrier to market access against the developing countries and LDCs.

2.3 The sidestep policies

There are provisions of Safeguard Mechanism and Special and Differential treatment for least developed countries and net food importing developing countries. These policies also reveal no benefit to developing countries.

The result of import liberalisation under WTO ends up with a decreased food production in DCs and LDCs. Between 1990 and 1997, 24 LDCs experienced a decline in per capita food production. A continuous export trap created by the falling world prices reduces the opportunities of these countries to diversify the products. The practice of export subsidies and other domestic subsidies provided by the developed countries create pressure on the world price, which, in turn, increases the cost of production in developing countries.

Evidence based on 14 developing countries showed that the food import bill of most countries increased since UR implementation. In Bangladesh alone it grew up by 50 percent. Due to WB and IMF pressure Bangladesh’s average tariff was

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8 Hossain Mahboob, Deb Uttam Kumar, *Trade Liberalization and the Crop sector in Bangladesh, CPD Occasional Paper Series Dhaka, July 2003* p 1


reduced from 102 to 27 percent between 1996 and 1998. Export subsidies and domestic supports and other measures taken by the developed countries leave room for export dumping. Export dumping eventually results in farmers of developing countries being driven out of the market and competing being forced to meet the below cost price or lose market share\textsuperscript{11}.

There is another face of dumping: food aid. Evidence suggests that food aid is higher while price is lower and stock is higher, again while food import for developing countries is higher food aid gets down. WFP reports that when world cereal prices were low and stocks was high, food aid was at the peak level\textsuperscript{12}. One point should be noted that all the reduction commitments under WTO is mainly a political bargaining.

3. Existing Scenario of Bangladesh Agriculture

3.1 Domestic policies:

Amidst Globalization it is imperative to look closely at our domestic policies. Our rural sector is mainly guided by the agricultural policies. The main objectives of these policies are\textsuperscript{13}:

- Ensure profitable and sustainable agriculture production mechanism and establish purchasing power to farmers through increasing their real income
- Protect land productivity and ensure its improvement
- Reduce risk through downgrading the dependency on single products
- Ensure food security and increased nutrition level by producing more nutrient food products and by increasing their supplies
- Protect bio-diversity of various crops
- Adopt plan for introducing, uses, and expansion of bio technology
- Produce and increase supply of crops and other agri-products for industrial sector
- Reduce imports of agricultural products and create opportunities for exports
- Create opportunities for agricultural products processing and agriculture based industry development

\textsuperscript{11} “Can WTO deal with Agricultural Dumping?” http://www.southcentre.org/info/southbulletin.htm
\textsuperscript{13} Adapted from Bangladesh Economic Review 2004 p71
• Protect rights of marginalised, small farmers and agricultural workers
• Keeping in mind the national interest, develop agricultural system in light of the WTO, SAFTA and other international policies.

All these objectives led to two main points: food security and farmers’ rights. There is a great paradox between food security and production. Self sufficiency in food production can’t always provide food security – it depends on food distribution, income distribution, food availability at affordable price, and a combination of food import and export. On the other hand, farmers’ rights are basically their right to ownership of land and waterbodies, and livelihoods – which depends on the increased purchasing power, access to inputs, access to land and other basic human rights – right to work.

The Government food budget reflects the policy application. In our agricultural sector, crop plays the dominant role. Let’s see the government food budget which comprises only rice and wheat for FY 2003-04. Government of Bangladesh (GOB) opened their stock of 9.52 lac metric tons (MT) food grains and planned to close that one with 8.03 lac MT. The net domestic production was set at 253.08 lac MT which showed domestic production surplus (Net domestic production less requirement) was 26.26 lac MT. If we add up import with that net surplus, total surplus would be 51.84 lac MT. Due to lack of availability of data it is not possible to estimate the amount of government procurement and distribution. However, the trend shows that (between 1999-00 and 2001-02) the amounts were at two digits lac MT. Now the question arises how the surplus is being managed if it is not distributed, procured or exported. One reason could be to set up those surpluses in the open market. However, without having a proper price control mechanism how that surplus would be utilised is a real concern. In a conventional way it shows that it would bring the price down which is good for consumers but what about retention of production cost. In Bangladesh, most farmers produce crops for their own consumption as well as to meet other livelihoods necessities. Furthermore, surprisingly government commercial imports were placed in 2001-02 whereas government had a huge surplus in FY 2001 and FY 2002 and even in FY 2004 alone private commercial imports showed the highest amount at 22.89 lac MT.

3.2 Production scenario of major crops

Within the agricultural sector, the crop sector is the most significant part contributing 74 percent of the agricultural GDP in 2002-03. Forest and livestock

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14 Bangladesh Economic Review 2004
contribute, respectively 10 percent and 16 percent. And within the crop sector rice is the most important one. We will consider rice and wheat to examine the production situation.

Three main types of rice - Aus, Aman and Boro are being harvested in Bangladesh. Due to the existence of intense monsoon season in Bangladesh, Aman (wet season crop) and boro (dry season crop) are being produced heavily in the low lying land.

The total production of rice in 2002-03 was 251.87 lac MT, in which Aus, Aman and Boro contributed, respectively, 7.35, 44.13 and 48.52 percent. The total production in 2002-03 was 3.65 percent higher than production in 2001-02. This is a good recovery from the previous year. Out of the last twelve years the highest growth rate of production was experienced in 1999-00.15

In the case of disaggregated rice production for Aus, Aman and Boro, there is a clear decreasing trend of Aus production16. For Aman and Boro there is increasing trend, particularly in 1999-00 when Aman experienced a robust growth and in 1998-99 Boro production growth was impressive. The area cultivated for Aus shows a decreasing trend whereas for Boro it was increasing. Aman was almost at stagnancy.

The changing scenario17 of the three types of rice shows that Boro is comparatively providing more yields (production/acre) than the other two. The gap between the physical production and area under production is decreasing for Aus; for Aman it is not that significant, but for Boro it shows remarkable progress – for the first half of last decade the production line was on acre line and from 1996-97 onwards the production line crossed the acre line, which means per acre yield is above one. It would be important to examine the comparative advantages of cost of production for Boro. According to Bangladesh Rice Foundation, the cost of production for Boro is higher than Aman and Aus18. Perhaps higher per acre yield of Boro is compensating the higher production cost.

In the case of wheat, for the last four financial years we have seen a decreasing trend of wheat production. In 2002-03, wheat production was 6.16 percent less compared to production in 2001-02. From 1990-91 the wheat production showed upward trend and was at its peak in 1998-99. Its yield rate has been impressive over the last twelve years.

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15 See Bangladesh Economic Review, 2004
16 Ibid
17 See Annex Figure 1, 2 and 4, 3
18 “Next Step in Rice: Bangladesh Rice Foundation. 29 Jan 2003. p 74
Over the last twelve years, the total area of land cultivated for rice and wheat has shown an increasing trend. The yield rate is also showing an upward trend though it is below one. The gap between area usage and production line is becoming narrower.

3.3 Agricultural products in trade

According to GOB, Bangladesh has attained food self-sufficiency. It is also reflected in government’s actual budget where net domestic production is higher than the requirement. So trade (imports) in agricultural products particularly rice needs a closer look to understand as to why our food imports are at high level.

In year 2003-04 (till 22nd May, 04) total food grain import was 2557.6 thousand MT. In 2002-03 it was 3221 thousand MT which was 79.14 percent higher than in 2001-02. In the last decade, we experienced highest food import due to devastating flood though total production was only slightly lower than the earlier year.

In 2003-04 (till 22nd May, 04) rice import was 788.4 thousand MT and wheat import was 1501 thousand MT. The growth rate of rice import in 2000-01 was 23.59 percent, in 2001-02 it went down. For wheat in 1999-00 and 2000-01 the growth rate was negative but for 2001-02 and 2002-03 growth rates were respectively 119.29 and 20.75 percent.

The import expenditure for rice in 2002-03 was 211 million USD and for wheat it was 198 million USD.19 However, per MT expenditure for import showed a clear downward trend for rice and wheat which means imports for these products are becoming cheaper. The reasons could be the liberalisation of crops in other countries and less protectionism in our country. The major source of import is India. Recently the Indian Govt decided to release their stocks at almost half of their economic prices (subsidized rate) and this allowed the private exporters of India to dump their products at prices lower than their domestic prices; and the wholesale price of rice and wheat was higher than international price which tempted the private importers to import more for benefits20.

From the domestic front, in the name of structural adjustment Bangladesh government had to cut average tariff rate from 102 percent to 27. In early of 2001-02, the average tariff rate for rice was 34 percent and for wheat, 14 percent only.

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19 See Bangladesh Economic Survey
20 Dev Uttam, Bangladesh Food Situation in FY2002, IRBD2002, Centre for Policy Dialogue, P84
Government also took initiative to block import. Though there was no quantitative restriction, government banned food import through all land ports except Benapole. Earlier we had 15 tariff steps. In order to ease the import, government reduced it to 5; and has taken steps to equalise the statutory and applied tariff. As a result, the average tariff for all products came down from 300% (in 1992-93) to 30 percent (in 2003-04). Due to tariff reform the weighted average tariff for primary products came down from 21.4 percent (in 1998-99) to 19.89 percent (in 2001-02) and for intermediate products it was reduced from 19.0 to 14.42 percent during the same period. In the same year LC margin was reduced from 100% to 25% and withdrawal of 10% regulatory duty. According to the Ministry of Food these steps were taken to stabilise the food grain price\textsuperscript{21}. But the paradox is while private food grain import was 1.28 million tone in 2001-02, government’s procurement was 1.05 million tone. In 2001-02 the variation of domestic price of paddy was 56 percent and procurement price was higher than the market price. The question is that the domestic price is not being setup by the domestic factors only – a large margin of import now plays a role in price setting. Where the procurement amount is lower than the imported amount, how much cost of others, who is pressured to sell their products at low price, would be offset.

In terms of exports, Bangladesh’s exports are not that significant. Though we are a net food importer we export some agricultural products and processed frozen food. In 2003-04 (till March 04) total export of agricultural products and frozen food were respectively, 24 and 274 million USD\textsuperscript{22}. According to GOB, subsidy and support should be increased by a large scale for the agri-export sector. At present 25 percent cash alternative support is being provided for exports of agri-products.

### 3.4. Inputs for Agricultural production

Land is the most scarce and critical factor for agriculture production. Among others fertiliser, irrigation, pesticide, agricultural credit and labour are essential inputs for agriculture. It is to be noted that all these depend much on the agro-ecological condition, price and availability, adoption and availability of improved technology.

The total available land in 1980-81 was 14.29 million hectar which was 14.85 million hectar in 2000-01. Although the total available land increased the net

\textsuperscript{21} Bangladesh Food Situation Report-August 2002.
\textsuperscript{22} Source: EPB
cultivable land came down from 9.38 to 8.40 million hectar during this period. However if we consider total crop area, it was 13.16 million hectar in 1980-81 and 14.30 million hectar in 2000-01. Due to improved technology and high demand, the cropping intensity increased from 153.69 to 177.00 between 1980-81 and 2000-01.

Nine types of fertilisers are used by our farmers, of which, Urea, TSP and SSP usage are always high. The fertiliser usage shows an increasing trend except for the year 1997-98. In 2002-03 total 3293 thousand MT was used which is 0.59 percent higher compared to previous financial year 2001-02. For Urea alone it increased 45 percent in 2002-03 compared to 1992-93. Use of phosphate fertilisers increased 28 percent during the same period though usage of TSP considerably went down between year 1994-95 and 1998-99 and almost at the same time the usage of SSP remarkably went up. Due to increase of total cultivable land the fertiliser usage rate was higher.

The domestic production of fertiliser (mainly Urea and TSP) was 2263.52 thousand MT in 2002-03. In 2001-02 it was 1753.5 thousand MT. The domestic production from 1995-96 to 2002-03 didn’t increase that much to meet the domestic requirement. The gap between the domestic production and usage was at par in 1997-98. It is quite certain to assume that the gap was filled by the imports of fertiliser or by other sources. The import expenditure for fertiliser was 131 million USD in 1992-93 and in 2003-04 (till March) it amounted 135 USD. It seems that the import price of fertilisers was lower than the domestic price. The increased usage of Urea and SSP, and decreased usage of TSP may be attributed to the increase of domestic price for TSP. It indicates one important aspect: due to increase in domestic price for TSP, the demand pressure was on Urea and SSP; and it created forced demand for import of Urea and SSP at the price lower than the domestic TSP price. Another reason was the high TSP/paddy price ratio due to elimination of explicit subsidy on fertiliser and low paddy price during 1990’s.

Irrigation is a critical input for food grain production. Among available means for irrigation, the power pump, shallow and deep tube-wells are most widely used

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23 See figure 6 in the annex
24 Ministry of Commerce
25 See figure 7 in the annex
26 Dev Uttam, Bangladesh Food Situation in FY2002, IRBD2002, Centre for Policy Dialogue, p67
In 2000-01 tube well covered 71 percent of total irrigated land of which shallow alone covered 55 percent. Approximately 17 percent of the total irrigated land covered by the power pumps. Area irrigated for Boro rice production in 2000-01 was 72 percent of total irrigated land. The uses of diesel operated engines are highly pronounced. Therefore, the price of diesel is an important factor for total irrigation cost and Boro rice production.

In 2003-04, the total irrigated area by various means was 4.82 (projected) million hectar. In comparison with 1999-00, the total irrigated area showed a significant increase in 2001-02 (from 4.51 to 4.80 million hectar). Though total irrigated land increased, it covered only half of the net cultivable land.

In the case of price of diesel, the government have increased the price of diesel by 1.5 taka per litre in 2001-02 and as a result per hectar irrigation cost of diesel operated engine increased by more than taka 200028.

Agricultural credit is critical due to the fact that most farmers still operate at subsistence level. The disbursement of agricultural credit in 2003-04 (till March 2004) was 2449.44 crore taka. In 2002-03, it was 3278.37 crore Taka. This was 10.94 percent higher than in 2001-02. The interest rate of government bank (Sonali Bank) on agricultural loan was reduced from 12.5 percent in 2001 to 5-9 percent in 2004. Other government banks and specialized banks also reduced their interest rates.

According to the National Seed Policy, BADC is the only organisation which is supposed to provide seeds of different crops to the farmers. However, seeds distribution by government has been much less pronounced as compared to the demand. Data is available only up to year 1996-97. Seed distribution through BADC is less than 10 percent of total demand.

4. Livelihoods Concerns of Small and Marginal Farmers and Landless Agricultural Workers

As mentioned earlier, 62.30 percent of total labour force in Bangladesh is employed in the agriculture sector. The dominant factor for agricultural sector is the land. Land ownership, availability and utilisation are the key concerns for our farmers. Not only that our climate, environment and existing policies and practices all play pivotal role in the life and livelihoods of the vast population

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27 BBS, Yearbook of Agricultural Statistics of Bangladesh 2001, June 2004
28 Dev Uttam, Bangladesh Food Situation in FY2002, IRBD2002, Centre for Policy Dialogue, P68
engaged in this sector. According to Agricultural Census report, our farmers can be divided broadly into three types: small and marginal holdings (0.5 to 2.49 acre), medium holdings (2.5 to 7.49 acres), and large holding (7.5 + acres). The total number of farms increased between 1983-84 and 1996; but the area of the farm has actually been decreased indicating that the average size of the farms went down from 2.26 to 1.69 acre (Bangladesh Census of Agriculture, 1996). The distribution of farms shows that over this period the small and marginal holdings increased whereas the number of medium and large farms Bangladesh decreased (Bangladesh Census of Agriculture 1996). It is mainly due to increase in population that the numbers of small and marginal farm increased; but there is also strong indication that some of the medium farmers moved to small and marginal holding groups, and some moved from large to medium groups. It is to be noted that the number of landless peasants has also shown an increasing trend.

Overall, the agriculture is at the subsistence level. The poverty intensity is the highest for agriculture sector, both in terms of lower and higher poverty lines. And the increase of marginal and small farm holdings with less-than-before area of holdings implies that this sector is entering more into the subsistence level. The propensity of poverty is lower for large farm holdings and the situation worsens with less land holdings; and poverty is the highest for the landless. Over 24.5 million people live under hard core poverty line (1805 Kcal). Consumption of low level nutrition causes malnutrition in the low level group. All these indicate that the situation of landless agricultural workers, and small and marginal farmers are deteriorating. In order to cope up with the small holdings coupled with the high intensity of poverty, they are forced to end up with search for alternative employment in the rural areas first, and after long term unemployment, are forced to outmigrate from rural to urban areas. This is basically a process of shifting rural life into urban space.

The income distribution in rural areas shows that the gap between lowest 5 percent and highest 5 percent increased in 2000 compared to 1995-96. The Gini coefficient increased from 0.384 to 0.430. However, in 2000 the average monthly per-capita income is higher than the monthly per-capita expenditure in rural areas. The consumer price index (base year 1985-86=100) in 2002-03 for the rural areas is 258.71 for general products and for food products 254.97, which are 5.26 and 5.03 percent higher respectively compared to 2001-02. The real wage in

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30 Source: Bangladesh Economic Survey 2004, p 158-159
the agriculture sector has not increased that much compared to nominal wage rate. Considering the base year 1969-70, in 2002-03 the real wage rate was 118 and the nominal wage rate was 2443. In 2002-03 the retail price index for agricultural products and inputs are respectively 1922 and 1966 respectively. In comparison with the year 2001-2002 these indexes have gone up 6.19 and 1.78 percent, respectively.31

According to the standard set by the government, crossing poverty level requires 2240Kcal of nutrition and 476 gms of food.32 According to HIES 2000, in 2000 national average of food grain intake was 476 gms which is equivalent to 1666Kcal and the share of calorie out of food grain is declining over the years. It means, quantity is increasing but quality is deteriorating. All these information indicate that the living standard of small, marginal and landless farmers is deteriorating with a lower real wage, low level of land holding, higher input cost and increased prices index for food.

All these provide ample indications about the consequences of policy practice around the agricultural sector. This outcome has close relations with the emerging role of MNCs and TNCs. The role of TNCs and MNCs started with the “Green revolution”. It is no of great use of “Green revolution” but it is of high utility to debate about the whole issue of “Green Revolution”. The real cost of Green Revolution with all its externalities should not be borne by the small and marginal farmers. The reality is that these poor farmers are forced to bear the burden. The marginalisation of farmers has become more prominent due to liberalization and commercialisation of agriculture. The dependency of the farmers on the TNCs and MNCs who are the major suppliers of inputs has been on the rise. Evidence suggests that the marketing of hybrid seed by the TNCs and MNCs causes loss to the farmers; the cost of using the hybrid seeds is not only high but also destroys the traditional varities and processes. The usage of agricultural input is also higher for these hybrid seeds. This increases the cost of production. It, not only, eventually threatens the preservation and using the indigenous seeds, but is also detrimental to communal lands, and creates loss of biodiversity and soil exhaustion. The threat will be obvious if the intellectual property rights come into action. This commercialisation has many other detrimental dimensions, it opens up the opportunity to utilise the limited resources into profit oriented mechanisms. As a result, we see resources with our farmers are being forced to be used for

31 Source: Bangladesh Economic Survey 2004, p 208-210
32 Bangladesh Food Situation Report-August 2002
production for these TNCs and MNCs. With the increased cost of production and limited or no land holding the farmers are forced to search for alternative occupation/profession.

5. Some Concluding Remarks

The agriculture sector is vital for Bangladesh economy and it will remain so in the near future. There are a number of emerging issues closely associated with globalization and commercialization that need in-depth assessment to ensure sustainability of this sector. The domestic policies are not conducive enough to ensure pro-poor development of the sector. On the other hand, WTO policies are just neck behind. The production system of agriculture is exposed to global forces. A lot of modern inputs, mainly seeds, chemical, and irrigation system are now being used; but they are processed through wholesale privatization. As a result, the costs of inputs are increasing. With the low average farm size, the marginal and small farmers need government support to offset this cost. For instance, whereas irrigation cost is 28 percent of total cost of production; in Punjab, India it is 13 percent, 8 percent in Thailand and 6 percent in Vietnam. The reason for lower irrigation cost in those countries is mainly for the subsidized irrigation support system – either in the electricity or in the construction or through other means. As diesel is the main source of energy for our irrigation, GOB should provide support to the farmers in diesel price, in addition to other means. We have observed high growth of production of food grains but a sharp declining trend of Aus rice production tends to show dependency on the other two types of rice. The cost of Boro production is higher than the Aman’s, whereas its production growth rate is higher than Aman’s. In 2001-02 the average domestic price of rice came down due to harvest of boro crop. The price is the most important factor for maintaining food security. It is imperative to keep the stability of domestic price. Low price brings welfare for low income consumers but it shouldn’t be at the cost of producers and vice versa. So, a determination of proper balance between demand and supply in the domestic economy and absorption capacity of international price fluctuation is important.

Diversification of agricultural products, particularly the crop products, is critical. It is important not only for domestic market but also for external market. At

33 Hossain Mahboob, Deb Uttam Kumar, Trade Liberalization and the Crop Sector in Bangladesh, CPD Occasional Paper Series Dhaka, July 2003 page 10
34 Bangladesh Food Situation Report, Ministry of Food-August 2002
present only a few crops registered growth while the actual production of others declined\textsuperscript{35}. Lack of necessary research and outdated technologies is another issue. Only two-tenths of a percent of agricultural income is spent on research\textsuperscript{36}.

The nutrition intake and real wages declined for the small and marginal farmers and agricultural workers. Over the last decade the income incidence of poverty declined by about 9 percent and real per capita increased by 2.5 percent per year and this is noticeable for rural areas\textsuperscript{37}. Rising income inequality poses a real question to food security.

The withdrawal of subsidies and support to the agricultural sector by GOB could be detrimental to our farmers. The experience with WTO shows that developed countries are continuously protecting their sectors with various forms of support and put pressures to opening up developing countries’ market for them. GOB has taken some steps within the framework of structural adjustment, which causes rapid increase in food grain import. To some extent it is opened for India for export dumping. GOB must take steps to protect the farmers with tariffs within the bound rate and regulatory duty\textsuperscript{38}. GOB also may consider other means like anti-dumping duty. There are other clauses like “Special and Differential Treatment”. As an LDC, GOB is free from any reduction commitments; in addition to that some investment measures for strengthening the food security and improving the condition of poor farmers are exempted from liberalisation. GOB should take appropriate measures to increase the investment in agriculture sector and examine other clauses that would be beneficial to our agriculture.

Bangladesh is disaster prone. Throughout the year there is a cycle of disaster happening at different parts of the country. In disaster period, the food grain is the most vulnerable sector: production of crops goes down, process goes up and creates the highest level of price fluctuation. The demand for food crop increases double and triple folds as some farmers (who generally produces for themselves) enter into the domain of demand group. In order to tackle that government needs to take various steps like reducing import restriction in order to allow private importers to import and at the same time perform its regulatory role to ensure price stabilization within the reach of the poor and distressed vulnerable people.

\textsuperscript{35} Ahmed Imam, Bangladesh Agriculture at the Crossroads: Current Challenges, CPD, p 3
\textsuperscript{36} Ahmed Imam, Bangladesh Agriculture at the Crossroads: Current Challenges, CPD, p 6
\textsuperscript{37} Bangladesh Food Situation Report, Ministry of Food-August 2002
\textsuperscript{38} “Next Step in Rice” Bangladesh Rice Foundation, 29 Jan 2003 p 83
Figure 1: Area used and actual production for Aus ('000 acre, '000 MT)

Figure 2: Area used and actual production for Aman ('000 acre, '000 MT)
**Figure 3: Area used and actual production for Boro (’000 acre, ’000 MT)**

![Graph showing area used and actual production for Boro](image)

**Figure 4: Area used and actual production for wheat (’000 acre, ’000 MT)**

![Graph showing area used and actual production for wheat](image)
Figure 5: Per MT import expenditure ('000 acre, '000 MT)

Figure 6:
Figure 7: Production and usage of fertiliser

Figure 8: Farm size distribution among the size of holdings

Figure 9: Propensity of poverty (%) in rural areas

Source: The Bangladesh census of Agriculture 1996 (rural), BBS
References

4. Oxfam Briefing Paper: Boxing match in Agricultural trade – Will WTO negotiations knock out the world’s poorest farmers?
5. Hossain Mahboob, Deb Uttam Kumar, Trade Liberalization and the Crop Sector in Bangladesh, CPD Occassional Paper Series Dhaka, July 2003
8. “Next Step in Rice” Bangladesh Rice Foundation, Jan 2003
9. Bangladesh Food Situation Report, Ministry of Food-August 2002
13. The EU and South Asian Association for Regional Cooperation (SAARC)”
15. “Agriculture – Background Fact Sheet.” 25 July 2004
Impact of Trade Liberalization on Agriculture: Evidence of Bangladesh

Jahangir Alam*

Abstract
Bangladesh has liberalized its economy through reduction of tariff rates and withdrawal of agricultural subsidies although the country, as a least developed one, was exempted from reduction commitments. The unweighted average tariff rate for all agricultural products declined to 15 per cent in 2002-03 from 55 per cent in 1991-92. Subsidies on irrigation and fertilizer declined from 2.53 per cent of the value of unassisted output in 1988-89 to 0.45 per cent in 2002-2003. Moreover, there is a very low rate of subsidies on agricultural exports. However, the impact of trade liberalization policies was not favourable on the agricultural economy of Bangladesh. Total agricultural export increased by about 2 per cent and agricultural import increased by 9 per cent per year over the 1990s. Import of maize and pulses increased significantly over that period. Besides commercial import of food grains increased and the magnitude of food aid dropped over the same period. In fact, Bangladesh had to face more loss than it enjoyed gains from eventualities of recent trade liberalization. In view of the above circumstances, more investment on yield increasing technology generation and adoption is necessary to meet the current deficit in food items and accelerate the speed of diversity in agriculture.

Introduction
The long-term objective of the Uruguay Round Agreement on Agriculture is to establish a fair and market-oriented agricultural trading system and initiate a reform process through the negotiation of commitments on support and protection. It was thought that a substantial progressive reduction in agricultural support and protection will be made over an agreed period of time that will result in correction and prevention of restrictions and distortion in world agricultural markets. The main objective of this paper is to make an assessment of Bangladesh’s progress in the process of trade liberalization and analyze its impact on agricultural trade and production in the country.

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**Methodology**

This study is based on secondary data collected from published and unpublished sources of various national and international agencies. The main sources of data are various publications of the Government of Bangladesh (GOB), Bangladesh Bureau of Statistics (BBS), Bangladesh Bank, World Bank, and Food and Agriculture Organization of the United Nations (FAO). Some of the specific documents consulted are Bangladesh Economic Review (various issues), Handbook of Agricultural Statistics, Economic Trends, Statistical Yearbook of Bangladesh, National Accounts Statistics of Bangladesh and the Legal Text of the Uruguay Round of Multilateral Trade Negotiations. In addition, various unpublished documents of the Export Promotion Bureau, National Board of Revenue, Ministry of Food, Ministry of Finance, and Ministry of Commerce were intensively used for obtaining data for this study.

Bangladesh liberalized her economy very quickly during the early 1990s and continued her reform agenda in later years. For purpose of the study, data on tariff rates for different commodities and subsidies on agriculture have been assembled for the last decade of the 20th century and after (reform period) for establishing trend of those variables over the years. The intention to see what happened to Bangladesh economy after the country was showing adherence to WTO rules on liberalization of trade in agriculture. For that purpose the trends of agricultural exports, imports, food aid and foreign assistance have been examined by tabular and graphical forms. The impact of trade liberalization and reform on the country’s macro-economic performance has also analysed. Finally, the magnitude of current food deficit has been determined by comparing recent dietary pattern with that of an expected pattern to reflect on policy issues for development of the country’s agricultural sector.

**Results and Discussion**

*Commitments on agriculture*

The agenda for liberalization of agriculture consist of three components: market access, domestic support and export competition (WTO, 1995). The provisions under market access called for reduction of tariff and non-tariff barriers. Under domestic support, countries were required to reduce trade distorting domestic supports. Under the provision of export competition, countries committed to reduce the value of export subsidies. Being a least developed country (LDC), Bangladesh was exempted from those reduction commitments.
Market access

The URAoA under its provisions of on market access called for conversion of all non-tariff trade barriers into tariff equivalents, reduction of bound tariffs over time, and setting of low import tariffs for a fixed quota of import. Under tariffication, member countries were required to convert non-tariff barriers during the base period (1986-88) into tariff equivalents and to establish a base rate of duty for individual commodities covered by the URAoA. The average reduction of tariffs after tariffication of non-tariff barriers was set at 24 per cent for developing countries and 36 per cent for industrialized countries. Industrialized countries had a time frame of six years within which to reduce their tariff levels while developing countries had 10 years. Minimum access had to be established at not less than 3-5 per cent of domestic consumption during the base period (1986-88). As an LDC, Bangladesh was not required to undertake any such commitment but she had to bind tariffs on all agricultural products.

Market access reform in Bangladesh began in the early 1980s with a reduction in import duties and was followed by a reduction in quotas in 1985 and a simplification of tariffs in 1986. The most intense trade reforms occurred in the 1990s with a movement toward lower tariff rates (Table 1).

\[ \text{Table 1: Un-weighted average tariff rates for different commodity groups in Bangladesh.} \]

<table>
<thead>
<tr>
<th>Commodity group</th>
<th>FY92</th>
<th>FY93</th>
<th>FY94</th>
<th>FY95</th>
<th>FY96</th>
<th>FY97</th>
<th>FY98</th>
<th>FY99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary commodity</td>
<td>55.2</td>
<td>47.7</td>
<td>34.9</td>
<td>31.6</td>
<td>24.6</td>
<td>22.3</td>
<td>21.9</td>
<td>21.4</td>
</tr>
<tr>
<td>Intermediate inputs</td>
<td>49.5</td>
<td>41.6</td>
<td>31.8</td>
<td>23.2</td>
<td>20.2</td>
<td>19.6</td>
<td>19.2</td>
<td>18.9</td>
</tr>
<tr>
<td>Capital goods</td>
<td>45.0</td>
<td>38.7</td>
<td>26.2</td>
<td>13.9</td>
<td>12.3</td>
<td>12.5</td>
<td>12.1</td>
<td>12.3</td>
</tr>
<tr>
<td>Final consumer goods</td>
<td>80.3</td>
<td>63.6</td>
<td>49.9</td>
<td>38.6</td>
<td>33.7</td>
<td>32.3</td>
<td>30.6</td>
<td>29.0</td>
</tr>
<tr>
<td>All commodities</td>
<td>57.3</td>
<td>47.4</td>
<td>36.1</td>
<td>25.9</td>
<td>22.3</td>
<td>21.5</td>
<td>20.7</td>
<td>20.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commodity group</th>
<th>FY00</th>
<th>FY01</th>
<th>FY02</th>
<th>FY03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary commodity</td>
<td>17.1</td>
<td>17.7</td>
<td>15.6</td>
<td>14.9</td>
</tr>
<tr>
<td>Intermediate inputs</td>
<td>15.6</td>
<td>15.7</td>
<td>20.1</td>
<td>21.0</td>
</tr>
<tr>
<td>Capital goods</td>
<td>16.1</td>
<td>11.3</td>
<td>7.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Final consumer goods</td>
<td>31.0</td>
<td>29.6</td>
<td>26.0</td>
<td>22.6</td>
</tr>
<tr>
<td>All’ commodities</td>
<td>19.5</td>
<td>18.6</td>
<td>17.1</td>
<td>16.4</td>
</tr>
</tbody>
</table>
In 2002-2003, the un-weighted average tariffs for all agricultural products declined to 15 per cent from 55 per cent in 1991-92. In a similar way, the import-weighted average tariff fell to 12 per cent from 23 per cent in the same period. The magnitude of decline in tariff rates for all other commodities showed almost the same trend (Table 2).

Table 2: Import weighted average tariff rates for different commodity groups in Bangladesh

<table>
<thead>
<tr>
<th>Commodity group</th>
<th>FY92</th>
<th>FY93</th>
<th>FY94</th>
<th>FY95</th>
<th>FY96</th>
<th>FY97</th>
<th>FY98</th>
<th>FY99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary commodity</td>
<td>23.4</td>
<td>23.2</td>
<td>27.2</td>
<td>17.3</td>
<td>13.2</td>
<td>16.3</td>
<td>13.6</td>
<td>9.5</td>
</tr>
<tr>
<td>Intermediate inputs</td>
<td>24.1</td>
<td>23.7</td>
<td>22.9</td>
<td>26.3</td>
<td>22.7</td>
<td>22.2</td>
<td>21.3</td>
<td>21.3</td>
</tr>
<tr>
<td>Capital goods</td>
<td>18.7</td>
<td>18.5</td>
<td>16.2</td>
<td>12.5</td>
<td>9.5</td>
<td>10.4</td>
<td>8.2</td>
<td>8.1</td>
</tr>
<tr>
<td>Final consumer goods</td>
<td>47.3</td>
<td>36.5</td>
<td>36.7</td>
<td>26.5</td>
<td>24.1</td>
<td>23.1</td>
<td>20.1</td>
<td>17.6</td>
</tr>
<tr>
<td>All commodities</td>
<td>24.1</td>
<td>23.6</td>
<td>24.1</td>
<td>20.8</td>
<td>17.0</td>
<td>18.0</td>
<td>16.0</td>
<td>14.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commodity group</th>
<th>FY00</th>
<th>FY01</th>
<th>FY02</th>
<th>FY03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary commodity</td>
<td>13.6</td>
<td>14.9</td>
<td>9.4</td>
<td>12.0</td>
</tr>
<tr>
<td>Intermediate inputs</td>
<td>15.1</td>
<td>15.0</td>
<td>16.2</td>
<td>15.8</td>
</tr>
<tr>
<td>Capital goods</td>
<td>9.9</td>
<td>10.4</td>
<td>3.3</td>
<td>7.7</td>
</tr>
<tr>
<td>Final consumer goods</td>
<td>16.5</td>
<td>20.3</td>
<td>14.0</td>
<td>11.9</td>
</tr>
<tr>
<td>All commodities</td>
<td>13.8</td>
<td>15.1</td>
<td>9.7</td>
<td>12.4</td>
</tr>
</tbody>
</table>

Domestic support

The reduction of tariff rates for most of the crops including food grains and pulses was quite significant (Table A-1). Under the minimum access level provision, the current access opportunity is more than the threshold for all commodities, except for potatoes and sugar.

The Uruguay Round Agreement on Agriculture (URAoA) under its domestic support policies did not include expenditure on research, extension, disease control, food security, and rural development etc. (green box measures) in reduction commitments. Nevertheless, subsidies on inputs and price support for outputs were categorized under trade distorting policies and were required to be kept within the limit of 5% of the value of output for the developed countries, and 10% for the developing countries. The total aggregate measure of support (AMS) was to be reduced by 20% for developed countries and 13.3% for developing countries (with no reduction for LDCs) over the implementation period.
Bangladesh provides support to agricultural research, extension, training, marketing and infrastructure that are nondistortionary in character. These supports fall under the green box area and are excluded from AMS reduction commitments. During the 1970s and early 1980s agricultural inputs were heavily subsidized and price support for agricultural output were also significant. These subsidies and supports were gradually reduced and became quite insignificant during the 1990s. Table 3 shows that Bangladesh did not provide any price support to any of the agricultural commodities after the 1995-96 financial year. Subsidies on fertilizer and irrigation accounted for 2.53% of the value of unassisted output in 1988-89, which declined gradually to less than one-tenth of one per cent in 1998-99. The calculated producer subsidy equivalent (PSE) slightly increased over first three years of the new millennium, but still it hovers around a half of only one per cent, very insignificant in comparison with that of about 40% for European Union and 35% for OECD countries (Alam, 2004).

<table>
<thead>
<tr>
<th>Year</th>
<th>Input subsidy (% of unassisted output)</th>
<th>Price support (% of unassisted output)</th>
<th>Total subsidy (PSE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988-89</td>
<td>2.53</td>
<td>0.20</td>
<td>2.73</td>
</tr>
<tr>
<td>1995-96</td>
<td>0.83</td>
<td>0.01</td>
<td>0.84</td>
</tr>
<tr>
<td>1996-97</td>
<td>0.62</td>
<td>0</td>
<td>0.62</td>
</tr>
<tr>
<td>1997-98</td>
<td>0.43</td>
<td>0</td>
<td>0.43</td>
</tr>
<tr>
<td>1998-99</td>
<td>0.08</td>
<td>0</td>
<td>0.08</td>
</tr>
<tr>
<td>1999-2000</td>
<td>0.21</td>
<td>0</td>
<td>0.21</td>
</tr>
<tr>
<td>2000-2001</td>
<td>0.24</td>
<td>0</td>
<td>0.24</td>
</tr>
<tr>
<td>2001-2002</td>
<td>0.48</td>
<td>0</td>
<td>0.48</td>
</tr>
<tr>
<td>2002-2003</td>
<td>0.45</td>
<td>0.01</td>
<td>0.45</td>
</tr>
</tbody>
</table>

Under the commitment on export subsidies members were required to reduce the value of mainly direct export subsidies to a level 36 per cent below the 1986-90 base period level over the six-year implementation period, and the quantity of subsidized exports by 21 per cent over the same period. In the case of developing countries, the reductions were two-thirds of those of developed countries over a ten-year period and subject to certain conditions, there were no commitments on reduction of the costs of marketing of agricultural exports or internal transport and
freight charges on export shipments. LDCs were not obliged to reduce export subsidies but were required to freeze such subsidies at the 1986-90 period levels.

Bangladesh declared no export subsidies in her schedule of UR commitments. However, there may be some elements of subsidies enjoyed by the country’s export regime. They include a small amount of direct subsidy on export of vegetables, export subsidies in the form of lower interest rates than market interest rates, tariff concessions on import of capital machinery, and some sort of subsidy on export credit guarantee schemes.

It appears from discussion on market access, domestic support and export subsidies that Bangladesh liberalized her economy quite early even though there were time and exemption provisions for the country in the WTO rules. This was due to pressure from international donors for reform and the country’s inability to mobilize resources to support her development programmes without taking assistance from the donors. The country was not, however, benefited by such an early liberalization.

**Impact of Liberalization**

It would be interesting to see what has happened to Bangladesh economy after showing adherence to WTO rules on liberalization of trade in agriculture. First, the agricultural export and import situations of Bangladesh over the last eleven years (1991-92 to 2001-02) have been examined. It is observed that total agricultural export increased by about 2 per cent and agricultural import increased by 9 per cent per year over that period (Table A-2 and A-3). Figure 1 shows that agricultural imports exceeded the export figure in 1995-96 and after that the import curve continued to flow over the export curve for the rest of the years.

The total export earnings of the country increased by 11.9 per cent, while import expenditure increased by 9.59 per cent over the last eleven years. It may be mentioned that most export earnings in Bangladesh come through garment industry, where the bulk of the export earnings go back out of the country to pay for imported raw materials and machinery.

The average annual growth rate of export earnings was negative for jute, jute products, tea and total crops. However, the annual growth rate of export for greater agricultural sector was positive mainly due to high export earnings from frozen food, and hides and skins. The growth rates of import for all agricultural commodities were positive excepting wheat, and were very strong for pulses, maize, edible oil and raw cotton. The situation is unlikely to be changed unless
duty-free and quota-free access of Bangladeshi products are ensured to developed countries.

The WTO member countries attending Ministerial meetings recognized the special difficulties faced by LDCs and called for providing more technical assistance to LDCs for trade development. They also appealed for enhancing the magnitude of food aid and concessional loans to LDCs for their adjustment to a new global situation. Bangladesh, as an LDC, was supposed to be a beneficiary from this assistance. However, the country was not much benefited from such benevolent aid and assistance commitments in recent years.

Bangladeshi people depend more on cereals for consumption of food. The production of cereals has increased in the country over time, but at the same time imports of food-grains continued without any interval (Table A-4). This was not attributed exclusively to trade liberalization, but was related to other domestic factors like weather, natural calamities, management of the production system and governance. What is important to note is that the composition of food-grain imports has significantly changed after trade liberalization. The extent of food aid declined and the magnitude of commercial imports increased during the post liberalization period. Figure 2 shows that commercial imports crossed the line of food aid in 1994-95, reached its peak in 1998-99, and remained above the line of food aid till the last year of observation.

For further examination of the proposition, the growth and composition of foreign assistance to Bangladesh was analyzed. Data presented in Table A-5 shows that the annual growth rate of foreign assistance has declined over the last eleven
years. The amount of foreign loans has slightly increased but the amount of donations significantly dropped during the period of liberalization. The evidence confirms the view that Bangladesh had to face more loss than it enjoyed gains from eventualities of recent trade liberalization.

The impact of trade liberalization and reform was not very positive on macro-economic performance. The growth rate of GDP stagnated at around 5 per cent and the overall budget deficit did not show any sign of improvement. The amount of foreign exchange reserve increased in absolute terms but declined in relative terms (in months of imports). The rate of inflation has, however, declined over the years (Table A-6). The growth rates of real prices of most of the agricultural commodities have also declined.

**Food self sufficiency and Diversification of Agriculture**

Government of Bangladesh is committed to achieve self-sufficiency in food production. To that effect the farmers, agricultural scientists and policy makers are working hard for years together. Very recently, the country has produced a little surplus of food grains (Figure 3), but there is still a huge deficit in production of other crops. The deficit is much larger for pulses, edible oil, vegetables, fruits and non-crop agricultural products (Table A-7), which has accentuated over time with the increase in population. It is possible to have a significant increase in production of these crops and non-crop sub-sectors provided new technologies are generated and policies are framed conducive to technology adoption, which will
promote diversification. This is consistent with the policy of Bangladesh government (GOB, 2003a; 1999), which will require higher investment in agriculture and more support and subsidies in the process of technology generation and adoption.

Fig. 3: Food grain availability (000 MT) from domestic production, (excludes 11.58% of total production) deficit and surplus.

\[\text{Food grain availability (000 MT)}\]


**Conclusion**

Results of the study show that Bangladesh has liberalized her economy very quickly over 1990s through reduction of tariff rates and withdrawal of agricultural subsidies. However, there was hardly any positive impact of the liberalization efforts on the agricultural sector of Bangladesh. In fact, agricultural imports the grew faster than agricultural exports and the country became more dependent on commercial imports of food grains and other agricultural commodities. Thus it appears that the country should now pursue a policy of protecting her agricultural sector and increase support and subsidies on yield increasing technology generation and adoption to meet the current food deficit and accelerate the speed of agriculture diversification.
References


Appendices

Table A-1: Un-weighted tariff rates and value-added tax on major agricultural products in Bangladesh

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Note: CD = Customs duties; LF = License fees; IDS = Infrastructure development; SD = Supplementary duty; VAT = Value-added tax.
Source: National Board of Revenue.

**Table A-2: Export of agricultural commodities from Bangladesh (Million US$).**

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Annual growth rate: -1.25, -6.55, 7.33, 6.42, -2.23, 3.59, -1.97, 1.96, 11.9, -

Source: Export Promotion Bureau.
Note: Growth rates have been calculated by fitting semi-logarithmic trend lines.
Table A-3: Import of agricultural commodities to Bangladesh (Million US$).

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<th>Raw cotton (Total)</th>
<th>Edible oil (Total)</th>
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<tr>
<td>1994-95</td>
<td>220</td>
<td>256</td>
<td>80</td>
<td>135</td>
<td>220</td>
<td>0.448</td>
<td>9.279</td>
<td>920.73</td>
</tr>
<tr>
<td>1995-96</td>
<td>358</td>
<td>228</td>
<td>89</td>
<td>185</td>
<td>179</td>
<td>1.959</td>
<td>23.604</td>
<td>1064.56</td>
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<tr>
<td>1996-97</td>
<td>28</td>
<td>156</td>
<td>62</td>
<td>195</td>
<td>216</td>
<td>2.436</td>
<td>52.365</td>
<td>711.80</td>
</tr>
<tr>
<td>1997-98</td>
<td>247</td>
<td>122</td>
<td>93</td>
<td>207</td>
<td>216</td>
<td>1.452</td>
<td>43.608</td>
<td>930.06</td>
</tr>
<tr>
<td>1998-99</td>
<td>680</td>
<td>317</td>
<td>100</td>
<td>233</td>
<td>287</td>
<td>5.077</td>
<td>70.870</td>
<td>1692.95</td>
</tr>
<tr>
<td>1999-00</td>
<td>115</td>
<td>266</td>
<td>90</td>
<td>277</td>
<td>256</td>
<td>18.923</td>
<td>112.999</td>
<td>1135.92</td>
</tr>
<tr>
<td>2000-01</td>
<td>172</td>
<td>177</td>
<td>64</td>
<td>360</td>
<td>218</td>
<td>26.575</td>
<td>85.749</td>
<td>1103.32</td>
</tr>
<tr>
<td>2001-02</td>
<td>15</td>
<td>171</td>
<td>72</td>
<td>312</td>
<td>251</td>
<td>32.574</td>
<td>946.464</td>
<td>8540</td>
</tr>
<tr>
<td>Annual</td>
<td>30.83</td>
<td>-0.25</td>
<td>7.51</td>
<td>15.21</td>
<td>6.08</td>
<td>75.45</td>
<td>22.96</td>
<td>9.04</td>
</tr>
</tbody>
</table>

Note: Growth rates have been calculated by fitting semi-logarithmic trend lines.

Table A-4: Domestic production of cereals and import of food grains (000 metric tons).

<table>
<thead>
<tr>
<th>Year</th>
<th>Production of cereals</th>
<th>Food aid imports</th>
<th>Commercial</th>
<th>Total imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-82</td>
<td>14646</td>
<td>1141</td>
<td>114</td>
<td>1255</td>
</tr>
<tr>
<td>1982-83</td>
<td>15276</td>
<td>976</td>
<td>868</td>
<td>1844</td>
</tr>
<tr>
<td>1983-84</td>
<td>15740</td>
<td>1441</td>
<td>615</td>
<td>2056</td>
</tr>
<tr>
<td>1984-85</td>
<td>16182</td>
<td>1306</td>
<td>1287</td>
<td>2593</td>
</tr>
<tr>
<td>1985-86</td>
<td>16177</td>
<td>1087</td>
<td>113</td>
<td>1200</td>
</tr>
<tr>
<td>1986-87</td>
<td>16592</td>
<td>1425</td>
<td>342</td>
<td>1767</td>
</tr>
<tr>
<td>1987-88</td>
<td>16547</td>
<td>1787</td>
<td>1130</td>
<td>2917</td>
</tr>
<tr>
<td>1988-89</td>
<td>16650</td>
<td>1356</td>
<td>780</td>
<td>2136</td>
</tr>
<tr>
<td>1989-90</td>
<td>18679</td>
<td>949</td>
<td>584</td>
<td>1533</td>
</tr>
<tr>
<td>Growth rate</td>
<td>2.26 (2.70)</td>
<td>1.28 (-2.05)</td>
<td>10.18 (18.15)</td>
<td>2.6 (22.2)</td>
</tr>
<tr>
<td>(81-90) %</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990-91</td>
<td>18869</td>
<td>1540</td>
<td>37</td>
<td>1577</td>
</tr>
<tr>
<td>1991-92</td>
<td>19400</td>
<td>1414</td>
<td>150</td>
<td>1564</td>
</tr>
<tr>
<td>1992-93</td>
<td>19598</td>
<td>735</td>
<td>448</td>
<td>1183</td>
</tr>
<tr>
<td>1993-94</td>
<td>19230</td>
<td>654</td>
<td>312</td>
<td>966</td>
</tr>
<tr>
<td>1994-95</td>
<td>18174</td>
<td>935</td>
<td>1633</td>
<td>2568</td>
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<tr>
<td>1995-96</td>
<td>19155</td>
<td>738</td>
<td>1689</td>
<td>2427</td>
</tr>
<tr>
<td>1996-97</td>
<td>20439</td>
<td>618</td>
<td>349</td>
<td>967</td>
</tr>
<tr>
<td>1997-98</td>
<td>20793</td>
<td>549</td>
<td>1402</td>
<td>1951</td>
</tr>
<tr>
<td>1998-99</td>
<td>21946</td>
<td>1235</td>
<td>4256</td>
<td>5491</td>
</tr>
<tr>
<td>1999-00</td>
<td>25087</td>
<td>870</td>
<td>1234</td>
<td>2104</td>
</tr>
<tr>
<td>2000-01</td>
<td>26968</td>
<td>491</td>
<td>1063</td>
<td>1554</td>
</tr>
<tr>
<td>2001-02</td>
<td>26138</td>
<td>509</td>
<td>1289</td>
<td>1799</td>
</tr>
<tr>
<td>Growth rate</td>
<td>3.29 (2.72)</td>
<td>-6.68 (-9.22)</td>
<td>26.15 (29.59)</td>
<td>4.32 (1.10)</td>
</tr>
<tr>
<td>(90-02) %</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth rate</td>
<td>2.63 (2.76)</td>
<td>-4.3 (3.84)</td>
<td>7.83 (11.55)</td>
<td>0.78 (1.71)</td>
</tr>
<tr>
<td>(81-02) %</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: (a) Growth rates have been calculated by fitting semi-logarithmic trend lines.
Compound growth rates are given within brackets. This growth rate is calculated depending on the value of a variable at the beginning of a period (first year) and the value of that variable at the end of a period (last year), which may be suddenly higher or lower. To avoid such a problem and to take into account the annual fluctuations of continuous values between the first and the last year, a growth rate of the semi-logarithmic form is usually preferred.

Table A-5: Foreign assistance to Bangladesh (Million US$).

<table>
<thead>
<tr>
<th>Year</th>
<th>Donation</th>
<th>Loan</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971-72</td>
<td>245</td>
<td>26</td>
<td>271</td>
</tr>
<tr>
<td>1972-73</td>
<td>486</td>
<td>65</td>
<td>551</td>
</tr>
<tr>
<td>1973-74</td>
<td>218</td>
<td>243</td>
<td>461</td>
</tr>
<tr>
<td>1974-75</td>
<td>375</td>
<td>526</td>
<td>901</td>
</tr>
<tr>
<td>1975-76</td>
<td>234</td>
<td>567</td>
<td>801</td>
</tr>
<tr>
<td>1976-77</td>
<td>256</td>
<td>279</td>
<td>535</td>
</tr>
<tr>
<td>1977-78</td>
<td>393</td>
<td>441</td>
<td>834</td>
</tr>
<tr>
<td>1978-79</td>
<td>502</td>
<td>528</td>
<td>1030</td>
</tr>
<tr>
<td>1979-80</td>
<td>650</td>
<td>573</td>
<td>1223</td>
</tr>
<tr>
<td></td>
<td>7.99</td>
<td>32.02</td>
<td>14.28</td>
</tr>
<tr>
<td>1980-81</td>
<td>593</td>
<td>553</td>
<td>1146</td>
</tr>
<tr>
<td>1981-82</td>
<td>654</td>
<td>588</td>
<td>1240</td>
</tr>
<tr>
<td>1982-83</td>
<td>587</td>
<td>590</td>
<td>1177</td>
</tr>
<tr>
<td>1983-84</td>
<td>733</td>
<td>535</td>
<td>1268</td>
</tr>
<tr>
<td>1984-85</td>
<td>703</td>
<td>566</td>
<td>1269</td>
</tr>
<tr>
<td>1985-86</td>
<td>546</td>
<td>760</td>
<td>1306</td>
</tr>
<tr>
<td>1986-87</td>
<td>661</td>
<td>934</td>
<td>1595</td>
</tr>
<tr>
<td>1987-88</td>
<td>823</td>
<td>817</td>
<td>1640</td>
</tr>
<tr>
<td>1988-89</td>
<td>673</td>
<td>995</td>
<td>1668</td>
</tr>
<tr>
<td>1989-90</td>
<td>766</td>
<td>1044</td>
<td>1810</td>
</tr>
<tr>
<td></td>
<td>2.2</td>
<td>7.89</td>
<td>5.19</td>
</tr>
<tr>
<td>1990-91</td>
<td>831</td>
<td>901</td>
<td>1732</td>
</tr>
<tr>
<td>1991-92</td>
<td>817</td>
<td>794</td>
<td>1611</td>
</tr>
<tr>
<td>1992-93</td>
<td>818</td>
<td>857</td>
<td>1675</td>
</tr>
<tr>
<td>1993-94</td>
<td>710</td>
<td>849</td>
<td>1559</td>
</tr>
<tr>
<td>1994-95</td>
<td>890</td>
<td>849</td>
<td>1739</td>
</tr>
<tr>
<td>1995-96</td>
<td>677</td>
<td>766</td>
<td>1443</td>
</tr>
<tr>
<td>1996-97</td>
<td>736</td>
<td>745</td>
<td>1481</td>
</tr>
<tr>
<td>1997-98</td>
<td>503</td>
<td>748</td>
<td>1251</td>
</tr>
<tr>
<td>1998-99</td>
<td>669</td>
<td>867</td>
<td>1536</td>
</tr>
<tr>
<td>1999-00</td>
<td>726</td>
<td>862</td>
<td>1588</td>
</tr>
<tr>
<td>2000-01</td>
<td>504</td>
<td>865</td>
<td>1369</td>
</tr>
<tr>
<td>2001-02</td>
<td>479</td>
<td>963</td>
<td>1442</td>
</tr>
<tr>
<td></td>
<td>-4.6</td>
<td>0.43</td>
<td>-1.71</td>
</tr>
<tr>
<td>Growth rate (90-02) %</td>
<td>2.71</td>
<td>5.9</td>
<td>3.76</td>
</tr>
</tbody>
</table>

Note: Growth rates have been calculated by fitting semi-logarithmic trend lines.
Table A-6: Macro-economic indicators of Bangladesh.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP at current market price (Taka in billion)</td>
<td>1195.4</td>
<td>1663.2</td>
<td>2370.9</td>
<td>2732.0</td>
</tr>
<tr>
<td>GDP growth rate at constant (1995-96) prices</td>
<td>5.0</td>
<td>4.6</td>
<td>5.9</td>
<td>4.4</td>
</tr>
<tr>
<td>Population (Million)</td>
<td>113.0</td>
<td>120.8</td>
<td>128.1</td>
<td>131.6</td>
</tr>
<tr>
<td>Per capita GDP at current prices (Taka)</td>
<td>10579.0</td>
<td>13768.5</td>
<td>18507.9</td>
<td>20760.0</td>
</tr>
<tr>
<td>Average exchange rate with US Dollar</td>
<td>38.1453</td>
<td>40.8365</td>
<td>50.3112</td>
<td>57.4347</td>
</tr>
<tr>
<td>As percentage of GDP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumption</td>
<td>86.1</td>
<td>85.3</td>
<td>82.1</td>
<td>81.8</td>
</tr>
<tr>
<td>National savings</td>
<td>19.3</td>
<td>20.0</td>
<td>23.1</td>
<td>23.4</td>
</tr>
<tr>
<td>Total investment</td>
<td>17.3</td>
<td>20.0</td>
<td>23.0</td>
<td>23.1</td>
</tr>
<tr>
<td>Overall budget deficit</td>
<td>-4.7</td>
<td>-4.7</td>
<td>-6.1</td>
<td>-4.7</td>
</tr>
<tr>
<td>Import</td>
<td>11.3</td>
<td>16.9</td>
<td>17.8</td>
<td>18.0</td>
</tr>
<tr>
<td>Export</td>
<td>6.3</td>
<td>9.5</td>
<td>12.2</td>
<td>12.6</td>
</tr>
<tr>
<td>Rate of inflation (%)</td>
<td>4.6</td>
<td>6.7</td>
<td>3.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Foreign exchange reserve (Million US$)</td>
<td>1608</td>
<td>2039</td>
<td>1602</td>
<td>1583</td>
</tr>
<tr>
<td>Foreign exchange reserve (Months of imports)</td>
<td>5.5</td>
<td>3.5</td>
<td>2.3</td>
<td>2.2</td>
</tr>
</tbody>
</table>


Table A-7: Current dietary pattern in Bangladesh compared with an expected pattern

<table>
<thead>
<tr>
<th>Food items</th>
<th>Adequate intake</th>
<th>Target intake</th>
<th>Current intake</th>
<th>Minimum required intake</th>
<th>Energy Kcal</th>
<th>Food gap (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>490</td>
<td>372</td>
<td>475.8</td>
<td>450</td>
<td>1555.2</td>
<td>70.2</td>
</tr>
<tr>
<td>Tubers</td>
<td>100</td>
<td>130</td>
<td>70.9</td>
<td>70</td>
<td>61.7</td>
<td>2.8</td>
</tr>
<tr>
<td>Vegetables</td>
<td>125</td>
<td>132</td>
<td>140.5</td>
<td>150</td>
<td>65.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Pulses</td>
<td>30</td>
<td>66</td>
<td>15.8</td>
<td>30</td>
<td>105.0</td>
<td>4.8</td>
</tr>
<tr>
<td>Edible oil</td>
<td>20</td>
<td>38</td>
<td>12.8</td>
<td>20</td>
<td>180.0</td>
<td>8.2</td>
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<tr>
<td>Fruits</td>
<td>50</td>
<td>57</td>
<td>28.4</td>
<td>50</td>
<td>50.0</td>
<td>2.3</td>
</tr>
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<td>Sweeteners</td>
<td>10</td>
<td>28</td>
<td>6.85</td>
<td>10</td>
<td>40.0</td>
<td>1.8</td>
</tr>
<tr>
<td>Fish</td>
<td>45</td>
<td>50</td>
<td>38.5</td>
<td>60</td>
<td>60.0</td>
<td>2.7</td>
</tr>
<tr>
<td>Meat</td>
<td>20</td>
<td>22</td>
<td>13.3</td>
<td>30</td>
<td>33.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Eggs</td>
<td>14</td>
<td>7</td>
<td>5.3</td>
<td>10</td>
<td>16.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Milk</td>
<td>30</td>
<td>47</td>
<td>29.7</td>
<td>50</td>
<td>32.6</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>934</td>
<td>949</td>
<td>837.8</td>
<td>930</td>
<td>2200</td>
<td>100</td>
</tr>
</tbody>
</table>

1 Bangladesh National Nutrition Council, Dhaka.
2 Ministry of Food, Dhaka.
বন্যাজন্মের দেশের দুর্ঘট অবস্থানের কারণ পুনর্বাসন কর্মসূচীতে বাংলাদেশ কৃষি বাণ্ডকের ভূমিকা

মৌত কৃষি হানা চৌধুরী*

সূচনা

আমাদের সকলেই জানি বাংলাদেশ একটি কৃষি প্রধান দেশ । ১,৪৭৭,৫৭০ বর্গ কিলোমিটার বিস্তৃত দেশটি ১৩৫.২ মিলিয়ন জনসংখ্যা (২০০৪ সাল পর্যন্ত) নিয়ে পৃথিবীর একটি অন্যতম বৃহত্তম জনবহুল দেশ । দেশের সীমিত ভূমিপ্রপেক্ষায় উপর ভূমি জমির প্রায় ৮০ ভাগ লোক বাস করে পশ্চিম এলাকায় । পশ্চিম এলাকার কৃষি উপর এদের জীবন নির্ভর করে হয় । মৌত প্রমাণিত শতকরা ৬২.৩০ ভাগ কৃষি প্রমাণিত সমাসার কৃষির নিয়োজিত । বাংলাদেশের মৌত চাষায়নোত্তর জমির পরিমাণ ২,০১২,৫৫৪ একর । ১৯% পরিবারের কোন বাড়িয়ে নেই, ১১.৬% পরিবারের শুধু বাড়ি আছে, কিন্তু চাষায়নোত্তর জমি নেই । ২২.৮% পরিবারের বাড়ি ও ০.৫০ একর পর্যন্ত চাষায়নোত্তর জমি আছে । ১৭.৭% পরিবারের বাড়ি ও ০.৫১ একর হতে ১.০০ একর পর্যন্ত চাষায়নোত্তর জমি আছে । কৃষিদর্শন পরিবারের সংখ্যা এক দিন দিন বেড়ে চলে যায় । এই অর্থনৈতিক উন্নয়ন ও সামাজিক স্থিতিশীলতা বাড়ানো হচ্ছে । দেশের বেশিরভাগ লোক দাতিদাতা সীমার মধ্যে বাস করে বিধায় একদিকে যেমন সমস্যা কম অন্যদিকে বিনিয়োগের হারও কম ।

পরিশীলিত ‘I’-তে ১৯৯৫-১৯৯৬ হতে ২০০৩-২০০৪ (সাময়িক) অর্থ বছর পর্যন্ত জনিত্ব এর সহিত সংঘর্ষ ও বিনিয়োগের হার দেখানো হলো ।

বাংলাদেশ একটি নদ-নদী বিহীন দেশ যেখানে ছোট-বড় ২৩০টি নদ-নদী রয়েছে । ফলে অতি বৃষ্টি, পাহাড়ী চাঁদ, মৌসুমী বাতাস প্রভৃতি কারণে বন্যা দেশটি ভেঙে যাওয়া হয়ে প্রতি বছরের নিত্য নিম্নমানীক ব্যাপার হয়ে উঠেছে । কখনো কখনো নীর্ধারিত দিন এমনকি মাসামাসি ধরে বন্যা দেখা দেয়া যায় । ফলে গবাদি পশু, শস্য, গাছ-গালা, বাজার, পশ-ঘাট, হাটবাজার চুক্তে পিয়ে অপরূপীয় ক্ষতি সাধিত হয় । কখনো কখনো বন্যার ফলে দুর্ভিক্ষের সৃষ্টি হয় । এক্ষেত্রে ১৯৭৪ সালের বন্যা পরবর্তী দুর্ভিক্ষের কথা একটি সুলভীয় দৃষ্টি হয় । বন্যাজনিত প্রাকৃতিক দূর্ঘটনার ফলে অপরূপীয় ক্ষতি দেশের পক্ষে অধিকাংশ সময় কাটিয়ে উঠা সম্ভব হয় না । অতীতে দেশের সরকারী সমস্ত ব্যবহার করে বন্যা মোকাবিলা সম্ভব না হওয়ার বিশেষ সাহায্য দেয়ার করা হয়েছে । আত্মসংরক্ষণ সরকারী সহযোগী ছাড়াও বিভিন্ন এন্ডিউর সহযোগী প্রচেষ্টা প্রচলন করে বন্যা মোকাবিলাসহ দেশের প্রাকৃতিক পুনর্নিরাম্য কাজ আশ্চর্যজনকভাবে সম্পন্ন করা সম্ভব হয়নি । ১৯৯৮ এর বন্যায়ও দেশের কৃষি সেক্টরের অপরূপীয় ক্ষতি সাধিত হয় ।

* মহাবাবুশ্রীক প্রশাসন, বাংলাদেশ কৃষি বাণ্ডক
বনায় হাজার হাজার কোটি টাকা আর্থিক ক্ষতি এ দেশের উপর মাঝারির বোঝা হয়ে দেখা দেয় এবং দেশের অর্থনীতিকে বাড়ানোর অভাব্য। কিছুরাই আনার কাছ মাঝারি ভাবে ব্যয় হয়, ফলে দেশের বাড়ানো উদ্যোগ বাধা প্রাপ্ত হয়। সম্প্রতি ২০০৪ সালের জুলাই মাসে ঘটে গেল সারা দেশে ভয়াবহ বনায়, এতে ফসলের অভূতপূর্ব ক্ষতি সাধিত হয়েছে।

২০০৪ সালে দেশের উন্মুক্ত দরকার অধিকাংশ জেলাতেই আর্থিক বৃদ্ধি এবং উজান থেকে নেয়া আগে পানিতে সৃষ্ট বনায় ১৩ আগস্টো ৪ পর্যন্ত দেশের সর্বমোট ৪৬টি জেলার ৩৩টি উপজেলার মধ্যে ৩০০টি উপজেলায় মাত্র প্রায় ৮৫,১১৬ হেক্টর (প্রায় ২১,০২,২৫২ একর) মালিক ভিত্তি ফসল বিনষ্ট হয়। এ বনায় জেলায় ৪৮.০৪ লক্ষ কৃষি পরিবার ক্ষতিগ্রস্থ হয়েছে এবং উন্মুক্ত আকারে ক্রিয়ার পরিমাণ পূর্বতন ৮,২৩,৭১৬ মেঝে টন। শাক প্রকৃতি ও বিভিন্ন ওষুধ প্রকৃতির ফসল ও ফসলের অন্যান্য ফসল ৩,৯৭,১৪৩ মেঝে টন এবং পাঁচ ৩,৭৫,৬৩১ বলে। টাকার অংশে ক্ষতির পরিমাণ পূর্বতন ২,২১১ কোটি ১৭ লক্ষ টাকা।

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মোট: ১৬৩২১.০০

সূত্র: কৃষি সম্প্রচারণ অধিকার, কৃষি মন্ত্রালয়, ২০০৪।
বন্যাজোর দূর্যোগ মোকাবিলায় সরকার কর্তৃক গৃহীত পদক্ষেপ

বন্যাজোর দূর্যোগ মোকাবিলায় সরকার তাৎক্ষনিক এবং জরুরী অনেকগুলি পদক্ষেপ গ্রহণ করছে। এ পদক্ষেপগুলোর মধ্যে ত্রাণ কার্যক্রম, কৃষকদের মাঝে বিনা মূল্যে বীজ, বীজের চারা, সার বিতরণ, ভিজিএফ কার্যক্রমের মাধ্যমে দুধ মানুষের মাঝে চাইল বিতরণ, নগদ অর্থসহ পানি, শকনা খাদ্য বিতরণ, ইত্যাদি বিশেষভাবে উল্লেখযোগ্য।

অতিরিক্ত বৃত্তাপদ ও উদাস থেকে নেমে আসা পানিতে সৃষ্ট বন্যায় ক্ষতিগ্রস্থ কৃষ্ণ ও গ্রামীণ কৃষকদের ফসল আবাদের উদ্দেশ্যে কৃষি পুনর্বাসন কর্মসূচী ২০০৪ এর আওতায় সরকার কর্তৃক যে সহায়তা দেয়া হয়েছে তার পরিসংখ্যান নিজ হ্রদ ’’ক’’তে দেখানো হলো।

উক্ত হ্রদ ‘’ক’’ পর্যালোচনায় দেখা যায় ২০০৪ সালের বন্যাজোর কৃষি পুনর্বাসনের আওতায় ক্ষতিগ্রস্থ কৃষ্ণ ও গ্রামীণ কৃষকদের মিছিল ফসল আবাদের জন্য সরকার বীজ, সার, পাকিং, পরিবহন এবং বিতরনের অনুমোদন কর্তৃক ব্যবহৃত হওয়া বা ব্যবহৃত ব্যবস্থা ১৬,৩২১.০০ লক্ষ টাকার অনুমান বরাদ্দ দিয়ে তা বিতরণের ব্যবস্থা করেছে।

বন্যাজোর কৃষি পুনর্বাসন কর্মসূচীর আওতায় ক্ষতিগ্রস্থ জেলা, জেলা ভিত্তিক ক্ষতি গ্রস্থ জমিদার পরিমাণ, কৃষি পরিবারের সংখ্যা, ফসল আবাদের লক্ষ্যমাত্রা এবং অর্থ বরাদ্দের পরিমাণ পরিমিত ‘’১১’’তে দেখানো হলো।

উপরের অনুমান হাজারও সরকার ইতিমধ্যে নিবেদিত পদক্ষেপ সম্মত গ্রহণ করেছে।

(ক) সকল রাষ্ট্রীয় ব্যাংকে, বাংলাদেশ কৃষি ব্যাংক ও রাজশাহী কৃষি উদ্যোগ ব্যাংকে বন্যা পুনর্বাসন কর্মসূচিতে সাফল্যপ্রাপ্ত করার লক্ষ্যে ক্ষতিগ্রস্থ কৃষকদের মাঝে প্রয়োজনানুযায়ী ঋণ প্রদানের পরামর্শ দেয়া হয়েছে।

(খ) ঋণ আদায়ের এর সময়সীমা আগামী এক বছর বৃদ্ধি করে কৃষকদের পুরুষের ঋণ পুনঃ তফসিলকরণ পূর্বক পুনঃ ঋণ প্রদানের নির্দেশ জারি করেছে।

(গ) সাইটরিমেট এবং অর্থ ঋণ আদায়ের কার্যক্রমে স্পষ্ট ঘোষণা করা হয়েছে।

(ঘ) তাছাড়া যে সকল ঋণ খাতকের বিরুদ্ধে প্রশাসনী পরীক্ষা জারি রাখে তার কার্যক্রমেও স্পষ্ট করা হয়েছে।

(ঙ) প্রতিম সময়ে সৃষ্টির সহিত যাতে ঋণ বিতরণ সম্পাদন করা হয় সে ব্যাংকের সকল অধিকারী ব্যাংককে পরামর্শ দেয়া হয়েছে।

(ঘ) দুরীতি রোড কর্তৃক কৃষ্ণ যাতে হয়রানীর শিকার না হয় সে লক্ষ্যে ভারতীয়/ মনিটরিং কার্যক্রম জেলার প্রশাসন এবং উপজেলা প্রশাসনকে ঋণ বিতরণ প্রতিযোগি সহিত সম্পৃক্ত করার হয়েছে।

(ঘ) জেলা ও উপজেলা কৃষি ঋণ কমিটির সভায় নির্মিত আহবান করে সুষ্টির ঋণ বিতরণ, সম্পাদন করার ব্যাপারে পর্যালোচনা ও প্রয়োজনে তাত্ক্ষনিক ব্যবস্থা গ্রহনের দিক নির্দেশনা প্রদান করা হয়েছে।
বন্যাজোর দূর্বোগ মোকাবিলায় কৃষি পুনর্বাসন কর্মসূচীতে কৃষি ঋণের দুর্বোগ

উৎপাদনের উপকরণগুলোর মধ্যে কৃষি ঋণ একটি অন্যতম উপকরণ। বিশেষ করে বন্যা অথবা অন্য কোন প্রাকৃতিক দূর্বোগের পর কৃষিকৃত্য ঘটনা হয়ে যায় তখন তাদের হাতে কোন নগদ অর্থ থাকে না। তখন বেঁচে থাকা তাদের জন্য দায় হয়ে দীঘড়া। সরকার হতে দান, অনুদান, খাদ্য সাহায্য যা পেয়ে থাকে তা অতি অস্পষ্ট মোকাবিলী সমাধান মাত্র। বন্যার পানি নেমে যাওয়ার সাথে সাথে শীত উৎপাদন গ্রহিত। শুন করার জন্য প্রচেষ্টা হয় হালনার বলদ, বীজ, সার, কীটনাশক উদ্ধি, সেচ ও প্রিমিকের মজুরী। তার নিকট নগদ অর্থ না থাকায় তার ঋণের প্রায়জনি হয়।

কৃষকদেরকে দূর্বোগ হতে থেকে যদি করার মানসে কৃষি ঋণের ওদূর বিচিত্র পুরুষ বাংলাদেশের বাহিনীর সাহ মনোক্ষয় রাষ্ট্রপতি জিয়াউর রহমান ১৯৭৭ সালে সুদূর প্রারম্ভ এক পরিকল্পনা প্রণয়ন করেন। তিনি বিশেষ কৃষি ঋণ কর্মসূচী (এস.এস.পিএইচি) নামীয় ১০০,০০ কোটি টাকার কৃষি ঋণ বরাদ্দ দিয়ে সকল রাষ্ট্রপতি ব্যাংকের কৃষি ঋণ বিতরণ কার্যক্রমে সম্পন্ন করে দেশের সকল ইউনিয়নের ক্ষেত্রে ও ব্যাংকের নিকটবর বরাদ্দ দেয়ার ব্যবস্থা করেন। পরবর্তী সময়ে রূপালী ব্যাংকসহ বিশেষ চক্র ব্যাংকের কৃষিকৃত্য ইউনিয়নের বাংলাদেশ কৃষি ব্যাংকে ও রাজশাহী কৃষি উদ্যোকন ব্যাংকের বরাদ্দ দেয়া হয়। ব্যাংক ভিত্তিক সরবরাহ বাণিজ্যিক ইউনিয়নের পরিসংখ্যান নির্দেশ করে ‘স’-তে দেয়া হলো।

### ব্যাংক ভিত্তিক বাণিজ্যের ইউনিয়নের পরিসংখ্যান

<table>
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<tr>
<th>নং</th>
<th>ব্যাংকের নাম এবং বাণিজ্যের ইউনিয়নের নাম</th>
<th>মাত্র এর সমস্ত বাণিজ্যের ইউনিয়নের হার</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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</tr>
<tr>
<td>2</td>
<td>রাজশাহী কৃষি উদ্যোকন ব্যাংক</td>
<td>৪৪৫</td>
</tr>
<tr>
<td>3</td>
<td>সানালী ব্যাংক</td>
<td>১১৭</td>
</tr>
<tr>
<td>4</td>
<td>জাহাঙ্গীর ব্যাংক</td>
<td>৭১৩</td>
</tr>
<tr>
<td>5</td>
<td>অর্থনীতি ব্যাংক</td>
<td>৭১০</td>
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</tbody>
</table>

সকল ব্যাংকের অন্তর্ভুক্ত ইউনিয়নের কৃষি ঋণ বিতরণ আবাহন রাখে। এই পরিকল্পনা বাংলাদেশের ধারাবাহিকতায় অস্থায়ী ব্যাংকগুলো কৃষিকৃত্যের মাধ্যমে কৃষি ঋণ বিতরণ করে যাচ্ছে। ফলে লক্ষ লক্ষ কৃষি ঋণের সুবিধা ডাকছে।

কৃষি ঋণ প্রাদেশের জন্য প্রতিষ্ঠানিকভাবে বাংলাদেশ কৃষি ব্যাংক, রাজশাহী কৃষি উদ্যোকন ব্যাংকসহ সরকারী মালিকানাধীন ব্যাংকগুলো কৃষিকৃত্যের সাহায্য করার কৃষি ভাষ্কর্যক চালু করে যাচ্ছে। নিয়ন্ত্রণ ‘স’-তে বিতরিত করার বছরের সকল ব্যাংকের কর্তৃক ঋণ বিতরণের লক্ষ্যমাত্রা, বিতরণ আদায় এবং বক্ষে স্থিতির পরিসংখ্যান দেখাচ্ছে।

এ প্রতিষ্ঠানগুলোর মধ্যে বাংলাদেশ কৃষি, রাজশাহী কৃষি উদ্যোকন ব্যাংক এবং বিভিন্ন কৃষি ঋণ প্রদানের ক্ষেত্রে বিশেষত ব্যাংকে বিশেষ বিশেষ ভূমিকা রেখে থাকে। সরকারও এই তিন প্রতিষ্ঠানের উপর বন্যায়ের যেকানি দূর্বোগ মোকাবিলায় কৃষি ঋণ বিতরণের ক্ষেত্রে বিশেষ দায়িত্ব দিয়ে থাকে।

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সকল ব্যাঙ্ক কর্তৃক বছর ভিত্তিক কৃষি ঋণ বিতরণের লক্ষ্যমাত্রা, বিতরণ, আদায় ও বকয়া ঋণের পরিসরিতি
(কোটি টাকা)

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<tr>
<th>অর্থ বছর</th>
<th>লক্ষ্যমাত্রা</th>
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১৯৯৮ সালে বন্যার কৃষি পুনর্বাসন এবং ব্যাঙ্ক পূর্ববর্তী বছরের তুলনায় যে অংশ হারের কৃষি ঋণ বিতরণ করেছে তার তুলনামূলক উন্নতি নিয়ন্ত্রণ ছিল 'য' উপস্থাপন করা হলো।

উক্ত তথ্য পর্যালোচনায় দেখা যায় বন্যার দূর্যোগ মোকাবিলার লক্ষ্যে প্রতিটি প্রতিষ্ঠানই পূর্ববর্তী বছরের তুলনায় বন্যার বছর ঋণ বিতরণ অর্থ হারে বৃদ্ধি করেছে। ব্যাঙ্কের ঋণ পৃষ্ঠায় নেয়ার জন্য ১৯৯৮ সালে সকল ব্যাঙ্ক একত্রে পূর্ববর্তী বছরের তুলনায় ঋণ প্রবাহ প্রায় ৮৪ ভাগ বৃদ্ধি করেছে।

১৯৯৮ সালে পূর্ববর্তী বছরের তুলনায় ব্যাঙ্ক ভিত্তিক ঋণ বিতরণের তুলনামূলক উন্নতি
(কোটি টাকা যাত্রায়)

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<th>১৯৯৮ সালে মোট কৃষি ঋণ বিতরণ</th>
<th>নবজীবন অংকের প্ররূপিত হার</th>
<th>প্ররূপিত হারের টাকা</th>
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*বছরের ভিত্তিক ঋণের সংখ্যা মোট বিতরণের সাহিত প্রতিষ্ঠান ভিত্তিক পরিসরি হার নির্দেশ করে।
উক্ত তথ্য আরো নির্দেশ করে যে বাংলাদেশ কৃষি ব্যাংক একাই মেট ঋণ বিতরণের প্রায় ৫৩% ঋণ প্রদান করেছে।

বাংলাদেশ কৃষি ব্যাংকের ঐতিহাসিক পটভূমি ও অর্থনৈতিক ওজন এবং অবকাঠামো

বাংলাদেশ কৃষি ব্যাংক গ্রাম বালার অর্থনৈতিক উন্নয়নে নিয়ন্ত্রিত একটি বিশেষায়িত আর্থিক প্রতিষ্ঠান। বর্তমান অবস্থানে আসার পিছনে এর এক অতীত ইতিহাস আছে। গ্রাম বালার গণমাধ্যম ক্ষেত্তরকে মাহাত্মা জ্ঞানজীবনের নিকট থেকে চড়া মুনে কৃষি গ্রাহকের হাত থেকে বাচানোর জন্য ১৯৫২ সালে তদনীন্তন পাকিস্তান সরকার কৃষি উন্নয়ন ব্যাংকের কর্তৃপক্ষ। এরনে এরপর ১৯৫৭ সালে পাকিস্তান কৃষি ব্যাংক (এবিপি) নামে অপর একটি সংস্থা জন্ম হয় যা ১৯৫৮ সালের প্রথম থেকেই কাজ শুরু করে। ১৯৬১ সালে এ দুটি রাষ্ট্রীয় সংস্থাকে একত্রিত করে পাকিস্তান কৃষি উন্নয়ন ব্যাংক (এবিপি) নামে আরেকটি সংস্থা প্রতিষ্ঠা করা হয়, যা বাংলাদেশ বালার হওয়ার সময় পর্যন্ত এ নামে তার কার্যক্রম পরিচালনা করে। ১৯৭১ সালের ১৬ই জিন্দাবাদ কৃষি সার্ভিস বাংলাদেশের অন্তর্গত যুগলে পাকিস্তান কৃষি উন্নয়ন ব্যাংককে বাংলাদেশ কৃষি উন্নয়ন ব্যাংককে নামে অভিলেখিত করা হয়। পরে ১৯৭৩ সালে রাষ্ট্রপতির ২৭নং আদেশ বলে এ ব্যাংকের নামকরণ করা হয় বাংলাদেশ কৃষি ব্যাংক (বিকিপি)। ব্যাংকের নামকরণের মধ্যে কৃষি বাংলাদেশ যায় এর উদ্দেশ্য ও কার্যক্রম ব্যাংকের অর্থনৈতিক অনুযায়ী যদিও ব্যাংকের কার্য পরিবেশে ব্যন্তসার্থ দৃষ্টি অবদান করে থাকে তথ্যপূর্ণ কৃষি এবং শাহ ও প্রান্তীয় এলাকায় কৃষিতে শিখ ও তৎসম্পর্কিত শিখে নিয়ন্ত্রিত ব্যবস্থার জন্যে চাহিদা পুরনীহ এ ব্যাংকের মূল উদ্দেশ্য। পরিচালনা পর্বত ব্যাংকের ব্যবসা পরিচালনায় বর্ণালী, ফার্মাল ও প্রাকৃতিক চারিদিকে শাখার গ্রামীন জনগণের উপর যথাযথস্থ ও সম্পূর্ণ আরোপে করে আসছে। সরকার ও বাংলাদেশ ব্যাংকের কর্তৃক সময় সময় জারিকৃত নিয়ন্ত্রণব্যবস্থায় ব্যাংকের নীতি নিষ্ঠার মূল ভূমিকা পালন করে।

বনাম খরা, অন্তর্বিশ্বাস, অন্তর্বুদ্ধি অর্থনীতিশীল প্রাকৃতিক দৃশ্যমানের পর পরই কৃষকদের পাশে দাঁড়িয়েছে ব্যাংকটি। থাকা করেছে যে তাদেরকে আর্থিক সহায়তা। এ দেশে বার বার সরকার পরিবর্তন হচ্ছে, প্রত্যেক সরকারই কৃষি ব্যাংকের গুরতু অনুষ্কারন করে গ্রাম বালার কৃষিকারের ভাগ্যনিহিতয়নের কৃষি ব্যাংককে দায়িত্ব প্রদান করেছেন। বাংলাদেশ কৃষি ব্যাংক যে যা দায়িত্ব পেয়েছে তখন তা যথাযথভাবে পালন শেষ হল।

আজ আমারা যদি কৃষি উন্নয়নের দিকে তাকান তবে কৃষি ব্যাংকের অবদানকে কেনাবোধচিত্ত খাটু করে দেখবে আমাদের মান্য হয় না। এর প্রমাণ পাওয়া যাবে কৃষি খামারের দিকে তাকায়, যেখানে যেখানে যা শহরের শহরেই, পালশি দেখা যায় পালশি খামার পালশি, অগতির নালকুপ আবার কোথাও বা কোথাও নালকুপ। এদের বেসরকারি ভারী স্বাপিত হয়েছে কৃষি ব্যাংকের খামার।

বাংলাদেশ কৃষি ব্যাংক এর (রাজশাহী বিভাগ বাদে) ৮টি বিভাগীয় কার্যালয়, ৫টি কার্যালয় নিয়ন্ত্রকা কার্যালয়, ৫১টি মূল্য অঞ্চলবিভাগ/অঞ্চলবিভাগ কার্যালয়, ৫১টি অঞ্চলবিভাগ নিয়ন্ত্রকা কার্যালয়, জেলা, মেলা ও ইউনিয়ন পর্যায়ে ব্যাংকের মোট ২০৮টি শাখা রয়েছে। এর মধ্যে ২৮টি শাখা পানি ইউনিয়ন ও বিশ্বাসসহ কর্তার পানি বাণিজ্যে অবস্থিত। ব্যাংকের প্রধান কার্যালয়ে ২৮টি বিভাগ, ৪টি মহাবিভাগ এবং ১টি ইঞ্জিনিয়ারিং ইনস্টিটিউট রয়েছে।
বাংলাদেশ ১৯৯৮ সালে বন্যার কৃষি পুনরুদ্ধারের সান্নিধ্যে বাংলাদেশ কৃষি ব্যাংক কর্তৃক গঠিত কর্মক্ষেত্র ও পদক্ষেপ

১৯৯৮-৯৯ অর্থ বছরের প্রথম দিকে দেশ এক নজরের বিরুদ্ধে কমিউনিস্ট বন্যার প্রবণতা হয়। দেশের প্রায় সকল এলাকাই বন্যা কর্মক্ষেত্র হয়ে পড়ে। দারুণভাবে কষ্টপ্রবণ হয় দেশের কৃষি খাত এবং কৃষক। এতে দেশ এবং রাষ্ট্রের

এক নজরে বিকল্পীর সর্বমোট মূল্য/আঞ্চলিক ও শাখার বিভাগাধীন জনসাধারণের পরিসংখ্যান

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* বন্যা যাতে মুখ্য নজরীয় ব্যাংক হিসেবে বাংলাদেশ ব্যাংক বিভাগের অন্যতম সমাধান প্রদান করে।

অনেকেই উৎসাহিত হয়েছিলেন এবং আর্থিক সংস্থা হতে এই মর্মে আশ্রয় করা হয়। এই গুরুত্বপূর্ণ কর্মকর্তার সফল ব্যবহারের মাধ্যমে দেশের একটি গুরুত্বপূর্ণ কর্মকর্তা হতে রক্ষণাবেক্ষণ এই সমস্যা সমাধানের জন্য নেওয়া হয়। বন্যা সরকারের প্রায় ২ কৃষি পুনরুদ্ধারের মাধ্যমে সেহে একটি সম্পূর্ণ বিভাগের হাত হতে ব্যাংক ব্যাংক সরকারে অপরিমেয় ভূমিকা পালন করে। বন্যার কৃষকাদের সরবরাহ হয় পাদায় বন্যার পরবর্তী সময়কালে ফলস্বরূপ উপাদানের জন্য সেচ, মার, গ্রামগুলো, মোটামুটিভাবে প্রতিষ্ঠান হয়ে তাদের সমস্যার সমাধান ছিল। কিছু চিন্তা প্রলঘনকারী ব্যাংকের পর কৃষি ব্যাংকের পর কৃষিপত্র মূল্য এবং সময় যোগ প্রদান করে পরবর্তী ফসল উৎপাদনে উদ্ধৃত হয় এবং সন্তানের প্রতিষ্ঠান মাধ্যমে দেশকে বাংলাদেশ ফলস্বরূপ উপাদান দেয়। এর ফলে খাদ্য
শাসন সকল নিতা-প্রয়োজনীয় দ্বারের মূল্য চিহ্নিত থাকে। কৃষি ব্যাংকের বন্যাতের ঋণ বিতরণের অর্জিত সাফল্য বিভিন্ন কোর্ট্রাম/সভায় আলোচিত এবং প্রণীত হয়। সুতরাং এ কথা সহজেই উপলব্ধি করা যায় যে, ব্যাংকের কৃষি ঋণ বিতরণ কার্যক্রম দেশের কৃষি অর্থনীতিতে কৃষি ব্যাংকের গ্রহণযোগ্যতা ও অপরিহার্যতা প্রতিষ্ঠিত করেছে। এই ফলাফলের সর্বাংশ অন্যায় রট্টায়ভূত বাণিজ্যিক ব্যাংকের শাখার সম্প্রসারণের উপর নিষেধাজ্ঞা বহাল রাখলেও কৃষি ব্যাংকের উপর থেকে এই নিষেধাজ্ঞা উঠিয়ে নেওয়া যায়।

নীচে ১৯৮৮-১৯ অর্থ বছরে বন্যাতের ঋণ বিতরণ কার্যক্রম ব্যাংকের গুরুত্বপূর্ণ পদক্ষেপপূর্ণ উপস্থাপন করা হলো।

- ঋণ বিতরণ লক্ষণমাত্রা ১৫০০.০০ কোটি টাকা থেকে বাড়িয়ে ১৩৭৫.০০ কোটি টাকা পুনঃ নির্ধারণ করা হয়।
- বাণিজ্যী কৃষি জাতীয় ব্যাংকের ঋণ বিতরণ নিষিদ্ধ করা হয়।
- কৃষি ভাইমূর্তি যাতে বিনা হারানীতে এবং ডান ঋণ পান নে ব্যাঙ্কের কর্ড্র গুরুত্বপূর্ণ পদক্ষেপপূর্ণ। চিঠি, চিন্তা, সংবাদপত্র, পেপ্পার, নিফিলেট প্রস্তুতির মাধ্যমে ব্যাঙ্ক প্রচারের ব্যবস্থা করা হয়।
- অর্থনীতির হারে নমুনা ঋণ গ্রহীতাকে ঋণ কর্মসূচীর আওতায় অন্যায় সাধন করা হয়।
- ব্যাংকের ১৭০টি প্রাধান্য শাখা ছাড়াও ১৭৪টি বুড়ির মাধ্যমে কৃষি ঋণ বিতরণ কার্যক্রম পরিচালনার ব্যবস্থা করা হয়।
- বন্যার ক্ষতিগ্রস্থ কৃষিকাদের সুবিধায় ১৫,০০/- টাকা পর্যন্ত কৃষি ঋণ পুনঃ তফসিল করে পুনরায় ঋণ প্রদানের ব্যবস্থা নেওয়া হয়।
- প্রধান কার্যালয়ে বিশেষ অভিযোগ কেন্দ্র ও বিভাগীয় কার্যালয় সহযোগে অভিযোগ কেন্দ্র স্থাপনের মাধ্যমে তাপ্রাপ্য অভিযোগপূর্ণ ও নিম্তির নতুন ব্যবস্থা নেওয়া হয়।
- ঋণ বিতরণে চূড়ান্ত ও জীবন্তদিনা নিষিদ্ধ করার লক্ষ্যে জেলা প্রশাসক ও উপজেলা নির্বাহী অফিসারদের ঋণ বিতরণ কার্যক্রম সম্পৃক্ত করা হয়।
- প্রধান কার্যালয়ে গঠিত ঠাকুর ফোসে ঋণ বিতরণ, আদায় ও আমানত সংস্থার কর্তৃক করার জন্য নিয়মিতভাবে রূপ করে।
- সর্বোপারি ব্যবস্থাপনা পরিচালনার সার্বিক তত্ত্ববোধনে প্রধান কার্যালয় থেকে ঋণ বিতরণ, ঋণ আদায় ও আমানত সংস্থার কর্তৃক নিয়মিত মন্তব্যিং করা হয়।

উপরোক্ত ব্যবস্থাদি গ্রহণের ফলে ১৯৮৮-১৯ অর্থ বছরে বন্যাতের কৃষি পুনর্বসন তথা কৃষি ঋণ বিতরণের ফেরতে ব্যাংক অকুচ্ছেদ্য সাফল্য অর্জন করে। ১৯৮৮-১৯ অর্থ বছরের মূখ্য যাত্রা হতে বিশেষ ঋণ বিতরণের বাংলা নিচে হাত-৩”-তে উপস্থাপন করা হলো।

পুরনো উল্লেখ করা হয় যে, বন্যাতের কৃষি ঋণ বিতরণ কার্যক্রমের একটি উল্লেখযোগ্য দিক হলো অর্থ কর্তৃক কর্তৃক প্রতিষ্ঠা ও নূতন ঋণ গ্রহীতাকে ঋণ কর্মসূচীর আওতায় অন্যায়। নীচে ১৯৮৮-১৯ অর্থ বছরে বর্গাচারী ও নক্ত্ুন ঋণ গ্রহীতার মধ্যে ঋণ বিতরণের পরিসংখ্যান তুলনা ধরা হলো।
1998-99 অর্থ বছরের খাত ভিত্তিক খণ্ড বিতরণ

<table>
<thead>
<tr>
<th>নং</th>
<th>খণ্ড নাম</th>
<th>বিতরণ লক্ষমাত্রা</th>
<th>অর্জন</th>
<th>শতকরা হার</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ক্ষীরণ</td>
<td>581.56</td>
<td>811.33</td>
<td>119%</td>
</tr>
<tr>
<td>2</td>
<td>ছোট উৎপাদন</td>
<td>183.44</td>
<td>183.65</td>
<td>95%</td>
</tr>
<tr>
<td>3</td>
<td>চিনো আলু সংরক্ষণ</td>
<td>36.32</td>
<td>49.84</td>
<td>137%</td>
</tr>
<tr>
<td>4</td>
<td>মৎস্য সরবর (চাষ ও প্রতিষ্ঠান)</td>
<td>19.94</td>
<td>11.47</td>
<td>58%</td>
</tr>
<tr>
<td>5</td>
<td>পশ সরবর (পাপটি ও ডাকাতীরসহ)</td>
<td>59.77</td>
<td>66.34</td>
<td>111%</td>
</tr>
<tr>
<td>6</td>
<td>সেচ ও খামার যুক্তার্থ</td>
<td>10.00</td>
<td>3.30</td>
<td>30%</td>
</tr>
<tr>
<td>7</td>
<td>অর্থ-সামাজিক কর্মকাণ্ড</td>
<td>12.78</td>
<td>10.23</td>
<td>74%</td>
</tr>
<tr>
<td>8</td>
<td>চালিত মূলধন/বাণিজ্যক্রান্তী খণ্ড</td>
<td>12.66</td>
<td>11.94</td>
<td>95%</td>
</tr>
<tr>
<td>9</td>
<td>কৃষি বিভিন্ন শিল্প/ব্যবসা</td>
<td>30.17</td>
<td>9.09</td>
<td>30%</td>
</tr>
<tr>
<td>10</td>
<td>অন্যান্ত</td>
<td>31.18</td>
<td>119.59</td>
<td>383%</td>
</tr>
<tr>
<td>মোট</td>
<td>1257.50</td>
<td>1590.23</td>
<td>116%</td>
<td></td>
</tr>
</tbody>
</table>

1998 সালে বন্যাহাতের কৃষি পুণর্নির্মাণ এবং দেশকে একটি সন্তান বিপর্যয়ের কবল থেকে রক্ষা করার প্রস্তাবনা কৃষি ব্যাংকের ভূমিকা ছিল ওঠাধুলু। ফসল উৎপাদন, পশমিয়াহ সংরক্ষণ, মৎস্য চাষ, ইস-মূলধন পার্শ্বনাথের খামার, অর্থ-সামাজিক কর্মকাণ্ড প্রকৃতির খাতে চাহিদানুসারিয়ে খণ্ড বিতরণ করা।

(কোটি টাকায়)

<table>
<thead>
<tr>
<th>নং</th>
<th>কর্মক্ষেত্র</th>
<th>সংযোগকার পরিমাণ মোট খণ্ড বিতরণ</th>
<th>পরিমাণ এ খণ্ড বিতরণ</th>
<th>পরিমাণ এর পরিবর্তন অর্জন率মόন</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>বর্গজাতীয় খণ্ড বিতরণ</td>
<td>820.47</td>
<td>27.70</td>
<td>852.98</td>
</tr>
<tr>
<td>2</td>
<td>বড়ক খণ্ড হংসিতাদের খণ্ড বিতরণ</td>
<td>902.43</td>
<td>75.25</td>
<td>95.28</td>
</tr>
<tr>
<td>3</td>
<td>পুরাতন খণ্ড হংসিতাদের পুরুষ খণ্ড বিতরণ</td>
<td>553.42</td>
<td>852.98</td>
<td>1590.23</td>
</tr>
<tr>
<td>4</td>
<td>মোট খণ্ড বিতরণ (২+৩)</td>
<td>1255.48</td>
<td>1590.23</td>
<td>116%</td>
</tr>
</tbody>
</table>

সূত্র : ৪ শাখার নিয়ন্ত্রণ বিভাগ, বিকেবি, প্রকা, ডা. (২০০৪)

হয়েছে। এ কারণে প্রশ্নান্তর সমস্ত শাখায় প্রধান প্রধান তথ্যকরণ দ্বারা আশা একটি উৎপাদন হওয়া বন্যারকালে নিতা প্রধান হাদিদ দুর্বলভা হয়ে জনগণের দূর করা বাইরে চলে যায় যে অপর্যালো করা হয়েছিল তা অনুরূপ প্রতিভাত হয়েছে। দেশে চাষের মূল্য বিতর্কীল থেকেছে এবং বাজারের শাখা-সংক্রান্তি, ভিড়, দুঃখ ইত্যাদির সৃষ্টি পরিমাণে থেকেছে। কৃষির কর্তব্য বজ্রলতা ফিরে এসেছে। ইতেমেতে অর্থ বছরের প্রথম সংস্করণ হয়ে এসেছে। তবুও অর্থনীতির এই অনুরূপ পরিবর্তনিকে কাম্বিয়া লাগিয়া ঐ শক্তি সঙ্গের জন্যই ব্যাংকের খণ্ড আদায় ও আহ্মান কর্ক অভিযান জোরদার করা হয়। অর্থ বছরের শেষ দুই মাসের ব্যাংকের প্রশিক্ষণ কর্মশীলি ও নিরীক্ষণ কর্মস্থলে সংরক্ষিত করে উক্ত কর্তৃ নিয়ন্ত্রণ কর্মক্ষমতা /কর্মচারিদেরকে কাজে লাগানো হয়। খণ্ড আদায় কর্মক্ষমকে সাক্ষ্যমূলক লক্ষ্য করে, ঐ শক্তিসঞ্চয় সময়ে সর্বাধিক প্রচেষ্টায় কলে ব্যাংক এই প্রথমান্তরের মত খণ্ড আদায়ের লক্ষ্য 100% এর বেশী অর্জন করতে সক্ষম হয় এবং আহ্মান সঙ্গে বিপরীত বছরের খণ্ডসাময়িক সর্বোচ্চ সাফল্য অর্জন করে।
১৯৯৮-৯৯ অর্থ বছরে বাংলাদেশ কৃষি ব্যাংক ব্যবস্থাপনায় পূর্ববর্তী বছরের অপরাজেয় অর্থ প্রবর্তন মিলিত হয়েছে যে পরিমান খাঁটি বরাদ্দ ও বিতরণ করেছে তার তুলনামূলক চিহ্নিত ছুকু ‘H’-তে উপস্থাপন করা হলে।

সামাজিক বহুরূপিতে কৃষি ব্যাংকের কার্যক্রমের পর্যালোচনা ও মূল্যায়ন

প্রতিষ্ঠানগুলো কেবল বাংলাদেশ কৃষি ব্যাংক, এর উপর অর্থ দায়িত্ব যথাযথভাবে পালনে সমর্পিত রয়েছে। সামাজিক বহুরূপিতে ব্যাংকের নেতৃত্ব এবং পরিচালনা কর্মকাণ্ডের জনপ্রিয়তা মানের ব্যাপক

(কোটি টাকায়)

<table>
<thead>
<tr>
<th>বছর</th>
<th>লক্ষমায়া</th>
<th>অর্জন</th>
<th>অর্জনের হার</th>
</tr>
</thead>
<tbody>
<tr>
<td>১৯৯৭-৯৮</td>
<td>৮৫০.০০</td>
<td>১০০০.০০</td>
<td>৮৫.০০%</td>
</tr>
<tr>
<td>১৯৯৮-৯৯</td>
<td>১৩৭৫.০০</td>
<td>১৫৯০.২৩</td>
<td>১১৬.০০%</td>
</tr>
<tr>
<td>সর্বমোট</td>
<td>৩৩৭৫.০০</td>
<td>৭৪০৮.৮১</td>
<td></td>
</tr>
</tbody>
</table>

সূত্র: বাংলাদেশ ব্যাংক, মূল্যায়ন কর্মকাণ্ড, ঢাকা (২০০৪)

পরিবর্তন সাবিত হয়েছে। ফলশ্রুতিতে বিগত সকল সময়ের ক্রেতার রক্ষণ করে সামাজিক সময়ে খাঁটি বিতরণ, খাঁটি আদায় এবং আদায় সংগ্রহের লক্ষমায়া অর্জনে ব্যাংক উল্লেখযোগ্য সাফল্য অর্জন করেছে।

এই সাফল্য পরিবর্তন ভাবে এবং লক্ষমায়ার বিপরীতে উভয় দিক দিয়ে অর্জিত হয়েছে। নিচে বিগত পাঁচ বছরের খাঁটি বিতরণ, আদায় এবং আদায় সংগ্রহে ব্যাংকের অর্জিত সাফল্যের চিহ্নিত ঘটনার ছুকু ‘R’, ‘S’, ‘T’-তে এবং প্রায় সময়ের পর থেকে হাল সন পর্যন্ত (১৯৭১-৭২ থেকে ২০০৩-২০০৪) খাঁটি বিতরণ, খাঁটি আদায়, আদায় ত্বরিত, মেয়াদৌলীর খাঁটি এবং অনন্যায়ী খাঁটির হার পরিষ্কৃত IV- তে উপস্থাপন করা হলো।

খাঁটি বিতরণের ক্ষেত্রে পৃথিবীর পদ্ধতিসমূহ

- দুটি ও ক্রমিকভাবে খাঁটি খাঁটি বিতরণের পদক্ষেপ গ্রহণ।
- খাঁটি খাঁটি বিতরণ প্রতিনিধিত্ব সহজীন্ত।

<table>
<thead>
<tr>
<th>বছর</th>
<th>লক্ষমায়া</th>
<th>অর্জনাভিক হার</th>
</tr>
</thead>
<tbody>
<tr>
<td>১৯৯৯-২০০০</td>
<td>১৫৫০০০</td>
<td>১৫৩৯৩৭ (৬৩.১৯%)</td>
</tr>
<tr>
<td>২০০০-০১</td>
<td>১৫৩৮২৭</td>
<td>১৭৮২৩৬ (১১৬%)</td>
</tr>
<tr>
<td>২০০১-০২</td>
<td>১৬০০০০</td>
<td>১৫০৩১৮ (৯৮%)</td>
</tr>
<tr>
<td>২০০২-০৩</td>
<td>১৬০০০০</td>
<td>১৬৮৬৭৭ (১০৪%)</td>
</tr>
<tr>
<td>২০০৩-০৪</td>
<td>১৯০০০০</td>
<td>১৯৪৫১৪ (১০৩%)</td>
</tr>
</tbody>
</table>

*বছরের ভিতরের সংখ্যা পূর্ববর্তী বছর অপরাজেয় ঐ বছরে খাঁটির লক্ষমায়ার হার নির্দেশ করে।
• দ্রুত ও সরাসরি চার্চ ভাইয়ের কাছে খাদ্যের অর্থ পৌছানোর ব্যবস্থা করা।
• বর্গাচারীদের /গ্রামিক চার্চীদের কৃষি খাদ্য কর্মসূচির আওতায় আনান।
• সুষ্ঠু খাদ্য বিতরণ তদারকীর জন্য নিয়ন্ত্রকারী কর্মকার্যসমূহের কর্মকর্তাদের নিয়ে ভার্মাণ তদারকী দল গঠন।
• ব্যাংকের ঘরে ঝাড়া রুদ্ধ মাধ্যমে খাদ্য বিতরণ কার্যক্রম পরিচালনা।
• কৃষি খাদ্য দ্রুত পুনর্তফিল করে পুনর খাদ্য প্রদানের ব্যবস্থা গৃহণ।
• প্রধান কর্মালয়ে গঠিত বিশেষ অনিয়ম কেন্দ্র এবং ভিতরের কর্মহার্মসমূহের অনিয়ম কেন্দ্রের মাধ্যমে অন্তর্দিক ভিত্তিতে খাদ্য বিতরণ সংক্রান্ত অনিয়ম দ্রুত নিষ্পত্তির ব্যবস্থা নেয়া।

<table>
<thead>
<tr>
<th>খাদ্য আদায় পরিস্থিতি</th>
<th>(কোটি টাকা)</th>
</tr>
</thead>
<tbody>
<tr>
<td>অর্থ বছর</td>
<td>লক্ষ</td>
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<tr>
<td>১৯৯৯-০০</td>
<td>১৩০০.০০</td>
</tr>
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<td></td>
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</tr>
<tr>
<td>২০০০-০১</td>
<td>১৪০০.০০</td>
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<td>২০০১-০২</td>
<td>১৫০০.০০</td>
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<tr>
<td>২০০৩-০৪</td>
<td>১৬০০.০০</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

খাদ্য আদায় কর্মক্ষমের জন্য গৃহীত পদক্ষেপ সমূহ

• খাদ্য আদায় কলেক্টরর সামর্থ্য নির্দেশনা জারী করা।
• খাদ্য আদায় কর্মক্ষমের জন্য কর্মকর্তাদের বহির্ভাগ পাক্ষিক বিভিন্ন জারী করে পরামর্শ প্রদানের ব্যবস্থা নেয়া।
• খাদ্য বিতরণের পাশাপাশি খাদ্য আদায়ের উপর সম্পর্কে পর্যালোচনা করে বাস্থাপনা পরিচালনকের দৃষ্টিতে শাখার ব্যবস্থাপনায় বিভিন্ন কর্মকর্তাদের ডিকে পর্যালোচনা করা।
• খাদ্য প্রশিক্ষণের মাধ্যমে খাদ্য প্রাপক প্রচারণা চালানোর জন্য গুরুত্ব সম্পর্কে টেলিফোন, লিমিটেট ছাপানো ও বিষয়ের ব্যবস্থা করা।
• খাদ্য আদায় কর্মক্ষমের সামগ্রিক অজীবন জন্য অধিক হারে খাদ্য আদায় ক্যাম্পে এর মাধ্যমে সংযোগের আয়োজন করা।
• ছাত্রীর প্রশিক্ষণ, যেমন- জেলা প্রশাসন, উপজেলা বিভাগ, জেলা নির্বাহী অফিসার, ইউপি চোরামান/মেয়াদের সহায়তা এর মাধ্যমে খাদ্য আদায়ের ব্যবস্থা নেয়া।
• খাদ্য খেলাপকারীদের সাথে ঘন ঘন ব্যাপিত যোগাযোগ করা।

| খাদ্য আদায় বছর | লক্ষ | জড়ি | শতকরা হার |
|-------------------|----------------|
| ১৯৯৯-০০ | ১৩০০.০০ | ১৫১৯.৬৪ | ১১৭% |
| | | (৩৫.৮৭) | |
| ২০০০-০১ | ১৪০০.০০ | ১৬৬১.৬১ | ১১৯% |
| | | (৯.৩৪) | |
| ২০০১-০২ | ১৫০০.০০ | ১৭৩২.৩০ | ১১৫% |
| | | (৪.২৫) | |
| ২০০২-০৩ | ১৭০০.০০ | ১৯২০.৩৪ | ১১৩% |
| | | (১০.৮৫) | |
| ২০০৩-০৪ | ১৬০০.০০ | ১৪৫৭.৭৫ | ৯২% |
| | | (-২৩.৬৭) | |
• খান আদায়ের অংশগত নিয়মিত ও নিবিড়ভাবে পরিধানের ব্যবস্থা নেয়া।
• খান আদায়ের ব্যাপারে সহযোগীতা করার জন্য সংস্থাপন মজ্জনালয় থেকে জেলা প্রশাসনের পর দেয়ার উদ্যোগ নেয়া।
• খান আদায়ের জন্য গৃহীত মাত্র পরিষেবার কার্যক্রম নিয়মিত তদারকী করার জন্য প্রধান কার্যালয়ের উচ্চ পরিষেবার কর্মকর্তাদের নিয়ে ট্রফো ফোর্স গঠন করে তাদের মধ্যে অঞ্চল বক্তন করে দিয়ে মাত্রে প্রেরণ করা।
• খান আদায় কার্যক্রমকে আরো পরিশীল করার জন্য বিশেষ খান আদায় জোর গ্রেপ্তাম চালু করা।

বাংলাদেশ কৃষি ব্যাংকের বিগত ৫ বছরের বছর ভিত্তিক শ্রেণী বিন্যাসিত খাদ্যর ও প্রতিষ্ঠানের বিবরণ পরিকল্পনা- V-তে এবং অর্থ খান আদালতে মামলা দায়ের এবং নিপত্তিত মাধ্যমে খান আদালের পরিসংখ্যান পরিকল্পনা-VI-তে দেখানো হলো।

<table>
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<tr>
<th>বছর</th>
<th>লক্ষমাতা</th>
<th>অর্জন</th>
<th>শতকরা হার</th>
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</thead>
<tbody>
<tr>
<td>১৯৯৭-০০</td>
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<td>৭৫০.৩৯</td>
<td>১৮৮%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(১১৪.৫৭)</td>
<td></td>
</tr>
<tr>
<td>২০০০-০১</td>
<td>৪৫০.০০</td>
<td>৭২৬.২৫</td>
<td>১৬১%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-৩.২২)</td>
<td></td>
</tr>
<tr>
<td>২০০১-০২</td>
<td>৫৫০.০০</td>
<td>১৫৪.২৩</td>
<td>২৮%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-৭৮.৭৬)</td>
<td></td>
</tr>
<tr>
<td>২০০২-০৩</td>
<td>৪০০.০০</td>
<td>৪২০.৮৩</td>
<td>১০৫%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(১৭২.৯২)</td>
<td></td>
</tr>
<tr>
<td>২০০৩-০৪</td>
<td>৪৫০.০০</td>
<td>৫১০.৫৮</td>
<td>১৩৩%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(২১.৩০)</td>
<td></td>
</tr>
</tbody>
</table>

* বক্ষীর ভিত্তির সংখ্যা পূর্বক্ষী বছর অপেক্ষা ঐ বছরের বৃহত্তির শতকরা হার নির্দেশ করে।

আমানত সংগঠন পরিসংখ্যান

- আহকে দেবার মান উন্নয়নের ব্যবস্থা করা।
- শাখার আওতাধীন আমানতকারী ও সদস্য আমানতকারীদের তালিকা প্রণয়ন করে তাদের সাথে নিয়মিতভাবে ব্যক্তিগত যোগাযোগ স্থাপন।
- প্রতি শাখার ডিপোজিট ডেভেলপমেন্ট নথি সংরক্ষণ।
- পপীর অঞ্চলের ফুড কুন্ড আমানত সংগঠন অভিযান জেরোনারকরণ।
- শাখার আওতাধীন বিদেশ অবস্থানিত বাংলাদেশীদের ঢিকনা সংগঠহ করে তাদের সাথে পত্র যোগাযোগ করা।
- নতুন আমানত সংগঠন অভিযান জেরোনারকরণ।
- নিয়ন্ত্রণকারী কার্যক্রমসমূহের কর্মকর্তা/কর্মচারীদেরকে আমানত সংগঠন লক্ষ্য প্রদান।
কৃষি মাটির বিক্রয় জন্য বাংলাদেশ কৃষি ব্যাংকের খাতাভিত্তিক বিনিয়োগের চিহ্ন (কোটি টাকা)

<table>
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<th>অর্থ বছর</th>
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<th>মূল্য</th>
<th>কৃষি চলমান</th>
<th>দামীরা</th>
<th>অন্যান্য</th>
<th>মোট</th>
<th>কর্মসূচী</th>
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<td>১৩৬.৬৪</td>
<td>১৯৯.৫২</td>
<td>২৮৯.০২</td>
<td>২৮৯.০২</td>
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<tr>
<td>১৯৮৯-৯০</td>
<td>৭৫.৪৫</td>
<td>২.৮৩</td>
<td>২২.৬২</td>
<td>১৩৪.৮১</td>
<td>১৫৭.৬৬</td>
<td>২৭২.৪৮</td>
<td>৩৭২.৪৮</td>
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<td>১৯৯০-৯১</td>
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<td>২২.৬২</td>
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<td>১৫৭.৬৬</td>
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<td>১৫৭.৬৬</td>
<td>২৭২.৪৮</td>
<td>৩৭২.৪৮</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

সুরু ৫ শাখা উল্লেখিত বিভাগ, বিশেষ প্রাপ্তবয়স্ক, বিপ্র, ধনাদি বাবরিয়া, ডাক।

উষ হয় বলাবলোচনা দেখা যায় বাংলাদেশ কৃষি ব্যাংকের খাতেই উল্লেখযোগ্য পরিমাণে অর্থ বিতরণ করেছে এবং প্রতি বছরই অর্থ প্রদানের হার বৃদ্ধি পেয়েছে বিশেষ করে শাখায়, মাটি, পশুপলন, সেচ তুলনারূপ, গাজার বহনান্তরীন ও কৃষি ভিত্তিক শিল্পে বিনিয়োগের হার উল্লেখযোগ্য হারে বৃদ্ধি পেয়েছে।

একটি বিষয় বিশেষভাবে উল্লেখ যে, মাটি ও পশু পলন খাতের বিনিয়োগের পরিমাণ প্রায় তুলনামূলক হারে বৃদ্ধি পেয়েছে। অন্যদিকে আক্কেলা অর্থে বিষয় কৃষি ব্যাংক বিশেষ কৃষিক প্রকল্পে পাইছে। প্রকল্প থেকে বাংলাদেশ কৃষি ব্যাংকের বিনিয়োগ ৫ বছরের অর্থ কর্মক্ষেত্রের চিহ্নে নিয়মে হয় না- বেলখ উপস্থাপন করা হলো।
পাদটীকা

১। উক্ত তথ্য পার্থিবতায় দেখা যায় বাংলাদেশ কৃষি ব্যাংক পোস্ট্র খাতেক একটি অগ্রাধিকার খাতে বিভিন্ন  ক্রম ব্যবহার করা হয়। ১৯৯৯-২০০০ অর্থবছরে এই খাতে মোট পরিমান ৫৬.৬৫ কোটি হয়। ২০০৩-২০০৪ অর্থবছরে এই খাতে মোট পরিমান ১১২.২৬ কোটি হয়।

২। অন্যান্য ক্রম ব্যবহার ব্যাংক পোস্ট্র খাতে ৩৬% বছর রয়েছে। ১৯৯৯-২০০০ অর্থবছর এ হার ছিল ৬৬% যা ২০০৩-২০০৪ অর্থবছরে ১৮% হ্রদে আসে।

মাইক্রো ক্রেডিট আওতায় দারিদ্র বিমোচন বাংলাদেশ কৃষি ব্যাংক

বাংলাদেশ কৃষি ব্যাংক গতানুগতিকভাবে যাদের চাষোধা জমি আছে এমন কৃষকদেরকে জমানত বিভাগ শস্য উৎপাদন ক্ষমতা জমানতের বিপরীতে হালের বলদ, সেচয়ন, খামার যত্নপাতি, প্রকৃষ্ট খাদ্য ও অন্যান্য খাতে ক্ষতি প্রদান করে থাকে। সরকার ভূমিভীষণ ও প্রাক্তন চাষীদের কথা চিত্র করে বাংলাদেশ কৃষি ব্যাংক মাইক্রো ক্রেডিটর আওতায় দারিদ্র বিমোচন কর্মসূচী বাস্তবায়নের মাধ্যমে হত দারিদ্র জনগোষ্ঠীর অন্তর্নিহিত উন্নয়নে বিশেষ অবদান রেখে আছে। বাংলাদেশ কৃষি ব্যাংক এ যাত্র মাইক্রো ক্রেডিট আওতায় দারিদ্র বিমোচন কর্মসূচীর বাস্তবায়ন করেছে। কর্মসূচী ভিত্তিক খাদ্যের পরিসংখ্যান পরিকল্পনা 'VII' গুলোকে উপস্থাপন করা হলো।

২০০ খণ্ড পার্থিবতায় দেখা যায় বাংলাদেশ কৃষি ব্যাংক ২৩টি দারিদ্র বিমোচন খাদ্য কর্মসূচীর আওতায় প্রায় ১৪.০০ লক্ষ ভূমিভীষণ ও প্রাক্তন চাষীকে ৯৮৩.৭০ কোটি টাকা অর্থায়ন করেছে (যারা কৃষি
বাংলাদেশের গণনুসারিত ক্ষুদ্র বর্ধিত আওতায় ক্ষুদ্র সুবিধার বর্ধিত ক্ষুদ্র পুনর্নির্দেশ বাংলাদেশ

ক্ষুদ্রবাজারের গণনুসারিত ক্ষুদ্র বর্ধিত আওতায় ক্ষুদ্র সুবিধার বর্ধিত ক্ষুদ্র পুনর্নির্দেশ বাংলাদেশ

ক্ষুদ্রবাজারের গণনুসারিত ক্ষুদ্র বর্ধিত আওতায় ক্ষুদ্র সুবিধার বর্ধিত ক্ষুদ্র পুনর্নির্দেশ বাংলাদেশ

বাংলাদেশ ক্ষুদ্র বাজারের বিপদ তিন বছরের লাভ লোকসানের চিত্র নিকে উপস্থাপন করা হলো।

বাংলাদেশ ক্ষুদ্র বাজারের বিপদ তিন বছরের লাভ-লোকসানের চিত্র

(কোটি টাকায়)

<table>
<thead>
<tr>
<th>অর্থবছর</th>
<th>গ্রামিক নং</th>
<th>লাভ(+)</th>
<th>লোকসান(-)</th>
</tr>
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<td>১</td>
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<td>(-) ১৩৫.২৮</td>
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</tr>
<tr>
<td>২০০৩-২০০৪</td>
<td>৩</td>
<td>(-) ১৪০.৭৬</td>
<td></td>
</tr>
</tbody>
</table>

• ২০০২-২০০৩ অর্থ বছরের পূর্বের বছরের চেয়ে ৫৮.৬৬ কোটি টাকা লোকসান করেছে।
• ২০০৩-২০০৪ অর্থ বছরের কর্মী/কর্মচারীদের ১০% মহাব্রহ্ম সচনাও এবং সুবিধার উপর সুরের হার কমানোর ফলে লোকসান বিশেষ বৃদ্ধি পায়।

১৯৫৪ সালের ব্যাঙ্কের সুরুষ্ক লোকালয় বাংলাদেশ

ক্ষুদ্র বাজারের গৃহীত কার্যক্রম এবং পরিচালনা

১৯৫৪ সালে বন্যায় দেশের ৪৪টি জেলার ভক্তি-প্রস্থ হয়েছে। বন্যায় পর পরই বাংলাদেশ ক্ষুদ্র বাজার বানানাদের ক্ষুদ্র পুনর্বাসন কার্যক্রমে অশ্চ্ছ প্রাঙ্গণের নিমিত্ত তাঙ্কি নিকটের বাঙালি দেশ থেকে রয়েছেনি। তথ্য পূর্বদিকে ক্ষুদ্র সুবিধার প্রধান এবং বোন্যায়ের রুপরেখা প্রণয়ন করেছে। নির্দেশ বাংলাদেশ ক্ষুদ্র বাজার ক্ষুদ্র ইউনিয়ন, ক্ষুদ্র সুবিধার পরিচালনা হার এবং ২০০৩-২০০৪ এবং ২০০৪-২০০৫ অর্থ বছরে বাংলাদেশ ক্ষুদ্র বাজারের ভাল ভিত্তিক সুবিধার বর্ধন ও অগ্রসর্পিত দিক হয়- চম্পে উপস্থাপন করা হলো।

বাংলাদেশের ক্ষুদ্র বাজারের সুরুষ্ক ভিত্তিক সুবিধার পুনর্বাসন সুরুষ্কতার ভাষ্য

<table>
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<td>২১৯*</td>
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<td>১৮৩৩৬৫ কোটি*</td>
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<tr>
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<td>১১৫২৯ কোটি</td>
</tr>
<tr>
<td>৩৫৪৪৬৫ কোটি</td>
</tr>
</tbody>
</table>

সূত্র: শাখা নির্মাণ বিভাগ, বিল্ডিং, এফেক্ট, ঝাড়া।
বন্যা-উজ্জ্বল কৃষি ঋণ কার্যক্রমের সংক্ষিপ্ত নির্দেশনা সমূহ

- ২০০৪ সালে সংগঠিত বন্যায় কৃষিবিজ্ঞান অঞ্চল বন্যা-পরিবেশের চিহ্নিত বায়ু কৃষি ঋণের আদায় কার্যক্রম পরবর্তী এক বছরের জন্য স্থগিত করা হয়।
- সকল আদায়দাতার ও আদায়দায়ের পাওনা (খেলাধূলী কৃষি ঋণসহ) পরবর্তী এক বৎসরের জন্য পুনর্নির্দেশ করা হবে এবং এককে খেলাধূলী কৃষি ঋণ গ্রহণকারী উভয়ের দলের প্রধানের দলে নিয়োগ করা হবে।
- উঁচুমোড় পুনর্নির্দেশকৃত ঋণদের বিস্তারের ইতিমধ্যে ডায়ারকৃত সার্টিফিকেট মামলা ও পরবর্তী এক বৎসরের মধ্যে ডায়ারকৃত নতুন সার্টিফিকেট মামলার কার্যক্রম এক বৎসরের জন্য স্থগিত করা হবে।
- সকল প্রকার নিম্ন জাতীয় বন্ধ রাখার জন্য মান্যতা আদায়কারীকে অনুমোদন জানাতে হবে।
- বন্যা-পরিবেশের সময় উপন্যাস ও গ্রকৃত চাহিদা অনুযায়ী নতুন ঋণ বিতরণের ব্যবস্থা গ্রহণ করা যায়।
- নতুন ঋণ সুবিধার আয়তন ক্ষুদ্রতম যাতে দ্রুততম সময়ে ঋণ সুবিধা প্রদান ও কোন যোগাযোগ সাধনার শিক্ষার জন্য সেলকার কৃষি বাংলাদেশ তাদের সকল প্রয়োজনে অভিযোগ ও ঋণ তদারকি সেলায় গঠন করে। 
- ঋণ বিতরণ কার্যক্রমের পর্যাপ্ত তহবিল সম্প্রদায়ের দলের আজান সংগঠন অভিযোগ জরুরী করা হয়।
- সকল জেলা ব্যবস্থার ও উপজেলার নির্বাহী অফিসারের সাথে সূচিত নথিগুলি দেওয়া হবে।
শীতল হলা চৌধুরী: ব্যাংকের দেশের মুদ্রণ ব্যবস্থাপনায় কৃষি পৃষ্ঠাগুলিতে বাংলাদেশ

- শাখা ব্যবস্থাপনকে প্রের করে সর্বনিম্ন পিএন পর্যবেক্ষন সাক্ষরুকে ব্যাঙ্কের ভারমূর্তি উজ্জল রেখে
  এমনভাবে বন্যা উত্তর গণিত বিশ্বিদ্যালয় বন্দখান করতে হবে যাতে বিপদ ২/৩ বছরে
  গ্রহিত থেকেই অপর শুরু অবমুক্ত থাকে। এবং ব্যাঙ্কের উজ্জল ভারমূর্তি অনুমোদন থাকে। এ
  নির্দেশ মাঠ পর্যন্ত বাস্তবায়ন করা হয়েছে।

- সর্ব ধীরগত কৃষকদেরকে অগ্রগণ্য নির্দেশনা অনুসরণ নির্দেশ দেয়া হয়েছে।

- যে সকল কৃষিভূমি কৃষকের পূর্ব গণ রয়েছে তাদের গণ পুনর্নতিসংলগ্ন করে পুনরায় নির্দেশ
  নীতিমালার আওতায় গণ দেয়ার বাবস্থা করা হয়েছে।

বাংলাদেশ কৃষি ব্যাঙ্ক কৃষকদের আর্থিক দুরান্তস্থা লাগের নিমিত্তে সম্প্রতি কৃষি গণের সুদের হার
  অনেকাংশে হ্রাস করেছে। বাংলাদেশ কৃষি ব্যাঙ্কের বিভিন্ন খাতের বছর নির্দিষ্ট সুদের হার পরিপূর্ণ-

VIII -তে উপস্থাপন করা হলো।

উক্ত ছক পর্যালোচনা দেখা যায় কৃষি ও কৃষি নির্দিষ্ট শিল্পে সর্বশেষ সুদের হার মাত্র ৮% এবং রান্না
  গণের ক্ষেত্রে ৭% এবং চলাচল মূলধন গণের ক্ষেত্রে সর্বোচ্চ ১০ থেকে ১১% এ নির্দিষ্ট করা হয়েছে।

<table>
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<th>আউন্ড ধারের ক্ষেত্রে</th>
<th>পূর্বের গৃহীত মানের সর্বোচ্চ ৫০% গণ দেয়া যাবে।</th>
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<tr>
<td>কোর্সের/শাকসজ্জার ক্ষেত্রে</td>
<td>পূর্বের গৃহীত মানের সর্বোচ্চ ৫০% গণ দেয়া যাবে।</td>
</tr>
</tbody>
</table>
| পুলিশ/মহব্বত চাষের ক্ষেত্রে | পেণ্ডা, খন্ডবার ও অনুমোদনের ক্ষেত্রে জন্য প্রয়োজনি অনুযায়ী
  ১/২ ব্যবস্থার ক্ষেত্রে মধ্যে পুলিশ গণ বিশেষতা করা যাবে। পুলিশ
  গণ বিনিয়োগ করে পূর্বের মধ্যে সীমা অতিক্রম করা যেতে পারে।
  ক্ষেত্র পরিপূর্ণ নিজ ব্যবস্থার ক্ষেত্রে অতিক্রম করে তা মধ্যের
  জন্য পরবর্তী মানুষের কর্মকর্তার নিকট প্রেরণ করতে হবে। |
| মহব্বত ধারে প্রকল্প গণের ক্ষেত্রে | Case to case basis যাচাই করে ক্ষতিগ্রস্থীর চর্চার চলে যায়
  হিসেবে প্রয়োজনি অনুযায়ী ১/২ ব্যবস্থার ক্ষেত্রে মধ্যে পুলিশ গণ
  বিনিয়োগ করা যাবে। |
| প্রাইটি/ডেইলি নিউজের ক্ষেত্রে | पुलिश गण के योजनाओं की विचारगत महाविश्वसन |
| Case to case basis | समर्थन में याचाइ करे निर्णय। । प्राइटी क्षेत्र में एक दिन के क्षेत्र में इसके
  लिए निर्णय देना। |

| হালের বেলা/ছাগল গাছান/গর্ভী গাছান/বারান্দা মুক্তিক্রমের ক্ষেত্রে | পূর্বের সার্বজনীন যোগীতামূলক কর্মকর্তা নির্দেশনা করে শাখা ব্যবস্থাপনকে
  কর্মকর্তা নির্দেশ করল। |

| শৈলী/উপন্যাস প্রকাশনের ক্ষেত্রে | অতিরিক্ত গণের ক্ষেত্রে যাচাই পূর্বের গণ পুনর্নতিসংলগ্ন করে পুনরায়
  গণ বিশেষতা করা যাবে। |

বাংলাদেশ কৃষি ব্যাঙ্ক কর্তৃক নতুন নতুন উদ্যোগ গ্রহণ

বাংলাদেশ কৃষি ব্যাঙ্কের বর্তমান ব্যবস্থাপনা পূর্বের গতানুগতিক কৃষি গণ ব্যবস্থাপনার পাশার কি
  কিরূপ উদ্যোগ গ্রহণ করা যায় এ ব্যবক্তি মনোনিত চিন্তাভাবনা করে সম্প্রতি কর্মকর্তা নতুন
  innovative প্রকল্প অর্থায়ন শুরু করেছে। নতুনভাবে গৃহীত বিশেষ কর্মসূচীগুলোর কর্মনা উপস্থাপন
  করা হলো।
(ক) জাগাল পালন কর্মসূচী
মাননীয় প্রধানমন্ত্রী কর্তৃক গৃহীত জাগাল-পালন জাতীয় কর্মসূচী অন্ত ব্যাংকে যথাযথ গুরুত্ব ও অন্তর্ভুক্তির সাথে গ্রহণ করে। জাগাল উৎপাদন বৃদ্ধির লক্ষ্য জাগাল পালন (রেয়ারিং) এবং জাগালের

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<th>সেপ্টেম্বর/০৪ ভিত্তিক অর্থায়নকৃত খামারীর সংখ্যা</th>
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<tbody>
<tr>
<td>১৩৫১টি</td>
<td>১১.৮৮ কেটি টাকা</td>
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</table>

বাংলাদেশ ও উন্নত জাতের জাগাল খামারীদের নিকট সহজলভ্য করার জন্য ব্রিটিশ ফর্ম এ অর্থায়নের জন্য বিস্তৃতিগত কর্মসূচী গ্রহণ করে তা জাতীয় ভাবে বাড়িয়ে বান্ধবতায় করা হয়। এ কর্মসূচীর হালনাগাদ অগ্রগতি নিষ্পত্ত প্রদান ও কর্মসূচীর অনন্যতার জন্য অন্তর্ভুক্তির মাধ্যমে অন্তর্ভূক্তির কর্মকান্ড তাদেরকে সম্পৃক্ত করার লক্ষ্য যুব উন্নয়ন অধিদপ্তরের সাথে সৌজন্যে একটি সম্পর্কিত কর্মসূচী গৃহীত হয়েছে। এ কর্মসূচীর আওতায় কৃষি ও কৃষি

(খ) বেকার যুবক ও যুব মহিলাদের অর্থকর্মসংস্থানের লক্ষ্যে যুব উন্নয়ন অধিদপ্তরের সাথে যৌথ কর্মসূচী
দেশের জনসংখ্যার একটি বিরত অংশ যুবক ও যুব মহিলা এবং এটি জনসংখ্যায় কর্মসংস্থানের মাধ্যমে অর্থনৈতিক কর্মকান্ডে যোগ দিয়ে যুব উন্নয়ন অধিদপ্তরের সাথে সৌজন্যে একটি সম্পর্কিত কর্মসূচী গৃহীত হয়েছে। এ কর্মসূচীর আওতায় কৃষি ও কৃষি

(গ) মহান চাষের অর্থনৈতিক প্রশিক্ষণ হস্তক্ষেপ এবং চাষ সম্প্রসারণের লক্ষ্যে বাংলাদেশ মৎস্য গবেষণা ইন্সটিটিউটের সাথে যৌথ কর্মসূচী
বাংলাদেশ মৎস্য গবেষণা ইনস্টিটিউটের উদ্ভাবিত উন্নত প্রজাতির মাছ চাষের প্রশিক্ষণ মাছ চাষকের অন্তর্ভুক্তির মাঝে অন্তর্ভুক্তির নিকট হাজার এবং উন্নত চাষ পশ্চিম সম্প্রসারণের লক্ষ্যে বাংলাদেশ কৃষি ব্যাংক, বাংলাদেশ মৎস্য গবেষণা ইনস্টিটিউটের সাথে একটি সম্পর্কিত অন্তর্ভুক্তির প্রকল্প গ্রহণ করেছে। এ কর্মসূচীর আওতায় ইতিমধ্যে ১০০ জন মাছ চাষকে এবং ৫০ জন শাখা ব্যবসায়ীকে হাতে কলমে উন্নত পদ্ধতি অর্থনৈতিক মত্স্য চাষের কলা কৌশল সম্পর্কিত প্রশিক্ষণ প্রদান করা হয়েছে। কর্মসূচীর সেপ্টেম্বর/০৪ পর্যন্ত অগ্রগতি নিষ্পত্ত।
(৬) তুলা উন্নয়ন বোর্ডের সাথে যৌথ উদ্যোগে তুলা চাষীদের ক্ষতি প্রদান কর্মসূচী
মানুষের অন্তত্মো সৌভাগ্য চাষী বন্ধ এর প্রধান উপাদান তুলা । তুলা চাষ শেষ উৎপাদন বার্ষিক কর্মসূচী আওতায় ক্ষতি প্রদানের বিধান ও নির্দেশিকার ধারকেও তুলার ধর্মু অন্ধকার করে তুলা উন্নয়ন বোর্ডের সংস্থাপিত স্থান চাষীদের ক্ষতি প্রদানের লক্ষ্যে একটি যৌথ ও সমন্বিত কর্মসূচী চালু করা হয়েছে যা, হালে বাংলাবাসনাধীন । অগ্রপতি ক্ষতি বিতরণ কর্মক্রম চলমান স্থল/০৪ শেষে তথ্য প্রদান উপযোগী হবে ।

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<th>বিভাগকৃত টাকা</th>
<th>সম্প্রতি জমির নমুনা</th>
<th>পরিমাণ</th>
<th>পরিমাণ</th>
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</thead>
<tbody>
<tr>
<td>চাষীর সংখ্যা</td>
<td>শতাংশ</td>
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<td>পরিমাণ</td>
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<td>৬৩৬</td>
<td>৪২.২০</td>
<td>৫৯০ একর</td>
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তথ্য সূচয় ক্ষতি ও অগ্রসরবিভাগ-১, বিকেবি, প্রকা, চাকা।

(৭) উন্নত পদ্ধতিতে ভূট্টী চাষ সম্প্রদায়ের লক্ষে সমাবেশ কর্মসূচী
উন্নত পদ্ধতিতে ভূট্টী চাষ সম্প্রদায়ের লক্ষে ক্ষতি সম্প্রদায়ের অবস্থান ও একটি বেসরকারি সংহারে মেসার্স এবং বিজনেস কর্পোরেশন এর মধ্যে বিপক্ষী চূড়ান্ত আওতার পাইলট কর্মসূচী গ্রহণ করা হয়েছে । দেশে বর্তমানে ৯.০০ লক্ষ মেট্রিক টন ভূট্টীর চাষীদার বিপ্লবীদে মেশানগর মায় ৩.০০ লক্ষ মেট্রিক টন ভূট্টীর বিপ্লবী যূক্তি ও সম্প্রদায়ের লক্ষে পৃষ্ঠত পাইলট কর্মসূচীর সেপ্টেম্বর/০৪ পর্যন্ত অগ্রপতি নিম্নরূপ ।

(৮) দেশে উন্নতপদ্ধতি ভূট্টী বাজারজাতকরণের লক্ষে বিশেষ কর্মসূচী
দেশে উন্নতপদ্ধতি ভূট্টীর বাজারজাতকরণ দেশীয় ফিড মিল প্রকৃতকারী সংস্থামূহ । ভূট্টী চাষীরা তাদের উন্নতপদ্ধতি ভূট্টী বাজারজাত করার জন্য বাজারজাতকরণ অধিকারী ইন্টারেফিস বিজ্ঞান ব্যাপক ফিড মিল প্রকৃতকারী প্রতিষ্ঠান মেসার্স আফ্যাক ব্লুমফাইন্স ফার্মস লিঙ্ক, মেসার্স আফ্যাক ফিড প্রতিষ্ঠাতা লিঙ্ক এবং মেসার্স এবং বিজনেস কর্পোরেশন লিঙ্ক এর মধ্যে ডিজাইনের মাধ্যমে ভূট্টী বাজারজাতকরণ কর্মের ক্ষতি হচ্ছে যার মাধ্যমে মেসার্স এবং বিজনেস ফুরশেদের নিজেদের নিজেদের ক্ষতি হচ্ছে ফিড মিলসমূহের ছানার করে এবং ক্ষতিগত ভূট্টীর বাজার ও নাম্নায় মূল্য দুইটি নির্দিষ্টভাবে পেয়ে থাকে ।

অগ্রপতি । এখানে মোট ক্ষতি সীমা ১.০০ কোটি টাকা যা আপততঃ Revolving credit ক্ষতি হিসাবে এ কারণে প্রয়োজনীয়তা পুরোপুরো সম্মুখ ।

তথ্য সূত্রঃ ক্ষতি ও অগ্রসরবিভাগ-১, বিকেবি, প্রকা, চাকা।
(হ) বাংলাদেশ তীত বোর্ডের সাথে যৌথ কর্মসূচী

১৯৯৮-৯৯ সাল হতে বাংলাদেশ কৃষি ব্যাংক মিরপুর-১০ বেনাস্কী পত্রিকায় তাত্ত্বিকভাবে কর্মসংস্থান ও উক্ত ব্যবস্থা উন্নয়নের লক্ষ্যে কৃষি সুবিধা প্রসারে অবস্থায় যার পরিসংখ্যান পরিশীল-IX-এ উপস্থিত করা হয়েছে। উক্ত পরিশীল পর্যালোচনায় দেখা যায় বেনাস্কী শাখায় পত্রিকায় ৫৪৬ জন কর্মচারী সুবিধাবোধীদের নিকট উপবাস কর্মসূচী প্রসারে মূল্য স্থিতির পরিশীলন দাঁড়িয়েছে প্রায় ৫০০ কোটি টাকা।

এছাড়াও দেশের ফসল তীতীয়, মিরপুর-১০ বেনাস্কী পত্রিকায় এবং দেশের অন্যান্য স্থানের ঐতিহ্যবাহী তীতীয়ের জন্য ফসল কৃষি কর্মসূচী নামে একটি প্রকল্পে অংশগ্রহণের জন্য বাংলাদেশ তীত বোর্ডের সাথে একটি সাক্ষাৎ আয়োজনের আওতায় অপর একটি কৃষি কর্মসূচী হাতে নেয়া হয়েছে। এ কর্মসূচীতে বাংলাদেশ কৃষি ব্যাংক তীত বোর্ডের কর্মসূচী বাস্তবায়নে মাঠ পার্শ্বের শাখাসমূহের মাধ্যমে সাবিক আধুনিক সহায়তা প্রদান করে আসছে।

তথ্য সূত্র: ক্ষি ও অতীত বিভাগ-১, বিকেবি, এক্স, ডাকা।

(জ) আমদনী বিভাগ ১৫টি অন্তর্ভুক্ত ওর স্বমূল্য শাখা উৎপাদনের লক্ষ্যে কৃষি সম্প্রসারণ অধিদপ্তরের সাথে যৌথ কর্মসূচী

আমদনী বিভাগের দানাদার খাদ্য শাখাসহ আলু, গম, ইত্যাদি চাষে ইতোমধ্যে মোট উন্নয়ন গম্যুক্ত ডাল, মশলা তৈরীক ইট্টালীর ফসল উৎপাদনের জন্য উন্নয়নের ফলে মাত্র ৫% হয়নি। ফলে প্রতিবছর পিজা, রসুন, আদা, হলুদ, মরিচ, মশলা, সবুজ, সরিয়া, স্যাইডেস ইত্যাদি কিছু বিদেশিক মূল্য ঘরে করা আমদনি করতে হয়। এর মধ্যে কিছু পদনর মেমন-পিজা, মরিচ, সবুজ, ইট্টালীর মাঝে মাত্র ঘটি এটি প্রকল্প হয় যা রীতিমত ক্রেতা সাধারণসহ মাধ্যমে অংশগ্রহণ করতে থাকে। উন্নয়নকালীন মশলা, তৈল বীজ ও মশলা জাতীয় শাখাসংক্রান্ত উৎপাদন বৃদ্ধি কৃষি সম্প্রসারণ অধিদপ্তরের সাথে একটি যৌথ কর্মসূচী গঠন করা হয়েছে। গৃহীত কর্মসূচীর মাধ্যমে আমদনী বিভাগ ১৫টি শাখা উৎপাদন বৃদ্ধির লক্ষ্যে চালু করে বিনিয়োগ বর্তমান হয়েছে ২০০০০ কোটি টাকা যে স্থির আইনের বাটনায়নের প্রাথমিক অবস্থায় রয়েছে।

(ঝ) কৃষি ভিত্তিক শিল্পের কর্পোরেট অর্থায়ন

কৃষি ভিত্তিক শিল্পের বিকাশ, উন্নয়ন ও সম্প্রসারণের লক্ষ্যে ইতোমধ্যে কৃষি ভিত্তিক শিল্পে বিনিয়োগকারী বেশ কিছু প্রতিষ্ঠানের উপাদান বৃদ্ধি, নতুন পদন্ত্য সংযুক্তকরণ, উৎপাদনের মাধ্যমে ইত্যাদি থাকে কর্পোরেট সংযুক্ত প্রসারে করা হয়েছে। অংশগ্রহনকৃত এ কর্পোরেট সংযুক্তের সঙ্গে যৌথ বাজারের তাদের পদন্ত্য করার সাপ্তাহিক কর্মসূচী বিশেষীত শিল্পগুলোর হলো সংস্থাগত অর্থায়নকৃত কৃষি ভিত্তিক শিল্পগুলোর হলো:

১। মেসার্স প্রাচ ডেভিড লিঙ্গ
২। মেসার্স হার্দেন্ট রিচ লিঙ্গ
৩। বেঙ্গল প্যাকেজিং লিঙ্গ
৪। ক্যারার এগ্রো লিঙ্গ (এগ্রোর সচিব লিঙ্গ)
৫। প্রাক হামামির লিঙ্গ
৬। আনবু আলুর টেকোকার লিঙ্গ ব্যাঙ্গারস লিঙ্গ
৭। কালী ফার্মস লিঙ্গ
প্রক্রিয়াধীন করপোরেট খাত

১। মেসার্স পার্টেন্স গ্রুপ
২। কেডিএস গ্রুপ
৩। হ্যার্ট গ্রুপ এর এইচকালচারাল মার্কেটিং কোং লিঙ
৪। ফ্যারাহ এলো এর রাধাকৃষ্ণ প্রতিষ্ঠান

উল্লিখিত করপোরেট খাত ছাড়া যদিও ব্যাপক অর্থিত ফুল চাষ মেসার্স নীঝ অর্থিত, হাউটস্ট্রিক্ট খাত বৃহ উৎপাদনে মেসার্স সুপ্রীম ফিডার্ল লিঙে অধ্যায়ন করা খাত বহুমুখীকরণ তথা ওপনত খাত প্রদানে ভূমিকা জেরদার করেছে।

উল্লিখিত খাত কর্মসূচী ছাড়াও ব্যাপক সম্প্রদায় অর্থাং ২০০২-২০০৩ ও ২০০৩-২০০৪ অর্থ বছরের খাত নীতি ও নির্মাণ বাণিজ্যবাদ আনা হালনাগাদ ও সহজেকরণ করেছে। খাত কর্মসূচী সংস্করণ কর্মকারণের মধ্যে রয়েছে অস্থায়ী ও পক্ষ সম্পর্ক বাত্ব খাত নীতিমালা ও নির্মাণ বাণিজ্যবাদ ভিত্তিক করা।

মথ্যা থাকার ব্যাংকের দিনীয় বৃহ বিনিয়োগ খাত হিসাবে কর্মসূচী প্রার্থনা ও ব্যবসায়ন, ব্যক্তিক খাত সহজেকরণ করা, সদা সম্পর্ক বাণিজ্যবাদ, ব্যাচ ও খামার যন্ত্রপাতি খাত খাত নীতি বাণিজ্যবাদ বজায় থাকা ইতাদি। সম্প্রতিক খাত নীতি ও নির্মাণ চিপনগর ফলে ওপনত খাত বিতরণের উপযোগী অবহ্ষ তৈরি হচ্ছে।

সমস্যা ও সুবিধার্দশালা

(১) খাত প্রবাহ বৃদ্ধির ক্ষেত্রে সবচেয়ে বড় অন্তরের হচ্ছ নগদ তহবিলের অভাব। খাত আদায় আলাদানুরূপ না হওয়ায় অথবা আমান সংগঠ লাভজনক না হওয়ায় ব্যাংকে উপস্থ তহবিল জমার পরিশোধ করা একটা সাধারণজনক না। বিশেষতঃ কম অফ ফাল বেশী হওয়ায় বৃত্তমানে আমান সংগঠ অনাবভাবত হচ্ছ লাভজনক। এ অভাব হচ্ছে পরিবর্তন পেতে হলে সরকারী তহবিল সংগঠ অত্যাবশ্যক। আর একজন সরকারের তরফ হচ্ছে অন্যান্য রাষ্ট্রীয় ও যোগ মালিকানাধীন ব্যাংকের ব্যবহার হচ্ছ কীভাবে হচ্ছ তার নির্দিষ্ট হচ্ছে সরকারী তহবিল সংগঠন/ জমা রাখার নির্দেশনা জারি করা আবশ্যক।

(২) সফল উদ্যোক্তা সৃষ্টিতে লক্ষ্য দেওয়া উদ্যোক্তা না থাকায় অনেক প্রকল্পের রূপম প্রকল্প পরিনত হচ্ছ।

কেই উদ্যোক্তা সৃষ্টির উদ্যোক্তা উদ্যোক্তা প্রশিক্ষনের ব্যবস্থা নিতে হচ্ছ।

ব্যাংকের মূল খাতের সংগঠন সমাপ্তী রোধ কর্মকারণ/ কর্মচারীদের প্রশিক্ষনের পাশাপাশি নীচের প্রশিক্ষনের পর্যায়ে ব্যাংকের উদ্যোক্তা প্রশিক্ষনের আয়োজন করতে হচ্ছ।

প্রশিক্ষিত উদ্যোক্তাদের মধ্যে হচ্ছ বাছাইকৃত উদ্যোক্তাদেরকে অধ্যায়ন করলে সফল পাওয়া যেতে পারে।

চলতি বছরের বাংলাদেশ ভঙ্গ ব্যাংক বার্ষিক প্রশিক্ষণ কর্ম পরিকল্পনায় উদ্যোক্তা শ্রেণী সৃষ্টির জন্য উদ্যোক্তা উদ্যোক্তা প্রশিক্ষনের ব্যবস্থা রেখেছে।

(৩) ব্যাঙ্গিকী দৃষ্টিতে লক্ষ্য হচ্ছ ব্যাংকের পরিমণিত খাত বৃদ্ধি পেতে পারে না। বিকেলের চাঁদীর মৌলিক পরিবর্তন অন্যান্যের মাধ্যমে বার্ষিকী খাত সমৃদ্ধী অর্থায়নে বাহ্যিক ব্যাঙ্গিকী খাত সমৃদ্ধী অর্থায়নের মাধ্যমে ব্যাঙ্কের সাম্প্রতিক দৃষ্টি ভঙ্গীর পরিবর্তন ঘটাতে হচ্ছে।
(৮) বৈদেশিক সাহায্য ও অনুদানের টাকা/ তহবিলের একটি নিদর্শক অংশ বিকেরি-তে আমানত রাখার লক্ষ্যে সরকারী নির্বাচিত সিদ্ধান্ত না থাকায় বিকেরি ঐ সকল তহবিল/ আমানত হতে বক্তি হচ্ছে। কারণ ঐ সকল তহবিলের নিদর্শক একটি অংশ বিকেরি-তে আমানত রাখার সরকারী নির্দেশনা আবশ্যক। এই সংগে বৈদেশিক প্রকল্প সাহায্যের আওতায় বিভিন্ন ধরনের ও সামাজিক আমানতের জন্য যে সকল এলিস খোলা হয় তারও একটি নিদর্শক কোটা বিকেরির জন্য ধার্য করা আবশ্যক।

(৫) সরকারী কৃষি খাতে ৬০০,০০ কোটি টাকা তহবিল প্রদানের পরিকল্পনা নিলেও কৃষি খাতের জন্য সরকারী ভূমিকা না থাকায় বিকেরির মুনাফা অর্জন বিশ্বাস হচ্ছে। বেসরকারী ব্যাংক সমুহ তাদের ইচ্ছে মাফিক সুদের হার ধারণ করে মুনাফা অর্জন করছে। কিন্তু কৃষি খাতের সুদের হার অনুসরণ সরকারী নিয়ম অনুসরণ করায় বিকেরি ইচ্ছে করলেই সুদের হার বাড়াতে পারে না। ফলে ব্যাংকের সূচনা বিকেরি-তে হীরা প্রতিযোগীতায় তথা অসম প্রতিযোগীতায় টিকে থাকতে হচ্ছে।

(৬) কৃষি খাত বিতর্কের ক্ষেত্রে স্বল্প ব্যাংক পত্রিকার আওতায় বিকেরির নিকট অধিক সংখ্যক ইউনিয়ন হস্তাক্ষর না করায় বিকেরির অধিকাংশ সম্প্রদায় করা যাচ্ছে না। তাই যেসকল ব্যাংকের বিতর্কের ক্ষেত্রে সংখ্যক একই ব্যাংকের ইউনিয়ন হস্তাক্ষর শেষ করার আবশ্যক। একই সংগে রট্টাইতু বাবিলির ব্যাংকের সমুদ্রের গ্রামীণ শাখা সমৃদ্ধ বিকেরির নিকট হস্তাক্ষর করায় চেষ্টা পারে। এতে করে গ্রামীণ অধিকারীর অধিকতর চার্গা হবে।

(৭) প্রচারাভিযানের অভিযান দেশের বৃহত্তর জনগোষ্ঠী এখনো পর্যন্ত জানে না যে বিকেরি অন্যান্য বিতর্কের ব্যাংককে মাত্র একটি বিকেরি কর্মকাড় পরিচালনা করে থাকে। তাই বেসরকারী ইন্দোনেশিয় জাতীয় সকল ধরনের বৈদেশিক দেশের মধ্যে বিকেরির কর্মকাড় সকলের প্রচারাভিযানের মাধ্যমে সকল দেশের সার্বীকে অবহিত করতে হবে।

(৮) জনশন্ডির ঘটিত হতো বিকেরির গতিশীলতা কৃষি পাচ্ছে না। দীর্ঘকাল নিয়োগ বন্ধ থাকায় যেমন প্রশিক্ষিত জনবলের অভাব থেকে নিয়াছে তেমনি প্রতি বছর প্রচুর সংখ্যক দফা কর্মকাড়/ কর্মচারী অবসরে চলে যাওয়ায় ব্যাপক অনাতার মূল্য হচ্ছে। এ অবসান হবে দূর করার উদ্দেশ্যে প্রতি বছর নানা সংখ্যক কর্মকাড়/ কর্মচারী নিয়োগ অব্যাহত রাখতে হবে। নতুন কর্মকাড় নিয়োগ না দেয়া হলে সুষ্ঠুভাবে ব্যাংকের কার্যক্রম পরিচালনা করা সম্ভব হবে না।

উপসংহার

বাংলাদেশ একটি নন্দী মাতৃভূমি দেশ। বন্যা এ দেশের একটি নিত্য নৈমিত্তিক ব্যাপার। বন্যায় এ দেশে প্রচুর অভাবনৈস্থিত্য হয় এবং অধিকাংশ হয় বিপর্যস্ত। ১৯৭৪, ১৯৮৮, ১৯৯৮ এবং ২০০৪ সালে বাংলাদেশ হয়ে গেল শান্তির ভাবায় বন্যা। কৃষি খাতে ক্ষতির পরিমাণ হয়ে গেছে সবচেয়ে বেশী। বন্যায়ের কৃষি পুনরায়নের লক্ষ্য সরকার নিহিত এক যুগান্তকারী কৃষি পুনরুদ্ধার কর্মসূচী। সরকারের নিজের তহবিল হতে প্রথম ধাপে সকল সাথে তা মোকাবেলা করতে সক্ষম হয়েছে।
তাত্ত্বিক পদক্ষেপের পাশাপাশি গ্রহণ করা হলো কৃষি ঋণ বিতরণ কর্মসূচী। এ কর্মসূচীর আওতায় বাংলাদেশ কৃষি ব্যাংক চার্লেজে হিসেবে গ্রহণ করলো কৃষকদের মাঝে দ্রুত ঋণ বিতরণের দায়িত্ব। ব্যাংকের সকল কর্মকর্তা/কর্মচারী ব্যাপিয়ে পড়ালো সরকারের এই গৃহীত যুগান্তকারী কৃষি ঋণ বিতরণ কর্মসূচীর সফল বাতাস করেন। রাত-দিন পরিষ্কার করে ইউনিয়নের ইউনিয়নে বুখ খুলে বছর ও সত্তার সাথে সহায়তা করা হয়েছে। তবে ব্যাংকের কৃষি ব্যাংকের ভাইমূর্তি জাতীয় পর্যায়ে হলো উজ্জল এবং জনগণের কাছে বেড়ে গেল এর গভীরমূল্যতা। সরকারও কৃষি ব্যাংকের বন্যায়ের কর্মকর্তাকে করেছে ধরনো এবং দিয়েছে সীমিত। বাংলাদেশ কৃষি ব্যাংককে সুস্থ করা হয়েছিল জাতীয় প্রয়োজন। এ সংস্থা জনুলপু হতেই এ দেশের আরামক কৃষকগুলোকে কৃষি ঋণ প্রদানের মাধ্যমে দিয়ে আসছে অকৃষ্ট সেবা। জাতির যে কোন কান্তিবদ্ধে দুর্যোগ মোকাবিলার সময় একটি বিশেষ সংস্থা হিসেবে সরকারের একাধিক পাশে থেকে দিয়েছে ঐকাঙ্ক্ষিক সেবা। যদিও কেউ কেউ এর সম্পর্কে দিয়ে তা করেন, কিন্তু কৃষি ব্যাংকের ঐতিহ্যগত পরিকল্পনা, জাতি গঠন এর অর্থনীতি অবদান, ১৯০৪, ১৯৮৫, ১৯৯৮ এবং ২০০৩ সালের বন্যায়ের কৃষি পুনর্বাসন এর কর্মকর্তাদের পরিধি ইতালির বিষয়ে পরিষদের পর্যালোচনা ও মুদ্রাভান করল ব্যাংকের প্রকৃত ও প্রায়ক্ষীর্যতা অন্তর্ভুক্ত করা যাবে। বাংলাদেশ কৃষি ব্যাংকে বর্তমানে কর্মরত প্রায় ১১ হাজার কর্মকর্তা/ কর্মচারী যদি নিষ্ঠা ও সত্তার সাথে তাদের দায়িত্ব পালন করে তবে আরামী দিনে কৃষি ব্যাংককে আরও করেক লাগ এগিয়ে নিতে পারে।

উপসর্গের এ কথা জ্ঞান দিয়ে বলা যায় বাংলাদেশ কৃষি ব্যাংক পূর্বেও এ দেশের কৃষকগুলোর সেবায় নিয়োজিত ছিল, বর্তমানে আছে এবং ভবিষ্যতেও থাকবে। দেশের যে কোন দুর্যোগময় মুহুর্তে কৃষি ব্যাংক অকৃষ্ট সেবা প্রদানের মাধ্যমে তার ভাইমূর্তি উদ্ভাবনে কৃষি কর্তব্যের সম্মত হবে। আমরা সে প্রত্যাশায় রইলাম।
সহায়ক এইচ পাঠিকা

01 | বাংলাদেশ অর্থনৈতিক সমীক্ষা (2004)
02 | ব্যাংক ও আর্থিক প্রতিষ্ঠানসমূহের কার্যালী | অর্থ বিভাগ, অর্থ মন্ত্রণালয়, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার (2003-2004)
03 | কৃষি সম্প্রদায়ের অধিদপ্তর, কৃষি মন্ত্রণালয়, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার (2004)
04 | কৃষি মন্ত্রণালয়, বাংলাদেশ কৃষি ব্যাংক (1987)
05 | কৃষি শপথ পুনঃ তফসিলিকরণ পরিপূর্ণ (2004), অর্থ মন্ত্রণালয়, গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
06 | শাখা নিয়ন্ত্রণ বিভাগ, বাংলাদেশ কৃষি ব্যাংক, প্রধান কার্যালয়, ঢাকা
07 | পরিসংখ্যান ও গবেষণা বিভাগ, বাংলাদেশ কৃষি ব্যাংক, প্রধান কার্যালয়, ঢাকা
08 | কৃষি আদায় বিভাগ, বাংলাদেশ কৃষি ব্যাংক, প্রধান কার্যালয়, ঢাকা
09 | ক্রিয়াকরণ পরিকল্পনা বিভাগ, বাংলাদেশ কৃষি ব্যাংক, প্রধান কার্যালয়, ঢাকা
10 | নুকুল সুন্দরী, ১৯৯৮ সালের বন্যা চৌধুরী নির্দেশিত কৃষি পুনর্নির্দেশ কর্মসূচীতে বাংলাদেশ কৃষি ব্যাংকের কৃষি শপথ শীর্ষক প্রথম ২০০০ তারিখের অর্থনৈতিকমিত্র দ্বিতীয় সমোন্নতি উপলক্ষে ২০০০ সালে সমষ্টির সমন্বয়ের উপস্থাপন করা হয়
11 | অ.এ সি সিদ্দিক। বাংলাদেশের বাণিজ্য কর্মসূচীতে বাংলাদেশের কৃষি ব্যাংকের ক্ষমতা নীতির প্রকাশ (2004) প্রকাশিত ফেরার সমগ্র উপলক্ষে।
12 | নুরুল হুদা চৌধুরী, লাইনার রাসুল বিভাগ কর্ম কর্মসূচীর অর্থনৈতিক অভিজ্ঞতা প্রশিক্ষণের প্রিয়দর্শন প্রকাশিত ফেরার সাহায্য আল্টার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য 
13 | আল্লাহু আলিম্বু গ্রন্থবিশ্বাসকর্তা। বাণিজ্য কর্মসূচীর অর্থনৈতিক অভিজ্ঞতা প্রশিক্ষণের প্রিয়দর্শন প্রকাশিত ফেরার সাহায্য আল্টার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য প্রকাশিত ফেরার সাহায্য 


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সূত্র: বাংলাদেশ অর্থনৈতিক জরীপ-২০০৪
| No. | Column 1 | Column 2 | Column 3 | Column 4 | Column 5 | Column 6 | Column 7 | Column 8 | Column 9 | Column 10 | Column 11 | Column 12 | Column 13 | Column 14 | Column 15 | Column 16 | Column 17 | Column 18 | Column 19 | Column 20 | Column 21 | Column 22 | Column 23 | Column 24 | Column 25 | Column 26 | Column 27 | Column 28 | Column 29 | Column 30 | Column 31 | Column 32 | Column 33 | Column 34 | Column 35 | Column 36 | Column 37 | Column 38 | Column 39 | Column 40 | Column 41 | Column 42 | Column 43 | Column 44 | Column 45 | Column 46 | Column 47 | Column 48 | Column 49 | Column 50 | Column 51 | Column 52 | Column 53 | Column 54 | Column 55 | Column 56 | Column 57 | Column 58 | Column 59 | Column 60 | Column 61 | Column 62 | Column 63 | Column 64 | Column 65 | Column 66 | Column 67 | Column 68 | Column 69 | Column 70 | Column 71 | Column 72 | Column 73 | Column 74 | Column 75 | Column 76 | Column 77 | Column 78 | Column 79 | Column 80 | Column 81 | Column 82 | Column 83 | Column 84 | Column 85 | Column 86 | Column 87 | Column 88 | Column 89 | Column 90 | Column 91 | Column 92 | Column 93 | Column 94 | Column 95 | Column 96 | Column 97 | Column 98 | Column 99 | Column 100 |
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105


### বাংলাদেশ কৃষি ব্যাংকের ব্যবসায়িক পরিচালন সম্পূর্ণ তথ্যাদি

(কোটি টাকায়)

<table>
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<tr>
<th>ক্রান্ত খাতের নাম</th>
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<th>২০০১-০২</th>
<th>২০০২-০৩</th>
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<tr>
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<td>১০ মূখ্য আঞ্চলিক/আঞ্চলিক কর্মচারীর সংখ্যা</td>
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সূত্র: শাখা নিয়ন্ত্রন বিভাগ, সিকেবি, এক্সিক, টাকা।
| বছর বছর | খণ্ড বিভাগ | খণ্ড আদায় | অন্যান্য স্থিতিময় মেয়াদনীতির খণ্ড | ব্যাপক খণ্ডের প্রতিরূপ | ।
| | | | | প্রভাব | ।
| ১৯৭১-৭২ | ৯.৬৪ | ২.৯২ | ৬.৯১ | ২২.৬২ | ৪৬.০৫ | ৪৯% |
| ১৯৭২-৭৩ | ১৭.৯০ | ৬.৭২ | ৭.৩৪ | ২২.৮৪ | ৬১.৭০ | ৫২% |
| ১৯৭৩-৭৪ | ১৩.৫৭ | ১১.৯০ | ৭.৯৯ | ৩০.০৬ | ৬৮.২২ | ৪৮% |
| ১৯৭৪-৭৫ | ১৬.০১ | ২০.০০ | ১৩.৪২ | ৩২.৯০ | ৬৫.২২ | ৬৩% |
| ১৯৭৫-৭৬ | ১৪.৪১ | ২৮.৪৮ | ১৫.৫৮ | ৩২.৬১ | ৪৮.২১ | ৬৮% |
| ১৯৭৬-৭৭ | ৮৩.৮৪ | ২৫.১৬ | ২৫.১৬ | ৪৬.৬২ | ৫২.৬২ | ৬৩% |
| ১৯৭৭-৭৮ | ৫৫.৩০ | ৩৬.১৬ | ৩৩.২০ | ৬৯.১০ | ৪৮.১০ | ৫৫% |
| ১৯৭৮-৭৯ | ১৩.৩৬ | ৫২.১১ | ৪৬.৭০ | ৬৫.১৮ | ৫৩.১৮ | ৫৫% |
| ১৯৭৯-৮০ | ১৪০.১৯ | ৮৭.৭৩ | ১৩০.১৯ | ৬৮.৬২ | ৫২.৬২ | ৫৫% |
| ১৯৮০-৮১ | ৩৭.০৮ | ৩৫.৬২ | ৩৫.৬২ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৮১-৮২ | ২৪.৭৮ | ৩৫.১০ | ৩৫.১০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৮২-৮৩ | ৮৪.০৯ | ৫০.০০ | ৫০.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৮৩-৮৪ | ৩৫.০৯ | ৩৫.০০ | ৩৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৮৪-৮৫ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৮৫-৮৬ | ৭৪.০৩ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৮৬-৮৭ | ২৮.২৮ | ২৮.২৮ | ২৮.২৮ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৮৭-৮৮ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৮৮-৮৯ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৮৯-৯০ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৯০-৯১ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৯১-৯২ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৯২-৯৩ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৯৩-৯৪ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৯৪-৯৫ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৯৫-৯৬ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৯৬-৯৭ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৯৭-৯৮ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৯৮-৯৯ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ১৯৯৯-০০ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ২০০০-০১ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ২০০১-০২ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ২০০২-০৩ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| ২০০৩-০৪ | ৫৫.০০ | ৫৫.০০ | ৫৫.০০ | ৬০.২০ | ৫৫.২০ | ৫৫% |
| বছর | অর্থনীতি | আর্থিক কৃতি | জনসাধারণ | সন্তানদের ভিত্তি | মান | আর্থিক কৃতি | প্রকৃতি | অর্থনীতি | আর্থিক কৃতি | জনসাধারণ | সন্তানদের ভিত্তি | মান | আর্থিক কৃতি | প্রকৃতি | অর্থনীতি | আর্থিক কৃতি | জনসাধারণ | সন্তানদের ভিত্তি | মান | আর্থিক কৃতি | প্রকৃতি |
|------|----------|-------------|-------------|-----------------|----|-------------|-------|----------|-------------|-------------|-----------------|----|-------------|-------|----------|-------------|-------------|-----------------|----|-------------|-------|----------|-------------|
| ১৯৯-০০ | ৪৭৪০.৮২ | ২১৬৩.৬২ | ২৫৭৭.২০ | ৩৬২.৩১ | ২৩৪.৬৩ | ১৯৮০.৫৬ | ৭৬৬.৪৫ | ১৬% |
| ২০০-০১ | ৫১৩০.০৩ | ২২৯৫.১৮ | ২৮৪২.৮৫ | ৭৪২.৯৬ | ২০৪.০৫ | ১৮৫৫.৪৬ | ৬৯০.৪৪ | ১৬% |
| ২০০১-০২ | ৫২১০.৭২ | ২৫০৮.৫৬ | ২৭০২.১৯ | ৪৬৩.৬৬ | ২৩১.০৮ | ১৭০৭.৪৫ | ৭৮৬.২৩ | ১৫% |
| ২০০২-০৩ | ৫৩৩৯.৬৭ | ২৭৫৫.৭৯ | ২৫৮৩.৮২ | ৫৫০.১২ | ৪৮২.৯৬ | ১৫৫০.৮৫ | ৮৬৫২ | ১৪% |
| ২০০৩-০৪ | ৫৫৫৮.০০ | ৩১৫৮.০২ | ২৪৩৯.১৮ | ৫১৪.৫৯ | ৫০৬.০২ | ১৪১৩.২৭ | ৮৮৫৬ | ১৪% |

- বোধিতর ভিতরের সংখ্যা মোট এর সহস্র শতকরা হার নির্দেশ করে।
- সূত্র: ক্ষেত্র আদায় বিভাগ, বিশেষ, প্রকা, ঢাকা।
<table>
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<tr>
<th>বছর</th>
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</tbody>
</table>

সোত্র ৪: কল আদায় বিভাগ, বিকেবি, প্রধান কর্মীঘর, ঢাকা।
<table>
<thead>
<tr>
<th>কর্মকর্তার নাম</th>
<th>পৃষ্ঠমিত্রিত বিতরণ</th>
<th>আলায়</th>
<th>অনালায়</th>
<th>অনালায়ী</th>
</tr>
</thead>
<tbody>
<tr>
<td>চামুন্ন প্রকল্প</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>০১. ভূমিভূমি ও চৌহান বাজারের জন্য পদার্থ কর্মচারী</td>
<td>৬১৬৩০২</td>
<td>৪৭৯.২১</td>
<td>৪১৫.৫৫</td>
<td>৮৭%</td>
</tr>
<tr>
<td>০২. প্রাণী বিয়োলজিক যৌথ পদার্থ সম্পর্কিত কর্মচারী</td>
<td>৪৭৭৪৫</td>
<td>৪০৪.০৫</td>
<td>২৭.১৪</td>
<td>৩২%</td>
</tr>
<tr>
<td>০৩. জনিত্র খাদ্যান্ত কর্মচারী</td>
<td>২৫৮৩১৬</td>
<td>১১৯.৭৩</td>
<td>২৭.০০</td>
<td>৪২%</td>
</tr>
<tr>
<td>০৪. বূট ব্যবস্থা ও বূট তৈরির পদার্থ কর্মচারী (এসএফডি)</td>
<td>২৯২৩৬</td>
<td>১৯.৩৮</td>
<td>১৬.০০</td>
<td>৭৮%</td>
</tr>
<tr>
<td>০৫. সংগঠন এলিয়া প্রাণী বিয়োলজি কর্মচারী</td>
<td>৩৫১৭৬</td>
<td>৩২.৫৫</td>
<td>২৭.০৪</td>
<td>৬১%</td>
</tr>
<tr>
<td>০৬. জাতিসংঘের বুলান পদার্থ কর্মচারী (ইউএনএভিআইফিজ)</td>
<td>২১৪৩৯</td>
<td>১১.০৫</td>
<td>১১.১২</td>
<td>৯০%</td>
</tr>
<tr>
<td>০৭. বাণিজ্য শিল্পের জন্য কর্মসংঘের উপর সূচি প্রকল্প এবং জন-১০৬৪ বাণিজ্যের মোট ও ২য় পর্ব</td>
<td>৭২২২৬</td>
<td>১৪২.৪৬</td>
<td>১২৪.১৪</td>
<td>৬১%</td>
</tr>
<tr>
<td>০৮. বিভক্তিক্রিয়া ও ভূপত্র কর্মচারী</td>
<td>৮৩৩১৬</td>
<td>১৪.৩৪</td>
<td>১১.৪৬</td>
<td>৬৬%</td>
</tr>
<tr>
<td>০৯. ব্যবস্থা উন্নয়নের মধ্যে পদার্থ বিতরণ কর্মচারী</td>
<td>১২৬৭১</td>
<td>১১.৫৭</td>
<td>০.৩৭</td>
<td>৩%</td>
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<tr>
<td>১০. মহিলাদের গাথা পালন কর্মচারী</td>
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<td>১১. প্রতিবিধী উন্নয়নের বিশ্বস্ত কর্মচারী</td>
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<td>০.১০</td>
<td>০.১ সং</td>
<td>৭৫</td>
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<tr>
<td>১২. মাইলের এক্সপ্রেস ট্রেনপথ চলাচল সম্পর্কে নিমিত্ত কর্মচারী</td>
<td>২০৫</td>
<td>০.২৩</td>
<td>০.০৪</td>
<td>১৮%</td>
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<tr>
<td>১৩. কার্যালয়ের জন্য প্রতিবাংলক রাখনীর সংস্থার জন্য বিশ্বস্ত কর্মচারী</td>
<td>৩৮৫</td>
<td>০.৬৬</td>
<td>৬৩%</td>
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উল্লেখ্য: ১২৩৫২৪৬ ৯২৫.৪৫ ৭৯০.৭৩ ৮৪% ৪০৬৪৭ | ২১৯.০৫
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<th>নারী লিঙ্গ</th>
<th>স্বাস্থ্য</th>
<th>বয়স</th>
<th>বেদন</th>
<th>রোগ</th>
<th>মেয়াদ</th>
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<th>পরিমাণ</th>
<th>প্রাচ্যযুগের ওপকালের সময়</th>
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<th>প্রাচ্যযুগের ওপকালের সময়</th>
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<th>প্রাচ্যযুগের ওপকালের সময়</th>
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<td>০.০১</td>
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<td>১০০%</td>
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<td>৮১%</td>
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<td>০.১৮</td>
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<td>২২°</td>
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<td>৩৭%</td>
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<td>২৩°</td>
<td>পুরুষ লিঙ্গ</td>
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</table>

| উৎসাহিত্য | ২৫৭৫৩ | ৫৮.৫২ | ৪৪.৩৩ | ৫৭% | ২১৯৬০ | ২২.৬৮ |
| সংযুক্তি | ১০০.০০ | ১৮৩.৭০ | ৪৫৫.৮২ | ৫৫% | ৪৩৪৭৫.০০ | ৩২১.৮১ |

সূত্র ৪ প্রকল্প পরিকল্পনা বিভাগ, বিকল্প, প্রাচ্যযুগের ওপকালের সময়, চাকা।
বাংলাদেশ কৃষি ব্যাংকের বিভিন্ন খাতের সাক্ষরতা এবং খাতের উপর সুদের হার

<table>
<thead>
<tr>
<th>বাংলাদেশ কৃষি ব্যাংকের খাত সমূহ</th>
<th>সন</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>2000</td>
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<tr>
<td>১। শসা</td>
<td>১৩</td>
</tr>
<tr>
<td>২। চা উৎপাদন</td>
<td>১৩</td>
</tr>
<tr>
<td>৩। বিএলসিঃচুলির দাম এবং উৎপাদন, মৎস্য চাষ, চিতির চাষ, ফুল চাষ, কলা চাষ, জলজম ব্যবস্থাপনা ও মৎস্য আহরণ, রেশম পোকা চাষ, পানি বরফ, ছাগল পালন, হালের বন, মহিষ কর, গাজী পালন/ দুঃখ বামন, খামার, খামার ধনপতি, সেচ ধনপতি, ধান জঙ্গার কল, সামুদ্রিক মৎস্য আহরণ, নার্সারি, উদাত্ত উদ্ভাস, গ্রামীণ যানবাহন, ফলের বাণিজ্য, পিঁশ খামার, ছাগল/ হোড়া পালন, প্লিফিং, পাম্প, নারিকেল ও সুপারী চাষ।</td>
<td>১৪</td>
</tr>
<tr>
<td>৪। রাবার চাষ</td>
<td>১২</td>
</tr>
<tr>
<td>৫। চা উৎপাদন (মেরারী খণ্ড)</td>
<td>১২</td>
</tr>
</tbody>
</table>

চলাচল মূলধন খণ্ড

কৃষি ভিত্তিক বিতর্ক (প্রাঙ্গন) ১৫ ১৪.৫০ ১৩ ১০ ৯
কৃষি পদা বিপাকার জন (প্রিপলিং) ১৫ ১৫ ১৪ ১২ ১১
হিমালয়ায় আলু সংরক্ষকের চলাচল মূলধন খণ্ড ১৫.৫০ ১৫ ১৪ ১২ ১০

রক্ষণী খণ্ড

হিমালয়ায় খাদ্য ও কৃষি পদা ভিত্তিক রক্ষণী খণ্ড (এলসিসি এওয়া) ৭ ৭ ৭ ৭ ৭

উৎস: খণ্ড ও অফিস বিভাগ, বাংলাদেশ কৃষি ব্যাংক, ২০০৪।
মিরপুর বোনারসী পলেটে দেয়া ব্যাংকের খণ্ডের বিবরণী

<table>
<thead>
<tr>
<th>বছর</th>
<th>খণ্ড সুবিধা</th>
<th>খণ্ড গ্রহণের গ্রহকারীর সংখ্যা</th>
<th>পরিমান</th>
<th>খণ্ড আদায়</th>
<th>অনানায়ী খণ্ড</th>
<th>পরিমান</th>
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<tr>
<td>১৯৯৮-৯৯</td>
<td>২৪৪</td>
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The Nature and Extent of Income Generation by the 
Borrower Households of Grameen Bank

Md. Humayun Kabir Majumder*

Abstract
This paper focuses on the nature and extent of self-employment and income generation by the households of the Grameen Bank borrower. Attempt has been made in the study to measure the socio-economic changes of the borrower households and to disentangle the contribution of Grameen Bank credit from the contribution of other factors of income generation available to the borrower households. The study is based on primary survey data and both qualitative and quantitative tools have been used to measure and express the findings. Although the proponents of Grameen Bank have shown tremendous success of the bank in their early studies, the present study shows that the contribution of Grameen Bank loan in the total income generated by the borrower households is very insignificant.

Introduction
The Grameen Bank (henceforth mentioned below as GB) came to scene as group-based micro-credit institution in 1983 with a very high promise to eliminate rural poverty. The proponent and appointed consultants of GB have shown excellent positive impacts of the loan on the borrower households in the realm of self-employment creation and income generation. On the other hand, some renowned development experts have expressed their apprehension about the long run impact of GB credit in the rural economy because of insignificant size and utilization period of loan, high rate of interest and slower progress of non-farm sector in rural area. The proponents of GB show more than 500 activities; mainly non-farm activities for the rural borrowers to be accomplished by GB loan through which the widespread poverty can be reduced. In the present study the change and extension of the economic activities of the GB borrower households (after their

* Dr. Mojumdar is an Associate Professor, Department of Economics, Rajshahi Government College. Rajshahi.
joining the GB) and the actual contribution of GB loan in the total income generated have been explained.

**Methodology**

The study is based on primary survey data collected from GB borrower households under the Rajshahi zone of GB. A total of 188 households of active GB borrowers were selected by using random sampling method. The households that received GB loan for less than 5 years till the survey time were not taken under consideration. The data were numerically computed and shown in tables. It deserves mentioning here that along with the primary data a number of relevant studies done by some eminent experts were reviewed as the secondary source of information. The quantitative estimation was done through computer using MS Excel and SPSS tools. GB credit, Labour force, property and grants were considered as the explanatory factors of income generation. And the function of income were formed as:

\[ Y = f(X_1, X_2, X_3, X_4) \]

where, \( Y \) = income, \( X_1 \) = credit, \( X_2 \) = labour, \( X_3 \) = grants and \( X_4 \) = property.

**Model Selection**

The stepwise regression, least squares techniques, auto correlation and multi co-linearity techniques were taken as the model of estimation.

**Section of the study**

The study has been divided into two sections. The economic profile of the borrower households are examined in section A and the contribution of GB credit in the total income generation by the households are disentangled in section B.

**Section A: The socio-economic profile of the borrower households**

The socioeconomic conditions prevailing in the selected borrower’s households before and after their joining the GB are examined here to consider whether the micro-credit of GB actually and effectively reached the households of the poor borrower’s in terms of self-employment and income generation.

**1. Cultivable Land Ownership Pattern of the Respondent Households:** GB claims that it considers the land-less and asset-less i.e., the extreme poor of the rural area as their borrowers. Table 1 shows the cultivable land ownership pattern of the selected borrowers.
Table 1 shows that at present 14.89 percent households have no cultivable land but before their enrollment in the GB 10.11 percent of the selected households had no cultivable land. It is also seen from the table that before joining GB 9.57%, 17.55%, 22.87%, 17.02%, and 22.87% households of the selected borrowers had

<table>
<thead>
<tr>
<th>Amount of cultivable land (in decimals)</th>
<th>At present</th>
<th>Before enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of respondents</td>
<td>Percentage</td>
</tr>
<tr>
<td>00-00</td>
<td>28</td>
<td>14.89</td>
</tr>
<tr>
<td>01-25</td>
<td>15</td>
<td>07.98</td>
</tr>
<tr>
<td>26-50</td>
<td>38</td>
<td>20.21</td>
</tr>
<tr>
<td>51-75</td>
<td>42</td>
<td>22.34</td>
</tr>
<tr>
<td>76-100</td>
<td>24</td>
<td>12.77</td>
</tr>
<tr>
<td>101 and above</td>
<td>41</td>
<td>21.81</td>
</tr>
<tr>
<td>Total</td>
<td>188</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Field Survey

01-25, 26-50, 51-75, 76-100, and more than 100 decimals of cultivable land respectively. At present the 7.98%, 20.21%, 22.34%, 12.77% and 21.81% households have 01-25, 26-50, 51-75, 76-100, and more than 100 decimals of cultivable land respectively. Therefore the above table reveals that 62.77% of the borrower households were not functionally land-less at the time of joining the GB. On the other hand 5.86% of the borrower households became land-less and most of the households lost some of their cultivable land during use of GB loan.

2. Total Number of Labourer in the Respondent Households: The number of laborer in the households of the borrower before and after joining the GB is shown in the following table.

Table 2 shows that the number of young laborers has significantly increased among the borrower households in the period of GB borrowing. It is seen that at present 25%, 29.26%, 34.04%, and 11.70% borrower households have more than five, four, three and two laborer respectively. Before their enrollment in the GB this percentage was 3.72%, 08.51%, 54.79% and 32.98% respectively. As the poor families of the rural area depend mainly on daily labour the children of those families instead of attending educational institution are engaged in some sort of
income earning not related to household micro-credit, gross income of the borrower households increases and supplements borrower’s ability to repay the installments.

3. Main Occupation

Table 3 shows that at present the principal occupation of 43.09% of the borrower households is agriculture, 13.30%, 16.49%, 08.51%, 04.79%, 03.19%, 01.06%, 01.60%, 01.06%, 01.06%, and 05.85% borrower households are engaged in petty business, daily labour, rickshaw or van pulling, service, fishing, small poultry, small manufacturing, husking, money lending and informal business respectively.

| Table 2: Total Number of Labourer in the Respondent Households (Aged above 13 Years) |
|---|---|---|---|
| Total number of laborers | At present | Before enrolled in the GB |
| | Number | Percentage | Number | Percentage |
| 02 | 22 | 11.70 | 62 | 32.98 |
| 03 | 64 | 34.04 | 103 | 54.79 |
| 04 | 55 | 29.26 | 16 | 08.51 |
| 05 and above | 47 | 25.00 | 07 | 03.72 |
| Total | .00 | .00 | .00 | .00 |

Source: Field Survey

| Table 3: Main Occupation of the Respondent Households |
|---|---|---|---|
| Main occupation of the respondent households | At present | Before enrolled |
| | No. of respondents | Percentage | No. of respondents | Percentage |
| Agriculture | 81 | 43.09 | 95 | 50.53 |
| Petty business | 25 | 13.30 | 21 | 11.17 |
| Daily laborer | 34 | 16.49 | 42 | 22.34 |
| Rickshaw/Van pulling | 16 | 08.51 | 12 | 06.38 |
| Service/Field worker | 07 | 04.79 | 04 | 02.13 |
| Fishing | 06 | 03.19 | 06 | 03.19 |
| Small poultry | 02 | 01.06 | 01 | 00.53 |
| Small manufacturing | 03 | 01.60 | 02 | 01.06 |
| Husking | 02 | 01.06 | 03 | 01.60 |
| Money lending | 01 | 01.06 | 00 | 00.00 |
| Informal business | 11 | 05.85 | 02 | 01.07 |
| Total | .00 | .00 | .00 | .00 |

Source: Field Survey
Before enrollment in the GB, respective percentage for these occupations were 50.53%, 11.17%, 22.34%, 06.38%, 02.13%, 03.19%, 00.53%, 01.06%, 01.60%, and 01.06%. From the above table it is clearly seen that the GB programme could not create self-employment for the borrower households remarkably.

4. Subsidiary Occupation of the Respondent Households: Majority households in the rural areas have subsidiary occupations alongside main occupations. The subsidiary occupations of the households of selected borrowers before and after their joining the GB are shown in the following table.

Table 4 shows that at present 77.66% of the selected borrower households have some subsidiary occupations in addition to the main one. Before enrollment in the GB this position was 59.57%. Percentage of subsidiary occupations at present is for agriculture 15.07%, for petty business 17.12%, for daily laboring 32.19%, for rickshaw or van pulling 06.16%, for service 00.68%, for fishing 01.37%, for small manufacturing 00.68%, for money lending 04.11% and for illegal border trade 22.60%. Before the borrowers enrollment in the GB the respective percentages for this subsidiary occupations were 17.86%, 24.11%, 41.07%, 03.75%, 00.89%, 01.79%, 02.68% and 08.04%. It is seen from the table that only illegal border trade has increased notably after the borrower enrollment in the GB, which is not authorized by the government. On the other hand some of the borrowers have started informal money lending with the loan of GB. So the loan of GB has created a new class of usurer in the rural areas.

<table>
<thead>
<tr>
<th>Table 4: Subsidiary Occupation of the Respondent Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidiary Occupations</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
</tr>
<tr>
<td>Petty business</td>
</tr>
<tr>
<td>Daily laborer</td>
</tr>
<tr>
<td>Rickshaw/Van pulling</td>
</tr>
<tr>
<td>Service/Field worker</td>
</tr>
<tr>
<td>Fishing</td>
</tr>
<tr>
<td>Small manufacturing</td>
</tr>
<tr>
<td>Husking</td>
</tr>
<tr>
<td>Money lending</td>
</tr>
<tr>
<td>Informal business</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Field Survey
5. Capital Goods Owned by Respondent Households: It is seen during the field survey that except one shallow tube-well and two sewing machines, main capital goods of the respondent households consist of country-carrier like Rickshaw, van and carts etc. The amount of capital goods is shown in the following table.

Table 5 shows that at present 10.64% and 3.72% households have one and two capital goods respectively. Before joining the GB 7.45% and 01.06% households had one and two capital goods respectively. It is also seen that only 5.85% households have become the new owner and 2.66% have increased their capital goods during the use of GB loan.

6. Amount of annual Investment of the Respondent Households in Farming

The amount of annual investment of the respondent households in farming is shown in the following table.

Table 6 shows that at present 14.89% selected households have no investment in farm activities but before joining GB 7.45% households had no investment in...
farm activities. It is also seen from the table that at present 31.91%, 11.70%, 8.51%, 12.77% and 20.21% households invest up to TK. 4000, TK. 4001-6000, TK. 6001-8000, TK. 8001-10000 and more than TK. 10000 respectively. Before joining the GB the respective percentage for these amount of investment were 39.36%, 13.38%, 7.98%, 12.23% and 19.15%. From this statistics it is seen that the amount of investment of the sample households in farm activity has not significantly increased. Moreover, some of the households have stopped investment in farming after joining the GB.

7. Total Investment of the Respondent Households in Non-farm Activities

The success of the borrowers of GB obviously depends on creation and extension of non-farm activities for self-employment as well as on increasing income earned from borrowings. Table 7 shows total investment on non-farm activities or petty business of the borrower households before and after joining the GB.

Table 7 shows that at present 62.23% of the selected borrowers have no investment, 32.45% have a total investment of less than Tk. 10000 and rest 05.32% have more than Tk. 10000 investment in non-farm activities. Before enrollment in the GB respective percentages for these level of investments were 68.62 percent, 28.19 and 03.19%. It is clear from the table that the number of investors as well as volume of investment among the selected households in non-

<table>
<thead>
<tr>
<th>Total Investment in non-farm activities (in TK.)</th>
<th>At present</th>
<th>Before joining</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Investment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of respondents</td>
<td>No. of respondents</td>
<td></td>
</tr>
<tr>
<td>117</td>
<td>129</td>
<td></td>
</tr>
<tr>
<td>62.23%</td>
<td>68.62%</td>
<td></td>
</tr>
<tr>
<td>Bellow – 5000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>13.83%</td>
<td>11.70%</td>
<td></td>
</tr>
<tr>
<td>Up to 6000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>07</td>
<td></td>
</tr>
<tr>
<td>06.91%</td>
<td>03.72%</td>
<td></td>
</tr>
<tr>
<td>Up to 8000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>08</td>
<td></td>
</tr>
<tr>
<td>03.19%</td>
<td>04.26%</td>
<td></td>
</tr>
<tr>
<td>Up to 8000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>08</td>
<td></td>
</tr>
<tr>
<td>04.26%</td>
<td>04.26%</td>
<td></td>
</tr>
<tr>
<td>Up to 9000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>04</td>
<td></td>
</tr>
<tr>
<td>01.06%</td>
<td>02.13%</td>
<td></td>
</tr>
<tr>
<td>Up to 10000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>04</td>
<td></td>
</tr>
<tr>
<td>03.19%</td>
<td>02.13%</td>
<td></td>
</tr>
<tr>
<td>More than 10000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>06</td>
<td></td>
</tr>
<tr>
<td>05.32%</td>
<td>03.19%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Field Survey
farm activities has not increased significantly after their joining the GB. So GB’s claim of the creation of self-employment in non-farm activities is not substantiated in the study area.

8. Type of Non-farm Activities of the Respondent Households

The nature of non-farm activities i.e, petty business activities in which the borrower households done is shown in table 8

Table 8 shows that the nature of non-farm activity or petty business activities in which the borrower households are engaged remain almost the same except illegal border trade and vegetable sale before and after joining the GB. The illegal border trade has increased from 06.15% to 10.64% and the business of vegetable sale has increased from 05.85% to 09.04%. We see that only 06.38 percent of the total respondents started petty business after their enrollment in the GB. It is seen that

<table>
<thead>
<tr>
<th>Type of non-farm or petty business activity</th>
<th>At present</th>
<th>Before enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of respondents</td>
<td>Percentage</td>
</tr>
<tr>
<td>Grocery shop</td>
<td>06</td>
<td>08.45</td>
</tr>
<tr>
<td>Tea, betel-leaf etc selling</td>
<td>04</td>
<td>05.63</td>
</tr>
<tr>
<td>Hawkery / fari</td>
<td>05</td>
<td>07.04</td>
</tr>
<tr>
<td>Paddy/wheat husking and selling</td>
<td>03</td>
<td>04.23</td>
</tr>
<tr>
<td>Vegetable and fruits selling</td>
<td>17</td>
<td>23.94</td>
</tr>
<tr>
<td>Tailoring and clothing</td>
<td>03</td>
<td>04.23</td>
</tr>
<tr>
<td>Milk-selling</td>
<td>01</td>
<td>01.41</td>
</tr>
<tr>
<td>Fish-selling</td>
<td>05</td>
<td>07.04</td>
</tr>
<tr>
<td>Poultry</td>
<td>02</td>
<td>02.82</td>
</tr>
<tr>
<td>Pottery</td>
<td>02</td>
<td>02.82</td>
</tr>
<tr>
<td>Illegal border business</td>
<td>20</td>
<td>28.17</td>
</tr>
<tr>
<td>Motor workshop</td>
<td>01</td>
<td>01.41</td>
</tr>
<tr>
<td>Transport business</td>
<td>02</td>
<td>02.82</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey
the progress of petty business and entrepreneurial activities among the borrower households by GB credit is insignificant, although GB claims that almost 500 activities are done by its credit.

9. **Length of Borrowing of the Respondents in GB**

The length of membership of the respondents in GB credit program is shown in the following table.

Table 9 shows that 2.66%, 10.11%, 22.34%, 21.81%, 23.40%, 14.89% and 4.79% of the total respondents used GB loan for the period of ten years or more, 9 years, 8 years, 7 years, 6 years, 5 years and 4 years respectively. It is also seen that 67% of selected borrowers have used GB loan for a period between 6 and 8 years. The average length of membership is 6.87 years.

<table>
<thead>
<tr>
<th>Length of membership</th>
<th>Number of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Years and above</td>
<td>05</td>
<td>02.66</td>
</tr>
<tr>
<td>09 Years</td>
<td>19</td>
<td>10.11</td>
</tr>
<tr>
<td>08 Years</td>
<td>42</td>
<td>22.34</td>
</tr>
<tr>
<td>07 Years</td>
<td>41</td>
<td>21.81</td>
</tr>
<tr>
<td>06 Years</td>
<td>44</td>
<td>23.40</td>
</tr>
<tr>
<td>05 Years</td>
<td>28</td>
<td>14.89</td>
</tr>
<tr>
<td>04 Years</td>
<td>09</td>
<td>04.79</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>00</strong></td>
</tr>
</tbody>
</table>

Average use: 6.87 years

*Source: Field Survey*

10. **Total Amount of Loan taken by the Respondents from GB till Interview**

Total amount of GB credit taken by the respondent’s households is shown in the following table.

It is seen from table 10 that majority of the respondent’s households had already received more than sixty thousand Taka before the field survey.

11. **Purpose of taking GB loan:**

The purposes of taking loan cited by the selected borrowers at the very first year and in the present year are shown in the following table.
Table 10: Total Amount of Loan Taken by the Respondents from GB till Interview

<table>
<thead>
<tr>
<th>Amount of GB loan taken till interview (in TK.)</th>
<th>Number of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below-30000</td>
<td>02</td>
<td>01.06</td>
</tr>
<tr>
<td>30001-40000</td>
<td>12</td>
<td>06.38</td>
</tr>
<tr>
<td>40001-50000</td>
<td>13</td>
<td>06.91</td>
</tr>
<tr>
<td>50001-60000</td>
<td>23</td>
<td>12.23</td>
</tr>
<tr>
<td>60001-70000</td>
<td>28</td>
<td>14.89</td>
</tr>
<tr>
<td>70001-80000</td>
<td>32</td>
<td>17.02</td>
</tr>
<tr>
<td>80001-90000</td>
<td>34</td>
<td>18.09</td>
</tr>
<tr>
<td>90001-100000</td>
<td>16</td>
<td>08.51</td>
</tr>
<tr>
<td>100000 and above</td>
<td>28</td>
<td>14.89</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Field Survey

Table 11 shows that most of the respondents have cited non-farm activities as purpose of taking GB loan.

Table 11: Purpose of Taking Loan

<table>
<thead>
<tr>
<th>Activities shown as purposes of loan</th>
<th>In the present year/season</th>
<th>In the first year/season</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of respondents</td>
<td>Percentage</td>
</tr>
<tr>
<td>Husking and Trading</td>
<td>10</td>
<td>05.32</td>
</tr>
<tr>
<td>Cultivation</td>
<td>20</td>
<td>10.64</td>
</tr>
<tr>
<td>Milch-cow rearing</td>
<td>05</td>
<td>02.66</td>
</tr>
<tr>
<td>Cattle fattening</td>
<td>22</td>
<td>11.70</td>
</tr>
<tr>
<td>Fishing and trading</td>
<td>11</td>
<td>05.85</td>
</tr>
<tr>
<td>Processing and manufacturing activities</td>
<td>03</td>
<td>01.60</td>
</tr>
<tr>
<td>Trading and shop-keeping</td>
<td>66</td>
<td>35.11</td>
</tr>
<tr>
<td>Rickshaw/Van purchase</td>
<td>22</td>
<td>11.70</td>
</tr>
<tr>
<td>Tailoring and cloth trading</td>
<td>03</td>
<td>01.60</td>
</tr>
<tr>
<td>Poultry raising</td>
<td>16</td>
<td>08.51</td>
</tr>
<tr>
<td>House building</td>
<td>02</td>
<td>01.06</td>
</tr>
<tr>
<td>Sinking Tube-well</td>
<td>03</td>
<td>01.60</td>
</tr>
<tr>
<td>Constructing sanitary latrine</td>
<td>02</td>
<td>01.06</td>
</tr>
<tr>
<td>Purchase of homestead</td>
<td>00</td>
<td>00.00</td>
</tr>
<tr>
<td>Lease-in of cultivable land</td>
<td>00</td>
<td>00.00</td>
</tr>
<tr>
<td>Seasonal business</td>
<td>02</td>
<td>01.06</td>
</tr>
<tr>
<td>Transport business</td>
<td>01</td>
<td>00.53</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Field Survey
12. Utilization of loan by the Respondent Households

Utilization of GB credit taken by borrower households is shown in the following table.

Table 12 shows that in the survey year/season 60.11% of the total respondents do not use their loan for purposes mentioned at the time of taking loan. A total of 7.45% borrower households used full amount and 32.45% used a part of loan on productive purposes, which were shown at the time of taking loan. In the first year/season of taking loan these percentages were 45.21%, 9.57% and 45.21% respectively.

<table>
<thead>
<tr>
<th>Utilization pattern</th>
<th>In the year/season</th>
<th>First year/season</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of respondents</td>
<td>Percentage</td>
</tr>
<tr>
<td>Full amount invested in the mentioned field</td>
<td>14</td>
<td>07.45</td>
</tr>
<tr>
<td>Partly invested in the mentioned field</td>
<td>61</td>
<td>32.45</td>
</tr>
<tr>
<td>Not used in cited/ productive purposes</td>
<td>113</td>
<td>60.11</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Field Survey

13. Annual Gross Income of the Respondent Households: The annual gross income of the respondent households before and after their joining in the GB is shown in the following table.

Table 13: Annual Gross Income of the Respondent Households

<table>
<thead>
<tr>
<th>Amount of income</th>
<th>No. of respondents</th>
<th>At present Percentage</th>
<th>Before enrolled No. of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto-15000</td>
<td>06</td>
<td>03.19</td>
<td>16</td>
<td>08.51</td>
</tr>
<tr>
<td>15001-25000</td>
<td>56</td>
<td>29.79</td>
<td>74</td>
<td>39.36</td>
</tr>
<tr>
<td>25001-35000</td>
<td>72</td>
<td>38.30</td>
<td>52</td>
<td>27.66</td>
</tr>
<tr>
<td>35001-50000</td>
<td>34</td>
<td>18.09</td>
<td>36</td>
<td>19.15</td>
</tr>
<tr>
<td>50001-65000</td>
<td>16</td>
<td>08.51</td>
<td>08</td>
<td>04.26</td>
</tr>
<tr>
<td>65001 and above</td>
<td>04</td>
<td>02.13</td>
<td>02</td>
<td>01.06</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey
Table 13 shows that at present 03.19 percent households of the selected borrowers belong to the income group up-to 15000, 29.79%, 38.30%, 8.09%, 08.51%, and 02.13% belong to the income groups of Tk. 15001-25000, Tk. 25001-35000, Tk.35001-50000, Tk. 50001-65000, and Tk. 65001 and above respectively. Before enrollment in the GB the percentage for these income groups were 08.51%, 69.36%, 27.66%, 19.15%, 04.26% and 01.06% respectively.

14. Changes in Total Income of the Respondent Households according to Poverty Groups:

The changes in total income of the respondent households according to poverty groups are shown in the following table.

<table>
<thead>
<tr>
<th>Poverty groups</th>
<th>Income change</th>
<th>Total number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No change</td>
<td>Decrease in income</td>
</tr>
<tr>
<td></td>
<td>Number Percentage</td>
<td>Number Percentage</td>
</tr>
<tr>
<td>Extreme poor Households (Annual Per capita income upto Tk. 3560)</td>
<td>1</td>
<td>0.53</td>
</tr>
<tr>
<td>Moderate poor Households (Annual Per capita income Tk. 3560-6287)</td>
<td>22</td>
<td>11.70</td>
</tr>
<tr>
<td>Vulnerable non-poor Households (Annual per capita income more than TK. 6287)</td>
<td>2</td>
<td>1.06</td>
</tr>
<tr>
<td>Total</td>
<td>00</td>
<td>00</td>
</tr>
</tbody>
</table>

Source: Field Survey

From the above table it is seen that most of the households in which income has increased have come from moderate and vulnerable non-poor groups. On the other hand the amount of income has decreased in most of the poorest households.
**Section B: The Contribution of GB Credit in Total Income Generated by the Borrower Households: A Quantitative Estimation**

It is seen in the field survey that total income of the households of poor borrowers is generated mainly by four factors, which are labour, property, credit and grants. An attempt has been made here to disentangle the contribution of GB credit from the contribution of other factors of income of the borrower households. The income, which is generated by labour, property and grants without any influence of GB credit is compared with the income, generated by GB credit so to assess the actual contribution of GB in the total income generated by the borrower households. The function of income of the sample households is

\[ Y = f(X_1, X_2, X_3, X_4) \]

where, \( Y \) = income, \( X_1 \) = credit, \( X_2 \) = labour, \( X_3 \) = grants and \( X_4 \) = property.

1. **Model Selection**

The stepwise regression model of Kathleen Care has been taken as the technique for solution. Least squares techniques, auto correlation, multi co-linearity are also studied here.

2. **The Kathleen Carey Model**

The model follows as

\[ e^Y = f(x_i, \beta_i) , e^\in \; i = 1, 2, 3, 4 \]

Where, \( f(x_i ; \beta_i) = C X_1^{\beta_1} X_2^{\beta_2} X_3^{\beta_3} X_4^{\beta_4} \) and \( \in \) is an error term which is assumed to be normally distributed with mean zero and variance \( \sigma^2 \); \( \beta_i \) are some unknown constants, which are estimated by the method of least squares techniques and \( C \) is a constant.

3. **Estimation of Unknown parameters \( \beta_i \) (i = 1, 2, 3, 4)**: The model (1) can also be written as

\[ Y = k + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \in \]

Where, \( x_i = \ln X_i \) and \( k = \log C \)

By least squares techniques

\[ \frac{\partial \epsilon^\epsilon}{\partial \beta_i} = 0 \]

\( \hat{\beta} = (X'X)^{-1}X'Y \) with least variance \( \sigma(X'X)^{-1} \) and \( \hat{k} = \bar{Y} - \hat{\beta}_1 \bar{x}_1 - \hat{\beta}_2 \bar{x}_2 - \hat{\beta}_3 \bar{x}_3 - \hat{\beta}_4 \bar{x}_4 \)
The estimated model is
\[ e^Y = C \cdot x_1^{1.033} \cdot x_2^{0.610} \cdot x_3^{-0.101} \cdot x_4^{-0.108} + \varepsilon \] .................... (2)

The regression equation is
\[ Y = k + 0.320 \cdot x_1 + 0.610 \cdot x_2 - 101 \cdot x_3 - 0.108 \cdot x_4 + \varepsilon \] .................... (3)

Since it is assumed that the income of the sample households depends mainly on the explanatory factors \( x_1, x_2, x_3 \) and \( x_4 \), it is necessary to conduct Analysis of Variance (ANOVA) techniques to verify the significant variation in \( Y \) due to the variations in \( X_i \).

The calculated value of \( F \) is 13714.17 and the tabulated value of \( F \) with (4,183) degrees of freedom (df) at 5% level of significance is 2.37. Since the calculated value of \( F \) is greater than the tabulated value, so the value is significant at 5% level.

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Degrees of freedom (df)</th>
<th>Sum of squares (SS)</th>
<th>Mean sum of squares (MSS)</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to ( X_1, X_2, X_3, X_4 )</td>
<td>4</td>
<td>569961.76</td>
<td>142490.44</td>
<td>13714.17</td>
</tr>
<tr>
<td>Residual</td>
<td>183</td>
<td>1901.37</td>
<td>10.39</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>187</td>
<td>571863.14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In order to analyze the individual and combined effects of the explanatory factors, the contribution of each factor is estimated here by using the regression techniques. Let \( \beta_i \) = Coefficient of \( X_i \) in the simple regression of \( Y \) on \( X_i \).

The explained sum of squares due to \( X_i \) alone is \( \beta_i YX_i \). From these quantities the following ANOVA tables are set up.

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Degrees of freedom (df)</th>
<th>Sum of squares (SS)</th>
<th>Mean sum of squares (MSS)</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to ( X_1 ) alone</td>
<td>1</td>
<td>373743.25</td>
<td>373743.25</td>
<td>2875.13</td>
</tr>
<tr>
<td>Addition of ( X_2, X_3, X_4 )</td>
<td>3</td>
<td>503295.18</td>
<td>251647.59</td>
<td>1935.88</td>
</tr>
<tr>
<td>Due to ( X_1, X_2, X_3, X_4 )</td>
<td>4</td>
<td>377307.16</td>
<td>125769.05</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>183</td>
<td>23918.45</td>
<td>129.99</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>187</td>
<td>401225.61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The significance of $X_1$ alone can be tested by computing the residual sum of squares giving $F=2875.13$ with $(1, 183)$ df, which is found significant at 5% level. Similarly the additional effect due to $X_2$, $X_3$, $X_4$ is tested by $F=1935.88$ with $(3, 183)$ df, which is also significant at 5% level.

The significance of $X_2$ alone can be tested by computing the residual sum of squares giving $F=41981.29$ with $(1, 183)$ df, which is found significant at 5% level.

Similarly the additional effect due to $X_1$, $X_3$, $X_4$ is tested by $F=16162.90$ with $(3, 183)$ df, which is also significant at 5% level.

For testing the significance of $X_3$ alone, the calculated value of $F$ is $242.615$ with $(1, 183)$ df, and is found highly significant at 5% level. Similarly the additional effect due to $X_1$, $X_2$, $X_4$ is tested by $F=18102.94$ with $(3, 183)$ df, which is also significant at 5% level.

### Table 3: Analysis of Variance - Due to $X_2$ alone

<table>
<thead>
<tr>
<th>Source of variation (SV)</th>
<th>Degrees of freedom</th>
<th>Sum of squares (SS)</th>
<th>Mean sum of squares (MSS)</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to $X_2$ alone</td>
<td>1</td>
<td>436185.59</td>
<td>436185.59</td>
<td>41981.29</td>
</tr>
<tr>
<td>Addition of $X_1$, $X_3$, $X_4$</td>
<td>3</td>
<td>503797.46</td>
<td>167932.49</td>
<td>16162.90</td>
</tr>
<tr>
<td>Due to $X_1$, $X_2$, $X_3$, $X_4$</td>
<td>4</td>
<td>569961.76</td>
<td>142490.44</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>183</td>
<td>1901.37</td>
<td>10.39</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>187</td>
<td>571863.14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source of variation (SV)</th>
<th>Degrees of freedom</th>
<th>Sum of squares (SS)</th>
<th>Mean sum of squares (MSS)</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to $X_3$ alone</td>
<td>1</td>
<td>2520.77</td>
<td>2520.77</td>
<td>242.615</td>
</tr>
<tr>
<td>Addition of $X_1$, $X_2$, $X_4$</td>
<td>3</td>
<td>564268.65</td>
<td>188089.55</td>
<td>18102.94</td>
</tr>
<tr>
<td>Due to $X_1$, $X_2$, $X_3$, $X_4$</td>
<td>4</td>
<td>569961.76</td>
<td>142490.44</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>183</td>
<td>1901.37</td>
<td>10.39</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>187</td>
<td>571863.14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
For testing the significance of \( x_4 \) alone, the calculated value of \( F \) is 2875.13 with (1, 183) df, and is found highly significant at 5% level.

For testing the additional effect due to \( X_1, X_2, X_3 \) the calculated value of \( F \) is 1935.88 with (3, 183) df, which is verified significant at 5% level.

The results obtained from above discussion are assumed up and shown in the following table.

In the model (6.1), the net effects of the factors \( X_i \) \( (i = 1,2,3,4) \) are also tested with the help of t-test, after framing the suitable null hypothesis

\[
H_0 : \beta_i = 0 ; \; i = 1,2,3,4.
\]

### Table 5: Analysis of Variance- Due to \( X_4 \) alone

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Degrees of freedom</th>
<th>Sum of squares (SS)</th>
<th>Mean sum of squares (MSS)</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to ( X_4 ) alone</td>
<td>1</td>
<td>373743.25</td>
<td>373743.25</td>
<td>2875.13</td>
</tr>
<tr>
<td>Addition of ( X_1, X_2, X_3 )</td>
<td>3</td>
<td>503295.18</td>
<td>251647.59</td>
<td>1935.88</td>
</tr>
<tr>
<td>Due to ( X_1, X_2, X_3, X_4 )</td>
<td>4</td>
<td>377307.16</td>
<td>125769.05</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>183</td>
<td>23918.45</td>
<td>129.99</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>187</td>
<td>401225.61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The test statistic is

\[
t = \frac{\sum_{i=1}^{12} e_i^2 / n - k \sqrt{\beta}}{\sum_{i=1}^{12} \beta_i (NH)} \quad \cdots \cdots \cdots \quad (4)
\]

Where \( a_{ii} \) is the appropriate diagonal element in \((X'X)^{-1}\) matrix and

\[
e_i = Y_i - k - 1.003 X_1 - 0.989 X_2 + 0.928 X_3 + 1.002 X_4
\]

Below are the values of standard errors and corresponding test statistics of the estimators \( \beta_i \)

### Table 6: Percentage Contribution of Factors

<table>
<thead>
<tr>
<th>Factors</th>
<th>( X_1 )</th>
<th>( X_2 )</th>
<th>( X_3 )</th>
<th>( X_4 )</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>% contribution</td>
<td>03.86</td>
<td>86.09</td>
<td>01.33</td>
<td>09.79</td>
<td>100.00</td>
</tr>
</tbody>
</table>
4. The Regression Line based on 3

From the model (3), the least-squares estimates of the coefficient $\beta_i$ are calculated by using the formula.

$$\hat{\beta}_i = (X'X)^{-1} X' Y$$

and denote residual (5)

$$\hat{e}_i = y_i - k \hat{\beta}_1 x_{1i} - \hat{\beta}_2 x_{2i} - \hat{\beta}_3 x_{3i} - \hat{\beta}_4 x_{4i}$$

According to least square line, we have

$$y_i = \hat{y}_i + \hat{e}_i$$

$$y_i^2 = \sum \hat{y}_i^2 + \sum \hat{e}_i^2$$

since, $\sum \hat{y}_i \hat{e}_i = 0$

### Table 7: Standard Error and T-value of the Coefficient

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>$\hat{\beta}_1$</th>
<th>$\hat{\beta}_2$</th>
<th>$\hat{\beta}_3$</th>
<th>$\hat{\beta}_4$</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE($\hat{\beta}_1$)</td>
<td>0.064</td>
<td>0.013</td>
<td>0.112</td>
<td>0.021</td>
</tr>
<tr>
<td>t-values</td>
<td>15.74</td>
<td>78.13</td>
<td>8.28</td>
<td>47.48</td>
</tr>
</tbody>
</table>

In other words, the total variation of $y$ values about their sample mean is split into two parts. The first is the variation of the $y$ values about their mean. This is often referred to as the sum of squares “due to” or “explained by” the linear influence of $X_i$. The second component is the residual or unexplained variation of $y$ values about the least – squares line.

5. The coefficient of Multiple Correlation

In the four variables $(Y: X_1, X_2, X_3, X_4)$, the coefficient of multiple correlation in terms of residual variation about the regression plane based on (1.3) is

$$R^2 = 1 - \frac{\sum e_i^2}{\sum y_i^2} = 0.9967$$

Adjusted multiple correlation coefficient, $\overline{R}^2 = [1 - (1-R^2)(n-1)/(n-k)] = 0.9966$ and both are verified ‘significant’.
6. Auto-correlation study

To examine the relationship between the successive values of different explanatory variables and test the statistical validity of the estimation the auto-correlation is also studied as follows.

Hence, Cov (\(\varepsilon_i \varepsilon_j\)) = E[\(\varepsilon_i \varepsilon_j\)] - E(\(\varepsilon_i\)) E(\(\varepsilon_j\))

= E (\(\varepsilon_i \varepsilon_j\)) = 0 \quad \text{for } i \neq j

= \sigma^2 I \quad \text{for } i = j.

A simple case of linear relationship between any two successive values of \(t\) is

\(\varepsilon_t = \rho_{t-1} + \nu_t \quad \ldots \ldots \); \quad (7)

Where, \(E(\nu_t) = 0; \ E [\nu_t, \nu_t'] = \sigma^2 I\)

The formula of auto-correlation coefficient (\(\rho\)) is

\(\rho = \frac{\sum_{t=2}^{n} e_t e_{t-1}}{\sum_{t=2}^{n} e_{t-1}^2} \quad \ldots \ldots \ldots \ldots (8)\)

To test the significance of auto-correlation coefficient, the Durbin -Watson – test statistics is

\(d = \frac{\sum_{t=2}^{n} (e_t e_{t-1})^2}{\sum_{t=2}^{n} e_t^2} \quad \ldots \ldots \ldots \ldots (9)\)

Here the null hypothesis \(H_0: \rho = 0\). The approximate relation between \(d\) and \(\rho\) is \(d = 2 (1 - \rho)\).

From this expression it is obvious that the value \(d\) lies between 0 and 4.

Firstly, if there is no auto-correlation i.e, \(\rho = 0\) then \(d = 2\) and if \(\rho = +1\), Then \(d = 0\). From this it is inferred that there is perfect positive auto-correlation. If \(\rho = -1\), then \(d = 4\); and it is concluded that there is perfect negative auto-correlation.

Secondly, based on the range of \(d\) statistic, Durbin-Watson have calculated upper (\(d_u\)) and lower (\(d_l\)) value of \(d\).
When $d < d_L$, the null hypothesis will be rejected.

$d > d_U$, the null hypothesis will be accepted.

and as long as $d_L < d < d_U$, the test is inconclusive.

So, from the result of the above test it is clear that our estimation is unbiased and valid.

### 7. A study based on multi-collinearity

A crucial condition for the application of Least Squares to obtain estimators of the model (1.1) is that the explanatory variables are not perfectly linearly related, i.e. $\rho (X_i; X_j) \leq 1$. The term multi co-linearity is used to denote the presence of linear relationship among explanatory variables. If the explanatory variables are perfectly linearly related, the parameters become indeterminate and it is impossible to obtain exact numerical values for each parameter separately and the method of least-squares breakdown. Multi co-linearity is not a condition that either exists or does not exist in economic functions but rather a phenomenon inherent in most relationships due to the nature of economic magnitude. There is no conclusive evidence concerning the degree of co-linearity, which, if present, will affect seriously the estimates. Further the standard errors of the estimates become infinitely large.

In order to verify the presence of multi-co-linearity and the extent of its influence on the estimators, a simple correlation matrix based on the variables ($Y; X_1, X_2, X_3, X_4$) is calculated and the values obtained are presented in Table 8.

**Table 8: A Correlation Matrix based on the Determinants ($Y; X_i$)**

<table>
<thead>
<tr>
<th></th>
<th>$Y$</th>
<th>$X_1$</th>
<th>$X_2$</th>
<th>$X_3$</th>
<th>$X_4$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Y$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$X_1$</td>
<td>0.654**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$X_2$</td>
<td>0.879**</td>
<td>0.368**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$X_3$</td>
<td>-0.062</td>
<td>-0.120</td>
<td>-0.092</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$X_4$</td>
<td>0.810**</td>
<td>0.627**</td>
<td>0.457**</td>
<td>-0.127*</td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level and * Correlation is significant at the 0.05 level
From the above table it is clear that the explanatory variables \((Y, X_2)\), \((Y, X_4)\) and \((Y, X_1)\) are highly multi-collinear since \(r(Y, X_2) = 0.879\), \(r(Y, X_4) = 0.810\) and \(r(Y, X_1) = 0.654\).

8. Reliability of Estimators

By a ‘perfectly reliable’ measurement means that it is completely accurate, free from error or no bias. But in practical survey work, it is very difficult to obtain a total reliable data and hence the estimates or conclusions expected from the collected data may lead to some errors. There are several operational conceptions of reliability of estimates, depending upon how it is estimated from collected data.

The total variance \(\sigma_y^2\) can be written as

\[
\sigma_y^2 = \sigma_y^2 + \sigma_e^2; \quad \ldots \ldots \ldots \text{ (10)}
\]

Hence \(\sigma_y^2\) denote the true variance and \(\sigma_e^2\) denote the error variance.

Thus the measurements as having two components, a true measurement \((\hat{y})\) and Error term \((e)\) satisfy an equation

\[
y = \hat{y} + e
\]

Reliability was defined as the proportion of the total variance to the true variance. Dividing (1) by \(\sigma_y^2\), we have

\[
\frac{\sigma_y^2}{\sigma_y^2 + \sigma_e^2} \cdot \frac{\sigma_y^2}{\sigma_y^2 + \sigma_e^2}
\]

The reliability of these measurements is given by the ratio

\[
\sigma_{\hat{y}}^2 / \sigma_y^2 \quad \text{or in other term} \quad 1 - \sigma_e^2 / \sigma_y^2
\]

Letting \(r_{ii}\) stand for the coefficient or reliability, we have two alternative equations as

\[
r_{ii} = \sigma_{\hat{y}}^2 / \sigma_y^2 \quad \text{or} \quad r_{ii} = 1 - \sigma_e^2 / \sigma_y^2
\]

The summary of results from the above study is presented in the following table.

**From the above estimation the following conclusions can be drawn**

1. The coefficient of multiple determination in the group \((y; x_1, x_2, x_3, x_4)\) is 0.9967 This implies that 99.67% of the total income of the respondents’ households is being generated from combined participation of the mentioned four factors.
2. A high multicollinearity between credit income ($X_1$) and property income ($X_4$); labour income ($X_2$) and property income ($X_4$) is seen.

3. The autocorrelation coefficient is least and insignificant.

4. Among four explanatory variables considered in this study, it is observed that contribution of the variable $x_3$, i.e. grant income towards income generation is least significant.

9. **Stepwise Regression: Stage- I**

Excluding the variable $x_3$ i.e the grant income, whose contribution towards income generation is insignificant, the Kathleen Carey model is used considering the other three variables viz. $X_1$, $X_2$ and $X_4$.

$$e^Y = C \cdot X_1^{1.007} \cdot X_2^{0.985} \cdot X_3^{0.987} \cdot e \quad \text{..................... (11)}.$$ 

In order to analyze the significant contribution of these explanatory variables, the ANOVA techniques are applied for the group ($Y: X_1, X_2, X_4$).

<table>
<thead>
<tr>
<th>Table 9: Summary of Estimators, Corresponding Test Statistics for Model 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least Square Estimates</td>
</tr>
<tr>
<td>SE($\hat{\beta}_1$)</td>
</tr>
<tr>
<td>t-value</td>
</tr>
<tr>
<td>F-value</td>
</tr>
<tr>
<td>Multiple correlation coefficient</td>
</tr>
<tr>
<td>Adjusted Multiple correlation coefficient</td>
</tr>
<tr>
<td>Auto correlation coefficient &amp; d-statistics</td>
</tr>
<tr>
<td>Coefficient of reliability</td>
</tr>
</tbody>
</table>

The calculated value of $F$ is 140.11 for (3, 184) df and is verified significant at 5% level.
The individual and combined effects of each explanatory variables in the group (Y: X₁, X₂, X₄) are analyzed with the help of appropriate ANOVA and regression techniques.

For testing the significance of X₁ alone, the calculated value of F is 264.69 for (1, 184) df and is significant at 5% level. In testing of the additional effect due to X₂ and X₄ in the group (Y: X₂, X₄), the calculated value of F is 198.11 for (2,184) df which is also significant at 5% level.

The calculated value of F, in testing of the significance of x₂ alone is 461.47 for (1, 184) df which is evidently significant at 5% level. Similarly the calculated value of F for testing the additional effect due to X₁ and X₄ in the group (Y: X₁, X₂, X₄) is 209.77 for (2, 184) which is significant at 5% level.

For testing the significance of X₄ alone, the calculated value of F is 395.41 for (1, 184) df which is highly significant at 5% level of significance and testing the additional effect due to X₁ and X₄ in the group (Y: X₁, X₂, X₄), the calculated value of F is 266.23 for (2, 184) df which is verified insignificant at 5% level.

After omitting the variable x₁ i.e. credit income, which is found highly insignificant, the share of each of the given explanatory variables X₁, X₂ and X₄ in the total contribution towards income generation of my study area is estimated

<table>
<thead>
<tr>
<th>Source of variation (SV)</th>
<th>Degrees of freedom</th>
<th>Sum of squares (SS)</th>
<th>Mean sum of squares (MSS)</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to X₁, X₂, X₄</td>
<td>3</td>
<td>397307.16</td>
<td>132435.72</td>
<td>140.11</td>
</tr>
<tr>
<td>Residual</td>
<td>184</td>
<td>173918.45</td>
<td>945.21</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>187</td>
<td>571225.61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

as 4.11 percent (X₁), 88.67 percent (X₂) and 8.22 percent (X₄). Even among these three, X₂ has been found more significant than the other two variables.

In the model (6.10), the effects of the factors X₁, X₂ and X₄ are also tested with the help of student t-test statistic, by framing the following null hypothesis i.e., Ho : i = 0,  i = 1, 2, 4 and results are presented in the following table.

From the above statistics, the following inferences are drawn.
1. The coefficient of multiple determination in the group \((Y: X_1, X_2, X_4)\) is 0.958. This implies that the three factors jointly influence 96% of income generation of the sample.

2. The autocorrelation coefficient is negative and is insignificant.

3. Among these three variables considered for the study, it is observed that the factor \(X_1\) - the credit income is observed to be least significant. Though variables such as \(X_1, X_2,\) and \(X_4\) combinedly influence the income, \(X_3\) the grant income is found insignificant and are excluded in the following analysis.

### Table 11: Analysis of Variance - Due to \(X_1\) alone

<table>
<thead>
<tr>
<th>Source of variation (SV)</th>
<th>Degrees of freedom</th>
<th>Sum of squares (SS)</th>
<th>Mean sum of squares (MSS)</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to (X_1) alone</td>
<td>1</td>
<td>250185.72</td>
<td>250185.72</td>
<td>264.69</td>
</tr>
<tr>
<td>Addition of (X_2, X_4)</td>
<td>2</td>
<td>374511.40</td>
<td>187255.70</td>
<td>198.11</td>
</tr>
<tr>
<td>Due to (X_1, X_2, X_4)</td>
<td>3</td>
<td>397307.16</td>
<td>132435.72</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>184</td>
<td>173918.45</td>
<td>945.21</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>187</td>
<td>571225.61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 12: Analysis of Variance - Due to \(X_2\) alone

<table>
<thead>
<tr>
<th>Source of variation (SV)</th>
<th>Degrees of freedom</th>
<th>Sum of squares (SS)</th>
<th>Mean sum of squares (MSS)</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to (X_2) alone</td>
<td>1</td>
<td>436185.59</td>
<td>436185.59</td>
<td>461.47</td>
</tr>
<tr>
<td>Addition of (X_1, X_4)</td>
<td>2</td>
<td>396550.34</td>
<td>198275.17</td>
<td>209.77</td>
</tr>
<tr>
<td>Due to (X_1, X_2, X_4)</td>
<td>3</td>
<td>397307.16</td>
<td>132435.72</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>184</td>
<td>173918.45</td>
<td>945.21</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>187</td>
<td>571225.61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 13: Analysis of Variance - Due to \(X_4\) alone

<table>
<thead>
<tr>
<th>Source of variation (SV)</th>
<th>Degrees of freedom</th>
<th>Sum of squares (SS)</th>
<th>Mean sum of squares (MSS)</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to (X_4) alone</td>
<td>1</td>
<td>373743.25</td>
<td>373743.25</td>
<td>2875.13</td>
</tr>
<tr>
<td>Addition of (X_1, X_2)</td>
<td>2</td>
<td>503295.18</td>
<td>251647.59</td>
<td>1935.88</td>
</tr>
<tr>
<td>Due to (X_1, X_2, X_4)</td>
<td>3</td>
<td>547307.2</td>
<td>182435.72</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>184</td>
<td>23918.45</td>
<td>129.99</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>187</td>
<td>571225.61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. Stepwise Regression Techniques: Stage II

Excluding the insignificant contribution of $x_3$, the income determinant model stands as

\[ e^y = C x_2^{1.018} x_4^{1.168} e^{\varepsilon} \]

\[ e^y = C x_2^{1.018} x_4^{1.168} e^{\varepsilon} \]

To analyze the significant contribution of these two explanatory factors, the following ANOVA tables are formed.

The calculated value of $F$ is 3717.42 for (2, 185) df, which is significant at 5% level. The individual and combined effects of each explanatory variable viz. $X_2$ and $X_4$ are tested with the help of the following ANOVA table.

**Table 14: Percentage Contribution of Factors**

<table>
<thead>
<tr>
<th>Factors</th>
<th>$X_1$</th>
<th>$X_2$</th>
<th>$X_4$</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>% contribution</td>
<td>04.11</td>
<td>88.67</td>
<td>08.22</td>
<td>100.00</td>
</tr>
</tbody>
</table>

It is observed from the Table 18 that excepting the additional effect due $X_2$ and $X_4$, all other cases prevalent in course of preceding analysis are significant.

**Table 15: Standard Error and T-value of the Coefficient**

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>$\hat{\beta}_1 = 1.007$</th>
<th>$\hat{\beta}_2 = 0.985$</th>
<th>$\hat{\beta}_4 = 0.987$</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE($\hat{\beta}_1$)</td>
<td>0.075</td>
<td>0.015</td>
<td>0.025</td>
</tr>
<tr>
<td>t-values</td>
<td>13.520</td>
<td>66.602</td>
<td>40.158</td>
</tr>
</tbody>
</table>

**Table 16: Summary of Estimators, Corresponding Test Statistics for Model 2**

<table>
<thead>
<tr>
<th>Least Square Estimates</th>
<th>$\hat{\beta}_1 = 1.007$</th>
<th>$\hat{\beta}_2 = 0.985$</th>
<th>$\hat{\beta}_4 = 0.987$</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE($\hat{\beta}_1$)</td>
<td>0.075</td>
<td>0.015</td>
<td>0.025</td>
</tr>
<tr>
<td>t-value</td>
<td>13.520</td>
<td>66.602</td>
<td>40.158</td>
</tr>
<tr>
<td>F-value</td>
<td>264.69</td>
<td>461.47</td>
<td>395.41</td>
</tr>
<tr>
<td>Multiple correlation coefficient</td>
<td>$R^2 = 0.958$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted Multiple correlation coefficient</td>
<td>$R^2 = 0.957$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto correlation coefficient &amp; d-statistics</td>
<td>$\hat{\rho} = 0.5085$</td>
<td>$d = 0.983$</td>
<td></td>
</tr>
<tr>
<td>Coefficient of reliability</td>
<td>$t_{11} = 0.702$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following table provides details regarding the percentage contribution of each explanatory variable $X_2$ and $X_4$ with the help of $R^2$ in the group $(Y: X_2, X_4)$.

The coefficient of multiple determination in the group $(Y: X_2, X_4)$ is 0.9343. This implies that the two explanatory factors jointly influence 93% of income generation of the sample households. So, it can be concluded from the above discussion that income primarily depends on labour and next depends on property. So the impact of the loan of the GB on income generation of the households of sample borrowers is not as large as it in claimed to be.

**Table 17: Analysis of Variance based on $(Y: X_2, X_4)$**

<table>
<thead>
<tr>
<th>Source of variation (SV)</th>
<th>Degrees of freedom</th>
<th>Sum of squares (SS)</th>
<th>Mean sum of squares (MSS)</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to $X_2$, $X_4$</td>
<td>2</td>
<td>557356.97</td>
<td>278678.49</td>
<td>3717.42</td>
</tr>
<tr>
<td>Residual</td>
<td>185</td>
<td>13868.64</td>
<td>74.97</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>187</td>
<td>571225.61</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 19: Percentage Contribution of Factors**

<table>
<thead>
<tr>
<th>Factors</th>
<th>$X_2$</th>
<th>$X_4$</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>% contribution</td>
<td>89.21</td>
<td>10.79</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Table 20: Standard Error and T-Values of the Coefficients**

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>$\hat{\beta}_2 = 1.018$</th>
<th>$\hat{\beta}_4 = 1.168$</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE($\hat{\beta}_1$)</td>
<td>0.021</td>
<td>0.029</td>
</tr>
<tr>
<td>t-values</td>
<td>49.490</td>
<td>40.204</td>
</tr>
</tbody>
</table>
Table 21: Summary of Estimators; Corresponding Test Statistics for Model 3.

<table>
<thead>
<tr>
<th>Least Square Estimates</th>
<th>$\hat{\beta}_2 = 1.018$</th>
<th>$\hat{\beta}_4 = 1.168$</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE($\hat{\beta}_1$)</td>
<td>0.021</td>
<td>0.029</td>
</tr>
<tr>
<td>t – value</td>
<td>49.490</td>
<td>40.204</td>
</tr>
<tr>
<td>F-value</td>
<td>5818.14</td>
<td>4985.24</td>
</tr>
<tr>
<td>Multiple correlation coefficient</td>
<td>$R^2 = 0.9355$</td>
<td>$\bar{R}^2 = 0.9348$</td>
</tr>
<tr>
<td>Adjusted Multiple correlation coefficient</td>
<td>$\hat{\rho} = 0.3585$</td>
<td>$d = 1.283$</td>
</tr>
<tr>
<td>Auto correlation coefficient &amp; d-statistics</td>
<td>$r_{tt} = 0.978$</td>
<td></td>
</tr>
<tr>
<td>Coefficient of reliability</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusions

This study discusses various individual and household information of the GB borrowers, their assets and liabilities, expectations and achievements. Comparing their socio-economic conditions before and after joining GB, it is seen that after the use of GB loan for a period of 7 years on an average the socioeconomic condition did not significantly improve. No sustainable entrepreneurial activities have created by the borrower households. From the quantitative analysis regarding the contribution of GB credit in the total income generation of the sample household it is seen that the contribution of GB credit in the total income is not very significant. The income generations of the households were found to be dependent mainly on labour, which is independent of credit affairs. So GB’s assertions of creating self-employment and income generating activities for the borrower households is mostly hypothetical and by no means GB credit can be considered as a magic key to poverty alleviation.
Bibliography


Managing Flood in Bangladesh 2004:
Facts and Caveats

Mahfuz Kabir*

I. Introduction

Flood is a general and temporary condition of partial or complete overflowing of
normally dry land area. Collapse or subsidence of land along the shore of a lake
or similar body of water as a result of erosion or undermining caused by waves or
currents of water exceeding anticipated cyclical levels result in a flood.

Bangladesh generally witnesses four types of floods: flash floods, riverine floods
rain floods, and storm surge floods. Flash floods occur in the eastern and northern
rivers, along the borders of Bangladesh. These are characterised by a sharp rise in
water level and high water flow velocity, an outcome of exceptionally heavy
precipitation occurring over neighbouring hills and mountains in India. Riverine
floods stem from the spilling of the major rivers and their tributaries and
distributaries generally rise and fall slowly over 10-20 days or more and can cause
extensive damage to property and loss of life. Depth and extent of floods and
associated damage are extensive when the major rivers reach their peaks
simultaneously. Rain floods are caused by high-intensity local rainfall of long
duration in the monsoon. Extent and depth of rain water flooding varies with
monsoon from year to year depending on the amount and intensity of local
precipitation and current water levels in the major rivers that control drainage
from the land. Storm surge floods occur in the coastal area of Bangladesh, which
consists of large estuaries, extensive tidal flats and low-lying islands. Storm
surges generated by tropical cyclone cause widespread damage to property and
loss of life in coastal area.1

Bangladesh is a land of many rivers and heavy monsoon rains. Therefore the
country is subject to inundation by overflow from the riverbanks due to drainage

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* Research Officer, Bangladesh Institute of International and Strategic Studies (BIISS), Dhaka.

1 Mirza, MMQ (2002): “Global warming and changes in the probability of occurrence of floods
congestion, rainfall run-off, and storm-tidal surges. Some 20 to 30 per cent of the total land surface is flooded every year during the wet monsoon. During the peak flow season, July to September, most of the rivers overflow their banks, and deposits silt on the floodplains. These normal floods are considered a blessing for Bangladesh as it provides vital moisture and fertility to the soil through the alluvial silt deposition. Only abnormal floods are considered disastrous, that is, the high-magnitude vents that inundate large areas, and cause widespread damage to crops and properties. In the years 1988 and 1998, two devastating floods inundated more than 65 per cent of the geographical area of the country. In the year 2000, Bangladesh witnessed an unusual flood over its usually flood-free southwestern plain, which also caused loss of life and massive damage to property. In the year 2004 the flood appeared as a devastating one. The causes of devastating floods are: Bangladesh’s location in the downstream of Padma, Meghna and Jamuna river basins; excessive rainfall in the catchment area; synchronisation of the peak water levels of all the major rivers of Bangladesh; sometimes solar eclipse retards the outflow of water drainage by raising the tidal level; earthquakes cause tectonic anomaly in the Himalayan region and the Bay of Bengal; monsoon rainfall and melting of snow in hills in the upper basin area; and infrastructure development with inadequate drainage facilities.

According to CPD (2004), there are some other reasons that led to flood 2004: Deforestation and sedimentation, riverbank erosion, unplanned construction of bridges and dams, encroachment of flood retention areas, obstacles in flood-flow zone (i.e., construction of various types, legal and illegal); and there are some incremental reasons as well: Excessive monsoon rainfall in the upper stream of the Brahmaputra basin combined with high tide, that induced higher water level in rivers, particularly in Meghna, contributed to the initiation of the Flood 2004. However, the intensity of flood 2004 was more severe than what is usually the case and was the most severe since the 1998 flood. Flood 2004, indeed, inundated a relatively large land area and caused significant damages to property and lives.

Given this context, the paper deals with some critical economic issues of management of flood 2004. After introduction, the second section deals with the conceptual and historical dimensions of flood and poverty in Bangladesh since it is the poor who are affected the most by floods and other natural disasters. The

---

2 Many patriotic version of the definition of flood in Bangladesh incorporate the view that it is somehow imposed by our big neighbour India, which is not true.

third section deals with the salient features of flood in Bangladesh 2004. In the fourth section the role of state and non-state actors in management activities is discussed. Conclusion and policy options are suggested in the final section.

II. Flood and poverty

As mentioned earlier, the poor are the prime victims of flood. Floods principally affected poor men, women, children and elderly people in the previous years in Bangladesh. Halving extreme poverty by 2015 is the first and foremost national objective set out in the Interim Poverty Reduction Strategy Paper (I-PRSP).\(^4\) In the thematic paper to finalise the PRSP\(^5\) flood management is seen in the perspective of poverty reduction and social development goals. In this backdrop, the conceptual framework of the relationship between flood and poverty is depicted in Chart 1.

At a micro level, flood vulnerability and poverty are interrelated, and poor households are particularly vulnerable to floods. In national economy it creates severe budgetary and balance-of-payments difficulties. Both the aggregate demand and supply squeeze due to flood, but aggregate supply schedule contracts more creating short-term price hike and medium-term inflation. Both affect low income groups severely. The extent of crop damage depends on the timing of a flood. If the monsoon rain and resulting flood come before dry-season crops are harvested, the loss could be serious. Similarly, untimely flash floods in the northern and northeastern region can cause severe crop damage. Flood impacts at the micro-level are found to be more severe, compared to those at the macro level. Poverty is found to be fundamental to flood hazard vulnerability: the poorest of the poor have the most to lose in proportional (to asset value) terms. The poorer the household or firm or farm, the higher is the percentage of damage to their asset values. Thus they are worse off in proportional terms. They are also worse off in linkage terms. Price hikes compounded by abrupt fall in employment and real wages in the aftermath of floods hit the poor in the worst way. In effect, this causes malnutrition,\(^6\) and the existing poor health of the poor further deteriorates.

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4 Economic Relations Division (2004): *Bangladesh: A National Strategy for Economic Growth, Poverty Reduction and Social Development*, Ministry of Finance, Government of Bangladesh. This is equivalent to I-PRSP is the context of other highly indebted poor countries (HIPCs).

5 Thematic paper 10 for final PRSP.

with the likelihood of many becoming crippled in the long run. As the poor are not equipped to cope with floods, they become poorer because of their poverty, suggesting that disasters and poverty operate in a vicious cycle. Therefore, poverty, which is caused by the lack of access to resources, is a fundamental cause of hazard vulnerability.

*Chart 1: Flood and poverty in Bangladesh: A conceptual framework*

The distributional effects of flood impacts are important because these are associated with sustainability of development. Different types of floods have different types of impact. Storm surge proves to be the most destructive, especially by causing huge human losses, particularly the less equipped poor that have fragile houses. Evidence suggests that floods deepen poverty and help widen the income gap between the rich and poor. For example, impact study on flood shows that on an average a poor household suffers (in terms of losses proportional to value) 4, 5 and 3 times as much, compared to that suffered by a rich household, in a river flood, flash flood and storm surge, respectively.
Thus, floods not only accentuate poverty but they may widen the income gap between the rich and the poor. This problem poses questions regarding equity and sustainable development.

**Chart 2: Flood affected areas in Bangladesh over the years**

**III. Flood 2004 and its management**

**Damage and costs of flood**

As per the government estimates, 36 districts, 261 upazilas (sub-district) and 2,396 unions were affected by flood. Total affected area was 31,133 km$^2$. An estimated 6,847,077 families were affected, and reported deaths were 628. 20,674 livestock was dead; crops of 1,448,816 acres destroyed and 1,102,000 acres partially damaged. A total of 858,202 houses was destroyed and 3,159,235 partially damaged. 13,541 km road network was destroyed and 42,996 km

---

7 However, there is also a close relationship between duration of flood and victims in Bangladesh. Analysis of data from 1974 to 2004 reveals that there is a positive and significant relationship between duration of flood and victim from flood as follows:

\[
\ln \text{VICT}_t = 12.68^{***} + 0.88^{***} \text{DUR}_t \\
\text{se} = (0.73) \quad (0.03) \\
\text{r}^2 = 0.26 (<0.5), F = 9.25^{***}
\]

Where, \(\ln \text{VICT}_t = \) Natural log of number of victims of flood in year \(t\); \(\hat{\alpha}_1, \hat{\alpha}_2 = \) Intercept and slope coefficients; \(\text{DUR}_t = \) Duration of flood (days) in year \(t\). The simple semi logarithmic regression results show that if the duration of flood increases, the number (percentage of victim) increases. The regression is based on the data provided by the *Bangladesh State of the Environment Report 2001*, ed by QI Chowdhury, Forum of Environmental Journalists of Bangladesh, Dhaka, 2002, and CPD (2004), ibid.

**Data source:** Chowdhury (2002) and CPD (2004).
damaged; 5,338 bridges and culverts, and 3,014 km embankment was damaged. Among the human development infrastructure 1,225 schools were destroyed and 23,439 was partially damaged.8

Cost of total damage is estimated to be Tk 42,000 crore by the UN World Food Programme (WFP) or 12.81 per cent of the current GDP at market price. But as per CPD’s estimation it was Tk 11,419 crore or 3.4 per cent of GDP. However, as per a recent estimate by World bank and ADB it is about Tk 13,000 crore.

As per CPD’s estimation the flood damage in agriculture, infrastructure, residential, industry, education and health sectors were Tk 2920, 3867, 3706, 531 and 48 crore respectively. Flood affected almost 25 per cent of the total population. It persisted for more than 45 days. It covered an area about 30582 km², i.e., 20.72 percent of Bangladesh’s total land area. Mortality as percentage of total affected people was 0.002 per cent, and total mortality was 638 in 2004. In the flood of 2004, fifty one per cent of the districts were severely affected.

However, the cost estimated by CPD lacks human costs of flood, viz, cost of lost human lives and costs of sufferings both from diseases and daily life during flood, increased transportation cost, and cost of lost jobs and businesses.

Shelter and relief9

For an effective management of flood related crisis there has to be adequate number of temporary shelters with adequate safe water, sanitation, food and medicine as poor and marginalised people mostly take shelter in these places. Total number of shelters opened is 5,021, and number of people in shelters is 1,683,839. That is, on average about 335 men, women and children was in one temporary shelter during flood, and it seemed from the newspaper reports that there was overcrowding in the shelters. Moreover those shelters were not equipped with the required sanitation infrastructure. As a result, there was a serious threat of outbreak of disease in the affected areas. Many of the flood shelters had gone under water, and people had to suffer from the absence of proper facilities for toilets and cooking. Lack of access to safe drinking water was recurrent and people were able to manage pure drinking water from the tube wells far away from their shelters that had not been submerged by the flood water. In places where diarrhoea and other water borne diseases were frequent, there was

9 Relief is an instrument of flood-related crisis management, which may be treated as an integral component of flood management as it enhances short-term food security and nutritional status.
an urgent need for supply of medicine. The stock of medicine was also quite inadequate. Thousands of people also took temporary shelter on roads, footpaths, dams, and embankments as well.

However, as per CPD (2004) finding, there was a strong and significant positive correlation (0.86) between the amount of relief allocated for distribution and the number of flood affected people in the districts. In their interpretation, government had been “successful” in allocating higher amount of relief for districts where larger number of people were affected. However, some extreme situations were also observed, e.g., per capita relief distribution was very high in Laxmipur (Tk. 628.09), and Kushtia (Tk. 283.82), high in Rangpur (Tk. 90.91), and very low in Gazipur (Tk. 7.60), compared to the national average per capita distribution (Tk. 19.97).

Normativity of relief distribution: Question of social justice

If we consider the distribution of relief as an economic problem, one of the three fundamental questions arises: for whom the relief is. The answer is, of course, that the districts in which more people are victims of flood will get higher amount of relief, and the amount of relief will be dependent on the severity of flood. That is, higher amounts of relief need to be distributed as the severity of flood increases, or higher weights need to be given to the highly affected regions (severely and very severely, respectively), which is consistent with the fundamental concept of distributional justice. However, CPD results mentioned above also justify it in the context of flood 2004. But in the following analyses the results are inconsistent with distributional justice.

Table 1 reveals that in terms of internal dispersion in the distribution of relief, coefficient of variation (CV) was very high within severely affected districts compared to other districts. That is, disparity in relief distribution was very high within that group. However, a high Gini coefficient also suggests that inequality in relief distribution was high within the flood affected districts.

<table>
<thead>
<tr>
<th>Region</th>
<th>Coefficient of Variation</th>
<th>Gini Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>0.63</td>
<td></td>
</tr>
<tr>
<td>Severe</td>
<td>2.14</td>
<td></td>
</tr>
<tr>
<td>Very severe</td>
<td>0.45</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>2.15</td>
<td>0.60</td>
</tr>
</tbody>
</table>

*Table 1: Inequality in per capita distribution of relief*
The conceptualisation of distributional justice can be given in the relationship among per capita relief, victims and incidence of flood:

\[ \text{PCRLF}_i = \hat{\alpha}_1 + \hat{\alpha}_2 \text{VICT}_i + \tilde{\alpha}_1 D_{2i} + \tilde{\alpha}_2 D_{3i} + \tilde{\alpha}_3 D_{4i} + e_i \quad i = 1, \ldots, n \]

Where, PCRLF$_i$ is per capita relief distributed among the flood affected districts; VICT is number of victims of flood (thousands); $D_{2i}$ is dummy variable for districts moderately affected by flood ($1 = $ moderately affected and $0 =$ otherwise); $D_{3i}$ is dummy variable for districts severely affected by flood ($1 = $ severely affected and $0 =$ otherwise); $D_{4i}$ is dummy variable for districts very severely affected by flood ($1 = $ very severely affected and $0 =$ otherwise); $\hat{\alpha}_1$ is intercept coefficient; $\hat{\alpha}_2$ is slope coefficient of number of victims of flood; and $\tilde{\alpha}_1$, $\tilde{\alpha}_2$, and $\tilde{\alpha}_3$ are differential intercept coefficients of districts that are moderately, severely, and very severely affected by flood respectively.

The analysis of covariance (ANCOVA) regression results for all data (Regress 1 of Table 2) show that the low flood affected districts got an average of Tk 69.86 per capita relief, and the districts with higher number of victims got lower per capita relief. On the other hand, moderately, severely, and very severely flood affected districts got on average per capita relief of about Tk 83, Tk 146, and Tk 120, respectively. It should be noted here that average per capita relief received by severely affected districts is higher than that of severely affected districts.\(^{10}\)

However, the first regression suffers from non-smooth distribution of error terms around the fitted regression line due to two outlying observations. Therefore, after removing the outliers the new results (Regress 2 of Table 2) show that low flood affected districts got an average of about Tk 49 per capita relief; and the districts with higher number of victims got lower per capita relief, which is apparent from the negative and significant (at less than one per cent level) magnitude of the coefficient of VICT. On the other hand, moderately, severely, and very severely flood affected districts got on average per capita relief of about Tk 37, Tk 25, and Tk 17, respectively. That is, the distribution of relief is undoubtedly inversely related to the intensity of flood.

The Lorenz Curve (Figure 1) demonstrates that there is an acute absence of distributional equity of per capita distribution of relief among the flood-affected districts, which justifies the above regression results.

\(^{10}\) The regression results are based on CPD (2004), ibid.
Table 2: Results of estimation

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient Regress 1</th>
<th>t-ratio Regress 1</th>
<th>Coefficient Regress 2</th>
<th>t-ratio Regress 2</th>
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<tbody>
<tr>
<td>Constant</td>
<td>69.86**</td>
<td>49.31***</td>
<td>16.62</td>
<td>7.72</td>
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<tr>
<td></td>
<td>(42.94)</td>
<td>(6.38)</td>
<td></td>
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</tr>
<tr>
<td>VICT</td>
<td>– 0.69</td>
<td>– 0.13 ***</td>
<td>– 2.65</td>
<td>– 3.16</td>
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<tr>
<td></td>
<td>(0.03)</td>
<td>(0.004)</td>
<td></td>
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</tr>
<tr>
<td>D2</td>
<td>13.67</td>
<td>– 12.03</td>
<td>0.23</td>
<td>– 1.39</td>
</tr>
<tr>
<td></td>
<td>(58.29)</td>
<td>(8.66)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D3</td>
<td>76.52</td>
<td>– 11.15</td>
<td>1.48</td>
<td>– 1.38</td>
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<tr>
<td></td>
<td>(51.89)</td>
<td>(8.57)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D4</td>
<td>49.61</td>
<td>– 8.58</td>
<td>0.76</td>
<td>– 0.88</td>
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<tr>
<td></td>
<td>(65.13)</td>
<td>(9.79)</td>
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Diagnostic Tests

<table>
<thead>
<tr>
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<th>Regress 1</th>
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<tr>
<td>R^2</td>
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<td>F</td>
<td>2.1*</td>
<td>4.99***</td>
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<tr>
<td>Multicollinearity (VIF)</td>
<td>1.84 (10)</td>
<td>1.90 (10)</td>
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<tr>
<td>Heteroskedasticity^2</td>
<td>46.18</td>
<td>13.59</td>
</tr>
<tr>
<td>Normality of residuals (JB)</td>
<td>0.000</td>
<td>0.049</td>
</tr>
<tr>
<td>Model specification</td>
<td>11.21</td>
<td>9.19</td>
</tr>
</tbody>
</table>

Note: Numbers of observation are 36 and 34 for Regress 1 and Regress 2 respectively. Figures in the parentheses are standard errors. The normality of residuals test is based on Jarque-Bera (JB) procedure with 2 degrees of freedom, model specification on Ramsey RESET test, heteroskedasticity on Breusch-Pagan test, and multicollinearity on Variance Inflation Factor (VIF). Statistical significance at one, five and ten per cent levels have been denoted by ***, **, and * respectively.

Figure 1: Inequality in distribution of relief among the flood affected districts

IV. Roles of state and non-state actors

Flood management or flood loss mitigation constitutes an important component of water management. In the context of a developing country like Bangladesh the concept of a useful flood management is provided by the Global Water Partnership’s associated programme on flood management in 2001 (ADB 2004). Flood management is a broad concept that focuses on reducing flood hazards through a combination of policy, institutional, regulatory and physical measures, while recognising that floods can never be fully controlled. This takes into account the beneficial uses of floods, which are … difficult to quantify in human and economic terms but which sustain natural systems that also have economic, social, cultural and ecosystem values and functions. Consequently, when managing floods within IWRM, it is essential to minimise human suffering and property damage while maximising the efficient use of the resources of the river basin. Therefore, trends in national flood losses are not the only guide to the success or failure of the national flood management strategy and for this reason flood management must be considered as part of IWRM and of all the socioeconomic decisions related to floods.

However, PRSP Thematic Paper 10 identified two broad measures of flood management:

Structural measures

Flood protection helps in protecting rural and urban poor who live in the most vulnerable areas. Flood protection is provided to agricultural area and urban area. So two output indicators are net cultivable area (NCA) under flood protection and total area (rural and urban) under flood protection. Such protection results in less flooded area, reduced crop damage, increased crop production, less flood damage and better human environment. Therefore, the outcome indicators are flooded area, crop damage, crop production and flood damage.

Flood proofing and flood shelters are being constructed principally in rural areas in Bangladesh. Flood proofed area and number of shelters, therefore, are the output indicators. The outcomes of such interventions are that there will be less flood damage and deaths during a flood and cyclone. Therefore, flood damage and numbers of deaths are suggested as outcome indicators.

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12 Inland water resource management.
Non-structural measures

Flood forecasting is an important non-structural measure in flood management. With increasing lead-time, people can save their life and property. Therefore, lead-time in flood forecasting is suggested as an output indicator for expenditure in flood forecasting and flood damage as an outcome indicator.

State of management

Both the government and NGO response in flood management was late. In some areas the NGO response came after the government programmes were initiated. Individual level and community level philanthropic and relief operations were extensive in many areas, and in many instances actually filled the vacuum left by the late response of the government and the NGOs. The UN system in Bangladesh took an active interest in flood. They initiated a mechanism to estimate flood damage on their own and coordinated with major international NGOs. A team from Geneva arrived on July 31, 2004 for conducting damage estimation and sent its report to Geneva for an international appeal for help.

NGO participation in relief was infrequent. Relief distributed by the local NGOs was mostly concentrated in their localities. In North Bengal some of the NGOs, which were not membership-based, distributed full package of relief in an organised manner. However, they were not able to distribute relief to all people who were in need for such support.

In most of the cases, the government responded first with relief activities, although, not always timely. Local MPs were found to play a very proactive role as they came forward on their own with relief for distribution among the flood victims. The amount of government relief was found to be much less than required in some areas as the distributing authorities wanted to maximise the numbers of families covered. Remote villagers often did not receive adequate relief from the Government.

Initiatives taken by individuals were noticeable during flood. Poor responses from the NGOs and government at the initial stage induced philanthropic individuals to fill the vacuum. Flood affected people were of the view that relief activities lacked proper management. Here were favouritism and pilferages, and politicisation was reported in the newspapers in a number of cases. Government allocation of rice, cash and clothes for the flood victims was not adequate compared to the number of affected people. Children were found to be suffering from lack of baby food. Health services from the local health complexes were infrequent and insufficient due mainly to shortage of medicine and saline. Outreach of the relief was mostly poor and disorganised. Access of the affected people in the remote areas to the relief
programme was less than that of the people along the roadside and those who had taken shelter on embankments. Government relief was mainly being distributed to the people who have taken refuge in flood shelters. People residing outside shelters did not get adequate relief from the Government. As a non-structural measure of flood management, government forecasting system was virtually ineffective.\footnote{Although government system proved to be ineffective during different floods, no non-government initiatives have still been established in this area.}

In addition to the national initiatives, a number of international organisations including UNDP, WFP, WHO, UNICEF, DFID, OXFAM, CARE, Action Aid, YMCA, etc. were also active in monitoring of flood, distributing food relief and emergency medicines directly to the affected people.

V. Conclusion

Unplanned construction of public infrastructure, unplanned or absence of regular dredging of important rivers and canals, unplanned and rampant urbanisation, etc. were the major public-sector failures in the inland water resource management that led to over-duration of flood and innumerable suffering of the poor and marginalised groups of the country. Government machineries followed a “watchful waiting approach”\footnote{That is “let us see what happens”.} in initiating relief programmes. NGOs were also reluctant to initiate their “voluntary” relief activities. This created enormous vulnerability among the poor victim households. The donor community also channeled their funds limiting to a few international and national NGOs and agencies. This prohibited small and medium NGOs and CBOs to initiate relief and rehabilitation activities with full capacity that they have. The government relief was directed inversely to the actual needs of the flood victims of the different districts. This exhibits absence of proper public policy regarding support to the victims. Acute inadequacy of necessary medicines (especially oral saline) accelerated vulnerability of the poor during the early days of flood.

In the light of above discussion, some suitable policy options may be suggested below.

- Bangladesh needs to continue the search for an intervention that will allow the country to contain the flow of its major rivers. We also need to be ensured that our flood control interventions avoid the common causes of structural failures, \textit{e.g.}, inadequate design at return periods, poor embankment materials and manual compaction, and inadequate operation and maintenance. Bangladesh
also needs to regulate the development in floodplains. For this, we can use measures such as flood-risk mapping and floodplain zoning. Flood protection measures that protect the populace are the same ones that cause even greater damages when the infrequent, extreme floods occur. Many of the physical control measures employed impart a false sense of security that encourages even more intensive use of potentially dangerous areas. We must therefore re-evaluate our prevailing method of preventing or reducing flood damages.

- There is now a growing realisation that the predominantly engineering approach to flood control does not provide its intended benefits in terms of protection from floods. In spite of huge investments in flood control works, some countries are faced with the apparently anomalous situation in which both the flood risk and the damage caused by floods are increasing. This is partly a result of the success of earlier flood control measures, which removed, at least up to the limit of their design standard, the risk of flooding in formerly flood-prone areas. This encouraged further investment and development within the floodplain which, in turn, required ever-larger flood control works to safeguard the investment. When an exceptional flood occurs, as is inevitable, the scope for damage is accordingly huge. To overcome the spiraling costs of flood control works and damage caused by floods, Bangladesh may adopt a philosophy of flood management, incorporating the concept of living with floods, in place of flood control.

- As a means of protecting the assets and livelihoods of persons living in flood-prone areas and as a tool to discourage unreasonable levels of investment in such zones, flood insurance has enormous potential. Insurance helps raise people’s awareness of flood risk and the need to manage floods for the greater safety of the community. Compulsory payment of premiums and inclusion of a cap on the amount of compensation that insurers are required to pay also act as disincentives to investment in high-risk areas. In doing this, premium rates should be determined in such a way as to provide incentives for appropriate levels and types of development in floodplains.

- All stakeholders, including both administrators and the general population, which benefit economically, socially, and culturally from the water resources of a river basin, must have a say in how these resources are to be used and conserved. Both must also have a say in how floods should be managed to minimise their adverse impacts while also maximising their beneficial impacts. The poor and marginalised groups need to be included in any decision-making process relating to flood control and management. Effective flood management requires a comprehensive approach that balances flood
mitigation, environmental conservation, and sustainable utilisation of available water resources for the benefit of all people of a nation.

- The conception and design of flood protection should be based on careful analysis of risk so that the passage of greater-than-design floods can be managed in a predictable and safe way. Capacity building of the organisations responsible for managing river basins and the raising of public awareness through better education are to be incorporated as effective means of reducing risks and loss of life from floods.

- Poor households should be given consumption credit during flood in order to ensure food security especially for female, elderly, and child family members, and shelter credit after flood. Government relief should be distributed according to the number of flood victims and severity of flood in the regions so that distributional equity and social justice can be ensured. Agricultural credit should be made sufficient to especially small and marginal farmers, and seeds of different crops (especially cereal crops) should be available to them at a reasonable price. The poor and small fishery and livestock as well as factory owners should also get this type of benefits. Price hike during flood should be arrested by any means to avert unnecessary vulnerability of the poor. Social safety nets (VGD, VGF, TR, etc.) should be strengthened. There should be planned distribution of foodgrains among the right groups. It appears from the media reports that government rehabilitation programme is inadequate to rehabilitate the agriculture sector and agro-based activities in the country. Big NGOs need to concentrate on this issue as agricultural production and food security are closely positively correlated, especially for the poor households.

- Government flood forecasting system should be made effective by enriching with modern sophisticated instruments and highly skilled human capital. Not-for-profit private sector should also build their capacity of the same. There may be an effective public-private partnership in this area.

- Big rivers and canals should be immediately dredged sufficiently to avert unnecessary over-duration of flood and inundation of unexpected areas. Finally, many of the water related problems in Bangladesh could be solved through regional cooperation among the countries in the basins of the Ganges, the Brahmaputra and the Meghna Rivers. For instance, problems of floods, increased dry season flows and salinity control in coastal areas may be taken care of by constructing storage reservoirs in the upper catchments of these rivers, which would minimise flood peaks and reduce both erosion and siltation. Bangladesh, therefore, needs to amplify its efforts toward promoting regional cooperation.
Seasonal Dimension of Rural Agricultural Poverty and Survival Strategy of Rural Poor

Md. Badiuzzaman*
Shamim Ahmed
Tareq Muhammad Shamsul Arefin
Mohammed Towhidul Islam
Mohammad Mafijul Islam Bhuiyan

Introduction

Basically Bangladesh is an agricultural country and most of the people live in the rural area. Though the share of agricultural sector in GDP has declined in the next years, it is still 22% of total GDP. A big portion of labor force is employed in the agricultural sector. A large number of people directly and indirectly depend on the agriculture. So agricultural sector has a substantial role to determine the living standard and socio-economic status of the people as well as the incidence of poverty. In the year 2000, 53% rural people were under upper poverty line and 37.4% rural people under lower poverty line. Consequently, in the analysis of poverty elimination issues of agriculture and rural people assume great importance.

The incidence of rural poverty varies with season. With technological development in agriculture, seasonality is eliminated only partly. Till now many areas of Bangladesh are affected by seasonal devastating flood. Seasonality is one of the main causes of endemic poverty. Seasonal fluctuation in employment, income and consumption leads to lower living standard in lean season. Consequently the poor cannot come out from the poverty trap. The main mechanism to survive against seasonal poverty is availing more formal and informal credit. But in most of the cases, the credit is not interest free. As a result, poverty remains endemic.

But they are not completely ruined by poverty. Because they have some endogenous survival strategy which should be considered as social capital to overcome the seasonal fluctuation of poverty. And this survival strategy may differ from area to area, from household to household.

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Although the poor people have limited resources, knowledge and capabilities, it is believed that they can alleviate their poverty by using their own resources. Credit, grant, aid etc. make the poor people dependent and ultimately may dampen their own initiatives. In this regard it is the responsibility of the state to raise their capabilities for an improved and smooth survival strategy.

**Objectives of the study**

**Specific objective**

The specific objectives of the study are as follows:

- This study tries to draw a picture of how the hardcore poor live during different phases of the year.
- In analyses the survival strategy during the lean season.
- It suggests a seasonal agricultural poverty alleviation strategy for the poor.
- Besides getting the data about their income, it investigates what and how the other factors are important in the life of the hardcore poor.

The basic aim of the study is to contribute to a broader understanding of the dynamics of rural poverty by analyzing household livelihood strategies in a single village. Limited to a single village, the study does not attempt to draw broad generalizations about rural phenomena. Rather, it attempts to analyze why, how and under what circumstances households adopt different coping strategies.

**Hypotheses of the research**

01. One of the causes of rural agricultural poverty is its seasonal dimension. The incidence of poverty increases during the lean season.

02. Seasonal dimension adversely affects the lifestyle of rural agricultural households. The key changes occur in employment, earnings, consumption pattern of the households, savings and assets.

03. A poor man knows about these seasonal ups and downs and has his own planned/spontaneous adjustment strategies. Some of the possible adjustment strategies are:

- Availing more micro credit
- Forward selling of labor
- Shifting from agricultural activity to non-agricultural activity.
- Availing whatever job is available and thus shifting to an inferior occupation.
Selling or mortgaging resources or dissaving.
Transfer payment from various sources.
Exploiting common resources of the locality.
Migrating to a more prosperous area.
Other, i.e., any other novel options.

04. Supplementary non-agricultural activities have helped to mitigate the effects of seasonality in agriculture even though the poverty has not declined significantly.

05. Survival strategy mix varies depending upon the extent of poverty, gender and age.

Methodology

We followed the methodology of participatory action research (PAR) and that is why we stayed with the households. We spent our time with them, made informal chat with them and also shared our meal with them. Thus we knew the condition and relevant information about our sample respondents. From the focus group discussion we heard about their various problems and carried out discussions with them about possible solutions.

We also arranged some focus group discussions in each area, which mainly included the issue of solving their problems and to achieve a unified position. In the early group discussions, we discussed widely about some of the village topics. Later we arranged more structured discussion on selected issues to develop our qualitative data, including land, common property resources, share cropping, labor market, various institutions, money lending, patronage relationship, flood etc. We tried to persuade them to solve their problem by themselves, because they know their problems better than we do. We only worked as animators.

To conduct PAR, we followed a certain procedure in our survey areas. We went through certain stages to implement our PAR. The main stages are as follows

Stage –1: Rapport building with the villagers.
Stage –2: Group formation for focus group discussion (FGD) and motivating group discussion
Stage –3: Focus group discussion with previously formed groups
Stage –4: Intimate chat with selected respondents.

We had a prepared list of issues to collect certain information and from such issues many secondary issues were generated, which were discussed with the poor people.
Site Selection

For purposes of this survey, four villages were selected from four different districts chosen previously from nine agro divisions of Bangladesh which constitute our sample area. From such sample area we collected quantitative and qualitative data concerning our research. Therefore our sample area was not a randomly chosen area. The four selected districts from the nine agro divisions were ‘Kurigram’, ‘Gopalganj’, ‘Feni’ and ‘Mymensingh’.

Criteria for site selection

01. Hardcore poor peasants exist in the selected villages.
02. Selected village should be agro-based.
03. Seasonal dissimilarity of rural agriculture should exist.
04. Overall socio-economic condition is not satisfactory.

Four selected sites

The four selected sites from four different districts are,

I. ‘Arazi Polashbari’ (Kurigram)
II. ‘Chandradighalia’ (Gopalganj)
III. ‘Azizfazilpur’ (Feni) and
IV. ‘Char Ishwardia’ (Mymensingh)

List of issues

We selected some issues about the survival strategy of the rural poor and the impact of seasonal fluctuation on rural agricultural poverty through literature review and justified whether these issues were applicable to the seasonal dimension and the survival strategy of the rural poor of our research area. The issues are:

Survey Report of Kurigram

<table>
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<tr>
<th>Personal Information</th>
<th>Specification of Peak and lean season</th>
<th>Common Property Resource Exploitation</th>
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<td>Income</td>
<td>Employment</td>
<td>Savings</td>
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<td>Assets holding</td>
<td>Health Status</td>
<td>Education</td>
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<tr>
<td>Security</td>
<td>Loan</td>
<td>Change in occupation</td>
</tr>
<tr>
<td>Migration</td>
<td>Food Intake</td>
<td>Survival strategy</td>
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</table>
Where and When

Our participatory action research was conducted in a village of Kurigram Sadar Upzilla that is situated in the northern part of Bangladesh. Though Kurigram district is in the drought prone northern part of Bangladesh, some large rivers flow across this district. The name of our chosen village is Arai Polashbari and it is under Holokhana Union. It is a village beside the river Dhorla. The survey was conducted between 24 February 2003 and 11 March 2003.

Sample Designing

Total number of respondents for our PAR was 58 and only hard-core poor peasant household members were considered eligible to be included in the sample. The number of male and female respondents was 51 and 7, respectively. The female respondents were heads of their families.

Peak and Lean Season in Survey Area (Specification by respondents)

Peak season in this area consists of the months of “Agrahayan-Poush” and “Boishakh-Jaistho”. During these months they harvest paddy. And lean season of this area consists of the months of ‘Ashar’ and ‘Ashyeen’. During this time the peasants cannot cultivate their lands due to seasonal flood.

Main Findings of our survey

Income

Income is higher in peak season and lower in lean season. 43.1% respondents earn only TK.35-40 per day in peak season where as 93.1% respondents earn TK. 35-40 per day in lean season.

Employment

The number of unemployed or workless day per week is more in lean season as compared to peak season. Almost 25% respondents work every day of the week in peak season whereas only 3.44% respondents work every day of the week in lean season.

Consumption

During flood when their houses go under water and they lose their jobs they eat only one meal.

Most of the time they eat hand made bread. 86.2% respondents can afford two meals per day whereas only 29.3% respondents can afford two meals per day. And
19% cannot afford any meal in a day during lean season. Improved quality food i.e. meat, fish, milk, egg etc. are considered as a daydream to respondents.

**Health Status**

Duration of sickness in peak season is less than in lean season. Though they have sufficient tube wells to get safe drinking water, they do not have safe and healthy sanitation system.

**Education**

Almost 100% people are illiterate. But they want to be literate.

**Security**

Though they have no food security, law and order situation is satisfactory to the villagers.

**Planning**

Almost 100% households do not have any planned strategy to cope with seasonality. They are not confident about their own capabilities.

**Loan**

81% respondents need to take loan to cope with seasonality. Among the loan takers, 91% take loans from informal sectors. Rate of interest is very high i.e. TK. 300 as interest for TK. 500 as credit for only 6 months. Credit availing is one of the most preferred survival strategies.

**Distress Selling**

Forward selling of land, crops or labor was not found.

**Migration**

Most of the people do not migrate to developed areas due to security problem, transportation costs and risk of getting no job.

**Asset Mortgage**

They are so poor that they do not have any thing to mortgage. Only 4 persons mortgaged their land.

**Savings**

31% respondents have no saving in peak season whereas 81% respondents have no saving in lean season.
Common Property Resource Exploitation

Exploitation of common property resource i.e. fishing in river and grazing the cattle in the ‘Char’ has a positive impact on their livelihood. But they do not consider it as an important survival strategy.

Purchase on credit

Purchase from groceries on credit is the most easily adopted survival strategy.

Specific Findings

01. Relatively women were more interested to do something.

02. Rate of interest in informal sector is tremendously high. For example- TK. 300 or 40kg of paddy is paid as interest for TK. 500 as the credit for 6 months.

03. Rate of common property exploitation is not high and they do not consider its impact important for their livelihoods.

04. Sale of livestock and tree during flood acts as a coping strategy.

05. ‘Nadda’, a kind of natural fuel made of cow dung has high demand in the market and it acts as a source of income for women. They collect it from char land where cattle are grazing.

06. During rainy season ‘Nal Khagra’ grows in the char land. Some of our sample respondents used to cut this plant for fence making. These fences are used for making walls of their houses. It is also sold in the market at high price nowadays.

07. They are eager to save from their little income.

08. Hospitality of the rural poor people is praiseworthy.

09. ‘Arazi pollashbari’ is such a village where NGO activities are virtually non-existent.

10. Safety net programs of government are politically biased and full of corruption.

11. Growth rate of population in this village is much higher than national population growth rate. No substantial family planning activity was found during our survey.
Supplementary Works In The Lean Season

1. Rickshaw pulling
2. Earth cutting
3. Cutting trees
4. Fishing

Proposed Survival Strategy During Focused Group Discussion

01. Rearing cattle, cows and goats is an easy way to cope. As there are available free grazing grounds in the riverbanks, rearing cows and then selling milk and cow-dung can be a remarkable coping strategy.

02. Opening small grocery shops.

03. Rickshaw pulling.

04. There is no tailoring shop in this village. So, the villagers have to buy cloths and make dresses from the town, which is costly and time consuming. Women respondents of our village told us that if sewing training can be provided they can earn a respectable amount of money to raise their living standard.

Interesting Cases

01. After the devastating flood of 1988, Government provided TK. 2010 each as relief to some of the poor villagers. One of them bought a cow with the money, reared it and now he is owner of a farm, which consists of 10 cows.

02. Peasants do not prefer using tractor. They said tractor could not dig the total land area of a peasant. Especially they can not drive through the corner places and the edges. Moreover, the tractor drivers and the owners do not dig as deep as they are asked for according to the contracts. Quality digging needs more power and thus more fuel is used for that. This is why, to save money the tractor owners and the drivers dig less than what the peasant demands.

Steps Towards Action Research

01. From the focused group discussion our respondents took decision of rearing cattle as their survival strategy. But they had not enough money to do so. To raise a fund we made five groups of respondents who agreed to make savings weekly.

02. Kurigram is known as “The town of NGOs”. The well-established NGOs like BRAC, GRAMEEN BANK, ASA, RDRS have no activity in this village. We talked with the authorities of these NGOs to provide their services in this village.
03. Targeting Ultra Poor (TUP) is a project of BRAC. This project provides interest free credit to the Ultra Poor (a new concept of poverty measurement) who have no asset. We talked to the regional coordinator of TUP to provide this service in Arazi Polashbari village.

Specific suggestions

01. Irrigation in the char land is difficult and costly for the rural people. Govt. and NGO should provide irrigation equipments as loan on cooperative basis.

02. Types of crops that can be easily grown in sandy land (“Char Land”) should be selected through research.

03. As most of the villagers are landless and live on the embankment, NGO authorities are not willing to provide their services in this area. NGOs consider whether the people are permanent or temporary. But in our research we have found that they have been living on this embankment for last 20 years. So NGOs can easily provide their service.

\[\text{Survey Report of Gopalganj}\]

\textbf{When and where}

We conducted our survey in the village ‘Chandradighalia’ of Gopalganj district between 24 February 2003 and 11 March 2003.

\textbf{Brief description of the village ‘Chandradighalia’}

‘Chandradighalia’ is the only village of ‘Chandradighalia’ Union. It is also one of the biggest villages in Gopalganj. As we said earlier ‘Claw of poverty’ is visible and bare everywhere in the village. Some information about the village and the peasants of the village are given below:

\begin{itemize}
  \item Though the villagers have tube-wells, these are not arsenic-free. So, they have to collect water for various purposes from ponds.
  \item People of the village are inconfident and lazy.
  \item According to villagers, the terms and conditions of loan are very hard and interest rate is very high. They want easier terms and conditions of loan and lower interest rate.
\end{itemize}

Amongst them we selected 62 respondents as our sample. 56 of them were men and 6 were women.
Focus Group Discussion

We tried to know the relevant information for the research from our sample respondents through informal conversations as well as several focus group discussions rather than filling up formal questionnaires. We arranged six focus group discussions.

Peak Season
‘Boishakh-Joistha’ ‘Kartik-Agrahayan’ & ‘Falgun-Choitra.’

Lean Season
‘Ashar-Sraban, Bhadra-Ashyeen’ & ‘Falgun-Choitra’ lean season.

Main and general findings of our survey

Income

We worked mainly with the peasants. They produce various seasonal crops and get the price after each season. Their income depends on the production of crops, which occurs 2/3 times a year. And all the income cannot be derived in monetary form.

Work Days

Most of our samples work everyday during peak season. But many of them work only 3 or 4 days during lean season.

Savings

43.55% of the total respondents have savings in peak season, but only 3.22% have savings in lean season. So clearly their economic status is downward during the lean season.

Expenditure

Population is a big problem for the people of ‘Chandradighalia’. Many of our samples have big families and thus their expenditure on daily needs is very high. A remarkable thing is that they have to expend much to meet daily needs during lean season, because they have to buy rice from the market in this period.

Education

Our respondents were mostly illiterate. Others think that education did not bring any good to them.
Health
Flue and gastric ulcer are common diseases here. Sickness during lean season is 4 times higher than in peak season here.

Security
‘Chandradighalia’ is a 100% safe village. There is no security problem. There is no thief, robber or anything in any season that can become a threat to their security.

Political or religious taboos
Though the village is safe, political pressure causes some problem. Usually the minority group faces this sort of problem. Minority religious Hindus were tortured by the members of some political parties and by the Islamic fanatics just after the National Election 2001.

Advance Selling of labor
People of this region do not sell labor in advance.

Survival Strategy
Loan
People take loans from informal sources like relatives and neighbors. They also take loans from formal sectors like BRAC and cooperative societies. But taking loans from informal sectors has an advantage. In this case most of the time they don’t have to pay any interest against the loan. And they don’t have to follow a strict time limit.

Change of occupation during lean season
69.35% of the peasants of ‘Chandradighalia’ change their profession during lean season. They pull rickshaws and vans, run small businesses and grocery shops in this period.

Mortgage
33.33% of the respondents mortgage lands mostly to the mortgagee for money. They get back their assets after repayment of loans. During this period the mortgagee cultivates the land and takes the crop all alone.

Purchase on credit
Purchase from groceries on credit is the most easily adopted survival strategy.
Common Property Resource Exploitation

Most of the villagers are not concerned about government owned assets. Though some villagers know about them, they cannot use them because of fear. Powerful people of the village control the government owned assets.

Seasonal Migration

During lean season some of them migrate to different places for job. A very few of them come to Dhaka. Most of them move to the nearer districts (Jessore, Khulna, Faridpur etc.).

General suggestions found from the focus group discussions

The following suggestions were found through several focus group discussions organized by the researchers with the spontaneous participation of the respondents.

a. Population: Population is a big problem here. Though most of the peasants had enough land to produce sufficient crops for thier existence before, now after having a big family that land has became insufficient to survive.

b. Mechanization in farming: More mechanization is needed here. With some mechanization wheat cultivation can be possible here. Soil of ‘Chandradighalia’ seems `to be very favorable for wheat cultivation.

c. Proper irrigation: Many of the peasants cannot cultivate their land during lean season for the lack of irrigation. So, if proper irrigation can be arranged, the effects of seasonality may decline.

d. Cultivation by the roadside: Vegetable cultivation by the roadside is common in many parts of the country. This should be introduced here under the proper guidance of local authorities.

e. Poultry: Poultry can become a side business for the peasants. With it they could mitigate their poverty throughout the year. Moreover the younger group can take it as their main occupation. They need motivation and investment in this connection.

f. Youth Training Center at a central place: While conversing with them we came to know that the only youth training center is at a remote corner of the district. So, they could not attend the courses they want to learn for their self-employment. It should be transferred to an easily reachable place.
Specific suggestions

The following suggestions were found through several focused group discussions organized by the researchers with the spontaneous participation of the respondents.

g. Date, Palm and “CHOAN”

A kind of leaf used for making several handicrafts, which are seen abundantly in ‘Chandradighalia’.

leave selling

There are plenty of date, palm and “CHOAN” leaves in ‘Chandradighalia’. These can be used for handicrafts and other purposes.

h. Fish farming

We find almost no pond using for fishing purposes. But government owned assets and other lands could be turned into ponds and used for fish farming by the cooperatives of poor.

i. Cottage industry

Using date, palm and bamboo leaves they can build cottage industry here. Women can contribute through handicraft making.

j. Honey farming

There are some canals and a lot of crops and wild flower trees by the side of those canals. So, honey cultivation can be very profitable here.

k. Handloom industry

Small handloom industries were main occupation of the people of ‘Chandradighalia’ before. But during 1980-90, cheap and low quality Indian cotton entered Bangladesh market and thus handloom industry became unprofitable. But with government assistance and modern technology, success in this industry can be achieved again here.

l. Interest free loan scheme for vegetable cultivation

Peasants of this region do not know how to cultivate vegetables properly. We saw only one peasant cultivating vegetable in his land during our survey. If proper irrigation system could be introduced and government or non-government organizations provide interest free loan scheme then peasants of this village could produce huge amount of vegetables and achieve a standard income level.
m. Hatchery

Some villagers told us that establishing hatchery here could be very much profitable. Hatcheries of breeding fish are needed where there are many ponds and fish firming is more common.

n. Industrialization

Above all industrialization is needed. Without proper industrialization there will exist unemployment forever. If industries were established here, surplus crop could be used for diversified production.

Interesting cases

o. Selling of bamboo leaf

Plenty of bamboo grows here and dry bamboo leaves are seen here and there. We found a man who became rich only by selling dry bamboo leaves. He collects dry bamboo leaves from all over the village and sells them to the molasses businessmen.

p. Gas and oil!

The east side of the village is much drier than the western side. Some rich people tried to set up deep tube wells here a few years ago but in vain. Because when they tried to pile up deep tube wells into the ground, gas erupted suddenly. They tried in several locations but things were unchanged. So, may be another gas field is there.

q. Money spending is higher during lean season!

We saw in some cases that our samples spend more in the lean season. This is because they have to buy rice during lean season from the market. As they consume their own produced rice during peak season, they need not buy it from the market.

s. Cheating in tractor using

Peasants do not prefer using tractor. They said tractor could not dig the total land area of a peasant. Especially they cannot drive through the corner places. Moreover, the tractor drivers and the owners do not dig as deep as they are asked for according to the contracts. Quality digging needs more power and thus more fuel is to be used for that. This is why, to save money, the tractor owners and the drivers dig less than what the peasant demands.
1. Women do not cast their vote

We went to Gopalganj on 24 February 2003, the very day the ‘Union Parishad Election’ was being held. We found it very interesting that in village ‘Chandradighalia’ no woman cast her vote. Actually it is a kind of social taboo there. Not only men but also women are proud of this system. But it was hard for us to find what were they so proud of. We talked about the fact in the focus group discussions. It was astonishing for us to find that some old farmers agreed with us that women should cast their votes and women empowerment is important for society. But the women themselves and the young peasants strongly disagreed with us. They told that men are earning for women and that’s why they should rely on men’s decision. They also told that women should not cast their vote because it would violate the regulations of religious belief.

Capacity Building

We took a data collector for our survey from this village. We stayed at his house during our survey. He worked with us and we gave him all the information we had about participatory action research. He also learned a lot from the focused group discussion where he participated spontaneously. We had encouraged him to continue the process we have started and he told us recently that he was trying to organize the younger people of the village so that they could do something to improve their livelihoods all together.

Survey Report of Feni

When and where

We conducted our survey in the village ‘Aziz Fazilpur’, between 24 February 2003 and 11 March 2003. The historic grand trunk road is passing through the middle of the village. Most of the landowners of this village do not live there. So most of the inhabitants are tenant there. Again, a large number of villagers live abroad, mainly in the Middle East. From this point of view, the socio cultural and economic status of this village is quite different from the three other villages.

Sample

At first we met with different local government officials, peoples representatives, local inhabitants and social workers. Then we got the general information and
outlook of the inhabitant life style and economic conditions. Then we located the marginal farmers and hardcore poor families’. We made some dialogue with them and at last we selected our required 20 sample households. Total household members of our selected 20 households are 121 persons. Among them 48 persons are earning members and remaining 73 persons are dependent members. Out of the 121 members, 64 members were taken as our sample respondents for our survey at village ‘Aziz Fazilpur’. The 20 households from which our respondents were drawn, also included 6 women headed households.

Lean and peak season specification by respondents

We find no unanimity among our respondents requesting the duration of peak and lean season. It became clear that rural households have developed a range of strategies to deal with seasonality on the basis of their prediction about lean season, and this seasonality phenomenon is quite uncertain. The predictability of seasonal fluctuations are constant factors in the livelihood calculus of most households and influence both their options and their strategies, even in normal years.

Main findings of our sample

Income

To find out the income of the household members, we encountered some problems. We found some of the samples work only in lean season; some of them just act as supporting hands. Usually they hand over their income to the head of the family. So they have no idea of their income. By comparing the two seasons’ data we find that earning members in terms of total sample respondents increase in lean season but the average volume of the income decreases significantly during that season. Additional earning members work only during lean season and act as helping hands for their family. They are usually engaged in informal sector during lean season but in period of peak season they help the households in crop field. So they have no specific amount of income in peak season.

Employment

By comparing the data for the two seasons, we find average unemployment in terms of days increase in lean season. Again interval increases in the of lean season,

Savings

During lean season, the sample’ economic condition worsens as the percentage of dis-saving increases and the amount of savings decreases.
Around 10% of households’ earning members are able to save during lean season. They are 4 in number. Among them, 3 save very little amount around TK. 10 to TK. 100 during lean season. Analyzing the data we find that respondents’ saving decreases significantly during lean season.

**Consumption**

Their quality and quantity of consumption decline due to low purchasing power as their income decreases during lean season. We found only 2 households consume higher quality food during lean season whereas during peak season 8 households consume higher quality food. This quality includes food bundles of high nutrition value and also higher market price, such as meat, milk, fish etc.

**Survival strategy**

Most of our samples think about their survival strategy. About 41% of our samples try to plan their survival strategy. In this case the respondents are the 37 male members of our sample and the 6 women head. Among them, 18 sample members adopt planned strategy during lean season and 8 sample members adopt instantaneous strategy and 7 samples adopt both the strategies. Planned and instantaneous both include borrowing from non-institutional sources. So this is the most common strategy.

**Loan**

The number of borrowers increases in lean season and the loan amounts decrease significantly in lean season. It happens in most of the respondent’s cases. Again, loan in terms of object, foodstuff, food grain are available during lean season.

We found that our respondents take short-term loans, as their highest loan duration period is 6+ months,. We also found that our samples that take loans in lean season, mainly short-term loan. We found 8 of our sample members get loan without interest even in peak season. Mainly people get loan at zero interest rate from their relatives. Loan, in which interests are in kind, and loan in form of hidden interest are not present in peak season. Interestingly, our sample gets access to loan at zero interest rate more frequently in lean season and they also get loan in the form of hidden interest or interest in kind.

**Mortgage**

Households mainly mortgage their ornaments and household utensils during lean season to get access to resources. It is also one of their instantaneous survival strategies.
Change of occupation during lean season

51% of our sample change their occupation during lean season. A good number of women household members also make change. We found that 33 sample respondents used to change their occupation during lean season This include also housewives.

Migration

We find that 12 sample members out of 64 used to migrate during lean season to Dhaka and Chittagong.

Specific findings of our survey

1. Some of them buy small cattle during peak season and rear them. In the long run this cattle serves them as their insurance. They sell them during financial difficulties, during lean season and get handful of money that helps them survive.

2. Though the income in informal sector is high, they usually have to be engaged in agriculture as it ensures their food security.

3. Vegetable cultivation is more profitable than paddy cultivation and it also provides higher income during lean season. So some of the villagers have already started to cultivate vegetables as their coping strategy during lean season.

General suggestions from Focus Group Discussion

- As floodwater does not stand here for long, vegetable cultivation is profitable. Again, some kinds of vegetable can be cultivated in water also. So people take vegetable cultivation as their survival strategy. As they are new in this process of cultivation they need some assistance from the government. Especially good quality seeds can help a lot.

- If the irrigation system of the village can be improved, the cropping intensity of the cultivated land can also be increased significant by This will also be helpful for vegetable cultivation.

- There remains a lot of unused cultivable land. These lands are less fertile and have production cost is higher. Steps in this regard are essential. Some research can be done to find out suitable crops for such lands.

- The block supervisors of this village do not perform their duty properly. So the farmers face a lot of problems.
Peoples’ Expectation

- Cottage industry has a lot of potential. So they want investment in this sector.
- The village has good communication network, both external and internal. It is also expanding rapidly. So they want easy loan scheme to buy rickshaw and tempo.
- As unstable political condition hampers their economic activity and social security, they want political stability in the country.
- The terms and conditions of loan are very hard and interest rate is very high. They want easier terms and conditions of loan and lower interest rate.
- Villagers are not satisfied with irrigation system. They want more government participation in this sector.
- They also want more activities of the government agriculture office.

Survey Report of Mymensingh

When and Where

We conducted our survey in the village ‘Char Kalibari’ of Mymensingh district between February 24 2003 and March 11 2003. To conduct the survey, we stayed in the village for 15 days. ‘Char Kalibari’ is a large village with large population. It stands near the bank of river ‘Old Brahmaputra’. The village is connected with Mymensingh town through ‘Shumboganj Bridge’. Mymensingh-Netrokona highway passes through the village. But local communication network in the village is not good. As the village is near the river, during rainy season it goes under water for at least three months every year.

Sample

At first we talked with the government official, the Agricultural Block Supervisor of that area. We met peoples’ representatives, local inhabitants, social workers etc. Then we got the general information and outlook of the inhabitants, their lifestyle and economic condition. Then we located the marginal farmers and hard-core poor families. We made some dialogue with them and selected our required 20-sample households. This 20-sample households consist of 85 members. Among them 50 members were taken as our effective sample respondents for our survey. Among them are 26 male and 24 female members. From the total household members of 85, earning members are 31 and remaining 54 are dependent members.
Most of our sample households are poor agricultural farmers. A large number of them were tenant farmers; very few of them have own land. Some of them are agricultural day laborers, transport laborers etc. Among the households, 1 household completely depends on selling irrigation to other farmers. Out of 50 respondents, 60% are totally illiterate. These 20 households include 2 women headed households.

**Participation of our Sample**

Participatory action research mostly depends on the participation of the respondents. We are lucky that the sample farmers of these areas are aware of research works because students of Mymensingh Agricultural University have done some survey works. So the sample farmer talked with us without any hesitation. They freely talked about their cultivation, marketing, their sorrows, sufferings and deprivation. They requested us to communicate their problem to the government.

**Peak and Lean Season in Survey Area (Specification by Respondents)**

We found no unanimity among our sample respondents regarding the duration of peak and lean season. Out of 45 sample respondents 53.33% said that ‘Agrahayon–Boishakh’ is their Peak season. And 37.77% said that ‘Agrahayon–Jaistha’ is their Peak season. About 31.11% said ‘Ashar–Vadro’ is their Lean season and 26.66% said that ‘Ashar–Aswin’ is their Lean season.

**Main Findings of our Survey**

**Income**

To find out the income of the household members, we faced some problems. We found some of the household members act as a supporting hand. To find out income we convert their agricultural products into monetary value. So it was not possible to compare the peak season income with that of the lean season in same method. Among the respondents, 26 work during peak season and 25 work during lean season. During peak season the respondents have average income of Tk. 71.92(52%). And in the case of lean season their average income is Tk. 60.80(50%).

**Employment**

In lean season, respondents are without work for 3-4 days in a week. In peak season highest 38.46% respondents are employed in work for the whole week. During lean season 15.38% respondents are unemployed for the whole week. Highest 23.07% sample respondents are unemployed for 4-5 days in lean season.
Food Intake and Quality Foods

85% of our sample respondents take food three times a day in peak season, but in lean season only 69% eat three times a day. 70% of our sample respondents say they rarely eat quality food, i.e, meat, fish, milk and egg in peak season. And 30% do not eat quality food in peak season. But in the case of lean season 100% of our sample respondents eat lower quality food.

Education

In lean season the village goes under water. And the only school is far away from the northern part of the village. We found only one school run by BRAC in this village. Govt. primary schools are far away from this part of the village. 7 out of 20 sample respondents do not send their children to the school during lean season due to flood.

Savings

During lean season only 38.46% of the respondents were able to save 72% of the sample respondents are in dis-saving condition.

Health Status

Many of them suffer from several diseases during lean season. We have seen very few tube-wells and sanitary latrines in our survey area. Most of those are located in rich inhabitant’s house. During lean season, 13 out of 36 respondents say they were sick for 3-4 days in a week. Only 3 respondents were sick for the whole week.

Security

76% of our sample respondents do not feel any kind of security problems in any season. Only 10% persons feel insecure in peak season and 10% feel insecure in lean season. The insecurity problems are due to political clashes and stealing of hens and ducks.

Survival Strategy

About 54% of our sample respondents try to plan their survival strategy. Around 20% of them do not feel the necessity for planning a future. They think that they are fully dependent on nature and they have nothing to do. Others have lot of plans in their mind but they usually are not able to fulfill their plans due to their poor financial status. The more common survival strategy is borrowing money. Same of the households have assets apart from homestead, land, and informal sources.
Assets Selling as Survival Strategy

To survive in lean season household respondents sell their trees, domestic animals like cow, goat, hen and duck to mitigate their sufferings as instantaneous survival strategy. 58% of the total respondents sell their asset during lean season.

Mortgage

Household respondents mainly mortgage their land, ornament etc. It is also one of their instantaneous survival strategies. Only 12% sample respondents mortgage their asset during lean season.

Loan

Out of the 50 sample respondents, 60% take loan from different sources to cope with seasonality. 21 sample respondents took loan during peak season and 19 sample respondents took loan during lean season. Household women have access to the NGOs’ credit services. 40% of the respondents do not take loan in any season. During peak season highest 28.57% sample respondents’ borrowed amount was TK.500-TK.1000. In lean season 36.84% sample respondents’ borrowing amount was TK.500-TK.1000. Around 27.50% borrowers repaid their loan in time during both the seasons. But 42.10% failed to repay their loan in time during lean season. We found that interest rates varied from person to person. During lean season 47.85% of the respondents took loan without any interest. Others borrowed money with a high rate of interest from informal sector.

Consumption of Previous Saving

Consumption of previous saving is one of the strategies of the respondents to survive in the lean season. 52% of the total respondents consume their previous savings, which is used mainly for buying food during lean season.

Advance Selling of Labor and Crops

People of this region do not sell labor and crops in advance.

Change of Occupation in Local Area During Lean Season

Out of total 50 sample respondents, we found 70% did not change their occupation during lean season in local area. Only one woman worked as day laborer in other farmers’ house and she was the head of a family. 15 of our sample respondents changed their occupation in local area. And 73% told their income was higher due to change in occupation in local area. At that time they pull rickshaws, work as transport laborers, earth cutting laborers and they catch fish from ‘Beel’ and river. Their income increase on an average is TK.35.
Helps from different sources

Many of our sample respondents receive help from their relatives. And sometimes the rich persons of the village help them. During various festivals they give the poor food, cloth etc but not money in cash. None of them gets exemption from loan and interest.

Common Property Resource Exploitation

48% of our sample use the government owned assets. They mainly catch fish from the river. They use the land besides the rail line for cultivation. They also use the ‘New-Char’ land of ‘Brahmaputra’ river for cultivation. They use the canal to catch fish during rainy season.

Seasonal Migration

Out of 26 male respondents, 10 migrate to a distant place for employment during lean season. And their income is higher during migration. None of the women respondents migrate during lean season. Some of our sample respondents migrate to ‘Netrokona’ during lean season, because in the rainy season a lot of fish is found in the canal of ‘Netrokona’.

Specific findings of our survey

1. Though the income in informal sector is high, they still prefer to engage themselves in agriculture as it ensures their food security.

2. The sudden death of domestic animals mainly cattle are frequent here. So the inhabitants face a lot of difficulties. Mainly they suffer a loss of animal power in their cultivation process.

3. Supplementary non-agricultural activities helped able to mitigate the effect of seasonality in agriculture even though the total poverty situation has not improved in that area. But such activities prevent extreme fall in the quality of life.

4. They do not like the micro-credit program of NGOs. According to them the process is too much burdensome to bear.

General suggestion from Focus Group Discussion

- Tractors are rarely used here, so the small landholders find it very costly to till their land. Co-operatives of small farmers could overcome this problem.

- There is a power plant in the village from which electricity is supplied to Mymensingh. Though electricity polls are running across the village, the
villagers themselves are deprived of electricity. So it becomes costly for them to irrigate their land by shallow tube wells using diesel. If they can get access to electricity, it will become cheaper for them.

- Diversification of crop is one of the major features in this area. But they do not get the fair price. If they can be able to store this crop for longer time then it will be very good for them. Basically in lean period, they will be able to sell it at a higher price.

- Geographical location of the village is suitable for industrialization. It has a good transport network. And it can also easily get electricity without much investment. So establishing industry can create employment here.

**Expectation of the respondents**

- Women households of the community think that they can establish a cottage industry if they get the necessary loan from NGOs on easy terms.

- As floodwater pollutes the fields of the village, sudden death of cows is frequent. This problem affects the villagers in various ways. Mainly they suffer from a shortage of animal power and fuel. They want help from the government in this regard.

- There is a big jute mill here. This created a lot of employment opportunities for the villagers. Unfortunately the mill is closed now due to mismanagement of officials, which has caused a huge unemployment problem for the villagers. They want restarting of this mill.

- They think that if government distributes the ‘New Char’ land among the marginal and landless farmers it would be better for them.

- Agricultural block supervisors are not available here; they want more frequent visit of these supervisors to their fields.

**Interesting cases**

One of our sample households says that by using “Current-net” for fishing purpose he can earn more money during lean season. Prohibition of current net by government actually has made him worse off.

We find one of our sample households taking a land at fixed rent with sharing with other farmers. Both of them are poor. They cultivate only this land and bear the cost of production by half and get profit by half.
We found an interesting trend that male members of the locality are eager to get married. Most of them have many wives. They try to get married because they get money as dowry from the marriage.

Conclusion

Outcome of the research

1. We find that seasonal fluctuation has been reduced in general. But in the areas near to the river seasonal fluctuation remains. Developed infrastructure, high yield variety seed and irrigation reduce the seasonal ups and downs. As a result cropping intensity increases. “Mora Kartik” is a prominent concept in the analysis of poverty of lean season. But nowadays flood does not occur in the month of ‘Kartik’. But one thing happens in this month. Just after the seasonal flood, peasants cultivate their land and sow the seeds using their last resource. As a result food grain becomes scarce and after the seeds of paddy are sown, there remains no work in the field. So the agricultural day laborers become unemployed. In consequence, wide spread food entitlement failure arises in the area.

2. The period of lean season varies from farmer to farmer and they determine their survival strategy on the basis of their own determination of the lean season.

3. From the cross comparison of four districts it appears that Kurigram is more vulnerable than other survey areas with respect to socioeconomic condition. Scope for survival is relatively hard in Kurigram.

4. The main living strategy during lean season is consumption of previous savings, which is very small in amount, credit availing from formal and informal sources and various types of transfer payments. If all fail and migration is too costly, then they have to starve.

5. Rural people eat three times a day in affluent areas. But in poor areas most of the rural people can afford only two meals a day. But in both areas they can’t afford quality foods like milk, meat, egg etc.

6. In affluent areas, due to development of infrastructure and institutional arrangement people are inclined to take non-agricultural activities as their occupation. They are not optimistic about the development of agriculture and do not want their children to be employed in agricultural sector.
7. Most of the rural people have some spontaneous strategy to survive. Education, media, electricity and NGO activities have a substantive role for raising the consciousness of the poor.

8. Availing credits, selling of assets etc are dominant survival strategies followed by the respondents.

9. Micro credit has a positive role in struggle against poverty. But micro credit is provided for non-agricultural sector and only to those who have a minimum base.

10. For some rural people, who have no assets, mortgage of assets is not applicable for them. But mortgage is a very popular strategy to the poor.

11. Transfer payment from govt. is very much corrupted. Consequently the actually needy people don’t get this type of payment.

12. The rural poor do not like migration but they have to migrate from their village to earn money.

13. Common property resource exploitation has a substantive role in the life of poor people. But these assets are not well managed.

14. Supplementary non-agricultural activities increase in the rural areas due to development in communication system. It reduces the pressure on agriculture.

15. People want to change their agricultural occupation and want to get engaged in non-agricultural activities to earn more income.

Concluding remarks

The whole of the survey phase was a learning period for the researchers. Through the whole survey the researchers could closely observe the nature and consequences of poverty. They found a common condition of poverty around Bangladesh. There may be differences in socio-economic life style between various areas but in case of poverty there exists a general similarity. It seems that poverty acutely appears in lean season and thus lower the quality of socio-economic lifestyle of the poor. This seems to be the general trend in the country. In the context of income, consumption, employment, economic and social activities rural people lead a dual life. Sometimes they try to plan these two seasonal phases of their life but in most cases they fail to do that because the existence of lean season causes them to suffer a downward shift in their economic condition. This downward shift subsequently also hampers their relatively better
lifestyle of peak season. In this context of self-perpetuating poverty, positive improvement requires especial government intervention during the lean season.

In the course of the survey, it became apparent that in the less developed poor areas development interventions were very few. On the other hand development interventions are relatively high in the affluent areas, which appeared paradoxical to the researchers. It is almost like ‘Carrying gold to Newcastle!’
References

1. A study on the causes of extinction of the small professional groups and their rehabilitation, conducted and published by Mass-line Media Centre (MMC) with the financial assistance of Grameen Trust, on February 2002.


বাংলাদেশ জুমি-কৃষি-জলা সংক্রান্ত আধুনিক আকাশ তোলা নিবিড় উদ্যোগ নয়। এ প্রক্রিয়ায় বক্ষির অন্তর্ভুক্ত সূচনা এসকল উদ্যোগ নয়। উদ্যোগ বলতে উসেল মানুষের আন্তর্বৃন্দ বিকাশের পৃথিবী এবং সন্ধ্যার দৃশ্য। যেখানে বিকাশ হাস মানুষের পাচ ধরণের আধীনতা: আর্থনৈতিক সূচনা, সামাজিক সুর্যাত্মিক রাজনৈতিক স্বাধীনতা, সাধারণ পার্থিবত, সাধারণ নিষ্ঠার জমি-জলা সমূহ এ দেশে ব্যাপক জনগোষ্ঠীতে দিল্লী রেখে এ উদ্যোগ সহ নয়। তা সহ নয় মানব-দায়িত্বের উত্সব্ব বদল না কর। একাদিকে জনপ্রকরণ ও রাজনীতি নিঃসরণে অবিভক্ত হতে যাবে আর অন্যদিকে দিল্লী-দায়িত্ব সৃষ্টির উৎস বিলুপ্ত হবে—তাও হবে নয়। আর এর অর্থ এর নয় যে হবে বিদেশে রেশে আকাশটাই শেষ। দিল্লী মানুষের আধুনিক প্রক্রিয়ার লক্ষণ-সম্বন্ধে— ধরণ ও প্রক্রিয়া যাই হোক না কেন— একটি মৌলিক কাজ। এ দৃষ্টিতে জুমি-কৃষি-জলা স্বভাবের (land reform, agrarian reform, aquarian reform) ক্রিয়াটি মৌলিককরণ। এ প্রক্রিয়াতে— বর্তমান কঠোর এবং অর্থনীতি সহ অনেক দুঃখ। আর এটি সীমাহীন ধরনের রাথায় পারাকে সঙ্গে কাঠামোটির কাল্পনিক পরিবর্তনগুলো কুরি করবে।

জুমি-কৃষি-জলা সংক্রান্ত এই সমূহের বিভিন্ন মানুষের আধীনতা এবং তাই যদি তা ধরে রাথায়ে পারে (বাজার অর্থনীতির রুপে) দে লক্ষীর তীব্রতা: শান্তি-আনন্দ সম্পত্তি আইন (যা লক্ষী-সম্বন্ধের কাল্পনিক বাদিত হয়েছে)-এ কর্মসংস্থাপনের জন্য আনন্দ সম্পত্তি মানুষের আধীনতা করণ পদক্ষেপ গ্রহণ; ফুল আনন্দ সৃষ্টির মানুষের জুমি-জলা-বন্ধুত্বের উপর অধিকার ও কর্তৃক্তি প্রত্যাহার লক্ষ্যে, জমি সম্পত্তিকে নারীর সম-সমাধিক নিঃসরণ করার লক্ষ্যে; জল-জলায় মস্ত্যীবি নারী-পুরুষের অধিকার প্রতিষ্ঠার লক্ষ্যে; চিন্তিতেরসহ মূল-পাঁচ সম্পাদনে উপকূলের দুর্দান্ত-গুরুত্ব মানুষের আধীনতা আনন্দের সময়ে; জুমি মানব-বঙ্গী-ই ব্যাপক অগ্রন্থ প্রাচুর্য; এবং জুমি ধ্রুপদী-ব্যাপ্তাননা। আইনী প্রতিষ্ঠার ব্যাপক দুর্দান্ত বিরুদ্ধে ঐক্যবদ্ধ কর্তৃক্তি অনুষ্ঠান এবং জুমি-কৃষি-জলা সংক্রান্ত বিষয়ে যেহেতু শেষ বিচারে গত্তর রাজনৈতিক সংহতী সময়কে সমাধানে ঢাই উখ হলদ অন্যতম সময়ে মানবকলাপকারী সাহসী নেতৃত্ব এবং সময় প্রতিষ্ঠার জন্যের সুপ্রাচুর্য অনুপ্রাণিত।

* অধ্যাপক, অন্তর্বৃন্দ বিভাগ, মালাক বিপ্লববিদ্যালয় (email: hdrc@bangla.net)
জুড়ি-কৃষ্ণ-জলা সংস্কার: সমাজ-অধিনীতি কাঠামোর বিভিন্ন কৌশল বিষয় নয়

কৃষি সংস্কার (agrarian reform)-এর প্রকৃত অর্থ হল কৃষির অধিনীতি কাঠামোর পরিবর্তন যার ফলে উৎপাদনশীলতা বৃদ্ধির জন্য উৎপাদন সম্পর্ক (যার নির্দিষ্ট জমি ও জলার মালিকানার অধিগ্রহণ কাঠামোর পরিবর্তন) পরিবর্তিত হয়। ফলে কৃষির শ্রীণী-সম্পর্ক কাঠামোর পরিবর্তন ঘটে। আর ভূমি সংস্কার (land reform) হলো এই কৃষি সংস্কারের অন্যতম অনুষদ। ভূমি সংস্কার বলতে সাধারণত আমারা বুঝে থাকি নদীর অগ্রের মধ্যে সম্পন্ন মালিকানার হাস জলা-জমির বন্ধ-মজুমদার; বন্ধুর অনেক মালিকানাধীন জমি-জলাতে যারা শ্রম দিয়েছেন তাদের বার্ধ-সরক্ষেষ সংশোধনিত বিষয়াদি ইত্যাদি।

কৃষি-জলা সংস্কারের অনুষদ হল উত্তরাধিকারি ভূমি সংস্কারসহ ভূমি মালিকানার পরিবর্তন, অনুপস্থিত জমি-জলা মালিকানার বাহ্যিক সৃষ্টি, সংশোধনী আইন-কানুনের পরিবর্তন, বর্গ/ভাগ-চারিত কৃষির বিবিধ ধরনের ভোগদর্শী বস্তুর (ব্যনারিয়েল সিস্টেম) পরিবর্তন, প্রাণতাত্ত্বিক রূপকর্থ, ভূমি-জলাকেন্দ্রীয় বিবিধ-মামলাজনিত অপচায় হ্রাস, ন্যূনতম, বিক্রীশ-শিক্ষা কৃষি (ন্যূনতম কৃষি, জমির নামী-শ্রমের সীমাবদ্ধি, বিস্ফোরণের অবতায় কৃষির সংশোধনী নীতিকৃতি, প্রফতিকৃতি এবং ইনফাউ খাতসমূহের পরিবর্তন। ভূমি-কৃষি-জলা সংস্কার- রাষ্ট্রীয়তাকে বিষয়। এ সংস্কারে আর্থ-রাজনৈতিক কাঠামোর প্রসারিত নিয়মাধীন ভূমিকা পালন করে।

গত ব্রিটিশ বর্ষের উদ্ধপের নির্দেশ বাংলাদেশ দৃষ্টিত অর্থনৈতিক দুর্ঘটনার (economic criminalization) ফৌনা পড়তেছে। অর্থনৈতিক এ দুর্ঘটনা রাজনীতি ও সমাজের ক্ষেত্রে দুর্ঘটনায় ছড়িয়ে দেয়ার ক্ষেত্র প্রাধান্য ভূমিকা পালন করে। বিজ্ঞানী কৃষি কাঠামো সামগ্রিক এ দুর্ঘটনার বাইরের কমা বিষয় নয়। এ দুর্ঘটনার ফল আমারা এক প্রকার বিজ্ঞানের নির্দরস্তাম্ব বহির্ভিত্তিকভাবে (exclusion of the excluded) প্রক্ষিয়া লাভ করেছি। এটি এমন এক প্রবণতায় যা বিজ্ঞানের আরও বিজ্ঞানের বিভাগ করে দেয়। এমন পরিভাষিত যা মানুষের পরিপূর্ণ জীবন প্রাপ্তির (বিশ্ব ধরনের ব্যাপক উন্নতি করার নিয়ন্ত্রণ) সৃষ্টি সংশোধন করার প্রচেষ্টা নিয়ন্ত্রণ করে। এখন এক লুপ্ত সংস্থাতে আমাদের পেয়ে বসেছে যা কিছু মানুষ উদ্লিনের বিবর্তন যায়, যা কিছু দুর্ঘটনায় সহায়তা, সার্বিক

তথ্য উৎস: এ প্রবন্ধ উত্তরাধিকারি বিষয়ের সংশোধনী বিজ্ঞান ও বিদ্যার উদ্ভাবনে উৎস ব্যবহৃত হয়েছে। তার মধ্যে অন্যতম হলের এরকম দুর্ঘটনায়র উদ্ভাবন পেয়ে বসেছে।

পরিস্থিতি যেন সেগুলোর প্রতিকৃতি পক্ষে প্রদর্শন করছে। মানব উদ্ভাবনের জন্য অনুকূল সকল সৃষ্টি ক্রমশ দূর্বল থেকে দূর্বলতর হচ্ছে, আর অন্যদিকে দূর্বলতায় অনুকূল সৃষ্টির ক্রমাগতে আরও শক্তির হচ্ছে। এর ফলে মানুষের মূল ইচ্ছা অনুযায়ী কাজ করার সুযোগ সীমিত হচ্ছে। গত ৩২ বছরের উল্লেখযোগ্য আগামী আবার সেই বৈষম্যমূলক তৈরি-অধিনীতিতে আরও জোড়াভাবে ফিরে আসছে।

একটি অধিনীতির প্রতিনিধিত্ব করে সরবরাহ করে ক্ষমতাধর ও প্রতিবক্তার মাত্র ১০ লাখ মানুষ (ক্ষমতায় সেই ধরে কথা না কেন, এরুথি চলাচলের আসনে থাকে): অপর অধিনীতির প্রতিনিধিত্ব করে ক্ষমতাধর সংস্থাপরিতু একটি ৯০ লাখ মানুষের। এরা বহুনাত্মক, বৃদ্ধি ও নিখুঁত (অথবা আদেশের সংবিধান বলছে: “প্রজাতের সকল ক্ষমতার মালিক ইইবেন জনগণ”....২- অনুষ্ঠান ৬.১)। আদেশের দেশের চলাচল দায়িত্ব, দূর্বল মানুষের জমি-জলের মালিকানা বা অন্তর্গততা তথা ভুমি-কৃষি-জলের সংস্থা অর্থ-রাজনৈতিক দূর্বলতার কাঠামোর বিচিত্রের কোন ব্যয় নয়।

কাঠামোটি এমন যা ভুমি-কৃষি-জলের উন্নয়ন দাপ্তি-বক্ষণা পুনর্গঠন করে (নিচের বক্ষ দেখুন)।

ভূমি ও জল বক্ষণার পাঠ্যগুলি

বাংলাদেশে মোট ভূমির পরিমাণের ৩ কোটি ৮৬ লাখ একর যা মাত্র ৬০% কৃষি জমি। এক কোটি ৬০ লাখ একর জমি (৪৩%) ব্যক্তি মালিকানাধীন; বছরের প্রায় ২৪ লাখ একর মালিকানাধীন এবং ভুমি-সংরক্ষণ মামলা-মামলা সংখ্যা এক্ষণ বছরে প্রায় ৫৫ লাখ। প্রায় ১ কোটি একর জমি সরকারী কাজে ব্যবহৃত হয়। চিহ্নিত খাস জমি (কৃষি ও অকৃষি) ও জলার পরিমাণ ৩৩ লাখ একর। সেই সাথে অর্থনৈতিক ও রাজনৈতিক দূর্বলতা কাঠামোর মাধ্যমে ব্যাপক জনগোষ্ঠীর

ভূমি-উন্নয়ন দাপ্তি-বক্ষণা পুনর্গঠনের কেন্দ্র ও পরিধান

কেন্দ্র
- খাস জমি ও জলার
- অপরিষ্কার জমি-সম্পত্তি (ধর্মীয় সংখ্যালঘু হিসাবে সম্প্রদায়)
- কৃষি জাতি বাসার মানুষের জমি-সম্পত্তি
- জলার সম্পদ মাত্রার অধিকারীতার
- চিহ্নিত চাষকর্তা প্রাক্তন
- জমি-সম্পত্তিতে নারীর অধিকারীতা
- ভূমি সংরক্ষণ বিবাদ-মামলা
- ভুমি প্রশাসন ও বাসার প্রক্রিয়া পূর্বান্তর
- দাপ্তি-বিবাদের আইন-কানুন ও আইন প্রক্রিয়ায় মানুষের অস্থায়ীতা

পরিষাদ/অভিলাষ
- দাপ্তি-বক্ষণা পুনর্গঠন: নির্দেশনা থেকে খ্রিষ্টাধীন
- ভূমি-জল-বন সম্পত্তি বৃদ্ধি
- কমবর্ধন ভূমি অধিকারীতা
- কমবর্ধন ব্যবস্থা
- কমবর্ধন বাহির-বর্গন অনুমোদন (exclusion): প্রায় থেকে শহরের গলাধাকা অভিলাষ
- শহরের অন্তর্জাতিক ধাতের বৃহত্ত-বাহির অধিকারী মানুষের সংখ্যা বৃদ্ধি: নগরায়ণ নয় বাহিরয়ন
- জল-সম্পদের উত্পাদনশীলতা হ্রাস
- নারীর ক্ষমতাধর বাধা
- ভূমি কেন্দ্রিত দূর্বলতার বৃদ্ধি
- ভূমি কেন্দ্রিত মামলা-মামলা জাতীয় ও প্রাধিকৃত ব্যাপ্তি অপচায়
- সামাজিক বৃদ্ধি সৃষ্টিতে বাধা
- কৃষির সম্পদের উত্পাদনশীলতা হ্রাস
- মাস-মুখো বৃদ্ধি, দূর্বলীকরণ
সম্পত্তি অধিনে সরকারের জিয়াম আছে ২১ লাখ একর; আর পরিষ্কার সম্পত্তির পরিমাণ ১০ লাখ একর।

দরিদ্রদের মধ্যে খাস জমি-জলা বস্তু, ধরিয়ার সংখ্যালঘু ও খাস জাতিসমন্দর মানুষের কৃষি অধিকার খর্ব করা, কৃষি প্রতি নারীদের অধিকার হরণ, জাতকে মৎস্যজীবি সম্প্রদায়ের অধিকারহরণ, ভূমি মামলায় জাতীয় ও পারিবারিক বায়পক জনপ্রীতি- এই সমস্যায় কৃষি সংগ্রামের অন্যতম অমূল্য বিষয়।

গত চার মাসের শুমিহীন মানুষের সংখ্যা বৃদ্ধি পেয়েছে ২৩ শতাংশ; যতটাই ভূমি মালিকানার পৃষ্ঠের আবিষ্কৃত হয়েছে এক ভূমিদায়-জলাধার-বন্দুক পাদী। আর এর সময় অবর দুর্লভ অর্থ-রাজনৈতিক রাষ্ট্রীয় কাঠামোতে প্রবল প্রতিকীর্তিতে এআন, “Water Preservation Act” বিলের জন্য।

ভূমি-কৃষি জলা সংখ্যার প্রায়নীয়তায় সাধারণ নগরায়নীর পরিপূর্ণ সম্পর্কে অবশ্যই এক কয়েক ঘূর্ণন বিচিত্রতা করতে হবে যে দ্রুত শহরায়নীর ফলে কৃষির অপারেংটিক ভুমিহীন (absentee landlord) মালিকানায় জমি-জলার পরিমাণ গত দু-তিন দশকে দ্রুত বৃদ্ধি পেয়েছে। এর সারঘর ফল হল ভারতের অগ্রগতি জমি-জলার পরিমাণ বৃদ্ধি, জমি-জলার প্রকৃত উৎপাদনের পরিচয়, কৃষি দিন মানুষের অবস্থা অবনতি ইংবি।

ভূমি মালিকানার পরিবর্তন এবং অর্থ-সামাজিক শ্রেণী কাঠামোর বিকাশ

১৯৬০ সালে এদেশে ভূমিহীন খানার সংখ্যা ছিল মোট খানার ১৯% যা ১৯৬৬ সালে মোট খানার ৫৬% দিয়েছে। যদিও ১৯৬০ সালে ১% ধনী খুঁ-বামীর মালিকানায় ছিল মোট কৃষি জমির ৪.৭% যা ১৯৬৬ সালে হয়েছে ৮.২% (এসএইচ সম্পর্কে হিসেব) আমাদের এদেশে এখন ক্যারাভাত ভূমিহীন পরিবারের সমাজে মোট খানা পরিবারের সর্বনাশে অক্ষত মোট খানা মানুষের ৪.২% তাদের হাতে, আর অন্যা ৭.২% পরিবার আছে (ভূমি মালিকানার নিরিক্ষ ধনী) যাদের মালিকানায় আছে দেশের ৪০% জমি।

অর্থ-সামাজিক শ্রেণী কাঠামো (class structure) বিকাশ নিয়ে এ দেশে খুব একটা গবেষণা হয়নি।

তবে আমাদের গবেষণায় দেখা যে, একটি দরিদ্র ও নিম্নমানের অবস্থায় ঘটেছে, আর অন্যদিকে ভূমিহীন অনন্য বিক-সম্পদ পৃষ্ঠকৃত করায় যাতে কিছু ধনীর হাতে। এখন ১৪ কোটি মানুষের একটি তিন টির ১০ লাখ (৬০%) মানুষ দরিদ্র, ৪.৫ কোটি (৩২.১%) মধ্যবিত্ত, আর ৪০ লাখ (২২.৯%) হানি। আর মধ্যবিত্তের মধ্যে একটি কোটি ৪০ লাখ (মোট মানুষের মধ্যে ৫৩.৫%) নিম্ন-মাধ্যমিক (হায় দরিদ্র), ১
কোটি ৫০ লাখ (৩৩.৩%) মাধ্যমিক বিদ্যালয়, আর ৬০ লাখ (১৩.৩%) উচ্চ-মাধ্যমিক। আর ২০০৪ সালের বন্ধুয় ইতোমধ্যে দর্শনের ব্যাপক আকারে দরিদ্রতার হ্রাস, নিম্ন-মাধ্যমিকের একাংশ দরিদ্র গ্রুপে আর মাধ্যমিকের একাংশ নিম্নিকে গ্রুপে যুক্ত হয়েছে।

গত ২০ বছরে (১৯৮৪-২০০৪) প্রামাণ্যক জনসংখ্যা বেড়েছে (৮.৪ কোটি থেকে ১১ কোটি) ২ কোটি ৬০ লাখ যা মাধ্যমিক হিসেবে ২ কোটি ৪০ লাখ দরিদ্র (১২.৫%)। গত ২০ বছরে প্রামাণ্যক দরিদ্র জনগোষ্ঠীর অনুপাত বেড়েছে মোট গ্রামীণ জনসংখ্যার ৬৩% থেকে এখন ৭১.৬% এ; একই সময়ে নিম্ন ও মাধ্যমিকদের অনুপাত কমেছে ২৮.৫% থেকে এখন ২৪%। আর জনসংখ্যায় ধনীদের অনুপাতিক হারও কমেছে ৩.৮% থেকে এখন ২%।

বাংলাদেশ একক জাতি সংঘাতের জমি-জলা - ভন্সমন্দ বঞ্চনা

বাংলাদেশ একক জাতি সংঘাতের জমি-জলা - ভন্সমন্দ বঞ্চনা

বাংলাদেশ একক জাতি সংঘাতের জমি-জলা - ভন্সমন্দ বঞ্চনা

বাংলাদেশ একক জাতি সংঘাতের জমি-জলা - ভন্সমন্দ বঞ্চনা
Shah/Aparted property of the tenure holder, a prominent and famous document of the 20th century.
পাতা ৩৫ বছরের বিভিন্ন সফরের আমলে ক্ষুর পরিস্থিতি এবং মানুষের বিভিন্ন সময়ের মধ্যে মানুষের উচ্চতাবাহী নৈতিক মূল্যের সন্তান করা।

১. স্থানীয় প্রভাবশালী ব্যক্তি তাদের সাথে একত্রিত সাধারণ করে ছিল (৩৩% ক্ষুরগতির বক্তব্য),

২. তাদের ক্ষুরগতির নিজের অবৈধ বক্তব্য করেছে (৩২% ক্ষুরগতির বক্তব্য),

৩. স্থানীয় প্রভাবশালী মানুষ বিভিন্ন ধরনের বল প্রয়োগ করেছেন - প্রক্রিয়াটি ব্যাখ্যা করেছে আদর্শের, মানুষের জীবনপথে ব্যবস্থা করা, শিক্ষার ব্যাখ্যা করা, ইত্যাদি (৩০% ক্ষুরগতির বক্তব্য),

৪. প্রক্রিয়ার মাধ্যমে তাদের ভূমিকা অনুসারে দেশভাষার শক্তি/অন্য ক্ষেত্রে অসম্পর্ক দখল করেছেন (২৪% ক্ষুরগতির বক্তব্য),

৫. স্থানীয় প্রভাবশালী মানুষ জাল দলিল-সহায়ক, কাগজপত্র তৈরি করে ভূমিকাটি দখল করেছেন (১৬% ক্ষুরগতির বক্তব্য)।

'শক্তি/অন্য ক্ষুরলেন্দ জানি' বিষয়টি কোন অন্তর্ভুক্তি হিসেবে নাম মূল্যবান সাধারণ নয়। যারা বিষয়টিকে একে মূলের চাঁদ করা উচ্চারণের উপর ভিত্তি করে তাদের ক্ষুরলেন্দ জানি এবং সম্পূর্ণ সাম্প্রদায়িক। বিষয়টি প্রক্রিয়াগত অনুরূপ দখল করার মাধ্যমে একটি ঐতিহাসিক ক্ষুরলেন্দ মানুষের জানি, যে প্রক্রিয়াটি স্বপ্নগুলির ভালের সাহায্য করে।

'শক্তি/অন্য ক্ষুরলেন্দ জানি' বিষয়টি কোন অন্তর্ভুক্তি হিসেবে নাম মূল্যবান সাধারণ নয়। যারা বিষয়টিকে একে মূলের চাঁদ করা উচ্চারণের উপর ভিত্তি করে তাদের ক্ষুরলেন্দ জানি এবং সম্পূর্ণ সাম্প্রদায়িক। বিষয়টি প্রক্রিয়াগত অনুরূপ দখল করার মাধ্যমে একটি ঐতিহাসিক ক্ষুরলেন্দ মানুষের জানি, যে প্রক্রিয়াটি স্বপ্নগুলির ভালের সাহায্য করে।
জন্ম-সম্পত্তিতে নারীর অধিকার- আইনে সীমিত, বাস্তবে অনুপস্থিত

জন্ম-সম্পত্তিতে নারীর অধিকার- আইনগতভাবে সীমিত, আর বাস্তবে নেই বললেই চলে। নারীর ক্ষমতায় ৩ এক অন্য বাধা। সম্পত্তির উত্থারথিকার আইন, পিতৃণ্যক মূলতরোধ, সামাজিক গ্রামিত- এ সহ নারীর প্রতি বৈষম্য চিরদিনীকরণের অন্তর্গত মাধ্যম। এ দেশে নারীর উত্থারথিকার আইন ধর্মীয় বিষয়ের প্রভৃতি বিরূদ্ধে মূলসম্পত্তির নারীর ক্ষমতা কমিয়ে আনা, আর হিন্দু ধর্মের নারীর ক্ষমতা নাম আইনে সম্পত্তির বৈষ্টিক হয়। পিঠায় আইনে সম্পত্তিতে নারীর উত্থারথিকার সীমিত-বৈষ্টিক, আর নায়ভাগ আইনে উত্থারথিকার বৈষ্টিক নয়। বাস্তবে কিছু হিন্দু-মুসলমান নির্বিশেষ সম্পত্তিতে নারীর উত্থারথিকার আইনে ব্যাপকরী নয়। মূলসম্পত্তির মালিকানার উত্থারথিকার ক্ষেত্রে ব্যাপক হয়। এ ক্ষেত্রে “দুই সিস্টার” কনস্ট্যান্ট পুলিশের কাজ করে। “দুই ব্রাদার” মূল্যবোধক অন্তর্ভুক্ত- সম্পত্তির মালিকানার ক্ষেত্রে কাজ করে না। একদিকে পিতৃণ্যকতা আর অন্যদিকে ব্যাপক দায়িত্ব- উভয়ই সম্পত্তির ব্যাপক জিয়ার রাখার।

মৎস্যজীবি সম্প্রদায়ের দায়িত্ব ও প্রাপ্তি- জল-জলায় অধিকার নেই।

এ দেশে ১ কোটি ৩২ লাখ মানুষ তাদের জীবন-জীবনির জন্য জল-জলায় সাপ্তাহিক পেশায় সাপ্তাহিক। মৎস্যজীবি সামরিক সরাসরি কাজ করছে ১২ লাখ মানুষ, আর ১ কোটি ২০ লাখ মানুষ কাজ করছে সামাজিক-বৈষ্টিক। ১ কোটি ৩২ লাখ মৎস্যজীবির ৮০ লাখী দায়িত্ব। সৌভাগ্য-সৌন্দর্য মৎস্যজীবি পরিবারের মূল্যের সংখ্যা প্রায় ৪ কোটি যাদের অর্থে কেবল নোংরা যে কেনামাকাঠিতেই দায়িত্ব এবং যাদের দৈনন্দিন আচ্ছাদন আর-এবং অথবা প্রতিষ্ঠা অনিশ্চিত।

মৎস্য খাদ্যের সাথে সম্পৃক্ত ৪৩ লাখ হেকের জলাভূমি ও ৭৫০ কিলোমিটার উপকূল। বছরে আনুমানিক প্রায় ১৭-১৮ লাখ মেট্রিক টন মাছ উৎপাদন জীবনীর অধিনীতিজ যথেষ্ট ভূমিকা রাখছে। মাছ রপ্তানী থেকে রপ্তানী আয় ১৯৭৬-৭৭ সালে ১ কোটি ৬ লাখ ডলার থেকে ১৯৮৬-২০০ লাখ ডলার প্রেরণ হয়েছে। ৩ কোটি ৫০ লাখ ডলার। রপ্তানী আয় বিনিয়োগ বৃদ্ধি পেলেও মৎস্যজীবির দায়িত্ব ও প্রাপ্তি একঁচুলও বাড়িয়ে। অধিনীতিক প্রবৃদ্ধি বাড়লেও যে দায়িত্ব-বৈষম্য নাও হতে পারে- এ দেশের চলান মৎস্য খাদ্য তার এক প্রকৃতি উন্নয়ন। অর্থে এ সমীকরণ পরিবর্তন সম্ভব- যখন মৎস্য খাদ্যে প্রবৃদ্ধি বাড়িয়ে আর সেই সাথে মৎস্যজীবির দায়িত্ব হ্রাস পাবে। বিষয়টি জল-জলায় প্রকৃত
মৎস্যাঙ্গনের মালিকানা ও অভিষিক্ত প্রতিষ্ঠান সাধে সরাসরি সম্পর্কিত। বিষয়টি প্রক্ষেপ্ত অর্থে জলা- সংহারের (aquarian reform)।

এদেশে এখন ১ কোটি ৩২ লাখ মৎস্যাঙ্গনের মাত্র ১০% এ প্রাপ্ত সার সত্যিক যুক্ত। সর্বশেষ পরবর্তী মতে জল-পানি সম্বন্ধে সংহারে মৎস্যাঙ্গনের অনুপাত দিয়ে ব্যপী সমূহ বৃদ্ধি করার জন্য দরিদ্র-অর্থিভূত নীতিমালা প্রণয়ন ও রাষ্ট্রবাদী করা যায়, যেহেতু মূলনীতি হবে “জল যার জলা তায়।” বিশ্বজোট পরে এর ফলে জাতীয় উৎপাদন মৎস্য খাতের ভূমিকা হতে পারে শয়ন্ত-কৃষির সমতুল্য, এবং আয়-খাদ্য-পৃষ্ঠ সংক্রান্ত দরিদ্র (income and nutrition poverty) দূরীকরণ হতে পারে ব্যাপক। এসবই মৎস্য খাতে ১ কোটি মানুষের দরিদ্র হাসে যথেষ্ট ভূমিকা রাখতে সক্ষম।

মৎস্যাঙ্গনের দরিদ্রতা ও প্রাক্তন প্রধান করণ হল জল-পানি আইনসংলগ্ন ও ন্যায়সংলগ্ন (legal and justiciable) অধিকার থেকে তাদের বৃদ্ধি করা। জল মহাল লীলাকৃতি অর্থ ভূমিতে তাদের আইনগত অধিকার/নীতিসমর্থনে দিকশীল করার প্রধান মাধ্যম। আইনজীবীরাই জল মহাল লীলাকৃতি নেতৃত্বে মৎস্যাঙ্গনের-সমাজের অধিকারী পার্থক্য কর্ষা। বাতাসের অধিক উল্টো। সম্পদবাদ দুর্ভিক্ষের বিন্দু ধরাতলি-কারণশীল মাধ্যম জলমঙ্গল লীলাকৃতি নেতৃত্ব-কৃষি এবং অন্যান্য লীলাকৃতি হার-শীল করার মূলনীতি নেন (নীতিশীল অথবা একাধিকালীন)। জলমঙ্গলের অনুপাদন মূল্য সাধারণত: গুরু কর।

ফলস্বরূপিত সম্পর্কে লিপিবদ্ধ প্রক্রিয়ার প্রক্রিয়া মৎস্যাঙ্গনের শুধু বিন্দু করান না তাদের শ্রমের ফসল (জল-খাদ্য) আহারাঙ্গ করবেন; মুনাফার হারে এককে ১০০০%। এ অবস্থা চুক্ত থাকলে দরিদ্র মৎস্যাঙ্গনের দরিদ্র হাস (দূরীকরণ আরো পরের কথা) অসম্ভব। এক্ষেত্রে আহরণ হেতু এ জন্য যে এ দেশে মোট চিহ্নিত ৮৩০,৫৫৬ একর খাদ্য-জলালুমূষকের মাত্র ৫% এ পর্যন্ত দরিদ্রদের মধ্যে লিপিবদ্ধ নেওয়া হয়েছে অর্থাৎ ৯৫% সেবকিত্তগুলি করা আজ জল-সাগর।

বাংলাদেশে মাত্র দুর্দান্তমূলক এক জটিল প্রক্রিয়া। এ প্রক্রিয়ায় থেকে কমপক্ষে ৬ ধাপের মধ্যে নতুন। এসব মধ্যবর্তী ধাপে ‘ভালু খেতেন’ তচ্ছন কোন ভালু সংযোজন করে না অথবা প্রত্যেক মুনাফার লাভে প্রক্রিয়াক মাত্রায় মাত্রায় তাদের আর-সাগর করাতে ভূমিকা রাখে।

লোনা পানিতে চিড়ি চাষ- দরিদ্রতা ও বঞ্চণার এক মূলন মাত্রা
লোনা পানিতে চিড়ি চাষ ও সর্বশেষ শিল-বাণিজ্য বিষয়টি এ দেশে দরিদ্র বংশানো ইতিহাসে এক মূলন মাত্রা সংযোজন করেছে। এদেশে ১০-২০ লাখ দরিদ্র শ্রমীজি লোনা পানিতে চিড়ি চাষের সাথে সরাসরি সম্পৃক্ত। ভূমি-কৃষি সংখ্যকার বিষয় আলোচনা-বিশেষে ও নীতি-কৌশল বিন্দুকার বিষয়টি সেই সাধে বিবেচিত হওয়া উচিত।

বাংলাদেশের প্রায় ৩২ লাখ হেক্টর উপকূল অঞ্চলের ২০ লাখ হেক্টর চাষাবাদ। এসব অঞ্চলের বিস্তৃতি ১০ হেক্টরের ৭৫টি উপকূল হ্রদ। শীতার ২০কোটি জনসংখ্যার চেতার চিড়ি খাদ্য হওয়া পালে। উপকূলের মোট জমির ১০ লাখ হেক্টর এগুলো থেকে নতুন মাত্রা প্রত্যেক দিন জোয়ার- ভালু আরও থাকবে। তুল মৌসুমে লম্বাকণ্ঠো বাড়ে জমি লম্বায় হয়ে পড়ে। এবার করণে উপকূল অঞ্চলে ফলদের আশ্রয় নিতে।
ছাঁড়ি চারের অধিকাংশই ঝুলন্য বিশ্বাসী ফলাফলের উত্থানশীলতা হাস করেছে। জমিতে মানবাত্মক লঘুত্ব উপস্থিতি ফলন-বৃদ্ধি চারের উপর মানবাত্মক খন্ড করার প্রচার করা হয়েছে। এমন এক রীতির ফলাফল হয়েছে যেখানে পুরো ফলদেহই মার্গে চার হয়েছে। ফারাকা বাঁধ আর চারের জমি মার্গে পুরো ফলাফল পশ্চিম পরিবর্তনের ফলে সমুদ্রের দার্জিলিং পানিতে আরামের ফর্মুলায় কৃষি পেনার বৃদ্ধি আরেক (acid) পরিমাণ বৃদ্ধি পেয়েছে, লবণ-পানিতে জলবায়ু বদলছে এবং কাদামাটির প্রাকৃতিক ওপরে লোপ পেয়েছে। এরকম ফলদেহ উৎপাদন মার্গকে আদায় করেছে। ফলে দার্জিলিং পানির খাদ্য নির্ভর থাকে মার্গিত মুখে। এই প্রাকৃতিক প্রকৃতি চারের ফলদেহ উপকূলীয় অঞ্চলের জমির চূড়া পানির চায়ে, রাসায়নিক, ও জৈবিক ওপরে এমনভাবে পরিবর্তন হয়েছে যা বিপন্ন করেছে হাজার বছরের প্রকৃতি ও পরিবেশ। এ বিপন্নতা বংশ-পরিপূর্ণ।

ছাঁড়ি চ্যারের মালিকা প্রকৃতি দীর্ঘ সৌম্য গুশ্লীর (কেন্দ্র বিশেষে শ্রেষ্ঠ সৃষ্টিশীল)। ছাঁড়ি দেখা-এর জমির মালিকানা হয় বাক্সালিকানানী অথবা সরকারী মালিকানানী (খাস)। বাক্সালিকানানী তথ্য অধিকাংশ কেন্দ্র জমির প্রকৃতি মালিক প্রাকৃতিক অথবা কুন্দ কৃষক, যার কাছ

বন্যা আর লবণ পানি থেকে রক্ষা জন্য উপকূলীয় দক্ষিণাঞ্চলে সরকারী উদ্যোগে বৃদ্ধি নির্মাণ (পানিদারসহ) কাজ করে হয় মাত্রের দেশকে। পানিদার নির্মাণের প্রধান উদ্দেশ্য ছিল চারের আওতায় জমি বৃদ্ধি এবং কৃষিজীবন উন্নতি করার মাধ্যমে খাদ্য উৎপাদন বৃদ্ধি এবং দরিদ্র জনগোষ্ঠীর খাদ্য নিরাপত্তা নিশ্চিত করা। দীর্ঘকালের ঠিকাদার যা সংরক্ষিত হয়নি। অন্যদিকে যা হয়েছে তা হল: অভাবের দেশের মধ্যে সমাপ্ত বিনিময়, ফসল উৎপাদন ব্যাহত; ছাঁড়ি মিঠাপানি এবং লবণ পানির প্রাকৃতিক মজবুত বিচ্ছেদ ও বাংলা-বিশ্বার ক্ষেত্রে মূল্যবান হওয়া ইত্যাদি। এর সত্ত্বার দেশকে অন্তর্জাতিক বিভাজন ছাঁড়ি মার্জের চায়ের বৃদ্ধির সাথে সাথে পানিদার ছাঁড়ি চারের বাড়া। পানিদারের জলবায়ুর কারণেও ছাঁড়ি চারে বাড়া। চারের প্রাক্তন বিভাজন চারের মূল্যাঙ্গন চারের বিভাজন চূড়া চারের সাথে সাথে পানিদার ছাঁড়ি চারের বাড়া।
Aveyj eviKvZ : evsjv‡`‡k f~wg-K…wl-Rjv ms¯‹vi:`ye©„Ë‡ewóZ KvVv‡gv‡Z me‡P AgxgvswmZ ivR‰bwZK-A_©‰bwZK welq 195

†_‡K †N‡ii cÖfvekvjx gvwjK Pzw³ wfwË‡Z Rwg wb‡q _v‡Kb| A‡bK †¶‡ÎB cÖvwš— K I ¶z`ª
K…lK Gme Pzw³ Ki‡Z eva¨ nb| e„nr wPswo †N‡ii gvwj‡Kiv GKB mgq A‡b‡Ki mv‡_ 2-7
eQ‡ii †gqv‡` Pzw³e× nb| evrmwiK Pzw³i Avw_©K gyj¨gvb (nvwi = contract money for
leasing of land) GKi cÖwZ 4,000-6,000 UvKv| Avav-wbweo (semi-intensive) wPswo †N‡i
M‡o GKRb wPswo gvwjK eQ‡i GKi cÖwZ cv‡”Qb 200,000 UvKv wKš‘ Rwgi gvwjK (cÖvwš—K
I ¶z`ª K…lK) cv‡”Qb gvÎ 4000-6000 UvKv| A‡bK †¶‡ÎB †Ni gvwjK KZ©„ K †Rvic~e©K
A‡b¨i (cÖvwš—K I ¶z`ª K…l‡Ki) Rwg `Lj Ges/A_ev bvg gvÎ nvwi (Pzw³i A_©) cÖ`vb bv Kivi
Kvi‡Y msNl©-msNvZ, gvgjv-‡gvKvÏgvi m~Pbv N‡U| GKw`‡K gvgjv-‡gvKÏgvi e¨qfvi enb
Avi Ab¨w`‡K Avq-g~jK Kg©KvÊ †_‡K wePz¨Z n‡Z eva¨ nevi Kvi‡Y `wi`ª-cÖvwš—K-¶z`ª K…lK
cwievi cwiPvj‡b Pov my‡` FY wb‡Z eva¨ n‡”Qb| d‡j f~wgnxbZvi cÖwµqvi mv‡_ hy³ n‡q‡Q
m¤ú` nviv‡bvi cÖwµqvÑ Gme gvbyl wbt¯^ †_‡K wbt¯^Zi n‡q wf¶z‡K iƒcvš—wiZ n‡”Qb| wbR
gvwjKvbvaxb Rwgi Dci AvBb m½Z AwaKvi cÖwZôvi msMÖv‡g kwiK n‡Z eva¨ n‡”Qb `wi`ªcÖvwš—K-¶z`ª K…lK| G jovB‡q †Ni gvwj‡Kiv cÖvqkB mk¯¿-‡ckx kw³ e¨envi K‡ib, ¶gZvmxb
ivR‰bwZK `jmn _vbv-cywjk †KvU©-Gi Dci Zv‡`i cÖfve mxgvnxb| GgbwK cÖkvm‡b †cvw÷sUªvÝdviI Zv‡`iB nv‡Z| G cÖwµqvq Lyb-RLg-¸g-Gi wkKvi n‡”Qb `wi`ª-cÖvwš—K-¶z`ª Rwgi
gvwjK Ges G Ab¨vq cÖwZev`Kvix e¨w³ I msMV‡bi Kg©xe„›`| A‡b‡KB G cÖwµqvq wbR GjvKv
Z¨vM K‡i `ywe©ln Rxeb MÖn‡Y eva¨ n‡”Qb| Avevi †¶Î we‡k‡l ¶z`ª gvwj‡Kiv hLb Rwgi FZzwfwËK wjR †`b (A_ev w`‡Z eva¨ nb; Rvbyqvix †_‡K RyjvB gvm ch©š—) ZLb wjR cieZx©
K‡qKgv‡m K…wl‡Z avb Drcv`‡bi †Póv Ki‡jI Rwgi cÖvK…wZK De©iZv n«v‡mi d‡j djb
†ZgbwU cvb bv|
miKvix gvwjKvbvi Lvm Rwg‡Z evwYwR¨K wPswo Pv‡li welqwU Rvj-‡Rv”Pzwi-`ybx©wZ‡Z ficyi|
G‡¶‡Î f~wg cÖkvmb cÖkvm‡bi Ab¨ mevi mv‡_ AvuZvZ K‡i wPswo †Ni gvwjK‡`i Kv‡Q Dr‡KvP
wb‡q Lvm K…wl Rwgi †kªYx cwieZ©b (class change of khas land) K‡i _v‡KbÑ K…wl Lvm Rwg
n‡q hvq Lvm Rjv hv wPswo Pv‡li Rb¨ jxR †c‡q hvb m¤ú`evb-cÖZvckvjx `ye©„Ë †Ni gvwjK;
Avevi †¶Î we‡k‡l H Aïf AvuZv‡Zi gva¨‡g Rvj `wjj K‡i †Ni gvwjK e‡b hvb Lvm RjvRwgi gvwjK| A_©vr Awfbe Gme cš’v Kvh©Kix nevi d‡j Lvm Rjv-Rwgi AvBbx gvwjK hv‡`i
nevi K_v †mme f~wgnxb, `wi`ª, wbgœweË gvbyl mivmwifv‡eB Lvm Rwgi gvwjKvbv †_‡K ewÂZ
nÕb| `wi`ª gvbyl Zvi AwaKvi wbwðZ Kivi G jovB‡q bvg‡j Lyb-RLg nÕb, gvgjv-‡gvKvÏgvq
Rwo‡q c‡obÑ `wi`ª‡`i wf¶zKvqb cÖwµqv Z¡ivš^q‡bi GI GK Awfbe cš’v| ‡mB mv‡_ wPswo
cÖwµqvRvZKiY wkí I wngvwqZ KviLvbvq Av‡Q ¯^ígRyix, A¯^v¯’¨Ki cwi‡ek, wkï kªg,
kªwgK‡`i wewfbœ ai‡Yi Amy¯’Zv (fungal, instinal, respiratory diseases)| myZivs
wPswo-Pvl I evwYR¨ GKw`‡K †hgb ¸wUK‡qK `ye©„Ë †Ni gvwjK, wkícwZ I ißvbxKvi‡Ki
Avw_©K ab-m¤ú` e„w×‡Z cÖavb f~wgKv cvjb K‡i, Avi Ab¨w`‡K e¨vcK `wi`ª Rb‡Mvôx‡K RjvRwgi Dci Zv‡`i b¨qm½Z AwaKvi †_‡K ewÂZ Kivi gva¨‡g Zv‡`i Rxeb-RxweKv‡K K‡i
‡Zv‡j AwbwðZ|
evwYwR¨K wPswo Pvl B‡Zvg‡a¨ DcKyjxq e¨vcK Rb‡Mvôxi Lv`¨ wbivcËvmn e¨w³MZ Rxe‡bi
wbivcËvi mKj kZ© wejyß K‡i‡Q| mvaviY cÖkvmb, AvBb k„sLjv i¶vi cÖwZôvb, wePvi wefvM,


খাস জমি ও জলা— কৃষকের স্বপ্ন বা বাস্তবায়িত হয়নি কিন্তু হতেই হবে

৩০০কিলোমিটার বাস্তবায়ন (exnnalities)-এ বিশ্লেষণের মাধ্যমে এসোনা পানি সম্পদে বৃহত্তম জলধী সংক্রমণ করা হয় এমনটি আশা করা হয়েছিল। দুঃখের বিষয়, পাকিস্তানের নবা- ঔপনিবেশিক সামাজিক সমাজের কথা EBSATA কে কৃষক প্রত্যক্ষের অনুভূতি বাস্তবতা হতে দেয়নি। EBSATA-কে তারা বাস্তবায়ন পরিবর্তন করে। উদাহরণ হয়েছে, এদেশে একটি বিশ্লেষণকারী তত্ত্বাবধায়ক করা যা ঐ সময়ের নিজস্ব প্রাকৃতিক বিষয় হালিম করতে পারে। ফলে পাকিস্তানের শাসনের পূর্বে সময়কালে খাস জমির বৈশিষ্ট্য কর্তৃক প্রক্ষ ধররী কৃষকগণের ব্যবহার উদ্ধৃতে অনুপ্রাণিত হয়েছিল। পরবর্তীতে ১৯৭১-এ আমাদের যাত্রাএ তাদের আশাতে কৃষকরা স্বপ্ন লাভ করিয়েছিল যে সেদিন সম্পদের উপর নিজস্ব সমাজের সমাধিক্রমে প্রত্যাশা রাখে।

ধর্ষের গৃহীত, ভূমিহীন, প্রাক্তন চাষী এবং দুঃখ ও হতাঃস্বরূপ মানুষগুলো খাস জমি ও জলায় তাদের অধিকার প্রতিষ্ঠার মাধ্যমে নিজস্ব ব্যবস্থার স্বপ্ন দেখেছিল। তাদের সে আশা-আকাশগুলো রাখে যে খাস জমি ও জলায় তাদের প্রতিষ্ঠার মাধ্যমে নিজস্ব ব্যবস্থার স্বপ্ন দেখেছিল। তাদের সে আশা-আকাশগুলো রাখে যে খাস জমি ও জলায় তাদের প্রতিষ্ঠার মাধ্যমে নিজস্ব ব্যবস্থার স্বপ্ন দেখেছিল।
গত তিন দশকে বাংলাদেশে ভূমিহীন মানুষের সংখ্যা দ্যুগ্ধ বৃদ্ধি পেয়েছে। ভূমিহীন জনগোষ্ঠীর একটি অংশ শহরে পাড়ি জমিয়েছে এবং বেঁচে থাকার তাদিনে বড় বড় শহরগুলোর বন্ধনে মানবতার জীবন যাপন প্রায় মূল্য নিতে বাধ্য হয়েছে। রূপহর্ষ অর্থে কৃষি সংস্কারের (agrarian reform) আওতায় খাস জমির সুমধু বর্তমানই কেবল পরিবার ও প্রাক্তন জনগোষ্ঠীর অধিকার সংখ্যাগুলোর কথা সমী এই rural push migration-কে মোকাবেলা করতে পারতো। এটি আমাদের দায়িত্ব বিমান কর্মসূচীর অন্যতম প্রধান প্রতিপাদন হতে পারতো। সরকারের তরফ থেকে যোগাযোগের কমিটি ছিল না। বলা হতে পারে “খাস জমি গরিব জনসাধারণের প্রাণের।” বাস্তবে উল্লেখযোগ্য তেমন কিছুই করা হয়নি। আসলে খাস জমির ইস্তাম্বুলে একটাই অবহেলা করা হয়েছে যে, এমনকি দেশে যে কিঃ পরিমাণ খাস জমি রয়েছে এর কোন স্থান হিসাব সরকারের জন্য অত্য বলে মনে হয় না (তবে সংযোগিত বিষয়ে সংসদীয় কমিটি অত্যন্ত আছে।)

আমাদের হিসেবে দেশে বর্তমানে চিহ্নিত খাস জমির (identified khas land) পরিমাণ ৩৩ লাখ একর: কৃষি খাস জমি ৮ লাখ একর, অকৃষি খাস জমি ১৭ লাখ একর, জলাভূমি ৮ লাখ একর। এই হিসাব প্রকৃত খাস জমির চেয়ে অনেক কম; কারণ জমির একটি বৃহৎ অংশ বিভিন্ন কারণে এবংও সরকারী নথিতে অন্তর্ভুক্ত নয়। খাস জমির সরকারী হিসাব মারা যাকে বিভিন্নকর। সরকারী হিসাবেই ২৩ লাখ একর খাস জলাভূমি এবং ৭১ হাজার একর খাস কৃষি জমির গড়ে মিল আছে।

সরকারী হিসাবে বলা হচ্ছে, চিহ্নিত ৮ লাখ ও হাজার ৩০৮ একর খাস কৃষি জমির ৪৪% গরীব, ভূমিহীন ও দুর্ভীষণ জনগোষ্ঠীর মধ্যে বন্ধন করা হচ্ছে। পরিসংখ্যান এ হিসেবে মিথ্যা প্রমাণিত হচ্ছে। আসলে খাস জমির ৮৮% ম্যান এবং প্রতিবাদশালীরা অবৈধভাবে দখল করে আছে। অর্থাৎ যাদের জন্য খাস জমি সহ প্রভাব ও ভূমিহীন জনগোষ্ঠীর সতিকার অধিকারে আছে মায়া ১২% খাস কৃষি জমি। আর বন্ধনের খাস জমির সরস্বতী রুবিধানশীলর কমপক্ষে ২০% অংশ থেকেই ভূমি মালিক।

খাস জমির বিতরণ প্রতিষ্ঠান দিব্যরাত্রি কৃষিতে জন্য বড় ধরণের বিভিন্ন। খাস জমির বর্তমান প্রতিষ্ঠান প্রধান নায়ক হলেন সরকারী ভূমি অফিসার কর্মকর্তা/কর্মচারী, স্থানীয় গণপ্রতিনিধি, এবং স্থানীয় প্রতিবাদশালী। মিলিয়নে এরা সৃষ্টি করছে জমি-দামভাল শতক্ষের এক বদল।

একজন ভূমিহীন ব্যক্তি খাস জমির স্বাধীন বর্তমান তালিকায় স্থান পাবে যে পাবে না তা দেসব নিয়সার উপর নির্ভর করে সেগুলো হল: সে স্থানীয় প্রতিবাদশালীদের সামাজিক কিনা, সে তাদের শীর্ষ রাজনৈতিক দলগুলি কিনা, তালিকা প্রস্তুতী তার কাছ থেকে তালিকায় কোন সুবিধা-সুবিধা আসান করে নিয়ে পরাবে কিনা, এবং ভূমি অফিসার কর্মকর্তা/কর্মচারীদের সাথে তার যোগাযোগ কেমন (৪) ইত্যাদি।

তাতে অনেক ভূমিহীন তালিকাভূক্ত হয়েছেন অথচ শেষ পর্যন্ত জমির বর্তমান পানিনি। বর্তমান না পাবার অন্যতম কারণসমূহ হল: সরকারী অফিসারের সাথে যোগাযোগের অভাব, স্থানীয় প্রতিবাদশালীদের সাথে বৈশ্বিক সম্পর্ক, খাস জমি অনেক ঘাড়া অবৈধভাবে দখল হওয়া, খাস জমির অন্তর্ভুক্ততা, অসম্ভব ও অন্যপ্রথম অবদান পর।

খাস জমির অন্যতম বর্তমানের কেন্দ্রে ভূমি অফিসারের মূল্যায়ন ভূমিকা পালন করে। এক একর খাস জমি পাবার জন্য গড়ে ৭ - ১০ হাজার টাকা যুথ নিতে হয়। একবার খাস জমি বন্দেশদেশ পাওয়ার জন্য
বাজার অর্থনীতি (অথবা বাজার অস্থায়ী: market fundamentalism অথবা) এর মাধ্যমে যে দরিদ্র মানুষকে দরিদ্র বিষয়ের কিছু ধরে রাখতে পারবে না (issue of non retention and adverse inclusion)।

গণেভাবে দেখা যায় যে ৪৫% সুফলভোগী বিভিন্ন কারণে জমির উপর তাদের অর্ধেক টিকিয়ে রাখতে বাধ্য হয়েছে। অন্য কথায় বলতে পারি, ভূমিহীন গরিবদের যে ক্ষুদ্র অংশটি খাস জমি পেয়েছেন তাদেরও প্রতি ২ জনে ১ জন খাস জমি বন্দলর বুদ্ধিতে নুরুমন সুবিধায় পায়নি। বন্দলকৃত খাস জমির উপর অর্ধেক টিকিয়ে রাখতে পারে মাত্র ৪৫% সুফলভোগী (অর্থাৎ দলিল আছে, জমি চাষ করছেন এবং ফসল উঠাতে পারছেন)। জমি অফিস ও আইন শাস্ত্রে বর্ণনার সাথে দলিলকাস্তের যোগাযোগ -জমি রক্ষা করতে না পারার প্রধান কারণ। ৫২% সুফলভোগী অর্থেক দলিলকাস্তের আত্মপ্রকাশ শিকার হয়েছে। যে সমস্ত কারণে ভূমিহীন মানুষ তাদের মধ্যে বন্দলকৃত জমি রক্ষা করতে পারবেন সেগুলো হল: অর্থেক দলিলকাস্তের ক্রমান্বয়, স্বাধীন ক্রমান্বয় কাঠামোর সাথে অর্থেক দলিলকাস্তের যোগাযোগ সুদৃঢ়; আইন ধনী-সহায়ক; আইনগত জাতিভাব বিশ্বাসহই বেহালী; সরকারী সহায়তা - কাজেরি সমস্যা সৃষ্টিকারী সরকারী কর্মসংস্থার এবং ইউনিয়ন পরিষদের সদস্যরা গ্রামীণ বিভাগের দেশ অর্থের ধরে চাপিয়ে দিতে অভাব; গরিবদের বিভিন্ন রক্ষার জন্য অর্থেক দলিলকাস্তের বিভিন্ন ধরের কৌশল অবলম্বন কর। বাংলাদেশের বিদ্যমান রাজনৈতিক - অর্থনীতিক কাঠামো বহাল থাকেলে কোন ঋণ ও কার্যকার ভূমি সংশ্লেষ আনো সম্ভব কিনা একে পরিসংখ্যান সূত্র হিসেবে পরীক্ষায় সংহতির জমি দেয়।

সুফলভোগীদের ৪৫% এর অর্থনীতিক অস্থায়ী আগের তুলনায় ভালো হয়েছে। ভালো হয়নি ৫৪% এর (যাদের মধ্যে ৩৬% এর অর্থেক অর্থনীতিতে তুলনায় খারাপ হয়েছে)। অর্থনীতিক অস্থায়ীর উপর উক্তি মূলত ২টি বিষয়ের সাথে সম্পর্কিত: (ক) ভূমির বর্ধন ব্যতিরেকে ফসলের উপর কর্ষণ প্রতিক্রিয়া, (খ) জমির পরিমাণ বৃদ্ধির সাথে রাজনীতি ও মানুষের মাত্রা সম্পর্কের উক্তি— এই দুটি জিনিস নিষ্পত্তি হয়েছে বেহালে অর্থনীতিক অস্থায়ীর উক্তি হয়নি। অর্থবাৎ অফিস ও অস্থায়ী এবং সামাজিক অর্থনীতিতের সাথে সম্পর্কিত খাস জমি বন্দল-কেন্দ্রিত ভূমি সংশ্লেষই সুফলভোগীদের অর্থনীতিক অস্থায়ী উক্তি ঘটাতে বাধ্য হয়েছে।

বর্তমান অর্থ-সামাজিক-রাজনীতিক কাঠামোতে খাস জলা-জমি দরিদ্র মানুষের জন্য আশ্রয়ময় না থাকে- প্রত্যক্ষ অভাব তুলনায় বড়ো হয়। দরিদ্র জাতিসমূহের একাধিক খাস জমি প্রাপ্ত আত্মান্ত্রিত অর্থ সুবিধা আর নীর্দেশের সুযোগ হাতছাড়া করতে পারে (করছেনও); বাজার অর্থনীতিতের মার্গপথে রক্ষা করতে পারতেন না বন্দল খাস জমি-জলাল (high non-retention rate); নামাল-বন্দমংস জাতিভাবে “adverse inclusion”-এর শিকার হয়েছে; জোরালবলকারী জমি-জল-সারো সংশ্লেষিত কিছু দরিদ্রের অস্থায়ীত; ঘুষন্ধ অন্যান্ত অনেক বিষয় বিহীন ব্যবস্থা করতেও দরিদ্রের মুখ দ্বিতীয় বোধ করেন না।

ভূমি মামলার পূর্বা বিষয়টি এখন পারিবারিক ও জাতীয়ভাবে এক বিশাল ও ক্রামবর্ধন অপত্যরের কারণ হয়ে দাড়িয়েছে। ভূমি মামলায় জাতীয় অপত্যরের মাত্রা নির্মূর্ত:

চৌদ্দ কোটি মানুষের এদেশে মামলার দুঃপদ, তাদের পরিবারের সবস্ব এবং সাক্ষীসহ ভূমি-মামলার সাথো সংশস্তত মানুষের সংখ্যা হবে ১২ কোটি, যা বাংলাদেশের শতকরা ১০০ ভাগ পূর্ণপূর্ণ জমির সংখ্যার মাত্রা (এদের প্রাত্রেই যে মামলায় জড়িত তা না, কেউ কেউ একাধিক মামলায় জড়িত)। বছরে ভূমি-জড়িত চলামান (operating) মামলার সংখ্যা (including pending cases) ২৫ লাখ, যা দেশের মোট চলামান মামলার ৭৫%। এ মুহুর্তে সেবক ভূমি-মামলার রায় অপকর্মকাল সেবক মামলায় বাদ-বিবাদ মিলে মেট কোগাল্যান-বর্ষ (sufferings-year) হবে ২ কোটি ৭ লাখ বছর।

দেশে বছরে মামলার দ্বিনা ভূমির পরিমাণ হবে ২৩.৫ লাখ একর যা ক্রমবর্ধনী ভূমি মামলার কারণে ক্রমবর্ধমান। ভূমি নিয়ে প্রতি বছর যে সব মামলা হচ্ছে ঐসব জমির ক্রমবর্ধন বাজার মূল্য ১,২৭,১০০ কোটি টাকা। সমস্ত দেশে ভূমি মামলাতন্ত্র পরিবার (বাদ-বিবাদিতহ) সমস্ত বছরে ১২,৫২০ কোটি টাকার সমাপ্ত হীরান। ভূমি মামলাসংক্রিট মেট আর্থিক ব্যায়ের পরিমাণ বছরে ২৪,৬৬০ কোটি টাকা, যার মাত্র ১% রাষ্ট্রীয় কোষাগার জমা হয় (টেক্স্টমান, কোটে ফি ইম্পোর্ট বাণিজ্য) ৫০০ হাজার (যার মধ্যে ৬৫% সেন পুনর্নির্দেশ, ১৫% ভূমি অফিস, ১৫% কোটের কর্মকর্তা)। এ মুহুর্তে সারা দেশে যারা ভূমি মামলায় জড়িত তারা মামলা পরিচালনে ইতিমধ্যে ২৫,০৩৯ কোটি টাকা মান্য করেছেন, যা আমাদের মেট জাতীয় আমাদের ১০%–এর সমান অথবা সরকারের বাড়ি উল্লম্বত কর্মচারীতে মেট বর্ধনের চেয়ে কেন্দ্রীয় প্রকৃতিতে ভূমি মামলায় বাদ-বিবাদের প্রকৃত ব্যায় উল্লেখিত আর্থিক ব্যায়ের চেয়েও অনেক কম কেন্দ্রীয় হবে, কারণ আর্থিক ব্যায়ে সেবা প্রকৃত ব্যায়ের আর্থিক মূল্য হিসেবে করা হয়নি।
তা হল: মামলার কারণে অতিবাহিত সময়ের সূচোগ বায় (opportunity cost); অনেক ধরাগের বাহিন্তকা-বায় (externalities) যেমন শারীরিক ও মানসিক দুঃখ-কষ্টের অর্থমূল্য, পরিবারের সদস্যদের শিক্ষা ও যন্ত্র যাতে যে বায় করা প্রয়োজন ছিল কিন্তু মামলার কারণে করা সম্ভব হয়নি তার অর্থমূল্য, মামলার কারণে সামাজিক সম্পর্কে যে চিক্টি ধারে হয় অর্থমূল্য, তুমিকেশ্বরী খেগোড়া-বিবাদ-মারামারি-খুন-খরম-এর ফলে যে কর্ত্তি হয়েছে তার অর্থমূল্য, মামলার ফলে অপেক্ষকীয় দূর্বল পক্ষের পরিবারের যে মোটো স্থানে অপরের না অথবা স্থলে রেছে-আসে যাকে ঠাট্টা-বিরক-বিরক (tease) করা হচ্ছে স্টার্জ অর্থমূল্য; দুর্বলতির ফলে ক্যায়-ক্যাতির অর্থ মূল্য (cost of corruption) ইত্যাদি।

ভূমিমামলায় পারিবারিক অপচায় মামলার। গবেষণালংক সমাপ্তিক করেও তার সম্পর্কে গড়ে প্রতিটী ভূমিমামলায় পরিণত হ'ল ৪৫ জন মানুষ। গড়ে একটি ভূমি মামলা নিপতিতে সময় লাগে ৯.৫ বছর। ভূমিমামলায় পরিবারের বকল ধরাগের দুর্বল বায়-অর্থনীতিক, শারীরিক, সামাজিক, মানসিক। মামলাকাত ১০০% ই বলেছেন মানসিক বৃত্তির কথা; ৬০% বলেছেন মামলার কারণে মামলাকাতের অবস্থাতার কথা; মামলাকাতের পরিবারের ১০০%এর আয় আর উদ্দেশ্য হ্রাস পেয়েছে। মামলার যায় মিটতে ৬০% পরিবার ফেলে-মেয়েদের শিক্ষা বায় করতে বাধা হয়েছে; খাসি পরিভাষায় বায় কমাতে বাধা হয়েছে ৭৫% পরিবার; আর ৬০% পরিবার মামলা চালাতে গিয়ে যাচ্ছে খাসি যায় কমাতে বাধা হয়েছে। ভূমিমামলায় মামলার আয় হ্রাস ও প্রযোজনায় বায় করতে বিষয়টি অন্যতম ভূমিমামলায় সরাসরি জড়িত (বাদি ও বিবাদি)-সের জন্য প্রয়োজন যায়, যা তাদের ঘনিষ্ঠ আত্মীয়-জনদের ক্ষেত্রেও বাড়ি মামলা লক্ষ্যীয়। গড়ে মামলা প্রতি বাদি অথবা বিবাদি নিয়ন্ত্রে প্রতিটি পক্ষে যে সম্পদ যা হ্রাস পেয়েছে তার বর্তমান বাজার দুর্বল হবে ২,২৭,৯৯০ টাকা। বাণিজ্যিক সম্পদ হ্রাসের পরিমাণ, গড়ে প্রতি পক্ষে ২৩,১৯৯ টাকা।

সুতরাং ভূমি মামলায় রাজনৈতিক-অর্থনীতি বিষয়ে করেনকটি সিদ্ধান্তে উপনীত হওয়া যায় নিয়ন্ত্র করে যো সামাধিক কৃষি সম্পদ খাড়া বিশাল এ পারিবারিক ও জাতীয় অপচায় রোপে অস্থিত। অর্থনীতি ও রাজনীতিতে দুর্বলতারের কাঠামোতে আরম্ভ শুরুতে পরিপ্রেক্ষিতে ক্রমবর্ধনের কারণ হয় দাঁড়ায়েছে ভূমি মামলা। সামাজিক দুর্বলতারের কাঠামোতে ভূমি মামলায় দুর্বল-দুর্বলতি কৃষিটে এবং আইন ও বিচার ব্যবস্থা অনেকতরে করেন ভূমিকা রাখেন। ভূমি মামলায় পুলিশ দুর্বল করায় হয়ি দূর্বল জাহাজ। তার বয়ে দূর্বল দিয়ে পুলিশ তার যাত্রা সেখানে যি করেন সত্ত্বেও নিয়ন্ত্রিত ভূমি মামলা ফেলো। এ বিষয়ে ভূমি অফিস, কোট সিস্টেম, স্থানীয় সরকার, উকিল-মোতাফার- কেউ কারা চেয়ে কম নন। দুর্বলতত্ত্ব ও অভ্যন্তর আইনশুলখালা ও বিচার-এর সিস্টেমে সত্ত্বেও ব্যক্তি লাভবান হয়েছে তারা যারা যেজনেতর কাজে এবং তারা একটি দুর্বল-বিবাদি নিয়ন্ত্রে কেউই আসলে জেনেন না (loosing battle for both), উভয়ই হারেন। কারণ মামলায় গড় অর্থনীতি বায় (অর্থমূল্য করা সম্ভব নয়, এমন বায় বাদ দিয়ে) যে পরিমাণ যি নিয়ে মামলা হয় তার বাজার দুর্বল হেয় দূর্বল হয়েছে। হেয় দূর্বল মামলাকাজ পরিবারের অক্ষরেখ অন্যা চিক্টি দুর্বল মামলা হয়।
কর্মকাণ্ডে সময় দেয়া প্রতি হাসায়: আরের বড় অংশ মামলার পিছনে রাখা করতে গিয়ে পরিবারের সাথী-শিক্ষামানসিক সৃষ্টির বিভিন্ন বিষয় বিশ্বাস করা হয়; পরিবারের খাদ্য পরিবেশন হারের ফলে পরিবারের শিশু-মহিলা-ব্যক্তি সদস্যদের স্বার্থে সাহায্য হয়: মামলাতে পরিবারের হাটের অস্থায়ী, ভাষার ভিক্ষায়, মূল্য অর্জন করা যায়। ভূমি মামলা পরিবারের অথবা কোন বন্ধন এবং মানুষের মনোভাব ও সংহতি (solidarity) বিনিময় করার মাধ্যমে বিভিন্ন সৃষ্টি করা এবং মনোমাধ্যমের বিস্তারকরণ প্রতিক্ষা তুলনিতে করা। মামলার বাণিজ্য বিবাদ না অথবা পরিদৃশ্য জগতের (যদি অনেকের কোন ভূমিকা) একাংশ যা যে কোন কাজের হক না কেন সাক্ষী হিসেবে মামলার অংশ— মামলায় জড়িয়ে আঁশে সাধারণত আমূলক কর্মকাণ্ড থেকে বিচােরের ফলে দর্শন হয় পড়ে। ভূমি আইনের জটিলতা ও অসংক্ষেপ। ভূমি আইন ও ভূমি প্রতিষ্ঠা সম্পর্কে অপকারী মামলের জ্ঞানের অভাব (অথবা অব্যাহত প্রতিক্ষা); আইনের প্রাথমিক বিবাহন সমস্যা; অনেক ক্ষেত্রে মামলা-মিমাংসার কেনে অপরাধ ও মামলের সাথে সংস্থার বিচার; বিচারের রায় প্রভাবিত করার টেশট (অনেক ক্ষেত্রে সফল প্রচেষ্টা); খানা-পুলিশ-ভূমিবিক্ষোন-কোটের মানুষের রূপক্রীড়া অবস্থান; মামলায় ভেনিশালি মামলের (বিশেষত: রাজনীতিকদের এ বাদ্যার বাণিজ্যীয় নৈতিকতা) অর্ধে হত্যাকরণ (অনেক ক্ষেত্রে এটা তাদের অর্থ আয়ের অন্তর্গত উচিত); উক্ত-মামলার মকবল বিবাদী অর্থনীতি ও অপরাধাধিকৃত মানবকার্যমো (অনেক ক্ষেত্রে)-

সর্বকিছু মিলিয়ে আর্থ-রাজনীতির দৃবতাবাদ কাঠামোতে এদেশে ভূমি-মামলা ভাল তেমন কিছু করা না, বিপরীতে মামলাতে পরিবারের দৃষ্টিকন্দ-দূর্বলতা হৃদয়ে বৃদ্ধি করে; মানব পূজা বিকাশে প্রতিষ্ঠা সৃষ্টি করে; সাময়িক-অর্থনীতি-শিক্ষা-সংস্কৃতি-রাজনীতি-মনস্তাত্ত্বিক জগত ভারসাম্যকরণ ও কোনোটিকরণে সচিবে ভূমিকা রাখে; সর্বপ্রথম মানুষের-মনোভাবে আমূলক প্রক্রিয়া হিসেবে উল্লেখ মানুষের বড় ধরের ধারা-মিশাল কাজ হিসেবে কাজ করে। সুতরাং সম্পূর্ণ ভূমি-মামলার বিষয়ক্ষেত্রে ভূমি-কৃষি-জল সংস্থারের শিল্পে অন্তর্ভুক্ত হবে না ।

ভূমি প্রশাসন, বাণিজ্য, আইন ও নীতিমালা: সংক্ষেপ বৃত্তি সংস্থার জটিল প্রতিক্ষা

ভূমি ও জল—এদেশের মূল ও মৌলিক সমস্যা। অথবা ভূমি প্রশাসন ও বাণিজ্য— উদাহরণ এখনও উপনিবেশিক নিয়ন্ত্রণ ছাড়া। ভূমি প্রশাসন ও বাণিজ্যীয় মূল কাজ তিনটি: (1) রেজিস্ট্রেশন, (2) সম্পর্কন্তু ও সমস্তের দুটো মন্ত্রণালয়ের তিনটি কর্তৃক ভিন্ন ভিন্ন অফিসে একই কাজ করে— এটাই ভূমি প্রশাসন বাণিজ্যীয় অন্তর্ভুক্ত সমস্যা। বা নিয়ন্ত্রণ কেনে কাজের উদ্দেশ্য ছিল। রেজিস্ট্রেশন কাজটি করে ভূমি মন্ত্রণালয়ের আওতায় তহবিল অফিস। যেহেতু ভূমি কেনার ও সুব্রততাবুদ্ধি চলার সহায়তা করে রেজিস্ট্রেশনের কাজটি (process of transfer of land right) করে। রেজিস্ট্রেশনের কাজটি করে আইন মন্ত্রণালয়ের অমিস সাবেক জেনারেল অফিস। এ কাজটিতে জেনারেল কাজ এটা হল recording of transfer। আর সম্পর্কন্তু-এর কাজটি করে আইন মন্ত্রণালয়ের অমিস সেম্যান্টিক অফিস। এ কাজটি তর্কপূর্ণ ছিল তখন মনে হল কিছু যা আর চাহিদে আওতায় তুলনা জমির হিসেবে রাখা ও সংস্থাতে সমন্বয়ে প্রাথমিক হিসেবে (অর্থাৎ recording the expansion of cultivable acreage) –এখন এটা সম্পূর্ণ অন্তর্ভুক্ত। মালিকানা বহ্নের আইন রেজিস্ট্র (official record of ownership
rights) summarised, and the executive body of the organisation appointed.

The organisation has the power to register deeds and to perform any other legal acts necessary for the proper functioning of the organisation.

The legal framework for the organisation includes the following:

1. The Bangladesh Act 1951, which establishes the organisation and its powers.
2. The Bangladesh Act 1952, which provides for the registration of deeds and other legal acts.
3. The Bangladesh Act 1953, which governs the registration of deeds and other legal acts.

The organisation is governed by a board of directors, which is responsible for the management of the organisation.

The board of directors is composed of representatives from various sectors, including the government, the private sector, and civil society.

The organisation has a strong partnership with the government, and it works closely with other organisations to address issues related to human rights.

The organisation has a strong reputation for its work in human rights, and it is widely recognised as a leading advocate for human rights in Bangladesh.


অনুবন্ধ কর্মকর্তা: বাংলাদেশের বৃহতঃবৃহতঃজল-উৎপাদনের কাঠামোতে সমর্থ অধিকারিতা হস্তান্তরিতক-অর্থনৈতিক বিষয় 203 

তা বন্ধ-মাঝারির উদ্দেশ্যে: সিলিং উদ্ধত জমি দেবার ক্ষেত্রে আইন করে পরিবারের সঙ্গে পাল্টানো হয়েছে বহুবার; জমি সংক্রান্ত বিষয়ের নিম্নিন্থ অধিনায়ক কানুনে ষে জমি তা কৃষ্ণপূর্ণ, স্থানীয়ভাবে সমাধানের আইন কার্যকরী নয়, উক্ত-আদালতে নিপীদিত প্রয়োগ-কৌশল ধনীদের ক্ষেত্র রক্ষা করে; খাস জমিতে বুধিমানদের সম্বন্ধে সৃষ্টিতে আইন থাকলেও, কথনা তা বাস্তবায়ন হয়নি; সরকারী নীতিযুক্ত নাগরিক সমাজসহ কৃষ্ণ সংগঠন, বিভিন্ন পেশাজীবিদের সংগঠন ও জনকল্যাণকারী বেসরকারী সংস্থাসমূহের স্বর্ণী অংশগ্রহণ ও বৃত্তিকা স্বীকৃত নয়।

খাস জমি-জলা বিতর্কমূলক বৃষ্টি-ভূমি সংস্কার সময়

আমাদের অনেকেই খাস জমি-জলা সংক্রান্ত বিষয়টি পূর্ণিমাভাবে না বুঝে অথবা অশ্বিন্ধ রুক্ক-বিতর্কমূলক ভূমি সংস্কারের অনুশীলনের কথা বলেন। নাকাট করে দেন সংখ্যাটি প্রস্তাবনা। আসলে দেশে এ পর্যন্ত যে প্রমাণ খাস জমি চিহ্নিত করা গেছে তা দিয়েই প্রতূক ভুধিমান পরিবারকে 0.37 একর খাস কৃষ্টি জমি এবং 0.38 একর খাস জলাভূমি বন্ধ করা সম্ভব। আর সব ধরনের খাস জমি মিলিয়ে প্রতূক ভুধিমান পরিবারের মধ্যে ১.৫২ একর বন্ধ করা সম্ভব।

জলা ভিত্তিক বিবেচনায়, গড়ে তুর্কি জলা ভূমিহীন পরিবার এক.১৪ একর খাস জমি (খাস জলাভূমি বাদে) বন্ধ করা সম্ভব। এ অংশ শাখাকে ১.৪ একরটি জলা ভূমিহীন পরিবার প্রতি গড়ে ১.৫ একরেরও বেশি জমি বন্ধ সম্ভব। এর এ পর্যন্ত বৃষ্টি জমি তা এদেশের ক্ষেত্রে প্রমাণ-থেকে উৎপাদনশীল জোড়া হিসেবে প্রমাণিত হচ্ছে।

খাস জমি বাজার মূল গড়ে প্রাণী খাসজমির তুলনায় ১০০ টাকা বেশি; আর ঢাকা-ঘোড়ামুড়া-খুলনা মেট্রোপলিটন এলাকার সাথে তুলনা করলে তা হবে কয়েক হাজার ওঁ। শহরের খাস জমি এখন পুরোটাই আর্থ-রাজনৈতিক দূর্বলতারত গোষ্ঠীর নিয়ন্ত্রণে। এ এক খণ্ড জন বাজার রাখে এবং দখল বাড়াতে দূর্বলতা রীতিমত শেষ মাত্রায় পূর্বে, যে মাত্রায় এখন আর খুব জমি-কেন্দ্রীত ক্ষেত্রও সীমিত নয়। ঢাকা শহরের ৩০০০-এর উপর বিক্রম নাম এখন ব্যবহারের নামে; ঢাকার ভিত্তি আর চারপাশের ক্ষেত্রে দুর্বলতার লাগে একর নিউ-খাস জমি এখন ব্যাখ্যা ভার্ট চলছে। এসব খাস জলা-জমি দরিদ্র মানুষের ব্যাপ্তি প্রাপ্ত। ভূমি-কৃষি-জলা সংস্কার এ বিষয় এটিতে গেলে অন্যায় হবে।

দেশে বর্তমানে যে প্রমাণ খাস জমি-জলা রয়েছে তা দিয়েই একটি বন্ধন্যায়া কৃষি-সংস্কার” সম্ভব। আর অতীতে যে কোন সরকারের আমলেই ভূমি সংস্কারের ক্ষেত্রে সত্ত্বাকার আত্মসংক্রান্ত ও উদ্যোগী প্রয়োগ নেয়া হয়নি, তাই যারা ভূমি সংস্কারের সম্ভাব্য অভিযোগ নিয়ে প্রশ্ন তুলেছেন-আমাদের বিবেচনায় হয় তারা না জেনে-জানে করেছেন, না হয় নিষ্ক উদেশ্য প্রণয়ীকরণের কথা। ভয়-ভীতি অথবা অন্য কোন কারণ থাকলে কৃষি-ভূমি সংস্কারের পক্ষে কথা না বলা অন্যায় হবে না, তবে বিরুদ্ধ যুদ্ধ প্রশাসন হবে রীতিমত দেওয়া অপরাধ।

ভূমি-কৃষি-জলা সংস্কার : কিছু সুপরিচিত

এদেশে জনকল্যাণকাজী ভূমি-কৃষি-জলা সংস্কার-এর লাগো সংশ্লিষ্ট বিভিন্ন বিষয়াদির পরিকল্পনা-তত্ত্বক একটি রাজনৈতিক-অর্থনৈতিক বিশেষণ উপস্থাপনে চেষ্টা করেছে। বিষয়টি দুর্বলতারীতি কাঠামোতে
অামাদের দেশে সবচে অসমীয়ত বিষয়। বিষয়টি জটিল ও পর্যক্ষ সম্পর্কিত। বাংলাদেশের অগ্রনীতিক উন্নয়ন ও মানব উন্নয়ন প্রক্রিয়া তুলনামূলক করতে জনকল্যাণকামী ভূমি-কৃষি-জলা সংগঠনের কোন বিষয়ে নেই। এ লক্ষে দেশের সকলের বিচারনায় জন কিছু সুনিশ্চিত সুপারিশমূলক প্রাদেশ উদ্ধার করতে চাই। উদ্ধার করা প্রয়োজন যে প্রক্রিয়া সুপারিশ আগ্লা-আগলি বস্তবায়িত হবে এমনটি আমে মনে করি না। জমি-জলা বিষয়ের অট্টপূর্ণ ব্যাখ্যাবিশিষ্ট সম্পর্কে আমরা গ্রহণ করার সাহায্য বিষয়ে অবগত। সে কারণেই বিশ্বাস করি যে বিষয়টির সুরাস্ত্র সম্পূর্ণভাবে রাজনৈতিক মীর্তকৃত, গোষ্ঠপত্র, অনুশীলন, যোগাযোগ এবং সাধারণ জনপ্রিয়তা সংগঠিত কর্মকান্ডের উপরেই নির্ভর করে। আমার প্রক্রিয়া সুপারিশসমূহ আমি পাঠিত বৃহৎ বর্ণে বিভক্ত করেছি (অবশ্যই এসবই পর্যক্ষ সম্পর্কিত):

(ক) খাস জমি ও জলা সংক্রান্ত,

(খ) অঞ্চল সম্পর্কে সম্পর্কিত,

(গ) কৃষি জাতি সহযোগী মানুষের জমি-জলা-বনভূমি সম্পর্কিত,

(ঘ) ভূমি মামলা সংক্রান্ত, এবং

(ঙ) অন্যান্য আইন-কানুন, প্রশাসন, ব্যবস্থাপনা ও নীতিমালা সংক্রান্ত।

খাস জমি-জলা সংক্রান্ডু সুপারিশ

১. সমূহ খাস জমি (কৃষি, অষ্ট্রেলিয়া ও জলাভূমি) অবলম্বনে চিহ্নিত করা।

২. খাস জমি চিহ্নিতকরণের সময় সংক্রান্ত যা সত্যিকার তথ্যপ্রোত্য প্রচার মাধ্যমসমূহ (রেডিও, টিভি ও বাংলা দৈনিকসহ) প্রকাশ ও চৌরাজ এবং এতে হুমকুল পর্যায়ে ছড়িয়ে দেয়।

৩. খাস জমির বিভাগিতকরণ শ্রীনাবিভাজন বন্ধ করা (মহম্মদ কৃষি জাতিকে জলাভূমি হিসেবে দেখানো)।

৪. বন্ধনকৃত ও বন্ধননিহিত সময় খাস জমি অবৈধ দুর্লভদের কাছে থেকে যত সম্ভব উদ্ধার করা।

৫. খাস জমি চিহ্নিতকরণ কমিটির কৃষি সংগঠন, কেন্দ্র মন্ত্র, রাজনৈতিক দলমূল, প্রতিনিধিদের সংস্থা, সামাজিক সংগঠনসমূহ ও কর্মচারী কর্মকান্ডের দুনিয়া বদ্ধ করার জন্য বিভিন্ন পদক্ষেপ নেয়া।

৬. এই কমিটির উভয় প্রতিনিধিযাত্রীদের প্রতিনিধিত্বকর্তা সমূহকে দুনিয়া বদ্ধ করার জন্য বিভিন্ন পদক্ষেপ নেয়া।

৭. কৃষি ও ভূমিভূতির সাবধানের বলিকার চিহ্নিত জাতিয় পর্যায়ে একটি খাস জমি ব্যবস্থাপনা কমিটি ও জলা পর্যায়ে একটি খাস জমি ব্যবস্থাপনা ও বন্ধন কমিটির চৌরাজ। খাস জমি উভয়ে যে দুটি ধারার বিবাদ অনুসন্ধান/তদন্ত করা এবং মালিকানার সন্ধান দেওয়ার ক্ষেত্রে এই কমিটিকে প্রধান করা।

৮. খাস জমির চিহ্নিতকরণ, বাণিজ্যকরণ, বন্ধন এবং ব্যবহারের ক্ষেত্রে গরিব জনসংখ্যার ও তাদের সুবিধার প্রতিশোধ/সংগঠনসমূহের সাবধানের অংশগ্রহণ দিনিতে করা।

৯. খাস জমি বন্ধনের ক্ষেত্রে সুবিধা এবং প্রতিরক্ষা সম্পর্কে বিতর্ক করা।

১০. ভূমিভূতির জন্য এক সময় মানুষ বন্ধনকৃত সম্পর্কে বিতর্ক করে পারে তার জন্য প্রতিক্রিয়া উদ্ধার করা।

১১. জমির দুর্লভ স্থানের সমস্যা ও ফসলের উপর কর্মক্ষেত্রের সমস্যা নিরসনে আইনগত সহায়তা ব্যবস্থার প্রতিষ্ঠানিককরণ করা। এসব ব্যাপারে একজন ও অন্যান্য প্রশাসনিক সংস্থার সহায়তা।
12. The CEBG AVB walks on the edge of a high-voltage tower.

13. The CEBG AVB walks on the edge of a high-voltage tower.

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30. The CEBG AVB walks on the edge of a high-voltage tower.
সংক্ষেপ যার অনুষ্ঠান অনুষ্ঠিত হয় | আর তা বাস্তবায়ন করতে হলে ক্ষমতায় যে সরকারই ধারক না কেন থাকতে হবে তার রাজনৈতিক সন্ত্বনা, হতে হবে তাকে দৃঢ় প্রতিক্রিয়াবদ্ধ, উদ্যোগী ও আত্মার্পিত। আমাদের চিহ্নিত সম্পরিশনালা বাস্তবায়নের অনুকূল পরিবেশ (enabling environment) নিষ্ঠিত করতে নিম্নলিখিত পূর্বপূর্বসময় পালন করতে হবে: 

1. সরকারকে বীর্যকর করতে হবে যে খাস জমি-জলা আত্মসাত করে নিজস্বরূপ ভাবে বানানার জন্য দেশে একটি কার্যকর সাধারণতন্ত্র গোষ্ঠী সৃষ্টি হয়েছে, যারা খাস জমির সুমধুর বন্ধনে ধরান অন্তরায়।

2. সরকারকে বীর্যকর করতে হবে যে অবৈধ দখলদারদের বড়ো অংশ সবসময়ই ক্ষমতাধরদের সম-সাংকট।

3. ভুমি সংক্রান্ত রেকর্ড ব্যবস্থা সেকলে: ভূমিসংক্রান্ত অফিস-আদালত অফিস ও চর্ম মুনীরগণ। 

4. সরকার ও রাজনৈতিক শক্তিসমূহকে অনুভাবন করতে হবে যে গ্রামীণ দারিদ্র্য নিম্নতম পর্যায়ে নামিয়ে আনা সব যদি প্রকৃত ভূমিহীন কৃষিকাদের মাঝে খাস জমি বন্ধন করা যায়।

5. খাস জমির চিহ্নিতকরণ, বন্ধন ও কৃষিকের কার্যকর অধিকার নিষ্ঠিতকরণ — এসব ইসুমত জাতিতে সংসদে বিষয়ে অচিন্তিত আহ্বান করা উচিত।

6. প্রতিদিন রাজনৈতিক দলের নির্বাচনী অংশকরণে খাস জমি-জলা সংক্রান্ত সময় ইসুমতে স্পষ্ট ঘোষণা থাকা প্রয়োজন।

7. পরিবার জনানগরের অধিকারের প্রশ্নে সমস্ত কৃষি সংগঠনগুলোকে ঐকান্তিক করা এবং সরকারী কর্মকর্তা-কর্মচারীদের মুনীরি ও খাস জমির বন্ধনের ক্ষেত্রে সরকারের অতিক্রম বিচর্চণে আদেশ করা।

8. খাস জমি বিরোধে বহম নিষ্ঠিত করতে স্থানীয় এবং খানা পর্যায়ের সম্ভাবনার সংগঠন, NGO ও রাজনৈতিক দলগুলোর ছাত্র-যুব সংগঠনসমূহের কাঠ প্রসারিত করা।

অর্পিত সম্পদ আইন ও আইনে ক্ষতিগ্রস্ত সম্পদ সংরক্ষিত সম্পরিশনালা

শত্রু/অর্পিত সম্পদ আইন ও সংশ্লিষ্ট ফক্তরের পরিমাণ ও প্রকৃতি বোঝাতে অতাত্স জটিল সে জানাই সমাধান নিম্নলিখিত অনুকূল পরিবেশ সৃষ্টির জন্য কিছু পূর্বপূর্বসময়ের কথাও উল্লেখ করেছি। সমাধানগোষ্ঠী বিজ্ঞাপন অনুকূল পরিবেশ সৃষ্টির বিষয়টি অতাত্স গুরুত্বপূর্ণ। কারণ বেদগলকারী গোষ্ঠী ও তাদের সাধারণ সংগঠনগুলো ইতোমধ্যে পরিকল্পনা করেছিল সাম্প্রদায়ক দাস-হাসামার কথা প্রকাশ্যে প্রচার করছেন। শত্রু/অর্পিত সম্পদ আইনের আত্মাত্মীয় সম্পদ-সম্পরিশনালা মালিক সরকার নয়, সরকার হল রক্ষক/জিমাদার (custodian not owner)। সরকারের আইনগত বাধাবাধকতা হল ঐ সম্পদ মূল মালিক এবং/অথবা তার উত্তরাধিকারীদের বুঝিয়ে দেয়া; সেই সাথে প্রমাণ ক্ষেত্রে বন্ধস্থল (লিজ) দেয়া এবং বন্ধস্থল প্রদানের ক্ষেত্রে মূল মালিক ও তার উত্তরাধিকারীদের অধীনস্থীতি দেয়া। সরকার যখন নিজেই বলবেন যে ১ - ১.৫ লাখ একরের বেশী তারা হাতে নেই, তখন ধরে নিয়ে হিসেবে কোন ভুল হবে না যে ২০ লাখ একর দুর্বৃত্তরা গ্রাস করেছে।

আমি স্পষ্ট মনে করি যে সমাধান হতে হবে সুনিশ্চিত (specific) ও বাস্তবসম্মত (realistic)। যেহেতু...
সমস্ত কৃষি সম্পদ দুর্নীতিক ও তা ঐতিহাসিক রূপ পরিণত করেছে সেহেতু সুপারিশকৃত কোন কোন সমাধানের জন্য সংশোধন বিশেষজ্ঞ ও বিজ্ঞানীদের অভিযোগ ও অভিমত নেয়া প্রয়োজন। এ বিষয়ে আমার প্রধান সুপারিশগুলো হলো নিজীপত্র:

1. অর্থনীতি এবং প্রতিষ্ঠান আইন (the Vested Property Repeal Act-2002)- আইন কার্যক্ষেপণ না করে বাস্তবায়ন করা। এক্ষেত্রে প্রত্যাহার আইনের বিশেষজ্ঞদের ইতোমধ্যে যে সব পরিবর্তন সুপারিশ করেছেন সে সব বিবেচনা করা।

2. জাতীয় সম্পদ দুর্নীতি সরকারী যোগাযোগ হিসেবে সবাইকে জানিয়ে দেয়া যে উক্ত আইনে হিস্টিক সম্পত্তি তালিকাভুক্ত করার উদ্দেশ্যে অপরাধ।

3. শত্রু/অর্থনীতি আইনের ক্ষমতাপ্রদাতাদের কাছে সম্পদ প্রতিষ্ঠানের প্রস্তাবে মূল মালিক ও তাঁর উদ্দেশ্যপ্রাপ্ত উদ্দেশ্যের বিষয়ে তালিকা প্রণয়ন করা (জমি ও অন্যান্য সম্পত্তির বিবরণ সহ)।

4. সমস্তার প্রকৃত সমাধান না হওয়া পর্যন্ত সরকারী রক্ষণকারী সম্পত্তি মূল মালিক/উদ্দেশ্যপ্রাপ্ত কাছে লীলার (বন্দোবস্ত) দেয়া।

5. শত্রু/অর্থনীতি সম্পত্তি আইনে অধীনণ্যতা যে কিছু ১৯ বছরের লীলার (বন্দোবস্ত) দেয়া হয়েছে সেগুলো বাতিল করে মূল মালিক/উদ্দেশ্যপ্রাপ্তদের ফিরিয়ে দেয়া।

6. সম্পত্তি প্রতিষ্ঠানের বিশেষ বিশেষ ক্ষেত্রে অগ্রাধিকার (priority) দেয়া, যেমন

ক) অর্থনীতিক গতিশীল যারা কৃষিহিনী মহিলা
খ) যে সব পরিবারের প্রধান হলেন মহিলা
গ) অর্থনীতিক ফলে যারা বসতিভিত্তি হারিয়েছেন
ঘ) অর্থনীতি কর্তৃক একক বসতিভিত্তি হারিয়েছেন মহিলা প্রবর্তন, শৈক্ষণিক ও প্রশিক্ষণ তৈরি করা
ঙ) তারকাকের পুত্রী আমিরের মর্মত্ত্ব-কর্মচারীরা যে সব সম্পত্তি দখল করেছেন
চ) যে সকল ক্ষেত্রে প্রায় সকল উদ্দেশ্যপ্রাপ্ত এ দেশের নাগরিক
ছ) ১৯৫৫-৬১ পর্যন্ত মার্কেটের সম্পত্তি শত্রু-সম্পত্তি হয়েছে এবং যারা/যাদের আইনের উভয়পক্ষের এদের নাগরিক।

7. অবরোধক্ষুদ্র সম্পত্তি (যা সরকারীউন্নতি বন্দোবস্তকৃত নয়) চিহ্নিত করে বিশ্বাসরূপ তালিকা প্রণয়ন করা।

8. যে সকল ক্ষমতাপ্রদাতার সম্পত্তি প্রতিষ্ঠানের বিভিন্ন ক্ষেত্রে বিলীন হতে পারে অধীন সাধারণ কর্মচারীর জন্য বিশেষ ‘ক্ষমতাপ্রদাতা পাকেজ’ এর ব্যবস্থা করা। ক্ষমতাপ্রদাতা পাকেজের অস্তিক্ষু হতে পারে সরকারী খাস জমি-লালা, বড়, লাল সূত্র (অর্থে এবং অন্যান্য পর্লোগ) ইত্যাদি।

9. যে সকল শত্রু/অর্থনীতি আইনে সম্পত্তি দাবিদার (উদ্দেশ্যপ্রাপ্ত) অনুপস্থিত সে সকল সম্পত্তি মানব উন্নয়ন ক্ষমতাপ্রদাতার বিষয়ে দাবিদার বিমূর্তিতে কা ক্ষমতাপ্রদাতাদের ইতিহাসে উল্লেখ বাবদ হবার করা।

10. আইন বাতিল করে সমস্ত সাধারণকাজ শুরু করা যেতে পারে সে সকল অঙ্কনে যেখানে গ্রহিত শারীরিক শারীরিক ও বেসরকারী সংস্থা গণভূতি অপেক্ষাকৃত সুদূর শত্রু/অর্থনীতি আইনে ১০ লাখ হিস্টিক পরিবার ২১ লাখ একক ভূ-সম্পত্তি হারিয়েছে। অবাধিক এই সমস্যা পত্ত ৪০ বছর যাবৎ জিজ্ঞেয়ে রাখা হয়েছে; ভূ-সম্পত্তি হাত বদল হয়েছে যে করাণে
অনেক কেরেই আইনগতভাবে প্রকৃত মালিকানায় প্রতিষ্ঠা করাও হয়তো বা দুর্বলতা: সরকার বলছে তাদের হাতে মার্ক ল-১১-৫ লাক একক সুমন্দির আছে অর্থাৎ প্রায় সকল সম্পত্তি সরকারের বহুয়া হয়েছে; জোরদার কারাভায়ারা সমাজে সুপ্রিরক্ষিত ও কমতা বলয়ের সাথে মুসম্পতিতি- সুতরাং কেউ কেউ হতেই বা ভাবতো পাওয়া যে সমস্যার সমাধানে উপায়ত সুপরিশমূখ কয়লা সংশোধনী অথবা যথেষ্ট ব্যবস্থা নয়। এক্ষেত্রে আমার বক্তব্য সুমন্দির- সমস্যাটি মানব-সূচি কিন্তু মনুষ্য বিবেচনা। সুতরাং সত্য সমাজ প্রতিষ্ঠিত জন্য সমাধান হতেই হবে, নতুন ভবিষ্যত একই ধরনের এবং অপেক্ষাকৃত বড় মাপের প্রতিসাধারণ বিপর্যয় অনুমান।

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ফুল্ল জাতিসংঘ মানুষের জমি-জলা-বনহ্রু সংগ্রহস্ত সুপরিশ

1. বাংলাদেশ সরকার ও পাব্বর্তী চৌগ্রামের ফুল্ল জাতিসংঘের * মানুষের মধ্যে যে শাষ্টরি চক্ষু খাপ্ত হয়েছে (ডিসেম্বর ১৯৯৭ সালে) তার পূর্বভাবে (কোনোরই খবরি নয়) এবং প্রতি বার্ষিক বায়ন করা।

2. শাষ্টি চক্ষুর যে সকল ধারার বাযরায়ান প্রক্রিয়া এখনও কার্যকারী হায়নি সেগুলো অপারিকর হিসাবে উপলব্ধ নয়, যেমন তুমি কমিশন সমৌল করা।

3. জোরদার সদ্ভাবনা পালাইয়ে জমি সম্পত্তি বিয়াদি-শারীর চপক্টির বর্ধন প্রক্রিয়া যোগাযোগ- তুমি কমিশন প্রেরণ ও সমাধান করা।

4. সমস্ত তুমির যে সকল বাণিজ্যিক পাব্বর্তী চতুর্থায় বসতি স্থাপন করেন- সমস্ত তুমির যে আর যে সব ধারা প্রামাণ্য নয়।

5. সমস্ত তুমির বাণিজ্যিক স্থাপনকারী অথবা বসতি নন, বন বিভাগ, সেগুলো বিয়াদি সরকারের সমস্ত একটি (উল্লেখ বক্সওয়াই) কর্মকর্তার তদন্ত অথবা যৌথ তুমি-বন অধিকার এখন থেকে সম্পূর্ণ নিষেধ ঘোষণা করা (complete moratorium)।

6. ফুল্ল জাতিসংঘ মানুষের তুমি-অবিকার (যা আশঙ্কায়ে CHT Regulation ১৯০০-এ খুব কৃতৃ) প্রতিষ্ঠানের সংস্থাবর্তন করার পক্ষ কেন্দ্র অবহেলা এবং প্রশাসনিক পদক্ষেপ নেয়া।

7. ১৯৪৭-এ খাপ্ত শাষ্টি চক্ষুর সাথে তুমি কমিশন আইন ২০০১-এর যে সব ধারা সাম্যবাহী সেগুলো সমূহ করা (শাষ্টি চক্ষুর অহিয়ায়)।

8. পাব্বর্তী এলাকার বাণিজ্যিক অথবা বন বাণিজ্যিক পালাইয়ে জমি নিয়ন্ত্রণ এবং পর্যন্ত ১০ বছর প্রচারণ করেন না এমন সব চর্চা করতে হয়।

তুমি মামলায় পারিবারিক ও জাতীয় অপচয় রোধ সংগ্রহস্ত সুপরিশ

সামাজিক দূর্বলতায় আর্থ-রাজনৈতিক কাঠামো বহুল রেখে যেমন সমস্যার আদর্শ সমাধান সম্ভব নয় তুমি একটি চিক যে কাঠামো পরিবর্তন না করতে কিছু দুর্বত্ত অস্বাভাবিক হয়ন। এদেশে তুমি-মামলার বিয়াদির সুরাখায়ে হবে সামাজিক তুমি-কুশি-জলা সংস্কার (land-agrarian-aquarian reform) সহ খ্যাতনামা, উৎপাদনশীল কর্মসংস্থান সৃষ্টি এবং প্রকৃত মানব উন্নয়ন-এর অংশ হিসেবে।

আর এর সম্পূর্ণ বিষয় এবং অন্যতম বড় মাপের স্বাক্ষরোধী কর্মকার্য সংগঠিত না করা গেলেও কিছু কিছু

* আদিবাসী না’কি উপজাতি না’কি পাহাড়ি জনগোষ্ঠী বলা সমন্য এবং অন্যান্য বিষয়বস্তু আলাপ-আলোচনা হতে পারে।
সংক্ষেপ করার সময় ব্যবহৃত শব্দগুলোতে সচেতন অভিধানিত সরলীকৃত বিষয়

1. সৃষ্টিশালী মাধ্যমে কোটি, তুমি প্রাণসান, ও থানা-পুলিশের দুর্নীতি-হাসে কার্যকরী উদ্যোগ গ্রহণ করা।

2. স্থানীয় পর্যায়ের (গ্রাম/ইউনিয়ন/পাড়া/মহল্লা) তুমি সংক্ষিপ্ত বিবাদ মিঙ্গার সরবারাক চেষ্টা করা।

3. তুমি মামলার দ্বার নিপ্পিত লঙ্কা কার্যকর গ্রহণ করা— তবে তা হতে হবে সম্পূর্ণ আইনসমন্ত (কারণ দ্বার নিপ্পিত অর্থনীতি-শৃঙ্গী প্রতিভিতাসদানের জন্য লাভজনক হতে পারে)। তুমি মামলা প্রেষণকর করে বিভিন্ন প্রেষণ মামলার নির্দেশ সমায়-নীয় রেঁরে দেয়া।

4. উপর মাত্র-কাঠামো সম্পূর্ণ অর্থ স্থানাঙ্ক দফ প্লেঃজীবি বিতরে নিয়ো দেয়া।

5. নায়িক বিভাগের রায় কার্যকরী করার পদক্ষেপ গ্রহণ করা (একের পুলিশের ভুমিকা স্বীকার করা।

6. তুমি মামলা কোটি আনার পরে সংক্ষিপ্ত এলাকার নাগরিক সমাজের মতামত জানা।

7. উপজেলা কোটি মূলস্থাপনা করা (জনকল্যানকবিগৃহ-জ্ঞানী পরিবর্তনসহ)।

8. তুমি প্রকৃত মালিক অথবা তার প্রকৃত উত্তরাধিকার নির্দেশ করা (বিভিন্ন মালিকানা প্রতিবিধ না হয়ে রেজিস্ট্রেশন না করা; জল দলিল নিরপেক্ষ করার ব্যবস্থা করা)।

9. রেজিস্ট্রেশনের ক্ষেত্রে ইউনিয়ন পরিদর্শন সচেতনমানের স্টাফিকেশন-এর ব্যবস্থা করা।

10. মাঠ পরিদর্শনের তত্ত্ব ছাড়া সিঁড়িশ্বর (নামজারি অথবা জমা-আইনজ্ঞ) না করা।

11. তুমি রেকাব নিচের কেটির কল্পকৃত করা।

12. তুমি মামলার রায় প্রবিন করতে রাজনীতির বা স্থানীয় প্রভাবশালীদের বিরত রাখার বিষয়টি শান্তি যেগুলো অপরাধ হিসেবে পালন করা (সে অনুযায়ী আইন প্রণয়ন ও তা বাস্তবায়ন করা।

13. যারা জমির জাল দলিল/কাগজপত্র করা এবং অনেক জমি দখলের সাথে সম্পর্ক তাদের জন্য কোষালির শাস্তির আইন প্রণয়ন এবং তা বাস্তবায়ন করা (এ ক্ষেত্রে নাগরিক সমাজের ভূমিকা বিদ্যমান করা।)

14. এসম আইন করা যাতে জমি-জমীর জাল দলিল লক্ষের সাথে সম্পৃক্ততা তাদের কর্তৃপক্ষের সম্পর্কে অভিপ্রেত দিয়ে বাধা হয়।

15. সার্বনাভারে যেন তুমি রেকাব এবং সেইসাথে-এর কাজ সঙ্গত এবং প্রভাবমুক্তভাবে করার সম্পন্ন হন— সরবারাকে এ দায়িত্ব দেয়া।

16. উকিল ও সংস্থাদের কর্মকারের শক্ষষা বৃদ্ধি ও শেষার মানবিকতাকারীদের লঙ্কার পদক্ষেপ গ্রহণ করা (প্রয়োজনের প্রমিতিকে ব্যবস্থা করা; কেনেসের শেষীতিতিতি ফিস নির্ধারণ; মায়-প্রাকটিস দূর করা ইত্যাদি)।

17. জমি-সম্পত্তির উত্তরাধিকার আইনে মালিকাদের মালিকানাযোগ্য ওকুবাহি বিচেনা করা ও তা বাস্তবায়ন করা।

18. পরিস্থিতি সম্পর্কে আইন এবং এ আইনে কর্তৃপক্ষের বিষয় খতিয়ে দেখা বিষয়টি জনসাধারণের
মানুষের সম্পত্তির অধিকার নির্দেশকরণের সাথে সম্পর্কিত)।
আইন, প্রশাসন, ব্যবস্থাপনা, নীতিমালা সংক্রান্ত অন্যান্য সুপারিশ

১. খাস জমি ব্যবস্থাপনা ও বন্দরাধে সংক্রান্ত নীতিবিকৃতি অকৃত্তি খাস জমি বিক্রয়ের সিদ্ধান্ত বাতিল করা।

২. সিকিং-পার্শ্বির সকল চর-ভূমি খাস হিসেবে ঘোষণা দেয়া।

৩. দ্রুতত্ত্বজ্ঞতে সকল দ্রুতভূমির দিয়ারা সার্থে করতে তা দরিত্র নান্দী-পুরুষের মধ্যে বন্দরাধে দেয়া।

৪. সকল ভূমি জুরিং কাজ অশিষ্কিত, অদাল, অস্থায়ী জরিপকারীদের নিয়ে না করিয়ে প্রশিক্ষিত, দক্ষ ও স্থায়ী জনশ্রুতি দিয়ে করার ব্যবস্থা দেয়া।

৫. ভাষা/বর্ণাশ্চার অন্যান্য ভোগদণ্ডে সকল সংক্রান্ত আইন প্রণয়ন (অপারেশন বর্ণার আদেশ) করে তা দ্রুত বাতিলকরণ করা।

৬. কৃষি খাতে করমত নিমজ্জনহীন সকলের জন্য নান্দী-পুরুষভূমির সমান নিম্নমাত্র হার নির্ধারণ করা এবং তা বাতিলকরণ করা।

৭. ভূমি প্রশাসন ও ব্যবস্থাপনায় অনন্ত পণ্ডিত্ত বাতিল করে সম্পূর্ণ বিষয়টি সম্পর্কে একক কর্তৃত্বে অন্যান্য লক্ষ্যের ভূমি মালিকানার একক প্রতিষ্ঠানের আওতায় সিদ্ধান্তীকার (CLO: Unitary System of Certificate of Land Ownership) প্রণয়নের প্রাতিষ্ঠানিক ব্যবস্থা চালু করা (এ ক্ষেত্রে বাধার বিষয়টি বিচেনা করে জনপ্রতিভকে অবহিত করা)।

৮. ভূমি ও জলার সরবরাহ ব্যবহার নিষিদ্ধকরণ ও সংশীয় দারিদ্র্য দূরীকরণের জন্য একটি “জাতীয় ভূমি-জলা ব্যবহার নীতি” (National Land-water Utilization Policy) প্রণয়ন করা।

৯. সরকারীভাবে ভূমি-জলা ব্যাঙ্ক (Land-Waterbodies Bank) প্রতিষ্ঠা করা। যে ব্যাংকে ভূমি-জলা সংক্রান্ত সম্পর্কিত বিষয়টির হাল নাগাদ তথ্য কম্পিউটার সিস্টেমে রাখা যাবে এবং যখন যেভাবে প্রয়োজন যে কোন তথ্য পেতে পারেন: খাস জমি ও জলার (চর-জমি) রক্ষণ, পরিমাণ, স্থান, মৌজা, বিন্দমন-বন্দরাধে অবস্থা, বিবর্ধ, নিপত-অবস্থা; সকল অর্থনীতি সম্পর্কীয় ধরণ, পরিমাণ, স্থান, মৌজা, বর্তমান মালিকানা অবস্থা, বন্দরাধে অন্যান্য; ছুড়ি জ্ঞাতিস্বরূপ মানুষের জমি-জলা-বন্দরাধে পরিকল্পনায়, বেশিবিধের পরিমাণ, স্থান, মৌজা, জবরদস্তকারী পরিচয়, বিবাদ-বিবর্ধ, নিপত-অবস্থা ইত্যাদি; চিহ্নিত ধরের জমি-জলা পরিমাণ, স্থান, মৌজা, মালিকানা, জনব দক্ষতের পরিমাণ (স্থানসহ), বিবর্ধ, কর্তিত পরিমাণ ও প্রকৃতি, বিবর্ধন নিপত্তির অবস্থা; সকল ভূমি মালিকানা ধরণ, পরিমাণ, স্থান, মৌজা, বিবর্ধ-এর করা, নিপতির অবস্থা ইত্যাদি।

বাংলাদেশে ভূমি-জলা সংক্রান্ত: প্রয়োজন; সন্ধ্ব কি?
জমি, জলা ও মানুষ (যাদের রেশিয়ালের গ্রামীণ বাস এবং বহিঃসর) - এসব বাদ দিলে বাংলাদেশের সমস্যা কোথায়? আর এ তিন সম্পদের কার্যক্ষেত্র সম্পর্কিত তা আমাদের উল্লেখ করা যাবে। যে মানুষ জমি ও জলায় শুরু দেন তিনি তার মালিক নন- এটাই দুর্বলতাহীন বাংলাদেশের স্থানান্তর বাসবাস। জমি-জলা তা সম্পদের মাতা আর জমি-জলায় শুরু দাতা হলে সম্পদের পিতা। মাতা-পিতার প্রাক্তন
বাংলা ভাষায় প্রদত্ত ভাষা বক্তব্যের উপর আরও জানিতে চাওয়া যায়।

এখানে তো ক্রুদ্ধ সত্য যে জমি ও কৃষকই হল সভ্যতার ভিত্তি যেখানে কর্মশ হল সভ্যতার সাংস্কৃতিক ভিত্তি। জমি — দুর্বলাগু সম্পদ, আর সে কারণেই এ সম্পদের মালিকানা সমস্ময়ই পৃথিবীতে নগদিতমাত্র। আর জমির উপর বাণিজ্যগত মালিকানা সম্পাদন বিষয়াদি সংস্ক্র, কলা কর্মকাণ্ড, মামলা-মোকমাল গ্রাহ্য সকল ধরনের উৎপাদন বিষাক্তি ও মানব-কল্যাণ বিস্মৃত কর্মকাণ্ডের উপর।

আমাদের দেশে আর্থনৈতিক, সামাজিক ও রাজনৈতিক প্রভাব-প্রত্যিকরণ উৎসও জমি। সুতরাং বর্তমান কাঠামোতে কোন রাজনৈতিক জমি-জলা বৈদেহ (খাদ-খাদে নির্বাচনে) নিঃসন্দেহে প্রায় অস্ত্রে একটি কাজ।

সেই সাথে একটি অনিষ্ঠামন যে, গোত্র মানুষকে জমি দেবার কথা বলে ওয়ালা ভঙ্গ করেননি — এখন সরকার এখনও পর্যন্ত বিরল। কিন্তু সেহেতু আইনগতভাবেই দুর্বল জমিগলি খাদ জমি ও জলার প্রকৃত মালিক হবার কথা সেহেতু তাদের মালিকানা প্রতিষে বহেরের করতে হবে। দুর্বল মানুষের মালিকানায় খাদ জমি-জলা — দুর্বল উচ্চন্দ অন্যতম প্রধান কৌশল হতে পারে।

এরন্ত জাতীয় গুরুত্ব এবং আমাদের সম্পত্তি কর্তৃক বাস্তবিক সংস্ক্রাতর লক্ষ্যমাত্র (মিলিটারিতে টেকনিক) অর্জনে অস্ত্রাধিকারী বার্ষিক যে ৭%-৮% প্রকৃতির কথা বলা হচ্চে ভূমি-কৃষি-জলা সংস্কার করলে আমি তা অর্জনে তাও না, একটি যে সই সাথে মধ্য-দুর্বলের সম্পদ বৈষ্ণব ও একটি মানুষ পান। অর্জিত হয়ে প্রকৃত সাস্টাইন্ডের টেকনিকাসাইট (টেকনিক উন্নয়ন)

জমি-জলা সম্পত্তি উজ্জ্বলাকায় সৃষ্টি মালিকানা-অধিকার অথবা আইনগতভাবেই দুর্বল জমীভূতীয় মালিকানা নিখুঞ্জ করার সাথে মনোর অন্য জাতিসভ্য হিসেবে সংস্কৃতি হবার অন্য দুর্বল কর্তৃ ফি সম্পর্ক? এ সম্পত্তি থাকতে পারে শুধু অস্ত্রে সম্পর্ক। আমির যতই অস্ত্রে সম্পর্ক বাস করা না কেন—রাম অর্জিত অস্ত্রে সম্পর্ক। আমি আমি (এটেকে) অস্ত্রে এ দায়ি তে পোষ-পুরুষ একজন মার্কিন এখনমান না। সেকার স্রষ্টার জন্য বাস্তবাণী করার অন্য নিজের মানানীয় মার্কিন পারস্ত্র এলাকায়; হতে হবে মনে প্রাণে মনোক্ষামকারী, অসামান্যকারী— এবং একাধিক মানুষই তো মনে প্রাণে তাই।

মনে রাখা উচিত হবে যে সেনাধূর্বরোপকার খাদ জমি-জলা অন্য জাতিসভ্য সম্পত্তি ও কৃষি-জাতিসভ্য সম্পত্তি সৃষ্টিমূলক করে লুটপাট থাকেন তবে কিং এর দেশের গুরুত্বকর্তা মানুষ— সাংস্কৃতিক স্বর্গ।

নতুন জমি-জলা সংস্কারও স্বর্গ।

সমস্তাই রাজনৈতিক। বৃহৎ রাজনৈতিক দল মাত্রই জমি-জলার বিষয়াকার কিছু জটিল হিসেবেই দেখেন। সেই জ্যে তো ভাল কথা— অন্তর্ট— ইস্তান্ত বীর্য (অনেক বড় মাপের ইস্তান্ত হবে এখনও শীর্ষ নয় আবার নন-ইস্তান্ত করতে আমরা পার্থিব)। এই জ্যে তারা ক্ষমতায় আমার সাথে পরিবার মানুষের জমি-জলা সম্পত্তি দেবার কথা বলেন, ধর্মীয় সংঘর্ষ সম্পন্ন সম্পর্ক জোড় দেবার কথা বলেন, কৃষি জাতিসভ্য মানুষের সরণ সম্পর্কের সাংস্কৃতিক নিয়মের নিয়মে জমি-জলা নিয়ে ওয়ালা ভঙ্গ করেন।

আর অপেক্ষাকৃত হেট মার্কিন দল— প্রজাতিশীল-প্রতিশীল নির্বাচনের একই ওয়ালা করেন; পারস্ত্র হলার কথা কথনও রাষ্ট্রীয় ক্ষমতায় কথে পারেননি; সেই সাথে এ নিয়ে কর্মকর্তা-ফ্রেমের দেবার আলোচনা-লেখাই স্থায়ে করেন; তাও নয়। নাগরিক সমন্বয়ে সময়কালীন বিভিন্ন সংস্কার কেউ কেউ এ বিষয়ে যুক্তিসঙ্গত কথা বলেন। এখন যে দরকার সেটা হল ভূমি-কৃষি-
জলা সংস্থার বস্তুমূলক জটিল বিষয়টিকে জাতীয় ভিত্তিতে উন্নয়নের অন্যতম প্রধান চালকৃতি ছিলো বিবেচনা করার ক্ষেত্রে প্রতিষ্ঠা করা। বুমী-কৃষি-জলা সংস্থার বিষয়টি মোতু এ দেশের মুক্তিকামী মনুনুর মুখ্যমন্ত্রী মানুষের যুদ্ধিতিতে প্রাণ-দানী মোতু করে যে সময় পালিত করা হয়।

* এ কথোপকথনের সরাসরি নিম্নরূপ: “১৯৬০-এর দশকের প্রথম দিক থেকে এদেরের মুখ্যতে ব্যাপক মালিকানায় দেওয়া হয়-বড়। যে-সেটি মালিক-মূলক দুই প্রেমীরই মুখ্য প্রতিষ্ঠাতা এবং মানুষ চাহিদার করে থাকে যে লাইসেন্স মালিকানায় বিবাহ মুক্তিকরণ করা। তাই এই সড়কে মুদ্রিত মালিক-মূলক ও বর্ধিত মুদ্রিত দুই প্রেমীরই আধিক সংখ্যায় মুক্তিকরণ করা। তাই এই সড়কে মুদ্রিত মালিক-মূলক ও বর্ধিত মুদ্রিত দুই প্রেমীরই আধিক সংখ্যায় মুক্তিকরণ করা।

১) উপর হয় বৃহত্তর মালিকানায় সুসংগঠিত ব্রহ্মপুত্র নেতৃত্ব (insightful leadership with cool head, courage and warm heart aiming at human welfare), এবং (২) সমষ্টি প্রতিষ্ঠায়
বাংলাদেশের অর্থনৈতিক অবকাঠামো উন্নয়নে
বাংলাদেশ রেলওয়ে: ৪ সমস্যা ও সমাধান

মোঃ মোয়াজাহেম হোসেন খান*

সারসংক্ষেপ
আলোচনা প্রবর্তক আমরা বাংলাদেশের রেল পরিবহন ব্যবস্থার একটি বজ্রনিদ বিশেষ যে করার চেষ্টা করছি। এটি প্রথম অবস্থায় আমদের দেশের রেলপথের বিলামন চিত্র উপস্থাপন করেছে। বিশ্বাসঘাত এর সমস্যামূহ চিত্রকরার প্রয়াস নেয়া হয়েছে এবং সরবরাহে বাংলাদেশ রেলওয়ে সমস্যামূহ সমাধানের লক্ষ্য প্রযাণতরী সুপরিশিষ্টা তৈরী ও এর সমাধানের নিপত্তির চিত্রকরার উদ্যোগ এগার করা হয়েছে।

ভূমিকা
যেকন্দা দেশের আর্থ-সামাজিক উন্নয়নে রেল পরিবহনের গুরুত্ব অপরিচিত। অতুল এ গুরুত্বপূর্ণ ক্ষেত্রে বাংলাদেশের আবাদী কোন অগ্রগতি নেই। আশ্চর্যজনক হলো সত্য যে, আমদের শ্রীপঞ্চাশিক ৩৩ বছরের এ দেশের রেলিন্যাভূমির দৈর্ঘ্য হচ্ছে না পেয়ে বর্তমান পেয়েছে প্রায় ১০০ কিলোমিটার (সারণী-২)। বাংলাদেশ রেলওয়ের প্রতিটি কক্ষে নিরাকার একক হত-দরিদ্র ও দরিদ্রতার চিত্র। রেলপথের অর্থনৈতিক হর্ষিক্ষা বলা যায়। মানবদেহের হর্ষিক্ষা থেকে গেলে যেমন মানুষের মৃত্যু যায়, ঠিক তেমনিংভাবে রেলপথের অব্যাহত ও সুঝু করায় অথবা অর্থনৈতিক যোগ্যতার ভাল থাকে তার সাথে না। বিশ্ব তিন দশকের দীপক সময়ে বাংলাদেশের কক্ষে একক একটা ভয়াবহ অসুরুতা সৃষ্টি হয়েছে। আমদের দেশের পরিবহন ব্যবস্থা চলছে এক মহানায়ক। পর্যায় পর্যায় একের বাংলাদেশের সরকারগুলো তথ্য বিশ্বের বিকাশের নামে বাংলাদেশ রেলওয়েকে পরিকল্পনা করেছে। বেসরকারী যোগ্যতা ব্যবস্থার ও ট্রেক মালিকের মুনাফার বার্ষিক রেলের বিপক্ষে করেছে বাধ্যতা। অনেক বিষয়ের উল্লেখ দেশগুলোর দিকে তাকলে আমরা দেখতে পাই যে, ঐ সকল দেশের উন্নতির সাথে সাথে বাংলাদেশের দুর্দুম বিকাশ ঘটেছে, উন্নত হয়েছে, আরাম-দায়ক হয়েছে। আমাদের দেশের চেয়ে অনেক ছোট দেশ কিছু জনসংখ্যা ও জাতীয় উভয় দিক থেকেই (সারণী-১), অথচ তার রেল লাইনের দৈর্ঘ্য বাংলাদেশের রেলপথের বিকাশের প্রায় শিন্তি। আর তাই বিষয়ের অন্তর্গত দেশের তুলনায় রেল পরিবহনের কক্ষে আমরা কোথায় অবস্থান করছি তাই একটা হিসেব করার প্রয়াস নিয়েছি আলোচনা প্রবর্তক।

* অধ্যাপক, অর্থনৈতিক বিভাগ, রাজশাহী বিশ্ববিদ্যালয়, রাজশাহী।
লক্ষ্য ও উদ্দেশ্য
আলোচনার প্রধান লক্ষ্য হচ্ছেঃ আমাদের দেশের অর্থনীতির হর্জিত হিসেবে বাংলাদেশ রেলওয়ের গুরুত্বকে উপস্থাপিত করা। আর এ মূল লক্ষ্যকে কেন্দ্র করে নিম্নলিখিত উদ্দেশ্যসমূহ নির্ধারণ করা হয়েছেঃ

১। বাংলাদেশ রেলওয়ের বিদ্যমান অবস্থার একটা বস্তুতিষ্ঠ বিশ্লেষণ করা;

২। এর সমস্তসমূহ চিহ্নিত করা;

৩। রেলপথের বিকাশের সাথে এ সমস্তগুলোর সমাধানের উপর বাতিলে এবং বাংলাদেশ রেলওয়ের সম্প্রতি দিকপথসমূহ চিহ্নিত করা।

পদ্ধতি ও তথ্য
আলোচনা প্রবর্তকে ব্যবহৃত তথ্য মূলতঃ মাধ্যমিক উৎস থেকে পৃথীবি হয়েছে। এর মধ্যে উল্লেখযোগ্য হলো রেলওয়ে কর্তৃক প্রকাশিত বিভিন্ন প্রকাশনার তথ্য বহুসংখ্যায় ব্যবহৃত, বাংলাদেশ রেলপথের পরিসংখ্যান বুঝার খাততত্ত্বক প্রকাশিত বিভিন্ন সাধারণ বহুসংখ্যক সমাবহুল প্রতিষ্ঠান। এই প্রক্ষতি আলোচনা বিষয়ের উপর প্রকাশিত দেশী-বিদেশী বিভিন্ন ধরনের গবেষণাযোগ্য গ্রন্থের সহায়তা নেয়া হয়েছে।

অবকাঠামো এবং রেলপথ
অবকাঠামো বলতে এমন ক্ষেত্রগুলো সুমাঝের সমাধানের অনুষ্ঠানসমূহ রেলপথের আরেকার সহযোগী হিসেবে প্রকাশিত হয়েছে। এই বিষয়গুলোর অধ্যয়ন এবং প্রকাশিত হয়েছে বিভিন্ন প্রকাশনার মধ্যে, যেমন পরিবহন প্রতিষ্ঠানগুলোতে, যেমন বিভিন্ন প্রকাশনার মধ্যে, যেমন বিভিন্ন প্রকাশনার মধ্যে, যেমন বিভিন্ন প্রকাশনার মধ্যে, যেমন বিভিন্ন প্রকাশনার মধ্যে, যেমন বিভিন্ন প্রকাশনার মধ্যে।

পরিবহন মূলতঃ চার ধরনের হইলেঃ শহর-নগর, বিমান- ও নল পরিবহন। শহর পরিবহন আরার দৃষ্টিকোণে প্রধানতঃ ব্যবস্থাপনা ও রেল পরিবহন। বর্তমান ক্ষেত্রে, বিভিন্ন প্রকাশনা, নিরাপত্তা ও পরিবহন প্রতিষ্ঠানসমূহের সুযোগ্য প্রতিষ্ঠানের জন্য রেল পরিবহন হচ্ছে সর্বাধিক নির্ভরপ্রয়োগ ও আধুনিক। নৌ পরিবহনের ক্ষেত্রে রেলের তুলনায় যেহেতু যেহেতু কেবল কম হলেও এর পরিসীমা উন্নয়নের প্রাণী রেল অন্যতম বহুসংখ্যক ব্যবহৃত। পরিবহনার ক্ষেত্রে রেলের কোনো জুড়ে নেই।

পৃথিবীর উল্লেখ্য উদাহরণের অধিকাংশ রেলপথের পরিবহন তত্ত্ব বহুসংখ্যক এবং বিভিন্ন। সারাংশ-১ এ উপস্থাপিত তথ্য থেকে আমাদের দেখতে পারি যে, রেল লাইনের দৈর্ঘ্যের দিক থেকে বিশেষ প্রথম হয়ে আছে মার্কিন যুক্তরাষ্ট্র।
যার রয়েছে ১৬০,০০০ কিলোমিটার রেললাইনে; দ্বিতীয় স্থানে রয়েছে রাশিয়া- ১৮৬,০৭৫ কিলোমিটার; তৃতীয় স্থানে ভারত- ৬২,৭৫৯ কিলোমিটার এবং চতুর্থ স্থানে চীন- ৫৮,৬৫৬ কিলোমিটার। অন্যান্য দেশে রেললাইনের মাত্রা সম্পর্কে নিবন্ধিত হয়েছে তার অবস্থান যুক্তরাষ্ট্রের উপরের হওয়ার সম্ভাবনার বৈশিষ্ট্য। অন্যান্য দেশে রেললাইনের মাত্রা দেখার জন্য জাহাজের নির্দিষ্ট স্থানে দেশ-প্রভৃতির রেললাইনের দৈর্ঘ্য ও বৃহত্তর রেলওয়ে উপরের নির্দিষ্ট স্থানে দেখার জন্য এই হাতিয়ের যুক্তরাষ্ট্রের উপর বিশ্বাস দেশ-প্রভৃতির উপর অন্যান্য দেশের দিকে প্রবেশ করার জন্য। অন্যান্য দেশের দিকে প্রবেশ করার জন্য এই হাতিয়ের যুক্তরাষ্ট্রের উপর বিশ্বাস দেশ-প্রভৃতির উপর অন্যান্য দেশের দিকে প্রবেশ করার জন্য।

বাংলাদেশ রেলওয়ের বর্তমান অবস্থা

বাংলাদেশ রেলওয়ে ব্যাখ্যার অভ্যন্তরে একটি সরকারী প্রতিষ্ঠান। প্রায় ১৪২ বছর পূর্বে এর জন্ম হয় বুর্তিশ সাহাজাবাদী ঐপনিবেশিক অমালের সর্বাধিক ১৮৬২ সালের ১৫-ই নভেম্বর দ্বারা এর উদ্বোধন করা হয়। এই সময় বুর্তিশ বুধ গোষ্ঠী হিজুলাইন উদ্বোধনের ব্যাখ্যা দিয়ে এর যাত্রা শুরু হয়। ঐ সময়ে বুর্তিশ পাদ রেলওয়ে কোম্পানীগুলো এ অঞ্চলের রেললাইনের নির্মাণ এবং ব্যবস্থাপনায় জন্য কর্মী ছিল। দর্শনীয়-জনপ্রিয় লাইনের নির্মাণ করেছে ইন্টার্ন্যাশনাল রেলওয়ে। পশ্চিমা পশ্চিমান্তার পূর্ব গোয়াল্ডন স্থানের সম্প্রসারিত হয়েছিল। ১৮৭৩-১৮৭৯ সময়ে সরা-চিলাহাট এবং পার্বত্য-দিনারাখান এবং পাবলিক-কাউন্সিল মিত্র গোষ্ঠী লাইন এবং দামুকিয়া-বক্সালের ব্যবস্থা লাইন নির্মিত হয়।

১৮৮২-১৮৮৪ সময়ে রেল সেন্ট্রাল রেলওয়ে কোম্পানী নামের অন্য একটি কোম্পানী বোলানা-ফুলনার ব্যবসায়ের উদ্বোধন করার মাধ্যমে রেলরেলের নির্মাণ করে। প্রথমদিকে অন্য সাহাজাবাদী অঞ্চলের সন্তান বিভিন্ন প্রয়োজনীয় এ অঞ্চলে রেল লাইনের নির্মাণ করে। কিছু পরবর্তীতে সাহাজাবাদী ঐপনিবেশিক বৃহত্তর সরকার তাদের সুমধুর রাজনৈতিক, অর্থনৈতিক ও সরকারিতার দিকে ১৮৮৪ সালের ১-লা জুলাই ইন্টার্ন্যাশনাল ব্যবস্থা রেলওয়ের উপর সরকারী নির্মাণ প্রতিষ্ঠা করে। ১-লা জানুয়ারি ১৮৮৫ চীনার এবং ১৪.১৮ কিমি দূরত্বের বার্লি-নারায়ণপুর মিত্র গোষ্ঠী লাইনের নির্মাণ করে। না-টল রেলওয়ে যার পরবর্তীতে ইন্টার্ন্যাশনাল রেল বেল রেলওয়ের সাথে পরিচিত হয়। পরবর্তীতে না-টল রেলওয়ে দ্বারা-লুকমনসিরহাট লাইনের নির্মাণ সম্পন্ন করে। ১-লা অক্টোবর ১৮৮৭ চীনার ইন্টার্ন্যাশনাল ব্যবস্থা রেলওয়ের প্রতিষ্ঠা কেন্দ্র হয়। ১৮৯১ চীনার সাহাজাবাদী বৃহত্তর সরকারের সহযোগে এসিয়া-ব্যবস্থা রেলওয়ের নির্মাণের কাজ শুরু হয় যা দামুকিয়া-বক্সালের নির্মাণের কাজ শুরু হয়।
**সারণী ১ : বিশ্বের কয়েকটি দেশের রেল পরিবহনের চিহ্ন, ২০০১ সালে**

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<th>নম্বর</th>
<th>দেশের নাম</th>
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<th>লোক সংখ্যা</th>
<th>মিনের রেল পরিবহন</th>
<th>ত্রিক রেল বা ট্র্যুকসিটি, উৎপাদনশীলতা</th>
<th>যাত্রী ও পণ্য</th>
<th>রাজস্ব</th>
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<td>286</td>
<td>0.02</td>
</tr>
</tbody>
</table>

* ট্র্যুকসিটি বন্দরে বুধন্য যাত্রী- কিলোমিটার (যাত্রী অনমন পথ) এবং টন-কিলোমিটার (মেট্রিক টন বাহিত পথ) এর ওপরের মাত্রায় রেল পরিবহনের চিহ্ন দিয়ে ভাগ করা।

** উৎপাদনশীলতা বর্ধন কর্নদিয় রাজস্ব মূল্য মাত্রায় উৎপাদনকে (ট্র্যুকসিটি একেক) রূপক ন।

*** যাত্রী ও পণ্য রাজস্বের অনুপাত করে গড় যাত্রী অনুপাত (মেট্রিক টন সমো প্রাক্তনকে) ভাগ করে অনুপাতকে রূপক ন।

(মেট্রিক টন সমো প্রাক্তনকে) ভাগ করে অনুপাতকে রূপক ন। এ আনুপাতকে ১ এর করে হার বৃদ্ধি ন। পণ্য রাজস্ব থেকে যাত্রী বিদেশ চালুক্যী দেয়া হয় ন।

উৎস ৪ পদের কর্তৃক ১১, ১২ ও ১৩ এর বিভিন্ন হিসেবকৃত।
১৯১৭ সালে দশরথ-পোড়া সিক্কল লাইনেক ডাবল লাইনে রূপান্তরিত করা হয়। ১৮৮৮-১৮৯৯ সময়ে ময়মনসিংহ-জামালগঞ্জ মিটার গেজ লাইনের নিম্ন কাজ শেষ হয়। ১৮৯৯-১৯০০ সময়ে কৃষ্ণপুর-সুলতানপুর রেলওয়ে কোম্পানীর কর্তৃক সাতাহার-ফুলচড়ি লাইনটি নির্মিত হয়। আর নোয়াখালী (বেঙ্গল) রেলওয়ে কোম্পানী ১৯০৩ সালে নির্মাণ করে লাকসাম-নোয়াখালী লাইনটি। ১-লা এলাকায় ১৯০৪ সালে সরকারী কোম্পানী ইটিমার বেঙ্গল রেলওয়ে আরও দুটি কোম্পানীর (সেন্ট্রা রেলওয়েস কোম্পানী ও কৃষ্ণপুর-সুলতানপুর রেলওয়ে কোম্পানী) মালিকানা অধিগ্রহণ করে।

পরবর্তী দশকে, অর্থাৎ ১৯০৫ সালে সরকার আরও একটি কোম্পানী (নোয়াখালী (বেঙ্গল) রেলওয়ে কোম্পানী) করিং দেব। এই কাউন্সিলা-নোয়াখালী মিটার গেজ লাইনটি ট্রুল চলাচলের জন্য চূলে দেয়া হয়। ১-লা জানুয়ারী ১৯০৬ জুনিয়ের নোয়াখালী (বেঙ্গল) রেলওয়ে কোম্পানী আসাম-বেঙ্গল রেলওয়ের সহিত একত্রিত হয়। ১৯০৯ সালে পোড়া-দেক্তেমারা সিক্কল লাইনটি ডাবল লাইনে রূপান্তরিত করা হয়।

১৯১০-১৯১৪ সময়ে আহাদাই-টিলি লাইনটি নির্মিত হয় এবং শাকল-সাতাহার মিটার গেজ লাইনকে ব্রডগেজে রূপান্তরিত করা হয়। ১৯১২-১৯১৫ সময়ে কুলাইডা-সিলেট লাইন ট্রুল চলাচলের জন্য উন্মুক্ত করা হয়। পাহাড়া জানুয়ারী ১৯১৫ সুউল্লাসে হাসি পুকুর রেল সতর্ক উদ্ধারের মধ্য দিয়ে পাহাড়ার উত্তর পাড়ার দক্ষিণের সাথে দক্ষিণ পাড়ার রেলপথের সংযোগ সাধিত হয়। ১৯১৫-১৯১৬ সময়ে সরাসরি ব্রডগেজ রেল কোম্পানীর কর্তৃক সারা-সিক্কলগঞ্জ লাইনটি নির্মিত হয়। ১৯১৬ সালের ডেক্তেমারা-ইটিমারা ব্রডগেজ লাইনটি ট্রুল চলাচলের জন্য চূলে দেয়া হয়। ১৯১২-১৯১৮ সময়ে সেন্ট্রাল-মায়মনসিংহ-নওংকুন্ডরা এবং আসাম-কুমারীর রেলওয়ে লাইনের নির্মাণ সম্পন্ন করে।

হলিওয়ালী-উড়িষ্যা রেলওয়ে কোম্পানী। ১৯১৬-১৯১৮ সালে পুরো দেলওয়াই নিয়োগ গ্রহণ করে নেওয়া লাইনটি নির্মাণ করা হয়। ১৯১৬ সালে আসাম-কুমারীর রেলওয়ে লাইনের নির্মাণ সম্পন্ন করে। ১৯২৪ সালের জুলাইতে সাতাহার-পার্বতীপুর মিটার গেজ লাইনটি ব্রড গেজে রূপান্তরিত হয়। আর সেপ্টেম্বর ১৯২৬ সালে নগাদ পার্বতীপুর-চিলহাট্টি মিটার গেজ লাইনের ব্রডগেজে রূপান্তরের কাজ শেষ হয়। ১৯২৮ সালে পায়রা-মায়মনসিংহ লাইন চলাচলের জন্য চূলে দেয়া হয়। ১৯২৮-১৯২৯ সালে তিনতার-কুরিয়াম নাগরো গেজ লাইনটি ব্রডগেজে রূপান্তরিত হয়। ১৯২৯ সূর্যসেত্র দশম প্রকল্প এবং চট্টগ্রামের হাড়িশরির লাইন ট্রুল চলাচলের জন্য উন্মুক্ত করে দেয়া হয়। ১৯৩০ সূর্যসেত্র হাড়িশরির নাগরো লাইনевые ব্রডগেজে লাইন দুটির নির্মাণ কাজ সম্পন্ন হয়। ১৯৩১ সালে নির্মিত হয় যোলশার-হাড়িশরির লাইনটি। ৫-ই ডিসেম্বর ১৯৩৭ সালে মেঘনার উপর রাজা যত্ন জরুরি সেবা উদ্যোগের ফলে তৈরি হয়। ১৯৭২ সালে হাড়িশরির নাগরো লাইনহীর নির্মাণ সম্পন্ন হয়। ১৯৭৭ সালে পায়রা-মায়মনসিংহ রেলওয়ের সাথে
একীকৃত করে নতুন নামকরণ করে “বেঙ্গল এবং আসাম রেলওয়ে”। পহেলা অক্টোবর ১৯৪৪ সালে সরকারের সারা-নিরাজগঞ্জ রেলওয়ে কোম্পানীকে অবিক্ষিপ্ত করে। এর মধ্য দিয়েই শেষ হয় বৃটিশ সাম্রাজ্যবাদী ঐণিবিশিষ্ট শাসনামলে আমাদের এ অঞ্চলের রেলপথের নির্মানের কাজ।

১৯৪৭ সালের দশ বিভাগের ফলন্তিতে রেলওয়ে বিভাগ হয় পড়ে এক বিভাগিত হয়। দেশ ও আসাম রেলওয়ের যে অংশটিকে তৎকালীন পূর্ব পাকিস্তানের সীমান্তের মধ্যে পড়ে তাকে নতুনভাবে নামকরণ করা হয় “ইক্টোর্ব বেঙ্গল রেলওয়ে।” কিন্তু পাকিস্তানীরা নব ঐণিবিশিষ্টকাতর আন্তঃরায় দেয় এবং এর নিয়ন্ত্রণের কেন্দ্রীয় সরকারের হাতে রেখে দেয়। ১৯৪৮-১৯৪৯ সময়ে পাকিস্তান নব ঐণিবিশিষ্ট সরকার মমত্তিনিহংস-উত্তরবাজার রেলওয়ে কোম্পানী এবং রূপশা-বাগেরহট দ্বারা লাইন কোম্পানীর মালিকানা অধিগ্রহণ করে দেয়। ১৯৫১ সেরাই থেকে ২১-শে এপ্রিল ষাটার-সর্বশেষ লাইনটি ট্রেন চলাচলের জন্যে উন্মুক্ত করে দেয় এবং ১৯৫৪ সালের অক্টোবর নাগাদ সিলেট-হাতকাটার লাইনটির নির্মাণ কাজ সম্পন্ন হয়। নব ঐণিবিশিষ্ট পাকিস্তানী শাসনপত্র পূর্বের ১৯৬১ সালের পহেলা ফেব্রুয়ারী ইক্টোর্ব বেঙ্গল রেলওয়েকে পুনর্নামকরণ করে একে “পাকিস্তান ইক্টোর্ব রেলওয়ে” বলে ধরে। ১৯৬২ সালে একটি রেলওয়ে বোর্ড গঠন করা হয় এবং রেলওয়ের ব্যবস্থাপনার দায়িত্ব প্রাদেশিক সরকারের উপর ন্যস্ত করে।

বাংলা উন্মুক্ত হয় বাংলাদেশে ১৯৭২ সালে পাকিস্তান ইক্টোর্ব রেলওয়েকে “বাংলাদেশ রেলওয়ে” নামকরণ করা হয়। এ নামটি এখনও পর্যন্ত লাইনের নাম। বাংলাদেশের ৩৩ বছরের একটি জামান্ত্রিককাল বেঙ্গল-নিরাজগঞ্জ লাইনের সমগ্র কাজটি সম্পন্ন হয় এবং এর উদ্বোধন করার থেকে পর্যন্ত সরকারের (প্রধানমন্ত্রী) আমলে ২৬-শে জুন ১৯৫৮ সালে। সরকারী কর্তৃপক্ষ বিভাগ দ্বারা লাইনের সমগ্র কাজটি সম্পাদনা করে।

বাংলাদেশ রেলওয়ের বিভাগীয় এ শাখায় মুলুক সবচেয়ে বড় প্রশ্নের মধ্যে একটি ছিল যে, পাকিস্তান সরকার হলে পাকিস্তানের শাসনাধীন ইক্টোর্ব বেঙ্গল রেলওয়ের পুনর্নামকরণ করা হয় কিন্তু এটি থেকে প্রত্যাহার করা হয়। একটি ব্যাপার যে, যখন পাকিস্তান বেঙ্গল রেলওয়ের উন্মূলন করা হয়, তখন পাকিস্তানী শাসনপত্রের মন্ত্রণালয় তাঁকে পুনর্নামকরণ করে।

শেষে উল্লেখ্য যে, বাংলাদেশের রেলওয়ে অঞ্চলের জীবন চলাচলের চেয়ে বড় দলে আরও কর্মসূচী পাওয়া যায়। এটি তা কী করে তম মানুষ বাংলাদেশের রেলওয়ে অঞ্চল দখল করে।

সাময়িকী-২ এ উল্লেখ্য যে, বাংলাদেশ রেলওয়ের জীবন পরের দৈর্ঘ্য ১৯৬৯-৭০ সালের তুলনায় ২০০০-২০০১ সালে নাগাদ গ্রাম কিং মিং হ্রাস হয়েছে। বাংলাদেশ রেলওয়ের সিলেট-হাতকাটার লাইনের সূচনা করা হয়। ১৯৬৯-৭০ সালের শেষের দিকে তুলনায় ৭৫% কিং মিং হ্রাস হয়েছে। ২০০০-২০০১ সালের শেষের দিকে তুলনায় ৪৫% কিং মিং করে যে সেটি তাদের উপর সুস্থ হয়। ১৯৬৯-৭০ সালের তুলনায় পাকিস্তানের রেলওয়ে পরিদর্শনের সাধারণ করা হয়। বিভাগীয় সম্বন্ধে তাদের শেষ ধরনের প্রমাণ যে যে সেটি তাদের উপর সুস্থ হয়।
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উক্ত সংখ্যার কিছু তথ্য না সংরক্ষিত হয়।
সারণী ৩: বাংলাদেশ রেলোয়ের রেলিং ইক পরিস্থিতি, ১৯৬৯-২০০১ সময়ে

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উপরের তালিকায় দেখানো হলো বছর ১, ২, ৩, ৪, ৫ এর ভিত্তিতে ইসেকৃত শেখরের ছাত্রের সংখ্যা যা ১৯৬৯-৭০ থেকে ১৯৯০-৯১ পর্যন্ত সমাপ্ত হয়েছে।
আর শেষে অদ্যাপন ঘটেছে রেলওয়ের রোলিং ইঙ্গের ক্ষেত্রে (সার্বিক-3). সার্বিক-3 এর তথ্য দেখা যাচ্ছে যে, মালবাই ওয়াগনের সংখ্যা ১৯৬৯-৭০ সালের তুলনায় ২০০০-২০০১ সালে প্রায় অর্ধেক হয়ে যেয়েছে (১৯৬৯-৭০ সালে ছিল ৬৬,৪৬৯ টি এবং ২০০০-২০০১ সালে ছিল ২৪,৫৩৩ টি), অর্থাৎ এর সংখ্যা মাত্র ৬৭.৩ শতাংশ ছিল। মালবাই ওয়াগনের ক্ষেত্রে পরিবর্তন কিছুটা হলেও এর সৃষ্টি হয় প্রায় ২০০০-২০০১ সালে ৮৫.৯ শতাংশ যে হয়েছে। রেলের ইয়েনি বা লোকামোটিভের ক্ষেত্রে পরিবর্তন একে মোট শৃঙ্খল ছিল ৪৫৮.২ টি ২০০০-২০০১ এ তা গিয়ে যেয়েছে মাত্র ২৭৭ টি। এতে উল্লেখ করা কর্তৃপক্ষের ভাগই অপরূপ জোড়ারীঞ্জ এবং প্রায়ই দীর্ঘ সময়ের জন্যে মোতাকাটে পাথতে হয়। ১৯৬৯-৭০ এর তুলনায় লোকামোটিভের সৃষ্টি হয়ে মাত্র ৫৫.০ শতাংশ হয়েছে।

এসবের একটা প্রতিনিধিত্ব আদায় দেখায় যে বাংলাদেশ রেলওয়ের রাজনীতি এবং আর্থিক কার্যক্রম (সার্বিক-৪)। সার্বিক-৪ এর তথ্য দেখা যায় যে, ১৯৬৯-৭০ এবং ১৯৭২-৭৩ এ দুইবছর হাজার খানি বছরগুলোতে বাংলাদেশ রেলওয়ে লোকাসানের দ্বিতীয় ধারন করেছে এবং হিসাবকাত্তালে এ লোকাসানের পরিমাণ বৃদ্ধি পেয়েছে বিশেষ করে প্রচার পরবর্তী সময়ে। বাংলাদেশের পুনরুদ্ধার ৩০ বছরের ইতিহাসে একত্রীত্ব সম্পর্কের অপ্রতোপ হয়েছে একত্রীত্ব মুক্ত মূল দেখেছিল। এই বছর ১০.১ মিলিয়ন টাকা লাভ করেছিল। ১৯৬৯-৭০ সালে বাংলাদেশ রেলপথে লাভ করেছিল ৩০.২ মিলিয়ন টাকা। ১৯৭২-৭৫ সালে বাংলাদেশ রেলওয়ে লোকাসান দিয়েছিল মাত্র ৪১.৫ মিলিয়ন টাকা। দুইবছর হাজার খানি বছরগুলোতে বাংলাদেশ রেলওয়ের মাধ্যমে মোতাক হয়েছে এবং জায়গার বিপরীত হয়েছে।

এই তথ্য দেখায় যে, এ বিপুল পরিমাণ লোকাসানকে কাঠামো তৈরী জন্য পাবলিক সার্বিস অবলম্বনের (পিএমও) নামে সরকার বাংলাদেশ রেলওয়েকে আসাম ভারতীয় দিয়ে অর্জনের যার পরিমাণ ২০০০-২০০১ সালে ছিল ১,০১৬.৬ মিলিয়ন টাকা। সার্বিক বিনিয়োগ একমাত্র ১৯৬৯-৭০ এবং ১৯৭২-৭৩ এ দুইবছর ক্ষেত্রে অপেক্ষিত বিভিন্ন সার্বিক পরিবর্তন বাংলাদেশ রেলওয়ের অনুকূলে ছিল। অন্যদিকে তিনি দেখায় যে রাজস্থান রেলওয়ের ক্ষেত্রে সরকার বাংলাদেশ রেলওয়ের মোট মাত্র ১২২৭.৯ শতাংশ ছিল।

বাংলাদেশ রেলওয়ের একের দুইবছর হাজার খানি ব্যবস্থাপনা তৈরী করা হয়। মোতাক মাত্র ২৬.২ শতাংশ ছিল। ২০০০-২০০১ সালে মাত্র ২০.২ শতাংশ হয়েছে।

এই তথ্য দেখায় যে ব্ল্যাক-টাইম এবং একমাত্র ১৯৬৯-৭০ এ সার্বিক কর্তৃক তৈরী হয়েছে। ২০০০-২০০১ সালে মাত্র ৩০.২ শতাংশ হয়েছে।

মোতাক কর্তৃপক্ষের সার্বিক কর্তৃক তৈরী হয়েছে। ২০০০-২০০১ সালে মাত্র ৩০.২ শতাংশ হয়েছে।

এই তথ্য দেখায় যে ব্ল্যাক-টাইম এবং একমাত্র ১৯৬৯-৭০ এ সার্বিক কর্তৃক তৈরী হয়েছে। ২০০০-২০০১ সালে মাত্র ৩০.২ শতাংশ হয়েছে।

মোতাক কর্তৃপক্ষের সার্বিক কর্তৃক তৈরী হয়েছে। ২০০০-২০০১ সালে মাত্র ৩০.২ শতাংশ হয়েছে।

মোতাক কর্তৃপক্ষের সার্বিক কর্তৃক তৈরী হয়েছে। ২০০০-২০০১ সালে মাত্র ৩০.২ শতাংশ হয়েছে।

মোতাক কর্তৃপক্ষের সার্বিক কর্তৃক তৈরী হয়েছে। ২০০০-২০০১ সালে মাত্র ৩০.২ শতাংশ হয়েছে।
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* পিএসও হয়ে পাবলিক সার্ভিস অন্তর্ভুক্ত।

উৎস সেক্ষণের কর্তৃক ১, ২, ৩, ৪ ও ৫ এর ভিত্তিতে হিসেবেকৃত।
বিগত তিন দশকের ব্যবধানে ট্রেনগতি মার্গের পরিবহনের পরিমাণ বৃদ্ধি পেলেও, বাড়নি ট্রেনের গতি ও ট্রেনগতি ওয়াগনের সংখ্যা (সারণী-৬)। সারণী-৬ এর তথ্য থেকে দেখা যায় যে, ব্রডেজ লাইনের মালবাহী ট্রেনের নিত্য মাল বহনের পরিমাণ ঐ সময়ে দেড়তারাতে পক্ষী বৃদ্ধি পেয়েছে (১৬৬.৬%)।

সারণী ৫: বাংলাদেশ রেলওয়ের যারিবাহী ট্রেনের সময়ানুবর্তিতার* চিহ্ন, ১৯৬৯-২০০১ সময়ে %

| বছর | ট্রেনের গতি | ট্রেন | একাডেমিক ট্রেন | ট্রেন | ট্রেন | ট্রেন | ট্রেন | ট্রেন | ট্রেন | ট্রেন | ট্রেন | ট্রেন | ট্রেন |
|------|--------------|------|--------------------|------|------|------|------|------|------|------|------|------|------|------|
| ১৯৬৯-৭০ | - | ৯০.৫ | ৯০.১** | - | ৭২.৪ | ৭৯.০ | ১ | ২ | ৩ | ৪ | ৫ | ৬ | ৭ |
| ১৯৬৯-৭০ | ৪৬.৯ | ৩৫.০ | ৩৮.৬ | ৮৫.৭ | ৭১.১ | ৬২.৫ | ১ | ২ | ৩ | ৪ | ৫ | ৬ | ৭ |
| ১৯৬৯-৭০ | ৬৫.৮ | ৫২.৭ | ২৬.৭ | ৭৮.৮ | ৬২.১ | ৬২.১ | ১ | ২ | ৩ | ৪ | ৫ | ৬ | ৭ |
| ১৯৬৯-৭০ | ৭৪.৬ | ৫২.৩ | ৩৫.৩ | ৮৪.৩ | ৭০.১ | ৬১.১ | ১ | ২ | ৩ | ৪ | ৫ | ৬ | ৭ |
| ১৯৬৯-৭০ | ৮৩.১ | ৬২.৩ | ৪৮.২ | ৮১.০ | ৬৫.৭ | ৬২.২ | ১ | ২ | ৩ | ৪ | ৫ | ৬ | ৭ |
| ১৯৬৯-৭০ | ৮৩.৮ | ৭৩.০ | ৫৪.৮ | ৭৯.৮ | ৭০.৬ | ৬১.৬ | ১ | ২ | ৩ | ৪ | ৫ | ৬ | ৭ |
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| ১৯৬৯-৭০ | ৭৭.৫ | ৪৮.৬ | ৪২.৬ | ৭৮.১ | ৬১.৬ | ৫৮.৮ | ১ | ২ | ৩ | ৪ | ৫ | ৬ | ৭ |
| ১৯৬৯-৭০ | ৮০.৯ | ৫৩.৪ | ৪৬.৬ | ৮৬.৯ | ৭৪.৫ | ৬৬.৬ | ১ | ২ | ৩ | ৪ | ৫ | ৬ | ৭ |
| ১৯৬৯-৭০ | ৬৯.৫ | ৪৩.৩ | ৪০.১ | ৮৫.৪ | ৭২.৭ | ৬১.৮ | ১ | ২ | ৩ | ৪ | ৫ | ৬ | ৭ |
| ১৯৬৯-৭০ | ৫৭.৪ | ১৫.৪ | ২২.৫ | ৬৭.৩ | ৫৭.০ | ৬২.৩ | ১ | ২ | ৩ | ৪ | ৫ | ৬ | ৭ |
| ১৯৬৯-৭০ | ৬১.৭ | ৩০.৬ | ৬৫.৯ | ৭৫.৮ | ৬৫.৭ | ৬৩.৩ | ১ | ২ | ৩ | ৪ | ৫ | ৬ | ৭ |
| ১৯৬৯-৭০ | ৬৭.৯ | ৪৩.২ | ৫৩.০ | ৭৯.৮ | ৭১.১ | ৬৪.১ | ১ | ২ | ৩ | ৪ | ৫ | ৬ | ৭ |

* মোট ট্রেনের মধ্যে সময়ানুবর্তিতা পেয়ে যায়।
** ১৯৬৯-৭০ এর ক্রেইনে মিশ্রিত ও অন্যান্য ট্রেনের অংশ লোকাল ট্রেনের মধ্যে ধরা হয়েছে।

১৯৬৯-৭০ সালের ৩৩৮.০ টন থেকে বেড়ে শেষ ২০০০-২০০১ এ শেষ ৫৬৩.০ টন গিয়ে দীঘায়। মিটারগজ ট্রেনের অবশ্য অটিকা বাড়ে নি (১৩৭.২%)। অথচ ব্রডেজ ও মিটারগজ উভয় ক্ষেত্রেই ট্রেনগতি ওয়াগনের সংখ্যা ও ট্রেনের গতি পরিমাণ অপরিবর্তিত থেকে এ সময়ে। অপরদিকে যারিবাহী ট্রেনের ব্রডগেজ ও মিটারগজ উভয় লাইনেই ইন্টারস্টিটির ওয়াগনের সংখ্যা এ সময়ে কিছুটা বৃদ্ধি পেয়েছে। ব্রডগেজের ক্ষেত্রে ১৯৮৯-৯০ এর ২৩.১ টন থেকে বৃদ্ধি পেয়ে ২০০০-২০০১ সালে ১৭.৬ টন হয়েছে এবং মিটারগজের ক্ষেত্রে এ অংশগুলো ছিল যথাক্রমে ২৩.৫ টন ও ২৮.৬ টন (সারণী-৭)। মোট মালবাহী ট্রেনের ক্ষেত্রে কিছুটা বৃদ্ধি পেয়েছে। ব্রডগেজের ক্ষেত্রে ১৯৬৯-৭০ এর ১৪.৭ টন থেকে ক্রেইনে ২০০০-২০০১ এ ১০.৯ টন থেকে দীঘায়। এবং মিটারগজের ক্ষেত্রে অনেক অংশগুলো ছিলো যথাক্রমে ১৯.৭৫ টন ও ১৭.৬ টন। অন্যান্য ট্রেনের ক্ষেত্রে ওয়াগন সংখ্যার তাৎক্যের কোনও পরিবর্তন হয় নি এ সময়ে।
সারণী ৬: বাংলাদেশ রেলওয়ের মালাপাক্ষির পরিমাণ ১৯৬৯-০১ সালের উপর ভিত্তি করে।

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উপরের লেখাকে কর্তৃক ১, ২, ৩, ৪ ও ৫ এর ভিত্তিতে হিসাবকৃত।
সারণী ৭ : বাংলাদেশ রেলওয়ের বিভিন্ন ধরনের যাত্রীবাহী ট্রেনের গড় ওয়াগন সংখ্যার চিত্র, ১৯৬৯-২০০১ সময়

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* ১৯৮৫ সাল পর্যন্ত অতুল দূরপাকের যাত্রীবাহী ট্রেন চালু ছিল। যাত্রীবাহী এবং মিটারগেজ। বেশিরভাগ ৩ ও ৪ সংখ্যক হলে সম্ভাব্য গড় দেখানো হয়েছে। এই তথ্যগুলোতে প্রতিটি ধরনের ট্রেনের ঘণ্টা পরিবর্তন করা হয়েছে। ইন্টারসারিটি মেইল চালু হয়, তখন যা এক মাসের মধ্যে বিজ্ঞাপ দেখানো হয় নি। এই তথ্যগুলো ১৯৮৫-৯০ এর মধ্যে পূর্ববর্তী সারণী বা ঘড়ি দেখানো হয়েছে।

উত্তর : হ্যায় ১, ২, ৩, ৪ ও ৫ এর ভিত্তিতে হিসেবকৃত।
বাংলাদেশ রেলওয়ের দূরবস্থার চিত্র আরও পরিকল্পনাভাবে ফুটে ওঠে এর দৃষ্টান্ত ব্যাপকতা থেকে (সারণী-৮)। ১৯৯০-৯১ থেকে ২০০০-২০০১ সাল পর্যন্ত গ্রাহ্য এক দশকের ব্যবধানে ট্রেন দূরবস্থার হার প্রায় আকারে ওষুধ বৃদ্ধি পেয়েছে ৪। ১৯৯০-৯১ এর প্রতি যোগ বেড়ে ২০০০-২০০১ সালে ৫৫২ টি হয়েছে। দূরবস্থার কারণ অনুসন্ধানে দেখা যাচ্ছে যে, লাইনচূড়ার কারণে সবচেয়ে বেশী দূরবস্থা ঘটেছে (শতকরা গ্রাহ্য ৯০ ভাগ) এবং গোটা দশকের মাঝে অন্যান্য গ্রাহ্য অপরিবর্তিতভাবে ছিল বলা যায় (৮৫.৬%-৯৫.৪%) এর মধ্যে যুথ পাক থেকেয়েছে। দ্বিতীয় অবস্থানে ছিল সংশ্লিষ্টিত কারণ (৫০.৯%-৯০.৫%) এবং তৃতীয় স্তরে ছিল ব্যাখ্যাপ্রতিপাদিত কারণ (৫০.৫%-১৩.৭%)। সৃজনী উপরে বর্ণিত তথ্য থেকে এক্ষণে নির্দেশে বলা যায় যে, মূলতঃ লাইনের জড়তায়তার কারণেই এই সব একে দূরবস্থাও ঘটেছে।

এই খালাফ খবরের মাধ্যমে বাংলাদেশ রেলওয়ে কন্টেইনার সার্ভিসের ক্ষেত্রে অনেকটাই ভাল করছে (সারণী-৯)। বিগত সারণীর আইন এর দশকের ফ্রিমিয়ের এ সার্ভিস চালু হয় একাধারে কৃত্রিম বদল ও চাকর মধ্যে এবং দ্রুত এটা জগতিত্ব পায়। তার প্রমাণ পাই আমাদের সারণী-৯ এর তথ্য থেকে। অন্তবাই ঐ সারণীর নবম এর দশকে কন্টেইনার পরিবহনের প্রবৃদ্ধি ঘটে গ্রাহ্য সাধা নয় ওণ (৯৫৯৪%)। আর এসব কন্টেইনারের নীতি পাঞ্জাল পরিবহনের প্রবৃদ্ধি ছিল গ্রাহ্য পীতগ্রুণ (৫১১২%) এবং আব বৃদ্ধি পায় গ্রাহ্য সাদা চার ওণ (৪৩০৬%)।

বাংলাদেশ রেলওয়ে সম্পর্কিত আমাদের উপরাংশ বিশ্লেষনের প্রক্রিয়ায় আমাদের নির্দেশে এর উপরাঙ্গ পোষাকে পাই যে, এ প্রতিষ্ঠানটি আমাদের অর্থনীতির পরিবর্তন চাহিদা মেটে চলমানভাবে ব্যয় হয়েছে। কি কারণে এমনটা ঘটলো? রেলওয়ের সমস্যাগুলো কি? এসব প্রশ্নের উত্তর খোঁজার চেষ্টা করবো আমার প্রদর্শনের পরবর্তী অংশ।

বাংলাদেশ রেলওয়ের সমস্যাসমূহ ও তার সমাধান

বাংলাদেশ রেলওয়ের সামগ্রিক অবস্থা পূর্বাভাসের আমাদের মনে হয়েছে যে, এর সমস্যাগুলো অন্যতম জটিল এবং বর্ধিত। কারণ এগুলোর সমাধানও হবে অন্যতম সময় সাপেক্ষ ও ব্যয়বহুল ব্যাপার। কিন্তু সমাধান স্বরূপ এবং অর্থনীতিক দিকের এবং জনগণের সাবিক সার্ব্বর্ষিক বিষয়াদে। আমাদের মতে বাংলাদেশ রেলওয়ের সমস্যাগুলো হচ্ছে নিম্নলিখিতঃ

১। লাইনের সমস্যা;
২। রোলিং স্টেক্সের সমস্যা;
৩। ব্যবস্থাপনার সমস্যা;
৪। দুর্নীতির সমস্যা;
৫। অধ্যুষনিকায়ের সমস্যা।

লাইনের সমস্যা (বিশিষ্ট ৪ ক্ষেত্রে) নির্দেশিত অপ্রতুলতা: ব) জড়তায়ত অবস্থা। পূর্বেই উল্লেখ করা হয়েছে যে, এ তথ্যে যেহেতুও লাইন নির্মিত হয়েছে যার সিংহতগাছ ভূট্টিয়া সরঞ্জামবাদী ঐপিরিপিশিক আকারে হয়েছে। পাঠক নবে-উপনিবেশী আমাদের এবং অর্থনীতি বাংলাদেশের মূলধার ৩৩ বছরের অতি সামান্যই হয়েছে (সারণী-১, সারণী-৯)। লক্ষ্যভাবে যে, নবীনীয় বৃটিশের বর্তমান বাণিজ্যিক স্বাভাবে দেখানে
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<td>২৩৪</td>
<td>১০০.০</td>
<td>২৬.৫</td>
<td>(১০২.৭)</td>
<td>(২২৬.৫)</td>
<td>(১০০.০)</td>
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<tr>
<td>১৯৯৮-৯৯</td>
<td>১১</td>
<td>০২.২</td>
<td>২১৯</td>
<td>৯৪.২</td>
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<td>০০.০</td>
<td>১৫</td>
<td>০২.৪</td>
<td>২৩৪</td>
<td>১০০.০</td>
<td>২৬.৫</td>
<td>(১০২.৭)</td>
<td>(২২৬.৫)</td>
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<td>(১১৬.৭)</td>
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<td>(৩৪.৪)</td>
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<td>২০০০-২০০১</td>
<td>১২</td>
<td>০১.৩</td>
<td>৫৫০</td>
<td>৮২.৪</td>
<td>-</td>
<td>০০.০</td>
<td>১৫</td>
<td>০১.৭</td>
<td>৫৬২</td>
<td>১০০.০</td>
<td>২৬.৫</td>
<td>(১০২.৭)</td>
<td>(২২৬.৫)</td>
<td>(১০০.০)</td>
<td>(১১৬.৭)</td>
<td>(১২৬.৪)</td>
<td>(৩৪.৪)</td>
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</tbody>
</table>

উক্স্য লেখক কর্তৃক ১, ২, ৩, ৪ ও ৫ এর ভিত্তিতে হিসেবকৃত।
যতটুকু প্রয়োজন ছিল ততটুকুই নির্মাণ করেছে (সারার-২)। বাংলাদেশের ৬৪টি জেলার মধ্যে মাত্র ৪৪টি জেলাতে অনেকটা নামকর ওয়ার্ডে রেল লাইন আছে। তাও আবার অত্যন্ত বৈষম্যপূর্ণ বা অসমানতা বিদ্যমান। সারার-২ এর তথ্য দেখা যায় যে, ২০০ কিং মিঃ এর বেশি অথবা ২০০ কিং মিঃ এর কম রেল লাইন আছে এ রকম জেলার সংখ্যা মাত্র ৬টি। আর ৫০-১০০ কিং মিঃ রেল লাইন আছে এমন জেলার সংখ্যা মাত্র ১৮টি। আর বাকী ২০টি জেলার রেল লাইনের দৈর্ঘ্য ৫০ কিং মিঃ এর কম যার মধ্যে ১টি জেলা আছে যার রেল লাইনের দৈর্ঘ্য মাত্র ৫ কিং মিঃ এবং অন্য একটির মাত্র সাড়ে নয় কিং মিঃ। এ লাইনগুলোর মধ্যে আবার বেশীরভাগই সিঙ্গল লাইন। কারণেই লাইনের দৈর্ঘ্য একেবারেই অপ্রতুল। এই একবিংশ শতাব্দীতে এসেও বাংলাদেশের অনেক ২০টি জেলায় রেলের চোলা লাগে নি এটিতে বাড়ানো যায় না। লাইন যা আছে তাও আবার অত্যন্ত জড়িত এবং নড়াচড়া। পাড়ার এবং প্রশাসনের খেতাপ মাত্র রয়েছে। এসব কারণে ট্রেনগুলো হায়ারী খুঁকি এড়াতে অনেকটা প্রয়োজন হলে ভালো হয়ত হচ্ছে (সারার-৬)।

বাংলাদেশ রেলওয়েতে রেলিং স্টেকের সমস্যা অত্যন্ত প্রকট। বৈজ্ঞানিক লোককে মিত্রের মতে এমন জড়িত এবং শত শত বার মনে হয় যে, তেলের পরিবহন করার জন্য ট্রেনগুলো পাল্লায়। তারা ট্রেনগুলোর পরিবহনের কারণ বলেছেন সফল। ট্রেন সাধারণত ক্রিয়াগুলো বাংলাদেশের সকল জেলার প্রায় সমস্ত সহযোগিতায় অল্প পরিবহন করা যায়। জুতার পাশাপাশি এবং আনাদের রেল মার্কনায় আছে এবং আলাদা বাজারের ব্যবস্থা আছে। রেলওয়ে বিভাগের যে প্রকৃতিতে যে অসহজ খামার হয় ট্রেনগুলো রেলওয়েতে ব্যবহারের সময়ে একটি বাদামীর উপর (রেলয়ে রুটে) নামের ছিল। ততজন্মী সামরিক সরকার (এরশাদের) ১২তম জুন ১৯৮২ সালে রেলওয়ের বিভাগের কার্যের জন্য বিভাগের সহযোগিতায় অবহিত করা হয়। "রেলওয়ে বিভাগের সহযোগিতা প্রসার দায়িত্ব হল এই মহাপরিচালকে। পাল্লায় রেলওয়েতে রেল যোগাযোগ মন্ত্রণালয়ের অধীনে হয়। নামে। রেলওয়ে বিভাগের সহযোগিতা প্রসার দায়িত্ব হল এই মহাপরিচালকে। পাল্লায় রেলওয়েতে রেল যোগাযোগ মন্ত্রণালয়ের অধীনে হয়।
**সাক্ষী ৯: বাংলাদেশ রেলওয়ের কোটেইনার সার্ভিসের চির, ১৯৯০-২০০১ সময়ের**

|| বছর | চূড়ান্ত বন্দর থেকে | চূড়ান্ত বন্দর থেকে | মোট | মোট, টন | মোট, টন | অংশ, টাকা |
|---|---|---|---|---|---|---|
| | চালানী | খালি | মালানী | খালি | মালানী | খালি | মালানী |
| ১ | ২ | ৩ | ৪ | ৫ | ৬ | ৭ | ৮ | ৯ | ১০ |
| ১৯৯০-৯১ | ১,৯৫৫ | ৮৫৮ | ১,৬৬৭ | ১,১০০ | ৫,৫৫৫ | - | - | - | - |
| (১০০.০) | (১০০.০) | (১০০.০) | (১০০.০) | (১০০.০) | | | | | |
| ১৯৯১-৯২ | ২,৬৫৬ | ১,৬৫৪ | ২,১৫৪ | ৮৬৬ | ৮,৬৬৬ | - | - | - | - |
| (২১৭.৮) | (১৯২.৮) | (৮৬.০) | (১৫৬.০) | | | | | | |
| ১৯৯২-৯৩ | ৪,৮৩৭ | ১,২৪২ | ৩,৬৩২ | ১৩,৫৪ | ৪৬,৫৪ | ২৬,৭৭ | ৫৫,৫২ | ৬৪.৩ |
| (২৮৭.১) | (১৬৫.১) | (১৬৫.১) | (১৬৫.১) | (১৬৫.১) | (১৬৫.১) | (১৬৫.১) | | |
| ১৯৯৩-৯৪ | ৫,১৯২ | ৫,১৯২ | ৩,৫০২ | ৫,১০২ | ৫৩,৫৪ | ২৯,২৯ | ৫২,২৯ | ৭২.৮ |
| (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | | |
| ১৯৯৪-৯৫ | ৫,৪৯২ | ২,০৯২ | ৩,৪০৪ | ৩,২০৪ | ৫৩,২০৪ | ২৩,২০৪ | ৫২,২০৪ | ৭২.৮ |
| (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | | |
| ১৯৯৫-৯৬ | ১০,৭২৬ | ৩,২৫৪ | ৭,৫৭২ | ৪,০২২ | ৫০,৫২২ | ৫৯,২২২ | ৫১,১২২ | ৬৫.২ |
| (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | | |
| ১৯৯৬-৯৭ | ১১,৯৯৪ | ২,৬২৬ | ৯,৩৬৮ | ৬,০৩৩ | ৫১,০৩৩ | ২৩,০৩৩ | ৫২,০৩৩ | ৭৪.২ |
| (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | | |
| ১৯৯৭-৯৮ | ১১,০১২ | ২,৩০২ | ৮,৭০০ | ৫,৩০০ | ৫৩,৩০০ | ২৩,৩০০ | ৫২,৩০০ | ৬৪.২ |
| (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | | |
| ১৯৯৮-৯৯ | ১২,৯৫০ | ২,৬৭৬ | ১০,৪৭৪ | ৮,৫৮৪ | ৫৪,৫৮৪ | ২৬,৫৮৪ | ৫২,৫৮৪ | ৭৪.২ |
| (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | | |
| ১৯৯৯-২০০০ | ২১,৪৯২ | ২,৬১২ | ২০,৩৭০ | ৪,০৫০ | ৬৭,০৫০ | ৩০,৩০০ | ৬৭,০০০ | ৬৫.২ |
| (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | | |
| ২০০০-২০০১ | ২৪,১১৬ | ২,২৫২ | ২১,৮৬৪ | ৮,১৬৪ | ৭১,৬৪ | ২৬,৪২৪ | ৭১,৪২৪ | ৬৫.২ |
| (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | (২৮৭.৬) | | |

* ১৯৮৬-৮৭ সালে কোটেইনার সার্ভিস চালু হয় এবং পুনরায় চূড়ান্ত বন্দর ও চূড়ান্ত বন্দর ডিপো (আর সি ডি) এর মধ্যে চালাল করা হয়। কোন কোন ক্ষেত্রে তথ্যের অনুপাসিত জোর করা হয় ১৯৯২-৯৩ বছরকে তিন মাস বছর হয়েছে।

উপরে লেখা কর্তৃক ১, ২, ৩, ৪ ও ৫ এর ভিত্তিতে হিসেবকৃত।
asurer। ডাইরেক্ট জেনারেলকে সাহায্য করার জন্য নিয়োগ করা হয় ৫ জন অতিরিক্ত ডাইরেক্ট জেনারেল এবং ৯ জন যুগ্ম ডাইরেক্ট জেনারেল। দু’জনের মুখ্যজেনারেল মায়েজরকে সাহায্য করার জন্য আছে বিশেষায়িত বিভিন্ন ভিত্তিক ভিত্তি। এ সকল ভিত্তিক অপারেশন, মেইনটেন্যাস এবং অন্যান্য বিভিন্ন প্রক্রিয়াগুলো নিয়ন্ত্রিত। প্রত্যেকটি জেনারেল আবার দুটি ভিত্তি বিভাগ করা হয়েছে।

এগুলো মূল অপারেশন ইন্টিসিন হিসেবে কাজ করে। প্রত্যেক ভিত্তির দায়িত্ব রয়েছে একজন ভিত্তিক নির্দেশিকা এবং একজন ভিত্তিক ভিত্তিক ভিত্তি। এগুলো মূল অপারেশন ইন্টিসিন হিসেবে কাজ করে। প্রত্যেক ভিত্তির দায়িত্ব রয়েছে একজন ভিত্তিক নির্দেশিকা এবং একজন ভিত্তিক ভিত্তি।

বাংলাদেশ রেলওয়ের রয়েছে একটি রেলওয়ে প্রশিক্ষণ একাডেমী যা দায়িত্ব আছে একজন চেফ প্রধান। চীফ প্রধান অফিসারের আছে প্রায় ১৫০ জন সেনাবাহিনী। গভর্নমেন্ট রেলওয়ে ইন্টসিন্টিয়াল রয়েছে একটি ইন্টসিন্টিয়াল দায়িত্ব। কেন্দ্রীয় কোম্পানির দায়িত্ব আছে একজন প্রধান নির্দেশিকা এবং প্রধান নির্দেশিকা রয়েছে একজন ভিত্তিক ভিত্তিক ভিত্তি।

বাংলাদেশ রেলওয়ের দায়িত্ব সমসাময়িকী। রেলের হাজা হাজা এর একবার বিস্তর্ত জমি দিয়ে পথ দিয়ে পথ দিয়ে পথ দিয়ে পথ দিয়ে পথ। একবারের জমির পথ দিয়ে পথ দিয়ে পথ দিয়ে পথ। রেলের হাজা হাজা এর একবার বিস্তর্ত জমি দিয়ে পথ দিয়ে পথ দিয়ে পথ দিয়ে পথ।

এটি একটি গোটা বাংলাদেশের শহর। এটি একটি গোটা বাংলাদেশের শহর। এটি একটি গোটা বাংলাদেশের শহর। এটি একটি গোটা বাংলাদেশের শহর। এটি একটি গোটা বাংলাদেশের শহর।
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<th>টেশন</th>
<th>লাইন</th>
<th>জেলার নাম ও কৃতিক নং</th>
<th>টেশন</th>
<th>লাইন</th>
</tr>
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<td>দৈর্ঘ্য</td>
<td>ক্রিয়া মিঃ</td>
<td>স্থান</td>
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বাংলাদেশ রেলওয়ে একবিংশ শতাব্দীর পরিবর্তন চালিয়ে মোকাবেলার উপায়গুলি করে গড়ে তুলতে হবে আমাদের মতে নিম্নলিখিত পদক্ষেপসমূহ গ্রহণ করতে হবে।

১। বিদ্যমান লাইনগুলোর সংস্কার করার জন্য তত্ত্বাবধায়ক ১০০ কিঃমিং বেগে ট্রেন চলার উপায়কে করতে হবে। লাইনের দীর্ঘ পরিপূর্ণতায় উন্নতি করে পদ্ধতি দুর্বলতামূলক গাড়ি বিভ্রম করার মাধ্যমে গোটাহাতিয়ে রেলওয়ের নিয়মাবলী আনতে হবে। বর্তমানের ৪৪টি জায়গায় ৬৪টি জেলাকেই রেললাইনের আওতায় নিয়ে আসতে হবে।

২। বাংলাদেশ রেলের রূপলাই টিকের নবায়ন আবশ্যক হয়েছে ব্যবস্থাহয় অপেক্ষায়। পরিকল্পনাবাদ এবং অপরাজিতায় ইষ্টফা, ওয়াগন ও যাচাপতি সংস্থান করতে হবে। দীর্ঘ মেয়াদের রূপলাই টিক আমাদের দেশ প্রক্ষ করা সামরিক গড়ে তুলতে হবে। ঐক্যে আর্ত চীন ও কোরিয়ার মত দেশগুলোর সহযোগিতা নিতে হবে। মনে রাখতে হবে যে, একবিংশ শতাব্দীর পরিবর্তন ব্যবস্থাদের বলতে রেল পরিবর্তন ব্যবস্থাকেই বুঝতে হবে। একটি সুষ্ঠুতাহী ট্রেন কম করে হলো ৫০টি বাদের বিকল্প হতে পারে এবং একটি মালবাহী ট্রেন কমপক্ষে ৩০ টনে ৩০টি ট্রেনের বিকল্প হতে পারে। তেল পরিবহনের ক্ষেত্রে অনুরূপ সুবিধা রয়েছে ট্রেনের। সুন্দরবন ট্রেনের সংখ্যা বাড়ালে সুখবিষয়কতায় সড়ক পথের উপর চলতে পারে। ক্রস পারে যানবাহনের এবং রাস্তার রক্ষানাবোধক ধরা এবং সবিপুল অবসরের সমর্থন অর্থ যা রেলওয়ের উন্নতির জন্য বাড়া করা সম্ভব। স্থান পরিবর্তন দুর্বলতার হত থেকেও আমাদের দেশ রক্ষা পারে।

৩। সকল ধরনের পরিক্রান্ত-নিরান্তর বাড়িয়ে রেলওয়ের জন্য পৃথক মজ্জালো সৃষ্টি করতে হবে। রেলওয়ের আসলটি বিশাল ব্যবস্থা। একার গাছ করে দেখালে তুলে হবে। রেলওয়ের সম্পূর্ণ পৃথক বাইরের ব্যবস্থা গড়ে তুলতে হবে। বিভবত্তাস্বরূপী অধিকাংশ দেশেই একক ব্যবস্থা চালু হয়েছে। রেলওয়ের ব্যবস্থাপনায় উন্নতির এর কাঠামো অবমুক্ত আছে বলে আমরা মনে করি।

৪। দুর্বলতামূলক উপায়কে করতে হবে। রেলের সমস্ত অবশ্যই জমির অর্থনৈতিক ব্যবস্থায় নির্ভর করতে হবে। মালকের ব্যবস্থাবস্থায় পারে, ফার্ম গড়ে তোলা যায়, রেলওয়ের গড়ে তোলা যায়, হোটেল গড়ে তোলা যায়, এমনকি কোন কোন ক্ষেত্রে পরিষদ কদমের গড়ে তোলা যায়। যেখানে যোগ উপযোগী সমস্ত সরবরাহ নিতে হবে। কোন অবস্থাতেই রেলের জমি অবশ্য থাকবে তাতে নির্ভর করতে হবে। নিয়োগ প্রত্যাশায় অবশ্যই ব্যবস্থা আনতে হবে। দুর্বলতা উদ্দেশ্যের রেলের কাঠামো বিশেষ ব্যবস্থা তুলতে হবে। কমিউনিটি ট্রেনের সংখ্যা বাড়াতে হবে। সাংসারিক, পারিবারিক, মাসিক, ট্রেনামীক, সানান্ডিক
বাংলাদেশ রেলওয়ের অধুনালীকরণ - এটা সময়ের দাবী। তারমধ্যের মত নড়-ঘড় অবস্থা নিয়ে আমাদের রেলওয়ে দেশের অপরিসরিত পরিবহন চাহিদা এবং এ শতাব্দীর ব্যাপ্তি কখনই মেকারাবলা করতে পারবে না। অবশেষ বাংলাদেশ রেলওয়ের গতি বাড়িতে হবে। আর তা করতে হলে এর বিভাগ লাইনগুলির অধুনালীকরণ করতে হবে। অর্থনীতি ১০০ কিং মিন্টে ট্রেন চলার উপযোগী করতে হবে। ভবিষ্যতের কথা মাঝারিয়ে রেল বাংলাদেশের সকল সেতুতে রেল লাইনের ব্যবস্থা রাখতে হবে। অ্যাডমিনিস্ট্রেশন ব্যবস্থা চালু করতে হবে। দুই জনবল গড়ে তুলতে হবে। অব্যাহত শিক্ষা ও প্রশিক্ষণের ব্যবস্থা গড়ে তুলতে হবে। প্রশিক্ষণ একাডেমির অধুনালীকরণ ও সম্প্রসারণের মাধ্যমে একক একটা ব্যবস্থা গড়ে তুলেন। বাংলাদেশ রেলওয়ের জন্য দেশের অভ্যস্ততাই প্রতিনিধি ও যোগাযোগ তৈরির কাজকর্ম গড়ে তুলতে হবে এবং বিভাগ কারখানাগুলোর অধুনালীকরণ ও সম্প্রসারণ করতে হবে।

অবশেষ উপরের কাজগুলো করার জন্য প্রচুর অর্থের প্রয়োজন হবে। আমারা মনে করি দেশের পরিবহন ব্যবস্থা ভাবনার কথা চিন্তা করে সরকারের একই এ ব্যাপারে উদ্দেশ্য ভূমিকা নিতে হবে। সড়ক পথের সম্প্রসারণ মন্ত্র করতে হবে এবং এভাবে সামাজিক অর্থ রেলেক নিতে হবে।

বিভাগ সড়কের পথের রক্ষাবর্ধনের ক্ষেত্রে সামাজিক মন্ত্র রেলের সম্প্রসারণের ফলে অর্থও রেলের দিতে হবে। সর্বোপরী রেলের জমি ও অব্যাহত অধ্যাত্ম অর্থনীতিক ব্যবস্থা সেরার মাধ্যমে এর অথর মোকাবলা দ্বারে সহাব বলে আমারা মনে করি। তা হাও উপরের আমাদের সুপরিশীলে বাস্ত-বাস্তের ফলে পথ্য ও যাৰী পরিবহনের লাইন আমাদের বিশ্বাস।

বাংলাদেশ রেলওয়ের সঘাতবান

রেল পরিবহনের সঘাতবান অনেক এবং বহুমূল্য যার কালাফেরো আমারা বন্দীবায়ন করতে পারি নি।
বাংলাদেশ রেলওয়ের সঘাতবানলোকে নিম্নলিখিতভাবে চিহ্নিত করা যায়।

1. এখনও বাংলাদেশ রেল পরিবহণ হচ্ছে সবচেয়ে দৃঢ়, নিরাপদ ও সাশ্রয়ী পরিবহন ব্যবস্থা।

2. সর্ব সঘাতবানের আওতায় ভারত ও নেপালসহ এশিয়ার অন্যান্য দেশের ট্রেনজিতে সুরক্ষা প্রদান করতে হলে অবশেষ বাংলাদেশকে অপরূপ মন্ত্র পরিবহন ব্যবস্থা গড়ে তুলতে হবে।
সারণী ১১: বাংলাদেশের সরকারী খাতের বিভিন্ন ধরনের পরিবহন মাধ্যমের ভাড়ার তুলনামূলক চিত্র, ১৯৯৩-২০০০ সময়ে

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<td>৩. বিআইডিবিউটিসি</td>
<td>০.৩৩  ০.৩৩  ০.৩৩  ০.৩৩  ০.২৪  ১.১২  ১.১২  ১.১২  ১.১২  ১.১২  ১.১২  ১.১২</td>
<td>০.৩৩  ০.৩৩  ০.৩৩  ০.৩৩  ০.২৪  ১.১২  ১.১২  ১.১২  ১.১২  ১.১২  ১.১২  ১.১২</td>
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</table>

* বাংলাদেশ বিমানের কেরে প্রতি পাথিয়ার প্রতি কিলোমিটার চিত্র হিসেবে প্রতি টন চিত্র।

উৎস: লেখক কর্তৃক ১ ও ২ এর ভিত্তিতে হিসেবকৃত।
রেলওয়ে গড়ে তোলার ক্ষেত্রে চীন, ভারত ও পাকিস্তান অনেক দেশই ইতোমধ্যে তাদের রেলওয়েকে সম্প্রসারিত করেছে এবং আধুনিক করে গড়ে তুলছে। বাংলাদেশ এখনও কাজই শেষ করে নি (14)। ট্রানজি সুবিধা দিলে আমাদের দেশের দুর্গন্ধ্য লাভবান হবে। দেশের অভাবের সেবা ও পর্যটন খাত দ্রু বিকশিত হবে। অন্যান্য দেশ আমাদের বন্দরগুলো বাছাইয়ে আধুনিক হচ্ছে বিশেষ করে ভারতের পূর্বাঞ্চলের রাজ্যগুলো এবং নেপাল ও ভুটান। আর তখন কেন্দ্রীয় সারিতের খুব অনেকগুলো বৃদ্ধি পাবে। প্রয়োজন হবে চট্টগ্রাম ও মঙ্গল বন্দরের আধুনিকায়ন। আর আমরা যদি আমাদের বন্দরগুলোকে এশিয়ান রেলওয়ে নেটওয়ার্কের সাথে সংযুক্ত করতে পারি তা হলে রেলওয়ের রাজনীতি বৃহত্তর অভ্যন্তরীণ সম্প্রসারণ সৃষ্টি হবে। আর ট্রানজি ডিভিড হিসেবে বাংলাদেশের শুরুর রাজনীতি আরেক সমান্তরাল সৃষ্টি হবে। অতেরুক্তি বাংলাদেশ সরকারকে এ দিকে আত্মীয়তা দিতে হবে। সময় ক্ষেপন কোনও সুযোগের নেই। অর্থের কোনও অভাব হবে বলে আমরা মনে করি না। কারণ সার্থক দেশগুলো এবং আন্তর্জাতিক সংঘাতে বিতর্ক চাপাতের জন্য উদ্যোগ হয়ে তাকিয়ে আছে (14)।

৩। আমাদের দেশে বড় বড় শহরগুলোকে কেন্দ্র করে অন্ততঃ ১০০ কিমির বিভাগের মধ্যে কমিউটার ট্রেন সারিতের গড়ে তুলতে হবে। মনে রাখতে হবে, যে, এ ধরনের সারিতের গড়ে তোলা ছাড়া

### সারণী ১২: বাংলাদেশের বিভিন্ন পরিকল্পনায় বাংলাদেশ রেলওয়ের
উন্নয়নের জন্য বরাদ্দের চিত্র, ১৯৭৩-২০০২ সময়

| মেয়াদসমূহ | পরিবহন | খাতসমূহ | পরিবহন | মোট | অংশ
<table>
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</thead>
<tbody>
<tr>
<td></td>
<td>বাংলাদেশ</td>
<td>রেলওয়ে</td>
<td>সরকারী</td>
<td>মোট</td>
<td>অংশ</td>
</tr>
<tr>
<td>১ম পার্থক্যমূলক পরিকল্পনা</td>
<td>৫,২৭৬.১</td>
<td>১,২৬১.৩</td>
<td>২৩.৯</td>
<td>৮৪,২৯৫.০</td>
<td>১০০.০</td>
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<td>২ম পার্থক্যমূলক পরিকল্পনা</td>
<td>৪,৫০০.০</td>
<td>১,২৩০.৮</td>
<td>২৭.৪</td>
<td>২৪,২৬১.০</td>
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<td>৩য় পার্থক্যমূলক পরিকল্পনা</td>
<td>১২,৮৬৫.৬</td>
<td>৪,১৩৩.৯</td>
<td>৩২.১</td>
<td>১৯৬,৭৭৬.০</td>
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<td>৪য় পার্থক্যমূলক পরিকল্পনা</td>
<td>৩০,০২৩.০</td>
<td>৮,৩৩০.০</td>
<td>২৭.৮</td>
<td>২৩৪,২৫৪.০</td>
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<tr>
<td>৫ম পার্থক্যমূলক পরিকল্পনা</td>
<td>৬,৪৩০.০</td>
<td>১৬.৬</td>
<td>৮,৩৫০.০</td>
<td>২৩.২</td>
<td>৬৪৫,২৩১.০</td>
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<td>৬ম পার্থক্যমূলক পরিকল্পনা</td>
<td>২৬,০৫৩.৭</td>
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</table>

উন্নয়ন দেশকে ক্ষেত্র ৬, ৭, ৮, ৯ ও ১০ এর তত্ত্বে হিসেবে গড়ে তুলতে হবে।
বর্তমানের দুর্বল জনজীবন কখনই দূর করা যা বেনা। এটা গড়ে তুলতে পারলে মানুষ তখন আর বসবাসের জন্য শহরের হবে না। এমন কি শহরের শিক্ষিত ও চাকুরীজীবী মানুষেরা তখন পরিবর্তনের দৃষ্টিকোণে মনস্তাত্ত্বিক বসতি গড়ে তুলতে অগ্রসর হয়ে উঠতে। চাপ কমবে বড় বড় শহরগুলোর উপর। এ ধরনের বাস্তব পরিশীলন আর সময় বড় বড় শহর এলাকাকে থেকে গড়ে উঠতে। এমন কি পার্থক্য দেশ ভারতের কোলকাতা, মুম্বই ও নিল্লিখনের বেশ কিছু বড় বড় শহরের কেন্দ্র করে এ ধরনের কমিউনিটি ট্রেন সার্বজনিক গড়ে উঠতে। কোলকাতায় তো পাতাল রেল মেট্রো গড়ে তোলা হয়েছে যার ফলে এর তীর্থ জানানো সমস্যা চিরকালের সমাধান সহজ হবে। যেটা বিশেষ সেরকমই বিদ্যমান, কমিউটা ট্রেনে দৈনিক, সান্তারিক, পার্কিং, মাসিক, চেকারিক, সান্যালিক এমন কি বার্থিক টিকেট বা কার্ডের ব্যবহার রাখতে হবে। এতে করে ভাড়া ফাঁকি রোধ করা যাবে এবং দুর্নীতি অপার পাবে। আর তখন বিদ্যমান সরকারে প্রতিনিধি জনগনের মত এর বেশী ভরসামিত, ছড়াওয়া বা অতিরিক্ত ভরসা নির্মাণ করতে হবে না। সাধারণ হবে বিপুল অর্থ সরকারের ও সংগঠিত সংগঠনের যারা করা তাত অনেক অনেক শেষী ব্যবসায়িক কর্মজীবন সম্প্রসার করতে পারবে। তবে প্রাথমিকভাবে এ ধরনের ব্যবস্থা রাজনৈতিক ধর্মীয় ও কুলুনা ও রাজশাহীর মত মহানগরপীঠের কেন্দ্র করে গড়ে তুলতে হবে। পার্থক্যে এ ধরনের ব্যবস্থা অন্যান্য বড় বড় শহর এলাকায়ও সম্প্রসারিত করতে হবে। এ ব্যাপারে সমাজক্ষেত্র ও গড়িমিসে অবশ্যই বিদ্যমান অপার ও সমস্যামূলকে আরও বাড়িয়ে দিবে। অতএব, পদক্ষেপ নেয়ার এখনই সময়।

৪। ঢাকা শহরে অবশ্যই পাতাল রেল মেট্রো গড়ে তুলতে হবে। এলিফেটের ট্রেন সার্বজনিক সকল ধরনের পরিকল্পনা পরিবর্তন করে মেট্রো ট্রেনের দিকে মনোনিবেশ করতে হবে। কারণ বিভাগীয় মহানগরপীঠের উপরের দিকে পরিবর্তন স্টেশনগুলো গড়ে তোলার কোনো সুযোগ নেই। যেহেতু বাস্তবের দিকে। আর মায়ে দরে ব্যাঙ্ক থেকে জাতীয়র বিশ্ববিদ্যালয়ের পর্যায়ে একটি মেট্রো লাইন এবং সবাইকেন্দ্রভূমির মত বিভিন্ন প্রকার হেডফুল টার্নার্ড-সার্বকলা-মহানগরপীঠ এ লাইনে একটি প্রকার লাইনের নির্মাণ করতে পারলেই ঢাকা শহরের ব্যবস্থা চিরকালের জন্য শেষ হয়ে যাবে। তাই, এ কাজের জন্য বিপুল অর্থ প্রয়োজন। তবে যতই লাভ না হয় দেশের তা বাকার অবশ্যই চিহ্ন করা এ কাজে পিছা হলে চালু না। অর্থের জন্য রয়েছে দেশের জগৎ ও ঢাকারাবাসী, রয়েছে দেশের যৌবন একটি সিদ্ধান্তের অধিকারী প্রজাতি দাঁড়াও আত্মজ্ঞাতি দাঁড়াও প্রজাতি। এছাড়াও আর বড়ু রাষ্ট্রসমূহ। যারা গোপনের উদ্দেশ্যে এ অর্থ কোলকাতায় মেট্রো নির্মাণ করে দিয়েছেন। অতএব তাদের রয়েছে পদ্মাচলের শ্রেষ্ঠ এলাকা মেট্রো নির্মাণের অভিজাত। তাদের পরিপ্রেক্ষায় সাহায্য নেয়া যেতে পারে। তাজারা জাপান ও টীম তা রয়েছে। তালো নিয়ন্ত্রহ সাহায্য ও পরিপ্রেক্ষা দিতে রাজি হবে। প্রয়োজন অথ দূর দৃষ্টিকোন্ত ও উদ্যোগী নেতৃত্ব।

উপসংহার
শিফা যেমন মানুষের চোখ খুলে দেয়, রেল পরিবহন তেমনি মানুষের অর্থনৈতিক গতিময়তা বৃদ্ধি করে। পৃথিবীর জেনেনে যতই এটি বৃদ্ধি পেয়েছে সে জেনেনে ততই দূর্বল দেশের উদ্ভাস নিষিদ্ধ করতে পেয়েছে। দুর্বলজনক হলেও সত্যের মত, দুর্বলজনক দুর্বলজনক হলেও বাংলাদেশে এ মূল্য ধাতেরই এখনও বেহাল অবস্থা। দূর্বলজনক বিরুদ্ধে করেছে নৈসার্জিক। আমাদের সরকারগুলো
বিশ্বের পৌর্তাত পরবর্তী সামরিক সংস্থারের একটি শাখা ছাড়া চারভাবে অবহেলা করেছে।
নবজাহরের দশকের পর্যন্ত শিক্ষার চেয়ে সামরিক খাতে বরাদ্দ ছিল বেশি।
নবজাহরের দশকের শুরুতে তথ্যানুসারে গণনীতিক সংস্থারের অমূল্য নাম মাত্র শিক্ষার ও সামরিক খাতের বরাদ্দ প্রায় সমান সমান করা হয়।
বাংলাদেশ রেলওয়ে থেকে যায় অবহেলিত (সালতি-১২)।
বাংলাদেশের পাঁচটি পঞ্চবার্ষিক পরিকল্পনায় সরকারী খাতের মোট বরাদ্দের মাত্র ২.০% থেকে ৩.২% পায় বাংলাদেশ রেলওয়ে, অথচ মোট পরিবহন খাতের অংশ ছিল ৮.২% থেকে ১৮.৫% এর মধ্যে।
লিচন খাতের এক তৃতীয়াংশের কম বরাদ্দ পায় বাংলাদেশ রেলওয়ে (সর্বোচ্চ ০২.১% পায় ০২.১% পঞ্চবার্ষিক পরিকল্পনায় এবং সর্বনিম্ন ১৩.১ শতাংশ পায় পঞ্চ বার্ষিক পরিকল্পনায়)।
অধুনা হওয়া উচিত ছিল উল্টোতা, অথচ সিংহভাগ বরাদ্দ প্রতিভ ৬০.০% বরাদ্দ রেলওয়ের জন্য দেয়া উচিত ছিল।
সড়ক পথের পিছনে বেশি বয়স করে মান সম্পর্ক সড়ক পায় নি আমাদের জনগণ।
অভিক্ষুন্ততার সুসমাচারের মাধ্যমে যদি সড়ক ও রেলওয়ে অমরা গড়ে তুলতাম এবং সম্প্রসারিত করতাম, তাহলে বিপুল পরিমাণ জমি ও অর্থের অপেক্ষা অনেক শীঘ্র রোধ করতে পারতাম।
দেশ থাকতো আজ মানুষর এবং আমাদের সড়কগুলো যাত্রা থাকতো ভাল।
সড়কপথের উপর অত্যন্ত নরম (রেলের অনাবৃত্তিতে) চাপ পড়ায় প্রতি সড়কলা ক্ষতি হয় এবং ঘনঘনই সরাসরি করতে হয়।
সার পাঁচমাসের পরবর্তী সরকারগুলো বিশ্ববিদ্যালয়, বিশ্ববিদ্যালয়ের মত সাহায্যকারী সংস্থাগুলোর ক্ষেত্রে সড়ক পথের বিভাগের উপর মানুষের উচ্চতা আরোপ করেছে এবং বেসরকারী খাতের পরিবহন মালিকদের স্বাধীন রেলওয়ের বিভাগকে নানাদিকে বাধ্যতা করেছে।
বিভাগটি বাস সার্ভিসের যাত্রাপথেও এ প্রসঙ্গে উদ্যোগের দাবী
রাখে।
বেসরকারী পরিবহন মালিকদের দাবী বেসরকারী বাস সার্ভিস বাংলাদেশের ধারণে না, এমনকি আজ বসবাস করতে
হবে, বিভাগটি বসবাস করতে হবে যাতে তারা লাভ করতে পারে।
তারা প্রতিযোগিতায় যেতে চায় না।
তারা সরকারী খাতের পরিবহন পায় মাধ্যম (রেলওয়ে ও বিভাগটি) ও দেশের জনপ্রিয় জিয়াম করার
বাসা করতে চায়, অতিরিক্ত লাভ করতে চায়।
এর নাম পুনর্জীবন হতে পারে না।
এর নাম পুনর্জীবন সামাজিক।
সরকারকে অধিবেশিত একটি দৃষ্টি দিতে হবে।
বেসরকারী খাত যদি সরকারী খাতের চেয়ে দক্ষতায় হয় তাইলে সরকারী খাতের পরিবহন মাধ্যমের সাথে প্রতিযোগিতা করেই তাকে এ গ্রাম্য
দিতে হবে।
অবশ্যে যে বিভাগ হিসাবে পরিবহন ও আইনের বিভাগের সাথে সম্পৃক্ত বাংলাদেশ যা বাড়া
যায় অনুপস্থিত।
আমিরা সেনেমের অপেক্ষায় থাকলাম যেদিন বাজিদ, দল ও গোষ্ঠী খাতের চেয়ে দেশের
ধারণে সবার বিশেষ করে বাংলাদেশের শাসকগোষ্ঠীর চিত্র ও চেতনায় প্রাধান্য পাবে।

যোগাযোগ ডমোন ফেসবুক বাংলাদেশের রেলওয়ে সামগ্রী ও সংবাদ 237
16. বাংলাদেশের নিরুদায়ন্ত্রের সমস্যা ও সমাধান: আইবিএস কর্তৃক, ইনস্টিটিউট অফ বাংলাদেশ সাইটিডি, রাজশাহী বিশ্ববিদ্যালয়, রাজশাহী, ১৪০৬, ২০০০।
17. বাংলাদেশের অর্থনৈতিক অবকাঠামো উন্নয়নের বিষয়ে প্রথম খণ্ড, ছোটানো অব পলিটিক্যাল ইকনোমি, চৌধুরানো খণ্ড, ২য় সংখ্যা, বাংলাদেশ অর্থনীতি সমিতি, ঢাকা, ১৯৯৬।
18. ইসলামিক সংবাদ।
19. ইসলামিক জনকর্তা।
Rural Electricity’s Impact on Reduction of Health Poverty in Bangladesh

Abul Barkat*
Murtaza Majid**

Abstract
The paper analyses the impact of electricity on health-poverty reduction in rural Bangladesh. This impact has been analyzed using comparisons between ‘with’ and ‘without’ electricity situations. It has been argued that access to electricity (at household and outside household) reduces poverty in health, hygiene and sanitation. On many health indicators, the poor electrified households were found to be better off than even the rich in the non-electrified villages. The spill-over effect of electricity on the non-electrified households of electrified villages is also much pronounced. Electricity has profound impact on human capital formation through knowledge building mediated through electricity-driven media exposure. It is recommended that in order to improve the health-poverty status and to further human development in Bangladesh, access to electricity of the households and social and economic institutions should be expanded. Rural electrification should be viewed as one of the key strategies for national health-poverty reduction.

1. Objective
The key objective of this paper is to present an analysis of the impact of electricity on the reduction of health-related poverty in rural Bangladesh, based on evidences from a recently conducted comprehensive study titled “Economic and Social Impact Evaluation of the Rural Electrification Program in Bangladesh” (Barkat et.al, 2002): Attempts have been made to cover three broad aspects of health-poverty, namely, health, hygiene and sanitation, including education poverty. Analyses have been made to understand the rich-poor divide and the gender (male-female) divide on some crucial health indicators.

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2. Some Methodological Issues

The prime purpose of the base study was not to conduct an in-depth assessment of the impact of Rural Electricity/Electrification (RE) on health-poverty reduction per se. For this reason, no separate sampling was done to understand health differentials of the poor and non-poor. Whatever analysis of impact on health-poverty reduction has been presented, is based on the original data set of the households not disaggregated by poor and non-poor in the original sample.

The main objectives of the base study were to assess the economic and social impacts of Rural Electrification on four measurement objects— household, industries, agricultural equipment, and commercial activities. Accordingly, the sampling design was developed with a total of 3,718 samples of which 2,491 were households, divided into users and non-users of electricity, and dispersed through 23 Palli Bidyyut Samities, (PBSs) out of 67 PBSs operating under the Rural Electrification Board.

As there was no baseline data, it was deemed most appropriate to adopt a post-test-only control group operations research design using “with-without” electricity scenario to gauge the impact of Rural Electrification.

Two types of villages (with and without electricity) with three types of household were covered in the study sample. These were:

- **HE** = Household with electricity (pure experimental group; sample size 1,380),
- **WE-EV** = Household without electricity in electrified villages (semi-control having spill-over effect; sample size 421), and
- **WE-NEV** = Household in non-electrified villages (pure control group; sample size 690).

This classification has been done from the viewpoint of access to household level electricity connections. However, from the viewpoint of household’s benefit from electricity outside the household it is relative.

For collection of baseline data retrospective information (for 5 years preceding the time of field data collection) on certain specific indicators that suffer less from memory recall problems (e.g., ownership, property, assets-land, homestead, number of rooms, sq.ft., number of livestock etc.) were collected. It was useful in understanding the dynamics of changes in the asset situations of the sample households. Therefore, such data can be gainfully used as baseline data to perform secondary analysis on RE’s impact on overall poverty as well as on health poverty.
All the sample households covered in the study, by design, were drawn (using PPS and a statistically random technique) from the rural areas. Therefore, all three categories of households are homogeneous in terms of its location that all are rural.

Throughout this article, the category ‘poor’ has been used to denote ‘poor household’ in terms of amount of landownership (details about definition of ‘poor’ is presented in the note under Table 1). However, it is pertinent to mention that in the electrified villages, both the poor and non-poor households have access to electricity, although the extent of access is different. In the electrified villages, on average, 24.3 percent among the poor households and 45.4 percent among the non-poor households have electricity connections. Another recent study conducted by the authors revealed that rural household’s access to electricity is not socio-economic status (or class) neutral. The actual connectivity of households to electricity declines with the declining economic status of a household; while on average 39.7 percent of households in the electrified villages are electrified, the same ratio is as high as 53.5 percent for the non-poor and only 30.6 percent for the poor; while over 90 percent rich households (those having 750 decimals and above land ownership) possess electricity, it is only 21 percent among the poorest households (Barkat et al., 2003: 37).

It has been observed that, in terms of most community level infrastructural variables population per primary school, population per km pucca road, population per public health facility no pronounced differences were found between the electrified villages and the non-electrified ones. This happens so, because establishment of these infrastructural public facilities are not contingent upon the availability or non-availability of electricity in the villages. This point is extremely important due to the fact that availability status of these infrastructural facilities is usually used as explanatory variables in the analysis of economic and social impact of an intervention on the people’s lives and living standards. So, these act as neutral variables. In terms of some other variables, such as distance of the upazila health complex from the village non-electrified villages, on average, were found to be placed better than the electrified ones. However, some other infrastructural facilities, like, night schools, banks, cooperative societies, were found to be better in the electrified villages compared to the non-electrified villages. Finally, it is pertinent to emphasize that the multifaceted impacts and benefits of rural electrification are both direct and indirect; and quantitatively attributing rural electrification to those impacts is a daunting research task. And this is more so for such social component as health.
3. Impact on Reduction of Health-Poverty

3.1. Why health and what was the enquiry about?

People’s health status is the prime component of human development. This is simply because of the fact that the life expectancy at birth has already been formally accepted as the number one variable in measuring the extent of human development or human deprivation. The life expectancy at birth is basically a function of life-time health status. The linkages between health, poverty reduction and economic growth are much more powerful now a days than has been generally understood. The WHO Commission on Macroeconomics and Health by challenging the traditional argument that health will automatically improve as a result of economic growth argued that the opposite is true, i.e., improved health is a critical requirement for economic development in poor countries. This commission’s path breaking report states that, “Health is a priority good in its own-right, as well as a central input into economic development and poverty reduction. Increased investment in health would translate into hundreds of billions of dollars per year of increased income in the low-income countries. There are large social benefits to ensuring high level of health coverage of the poor, including spillovers to wealthier members of the society”. In economic terms, health and education are the two cornerstones of human capital, which Nobel Laureates Theodore Schultz (1981) and Gary Becker (1981) have demonstrated to be the basis of an individual’s economic productivity. According to Nobel Laureate Amartya Sen, health is among the basic capabilities that gives value to human life. The global survey, Millennium Poll, UN 2000 commissioned by UN Secretary General Kofi Annan, consistently ranked good health as number one desire of men and women around the world (UN 2000).

Therefore, with recognition of the values of good health as means to human capability building and through that to human life (AK Sen), health as a cornerstone of human capital (T Schultz and G Becker), and health as a central input into economic development and poverty reduction (WHO 2001)– high emphasis has been given in our study to understand the various dimensions of health status in the electrified and non-electrified households.

1 Macroeconomics and Health: Investing in Health for Economic Development, Presented by Jeffrey D. Sachs (as Commission’s Chair) to GroHarlem Brundtland, DG-WHO, December 20, 2001
As health practice and behavior is a function of health awareness (among others), the latter has been analysed first. This awareness can be mediated through many agents, of which, television is a major one. For this reason, in all possible health related issues, the role of electricity has been identified using electricity-driven equipments especially TV as the agent. The impact of electricity on health is not only mediated through TV, but also through availability of other facilities such as refrigerator, fan, modern diagnostic facilities (possible only if electricity is available in the locality) etc.

With this view, the following broad spectrum areas of health-hygiene-sanitation were investigated: awareness on crucial public health issues, source(s) of knowledge, disease and treatment patterns, health care expenses, attendance at child delivery, access to ANC and PNC check-ups, TT immunization, maternal morbidity, child immunization, infant death (infant mortality ratio), status of intake of vitamin A capsule to prevent night-blindness among children, use of family planning, source of drinking water, type of latrine facility in use, use of hand-washing material after defecation, use of soap while bathing, role of media in changing health-hygiene-sanitation behavior and practice. All the questions pertinent to health were asked to the women (female head of the household or wife of the male head).

3.2. Specific Impact on Health Poverty Reduction

It has been observed that rural electricity has multidimensional impact on poverty reduction in general and impact on health-poverty reduction in particular. The multifaceted health impact which can be attributed to rural electricity are as follows (comparative results are presented in Table 1):

a. Due to supply of electricity in the rural areas, availability of qualified medical doctors, diagnostic centres and clinics has increased. This has accelerated the process of health-poverty reduction in the villages having access to electricity.

b. The members in the electrified households were found much more aware than those in the non-electrified households on the crucial public health issues. Also those in the non-electrified households in electrified villages were found to be more aware than their counterparts in the non-electrified villages. Regarding knowledge on ANC, much higher proportion of the people from the households having electricity was found to have knowledge on the subject (at 5 percent level of significance d.f =1, tabular value of $\chi^2 = 3.8$; $\chi^2_{cal}$
The same pattern was found in case of knowledge on 3 STDs (at 5 percent level of significance d.f = 1, tabular value of $\chi^2_{5\%} = 3.8; \chi^2_{\text{cal}} = 136.32$).

c. About 57 percent of the electrified households reported that they availed treatment from medically competent person (MCP) during the last sickness. The corresponding figure for non-electrified households was 43 percent. This means, in case of sickness, the electrified households are more likely to seek treatment from MCP (32% more) as compared to those in the non-electrified household. (at 5 percent level of significance d.f =1, tabular value of $\chi^2_{5\%} = 3.8; \chi^2_{\text{cal}} = 87.6$).

d. The gender disparity in seeking treatment from MCP is much less pronounced in the electrified than in the non-electrified households. The male-female proportions in seeking treatment from MCP were 59% and 54.3% in electrified; 46.3% and 40.7% in non-electrified households in electrified villages, and 46.4% and 39.9% in the non-electrified villages.

e. In 55 percent events of sickness the landless group in the electrified households sought services from MCP, while it was 42.5 percent in the non-electrified villages (a difference of 12.5% points). Similar was the pattern in case of marginal, small and medium landowner categories of households.

f. Higher proportion of child delivery (last birth) in the electrified households were assisted by medically trained persons (36%)\textsuperscript{3}. The corresponding figure for the non-electrified households in electrified villages was 23.1 percent (around national average), and for households in the non-electrified villages was 17.9 percent.

g. Some other indicators, like the situation of availing of antenatal care (ANC) check-up during pregnancy by medically trained provider, receipt of tetanus toxoid injections during pregnancy, and post natal (PNC) check-up after delivery – all reported by a much higher proportion in the electrified households compared to those in the non-electrified households.

h. In case of treating the maternal morbidity by medically competent person (MCP) major variations were observed by household electrification status. For over 80% cases of 3 types of maternal morbidity each, the households

\textsuperscript{3} Medically trained persons (MTP) includes MBBS doctor FWV, Nurse, MA, SACMO, other Paramedics, and trained traditional birth attendants (TTBAs) and not the untrained traditional birth attendants, UTBA).
with electricity availed treatment services from MCP. For households in the non-electrified villages, this has ranged between 48% for morbidity during pregnancy and 62% for morbidity in 42 days after delivery.

i. The infant mortality rate in the electrified households was 42.7/1000 live births, in the non-electrified households in electrified villages 53.8/1000 live births, and in the non-electrified villages 57.8/1000 live births. IMR in the electrified households is 25 percent less than the national average (57/1000 LB) and 35 percent less than the national rural average (66/1000 LB). Secondly, the IMR in the non-electrified households in the electrified villages is less (53.8) than that in the non-electrified villages (57.8). And third, the estimated IMR in the electrified villages is 49.9/1000 live births and that in the non-electrified villages is 57.8/1000 live births.

j. It was found that the full immunization coverage among children of 12-23 months was significantly higher in the electrified households (60.7%) than that in the households of non-electrified villages (36.5%). The coverage in the non-electrified households of electrified village was 54.4 percent, which is close to the electrified households. The full immunization rate also varied by household economic status of the children. In the electrified households, the full immunization rate was 52.2 percent for landless and 100 percent for large landowners. The same ranged between 28.9 percent and 66.7 percent in the villages without electricity.

k. The vitamin A coverage (one capsule during last 6 months) among children under 5 was consistently high in all three household categories (ranging from 86% to 89%).

l. Among the currently married women in the electrified households about 68 percent reported their use of a contraceptive method\(^4\). The contraceptive prevalence rate (CPR) was 62.8 percent in the non-electrified households of electrified villages, and 61.7 percent in the non-electrified villages. The estimated total fertility rates are 2.54 for the electrified households, 2.87 for the non-electrified households in electrified villages, and 2.94 for the households in the non-electrified villages. Thus, in terms of attaining the national goal of NRR=1 by 2005 (which is equivalent to TFR= 2.1 by 2005), the electrified households appear to be more close-to-goal than the non-electrified households.

\(^4\) The national contraceptive prevalence rate for 1999-2000 was 53.8% with 60% in the urban and 52.3% in the rural areas (BDHS 1999-2000: 51, 52)
### Table 1: Rural electrification and poverty reduction – Selected health indicators by household electrification status

<table>
<thead>
<tr>
<th>Selected indicators</th>
<th>Household (HH) electrification status:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HH with electricity (HE)</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>1. Annual (net) income (in Tk. for last year):</td>
<td></td>
</tr>
<tr>
<td>- Poor (landless)</td>
<td>58,864</td>
</tr>
<tr>
<td>- Rich (large landowner)</td>
<td>220,986</td>
</tr>
<tr>
<td>- All</td>
<td>92,963</td>
</tr>
<tr>
<td>2. Annual household expenses by food and non-food items (% share)</td>
<td></td>
</tr>
<tr>
<td>- Food</td>
<td>47</td>
</tr>
<tr>
<td>- Non-food</td>
<td>53</td>
</tr>
<tr>
<td>3. Below poverty line (% population):</td>
<td></td>
</tr>
<tr>
<td>- Absolute poverty (DCI)</td>
<td>39.9</td>
</tr>
<tr>
<td>- Hardcore poverty (DCI)</td>
<td>21.8</td>
</tr>
<tr>
<td>- Lower poverty line (CBN)</td>
<td>22.3</td>
</tr>
<tr>
<td>- Upper poverty line (CBN)</td>
<td>36.5</td>
</tr>
<tr>
<td>4. Availing treatment from medically competent persons (% reported for last year):</td>
<td></td>
</tr>
<tr>
<td>- Sex: Male</td>
<td>59.0</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>- Both</td>
<td>56.7</td>
</tr>
<tr>
<td>- Rich-poor divide:</td>
<td>54.7</td>
</tr>
<tr>
<td>- Poor</td>
<td>64.0</td>
</tr>
<tr>
<td>- Rich</td>
<td>39.9</td>
</tr>
<tr>
<td>5. Child delivery assisted by medically trained person (proportion of last birth):</td>
<td></td>
</tr>
<tr>
<td>- All</td>
<td>36</td>
</tr>
<tr>
<td>- Poor</td>
<td>30.4</td>
</tr>
<tr>
<td>- Rich</td>
<td>67.5</td>
</tr>
<tr>
<td>6. Availing treatment from medically competent persons in last maternal morbidity:</td>
<td></td>
</tr>
<tr>
<td>- Poor</td>
<td>79.2</td>
</tr>
<tr>
<td>- Rich</td>
<td>100.0</td>
</tr>
<tr>
<td>7. Full immunization coverage ratio among children 12-23 months by sex:</td>
<td></td>
</tr>
<tr>
<td>- Boys</td>
<td>64.2</td>
</tr>
<tr>
<td>- Girls</td>
<td>56.2</td>
</tr>
<tr>
<td>- Both</td>
<td>60.7</td>
</tr>
<tr>
<td>8. Contraceptive Prevalence Rate:</td>
<td></td>
</tr>
<tr>
<td>- Poor</td>
<td>65.7</td>
</tr>
<tr>
<td>- Rich</td>
<td>83.8</td>
</tr>
<tr>
<td>9. Women’s knowledge score of gender equality issues:</td>
<td></td>
</tr>
<tr>
<td>- All women</td>
<td>0.80</td>
</tr>
<tr>
<td>- Poor</td>
<td>0.79</td>
</tr>
<tr>
<td>- Rich</td>
<td>0.84</td>
</tr>
</tbody>
</table>

Note: ‘Poor’ has been defined as those having no landownership (absolute landless) or have less than 50 decimals of landownership (functional landless). The five landowner groups adopted in the study are landless, marginal, small, medium and large. These categorization was made using official classification which is as follows: landless includes functional landless owning less than 50 decimals of cultivable land, marginal owns 50-149 decimal, small owns 150-249 decimals, medium owns 250-749 decimals, and large owns 750 decimals and more (Sources: Census of Agriculture 1996, vol.1:71, BBS 1999; Statistical Pocketbook of Bangladesh 1997: 184-185).
m. About one-fourth (22.5%) family planning users in the electrified household mentioned TV as the most influential factor that prompted FP use. This self-reported weight assigned to TV was only 6.7 percent in the non-electrified households in electrified villages, and 5.5 percent in the non-electrified villages. Provisioning of electricity in the household combined with access to TV would most likely contribute significantly in expediting the process of reaching the national demographic goals of Bangladesh.

n. Use of hygienic latrines (sanitary sealed closed) was reported by 61 percent of the electrified households while the corresponding figures for non-electrified households in electrified villages was only 29 percent and for non-electrified villages is was 31.7%. Another significant finding was related to the proportion reporting 'open space' for defecation: it was only 5.2 percent for the electrified, and around 20 percent for the others.

o. The mean number of deaths was relatively less in the electrified households with 50 (ever) deaths per every 100 households, which was high in the non-electrified villages with 62 deaths per every 100 households, and 59 deaths per 100 non-electrified households in the electrified villages.

p. Electrified households have a higher survival rate seen by the relatively low infant mortality rate in the electrified households (42.7/1000 live births) as compared to the households in the non-electrified villages (57.8/1000 live births). This IMR (among others) has positively influenced the overall survival rate of the members in the electrified households.

q. Availability of electricity in the household contributes 15.7 percent in the reduction in overall TFR (comparison of TFRs in two extreme samples), but availability of electricity in the village but not in the household contributes only 2 percent in the reduction in TFR.

3.3. Impact on Health Care Expenditure

Because of relatively higher income the electrified household can expend more for their health. The average annual health care expenditure reported by the electrified households was Tk.4325, which is 44 percent higher than their non-electrified counterparts (Tk.3,012 and Tk.2,999) (Figure 1).

The same pattern is observed when compared with non-electrified villages in terms of gender. The annual healthcare expenses for the males of electrified households (Tk. 2,376) were 22 percent higher than their counterpart in the non-electrified households of electrified villages and about 16 percent higher than
those in the households of non-electrified villages. A much higher level of gender-gap was evident in case of health care expenses for the females. The annual health care expenses for the females of electrified households (Tk.1,948 ) was 85% higher than those in the households of the non-electrified villages and 104 percent higher than those in the non-electrified households of electrified villages (estimated from data in Figure 1).

![Figure 1: Average annual household expenditure on health care by male-female by household electrification status](image)

As observed, the male-female gap in household health expenditure was much less pronounced in the electrified households than that in the two other sample categories. For example, while in the electrified households, the annual average health expenditure for the males was 22% higher than the females, the corresponding health expenses were as high as 85% higher for males than females in non-electrified households (of electrified villages), and more so, 116% higher for males than females in the households of the non-electrified villages (estimated based on data in Figure 1). Thus, as compared to the non-electrified households, the electrified households not only spend more on health but also exhibit less gender disparity on that.

In this situation, it would be pertinent to draw further inferences about the health-poverty reduction impact of electricity, through presenting analysis of the various aspects of incidences of poverty (below poverty line situations). The head-count index measured in terms of DCI and CBN methods\(^5\) shows distinctively that

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\(^5\) Economic-poverty has been estimated using the head count measures. The direct calories intake (DCI) and the cost-of-basic-needs (CBN) methods were used. In order to ensure comparability of the estimated values, the official methodology used by the Bangladesh Government in the Household Income and Expenditure Survey 2000 (published by BBS in 2001) was adopted. Also, to ensure comparability, the relevant correction factors were applied (e.g., Taka value per person per month for 2001 in estimating the lower and upper poverty lines using CBN method).
3.4. Impact on Public Health Knowledge

Health inequity is a major poverty issue across the low-income countries. This is usually termed as ‘health divide’ among the poor and the rich. This divide is pronounced in knowledge. “Access to electricity” can be a major means to address and resolve this problem. This is evident from the low-gaps in public health-knowledge coefficient among the poor and rich in the electrified households and high gaps in that in the non-electrified villages; as well as from the relatively high knowledge coefficient among the poor in the electrified compared to that in the non-electrified villages.

The rich-poor divide in health knowledge indicates the following:

**First:** The overall public-health-knowledge coefficient in the electrified households ranged between 0.61 for landless and 0.72 for large landowning households, i.e; the gap is 11% points (Figure 2). The corresponding values for households in the non-electrified villages are only 0.36 (landless) and 0.59 (large

![Image](image_url)
landowner) with a gap of 23% points. Thus, the poor and rich in the non-electrified households are not only less aware than their counterparts in the electrified households, but also the poor-rich gap is twice as high. This means access to electricity (driven media or media exposure) at the household level impacts significantly in reducing the knowledge-in-health poverty by increasing the knowledge-base among the poor.

**Second:** The poor in the electrified households were found more knowledgeable (61%) about the public health issues than even the rich (large landowner) in the non-electrified villages (59%). This also means, in terms of knowledge-poverty, the economically poor people become knowledge-rich if access to electricity is ensured.

**Third:** The gaps in overall knowledge coefficients vary substantially for the same landownership category depending on the availability of electricity in the household. The overall knowledge coefficient of the landless in electrified villages is 25 percent points higher than the landless in the non-electrified villages. Such gaps were 23 percent points, 21 percent points, 19 percent points, and 13 percent points for the marginal, small, medium and large landowning households, respectively. This means that, ensuring access to electricity will have profound impact in reducing the existing knowledge gaps in the non-electrified households, and the rate of such impact will be higher for those who are poor. Thus, in transforming poor people into rich in public health knowledge – access to electricity can be a potential answer.

Electricity has high contribution to the knowledge building about crucial public health issues. Overall, as high as 56 percent of those having knowledge in the electrified households reported TV as the main source of knowledge, the
corresponding figure for TV was 28 percent in the non-electrified households in electrified villages, and 17 percent in the non-electrified villages (Figure 3).

Thus, it can be inferred that people in the electrified households and their neighbours, compared to those in the non-electrified villages, are more aware about the crucial public health issues, and electricity (through TV) had played an important role— as the major source— in enhancing such knowledge.

3.5. Impact on Availing Treatment from Medically Competent Person (MCP)

The pattern of sickness (12-months’ incidence) did not vary by status of access to electricity. But, the distinctions indicating impact on health-poverty were pronounced, when it was compared in terms of treating sickness by medically competent persons (MCP)7.

It was found that availing treatment from the MCP was much more pronounced in the electrified households compared to that in the non-electrified households (Table 1). About 57 percent of the electrified households reported that they availed treatment from MCP. The corresponding figure for non-electrified households was 43 percent. This means, in case of sickness, the electrified households are more likely to seek treatment from MCP (32% more) as compared to those in the non-electrified household.

Secondly, gender disparity in seeking treatment from MCP is much less pronounced in the electrified than that in the non-electrified households. The male-female proportions in seeking treatment from MCP were 59 percent and 54.3 percent in electrified; 46.3 percent and 40.7 percent in non-electrified households in electrified villages, and 46.4 percent and 39.9 percent in the non-electrified villages (Table 1). The percentage points disparity was 4.7, 5.6 and 6.5 percent respectively for the three categories respectively. Thus, although disparity existed in all categories, it was more pronounced in the non-electrified households; and females in the non-electrified were taken to MCP while sick in a much lesser proportions than those in the electrified households (difference being 14% points). A much encouraging finding in this regard was that the females seeking treatment from MCP in HE was about 8 percentage points higher than even that of the males in non-electrified villages.

Third, the landless (poor) group in the electrified households reported that in case of 55 percent events of sickness they sought services from MCP, while it was only

7 Medically competent persons (MCP) include MBBS doctor, Family Welfare Visitor (FWV), Nurse, Medical Assistant (MA), Sub-assistant Community Medical Officer (SACMO), other Paramedics.
42.5 percent in the non-electrified villages (a difference of 12.5% points). Similar was the pattern in case of marginal, small and medium landowner categories of households. The rich-poor gap between utilization of MCP in sickness was 9.3 percentage points in the electrified households, and as high as 21.8 percentage points in the households of the non-electrified villages (Figure 4). Thus, availability of electricity in the households influences the status of seeking treatment from MCP (while sick) much more in the poor households than in the rich households. This means that health poverty reduction—both in terms of awareness in public health issues and utilization of medically competent persons while sick—is possible with ensuring access to electricity in the non-electrified households.

3.6. Impact on Maternal Health

A much higher proportion of child delivery (last birth) in the electrified households were assisted by medically trained persons (36%)\(^8\). The corresponding figure for the non-electrified households in electrified villages was 23.1 percent (around national average), and for households in the non-electrified villages was 17.9 percent (Table 1). The rich-poor disparity was clearly evident: Among the last deliveries in the electrified households, 30.4 percent in the landless group and 67.5 percent in the large landowning group were assisted by medically trained persons. The rich-poor gap was 37.1 percent points (with a base of 30.4%). However, the same in the non-electrified villages were only 14.7 percent (for landless) and 25 percent (for large landowners) respectively. The rich-poor gap being only 10.3% points (with a low base of 14.7%). Thus, in terms of assistance in child delivery by medically trained persons the electrified households show a much better situation—both overall, as well as by landownership categories. On this count, the poor with electricity is better-off even than the rich in the non-electrified villages (Table 1).

\(^8\) Medically trained persons (MTP) includes MBBS doctor FWV, Nurse, MA, SACMO, other Paramedics, and trained traditional birth attendants (TTBAs) and not the untrained traditional birth attendants, (UTBA). According to the most recent Demographic and Health Survey (BDHS 1999-2000), almost all births (92%) in Bangladesh occur at home; 12.1% of births are assisted by medically competent persons and 21.8% by trained persons; antenatal check-up coverage by medically trained provider is 33%; and TT coverage (2 or more TT injection) is 64% (BDHS, 1999-2000: 112, 114-115, 117-118). These recent national figures would be of use in comparing the same with our survey findings. However, a caveat to note is that the BDHS data quoted above are national data (not rural ones). Findings from this survey are mostly rural and were collected recently.
The situation of availing of antenatal care (ANC) check-up during pregnancy by medically trained provider, receipt of tetanus toxoid injections during pregnancy, and post natal (PNC) check-up after delivery – all reported by a much higher proportions in the electrified households compared to those in the non-electrified households (Figure 4). The disparity in access to ANC and PNC by rich and poor is distinctly evident (Figure 5). But, significant enough that, even the poor in the electrified households had received more ANC check-up services than the rich in the non-electrified villages. Thus, in general, the women in the electrified households, irrespective of rich-poor had received more ANC and PNC services as compared to the national averages; and women in the non-electrified villages received relatively very little ANC and PNC services as compared to those in the electrified villages. All these imply that having electricity in the households positively influences the utilization of ANC and PNC services, and also acts as a health-mediated poverty reduction factor by motivating poor people (through radio/TV) to use ANC and PNC services in need.

It is also to be mentioned that the annual income of the poor (landless) in the electrified households is 51% higher than that of the poor (landless) in the non-electrified villages implying higher financial affordability of the poor in the electrified villages. Therefore, for the poor people, electricity works in both ways, the income and thereby affordability, and increase in knowledge-base about the value of good health.
Maternal morbidity during pregnancy, delivery, and within 42 days of delivery (postpartum period) is a serious public health concern in Bangladesh. As expected, the proportions of women reported maternal morbidity by household electrification status were similar for each type of morbidity – during pregnancy, during delivery, and in 42 days after delivery. But in case of treating the morbidity by medically competent person (MCP) major variations were observed by household electrification status with distinct advantageous situation in the electrified households (Figure 6).

Reduction in the maternal morbidity by ensuring treatment by medically competent person as a major health-mediated poverty reduction strategy of the Government of Bangladesh has worked better in the households having electricity compared to those in the non-electrified villages.

This is evident from the following:

**First:** Women from landless group (poor) in the electrified households availed maternal morbidity related treatment services from medically competent persons 38 percent more than their counterparts in the non-electrified villages.

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9 The situation is extremely distressing and unacceptable because, each year about 600,000 pregnant women in Bangladesh develop reproductive morbidities, which diminish women’s fertility, productivity, quality of life, and the health and survival of the next generation. See: Government of Bangladesh (1999), *Population and Development – Post ICPD Achievements and Challenges in Bangladesh*, MOHFW, presented at Special Session of the UN General Assembly, NY June 30 - July 02, 1999: 195.
Second: The landless women in the electrified households availed more services (79.2%) than even the rich in the non-electrified villages (66.7%) (Table 1).

One of the best influences of electricity was found on the infant mortality rate (IMR)\textsuperscript{10}. The infant mortality rate in the electrified households is 42.7/1000 live births, in the non-electrified households in electrified villages 53.8/1000 live births, and in the non-electrified villages 57.8/1000 live births. IMR in the electrified households is 25 percent less than the national average (57/1000 LB) and 35 percent less than the national rural average (66/1000 LB). Secondly, the IMR in the non-electrified households in the electrified villages is less (53.8) than that in the non-electrified villages (57.8). Third, the estimated IMR in the electrified villages is 49.9/1000 live births and that in the non-electrified villages is 57.8/1000 live births\textsuperscript{11}. Finally, our estimates show that if access to electricity is 100 percent ensured in the rural households, and those electrified households maintain the same IMR as the current electrified households, the annual number of infant deaths that could be saved will be around 36,818, i.e., a savings of 101 infant deaths everyday.

Among children aged 12-23 month, the full immunization coverage\textsuperscript{12} was significantly higher in the electrified households (60.7%) than that in the households of non-electrified villages (36.5%) (Table 1). The coverage in the non-electrified households of electrified rate was 54.4 percent, which is close to the electrified households. The full immunization rate varied by household economic status of the children. In the electrified households, the full immunization rate was 52.2 percent for landless and 100 percent for large landowners. The same ranged between only 28.9 percent and 66.7 percent in the villages without electricity. Thus, not only the overall full immunization coverage, but also, the coverage by rich - poor were high in the electrified households compared to the households in the non-electrified villages.

\textsuperscript{10} Infant mortality rate (IMR) is the probability of dying before the first birthday. IMR is a key reflector of a country’s level of socio-economic development and quality of life. IMR is usually associated with antenatal care, delivery care, breastfeeding practices, immunization status, and nutritional status of the would-be-mother, among others. IMR is a powerful determinant of life expectancy as well, especially in a country with high IMR. The national average of IMR for 1998 was 57/1000 live births, with 47 for urban and 66 for rural (GoB 2002c: 140). The data bases on Birth Death Sample Registration. The IMR quoted in BDHS 1999-2000 for five-years periods preceding the survey is 66.3/1000 live births (BDHS 1999-2000: 101).

\textsuperscript{11} Among the total households in the electrified villages (in Bangladesh) the electrified households constitute 34.8%, and non-electrified households, rest 65.2%.

\textsuperscript{12} Full immunization includes a BCG vaccination against tuberculosis; three doses of DPT vaccine for the prevention of diphtheria, pertussis (whooping cough), and tetanus; three doses of polio vaccine; and a vaccination against measles (WHO recommended guideline).
3.7. Impact on Fertility and Family Planning Use

Access to electricity not only contributes to the overall increase in the Contraceptive Prevalence Rate (CPR)\(^{13}\), but also influences significantly in raising CPR among the poor-landless. The CPR among electrified poor-households (65.7%) was found 19.5 percent higher than that among the poor in the non-electrified villages (CPR being 55%). The CPR in the electrified poor-household was even higher (by 6%) than that of the rich households in the non-electrified villages (CPR being 61.9%).

The impact of electricity in accelerating the process of attainment of the demographic goal of Bangladesh is clearly evident from the fact that a large share of FP use was contributed by the television. As for 22.5 percent of the family planning users in the electrified household, TV was mentioned as the most influential factor prompted FP use. This self-reported weight assigned to TV was only 6.7 percent in the non-electrified households in electrified villages, and 5.5 percent in the non-electrified villages (Figure 7). Thus, it can be concluded that provisioning of electricity in the household combined with access to TV would most likely contribute significantly in expediting the process of reaching the national demographic goals of Bangladesh (NNR=1 or TFR=2.1 by 2005).

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\(^{13}\) The national contraceptive prevalence rate for 1999-2000 was 53.8% with 60% in the urban and 52.3% in the rural areas (BDHS 1999-2000: 51, 52).
3.8. Impact on Use of Hygienic Latrines

One of the most notable findings having far-reaching cultural, public health and poverty reduction implications is related to the rich-poor divide in the use of hygienic latrines and open spaces for defecation. Over 50 percent of the poor households having electricity use hygienic latrine, while it was only 27.3 percent among their counterpart poor in the non-electrified villages. The rich-poor gap in the use of hygienic latrines was 25.5 percent points in electrified households and 35.2 percent points in the non-electrified villages. More spectacularly, while only 6.8 percent of the electrified poor-households reported use of open place for defecation, it was as high as 29.2 percent for the poor in the non-electrified villages (Figure 8).

Figure 8: Percentage of poor and rich households using hygienic latrine and open space for defecation purpose

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>Rich</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hygienic latrine</td>
<td>52.5</td>
<td>78.0</td>
</tr>
<tr>
<td>Open</td>
<td>27.3</td>
<td>62.5</td>
</tr>
<tr>
<td>HE</td>
<td>6.8</td>
<td>29.2</td>
</tr>
<tr>
<td>WE-NEV</td>
<td></td>
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</tr>
</tbody>
</table>

There has been distinct cultural changes in the hygienic practices due to household electrification, which include, among others, the use of soap after defecation. The use of soap as a hand-washing material after defecation was reported by a higher proportion of the poor households (60.7%) in the electrified villages, than even the rich in the non-electrified villages (58.3%). Such use of soap was influenced much by information-education-communication through television.

4. Some Conclusions and Suggestions

Ascertaining accurately the extent of impact of rural electricity on health-poverty reduction is a complex and difficult task. Howiner basis of on the comparison
between ‘with’ and ‘without’ electricity situations, the direct-indirect and tangible-intangible benefits of electricity in health-poverty reduction have been ascertained. Health-poverty reduction impact mediated through electricity is evident in enhanced employment generation, increased income of the poor, increased savings, progressive pattern of food-non food expenditure, relative high share of education and health expenses, and increased influence over asset building. Household possession of electricity significantly influences the shift of a household from poor to non-poor category. Human poverty reduction impact of electricity is evident in enhanced literacy, improved quality of education, relatively higher empowerment status of women, better health status of the poor in the electrified households compared to those in the non-electrified ones. People’s exposure to electricity-driven media (most importantly, TV) matters much in human capital formation and in improving the knowledge-base, which in turn, influences their education and health practices. The impact of electricity on reducing economic and health poverty and transforming human poverty produces a type of synergy, which is a powerful catalyst in accelerating the process of sustainable poverty reduction. Therefore, in order to accelerate the process of reducing health poverty, strengthening pro-poor orientation in growth process and to further human development, access to electricity of the households and social and economic institutions should be expanded.

Our knowledge-base about the empirically firm causal relationships between access to electricity and many crucial dimensions of health-poverty is still at the embryonic stage. One feasible way to minimize our knowledge-gap could be to undertake relevant secondary analyses of the huge empirical and high quality database produced in the Bangladesh Study (Barkat et.al, 2002). Moreover, in order to minimize our knowledge-gap and to expedite the process of informed policy and decision making, research studies having high national and global utility should be launched to understand more accurately the complex relationships between the availability of electricity and various dimensions of health-poverty reduction including women’s empowerment, mortality-morbidity including maternal health, child health, nutrition, microcredit/ microfinance potentials, and strategies for expanding poor people’s access to electricity.
References


User Fee: An Alternative Financing Method of Health Care in 21st Century

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Md. Badiuzzaman
Monira Haque

Section I

Introduction

Rapid population growth, the global economic recession of 1980’s, the increasing prevalence of HIV related and non curable diseases, and also lower mortality rate increased the financial hardships encountered in the public health sectors of undeveloped and developing countries. Government has failed to support the financial demands of health systems with its limited resources (taxes and donations).

Many underdeveloped countries charged user fees in the past – usually small amounts at token levels as an entrance or registration fee. As more and more governments have found it increasingly difficult to finance public sector health care, user fees have come to be seen as a specific policy tool for addressing the resource gap in health sector financing.

The World Bank in particular advocates user fees as a possible solution. Assuming that individuals are both willing and able to pay for health care that benefits them, the Bank argues that fees should be targeted at curative care and drugs in particular, because their benefits are easily associated with their monetary value. Charging patients would generate substantial additional funds while eliminating the inefficiencies of free care such as excessive utilization (“frivolous use”).

From different articles published on the subject, some of which are cited in the Bibliography, it is found that user fee was implemented in different countries without considering the concept of equity, quality and efficiency. These articles suggest that user fee could be a source of welfare transfer if fees were based on ability to pay and channeled into improvements in service quality and accessibility.

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The objective of this paper is to introduce a model of financing health care considering user fee as a policy tool for broader health care and financing package. Different aspects of user fee are critically evaluated for its implementation.

To prepare this paper, secondary data on health care financing by government and non-government organizations have been used. Available literature on the subject has been reviewed to develop a conceptual framework. The feasibility of user fees in financing health care has also been reviewed. For all these purposes, available research papers, secondary statistical information and different reports of Government and non-government organizations have been consulted.

Section 2

What are user fees?

User fees, also known as cost recovery, cost sharing and community financing, are fees charged for the use of services such as health or education. The World Bank and IMF have strongly supported user fees and often made them a condition of lending. Services now subject to charges were often provided free or at a nominal cost before World Bank and IMF involvement. In 1998, according to the Bank’s Operations Evaluation Department (OED) “about 40% of projects in the Bank’s [health, nutrition and population] portfolio and nearly 75% of projects in sub-Saharan Africa included the establishment or expansion of user’s fees.”

The World Bank has promoted such schemes to achieve the dual goals of generating financial resources for under-funded programs and to encourage better quality and more efficiency. Cost-recovery schemes, the World Bank asserts, can succeed in achieving these goals, only if governments take complementary measures, 1) to ensure that services are accessible and of reasonable quality, 2) to redirect the freed revenues to under-funded health programs that provide public benefits and into increasing the number and quality of facilities to serve the poor and 3) to provide protection to the poor who cannot afford new or higher charges (Akin, 1987).

The term “User Fee” refers to the charges levied on users of public sector health services with the aim of recovering some or all of the costs of providing such services. The two main objectives of user fees are to generate revenue and to deter “frivolous” use of services.
**Advantages of “User Fee”**

User fee can perform several useful functions in a government health system. They can:

- Raise revenue
- Improve quality, especially through improved drug availability
- Extend service coverage
- Promote appropriate or efficient use of health services, including strengthening of the referral system, reduction in frivolous demand, and limiting the growing demands on health services
- Improve equity
- User fees help to finance staff and non-staff costs in government health facilities, and therefore make provision possible
- Reflect the economic theory, payment=MC
- Improve equality between public and private services in terms of payment of fee.
- Increase decentralization and sustainability

**Section 3**

**Some lessons of experience**

Despite the World Bank’s claim that user fees increase quality and effectiveness, evidence suggests that the system does not benefit the poor because of corrupt practices of health care staff and the poor working of administrative mechanisms. The introduction of user fees tends to dissuade the poor more than the rich from using health care services, also tends to delay care and shift people to self–meditation and informal forms of care. There is also some evidence that utilization increases where the poor consider the treatment as quality treatment. Opponents of user fees point to the fact that charging for services denies access to those who are most in need of health care, namely the poor. Economic hardships in underdeveloped countries prevent the majority of the population from paying fees, so the objective of user fees to raise funds for the public health sector is not likely to be achieved. With quality however, improvements, the price effect on utilization may be offset, and there may even be increases in utilization. The poor
have even been found to be willing to pay high amounts when services are good quality.

A survey in Tanzania indicates that 84% of rural and 81% of urban dwellers did not have sufficient funds to pay for health services, while in Kenya user fees had to be suspended for causing a “one-third drop in the number of patients seeking health care”. There is growing consensus that user fees will reduce access to health care: the main issue of debate relates to the groups most vulnerable to this, and the extent to which utilization declines.

Furthermore, few underdeveloped countries recover more than 15% of health expenditure through user fees. Vogel’s comparisons of revenue collected through fees in sub-Saharan Africa indicate a range of less than 1% of recurrent government health expenditure in Burkina Faso to approximately 15% in Ghana. In Africa, fee systems currently yield a gross average of around 5% of operating costs.

Creese (1991) suggests that user fees could be a contributory rather than a deterring force in financing public health. It can contribute to the improvement of the financial base of the health sector. The review article (Vogel, 1998) reports that in Sub-Saharan Africa around 5% operating costs are recovered on average by user fees in public facilities. Ghana has the highest cost recovery rate and recouping 15% of the current government expenditure in the form of user fees. Mwabu and Mwangi (1986) using simulation model showed that a 100% increase in user fees at government rural health clinics in Kenya would result in an initial fall of utilization by 9%. However, if the extra revenue generated by increased charges were used to improve the quality of the services, the use of services subsequently would rise to past level.

Litvak and Bodart (1993) found that in Cameroon the user fee along with quality improvement (with regard to the availability of drugs) increased access to health care facility utilization. In fact, the lowest income group, which is often said to be hurt by user fees, was found to seek more care in Niger than others groups.

Section 4

Problems associated with the implementation of user fee system

A main finding arising from the available analysis of health services utilization by socioeconomic status (World Bank, 1999) is that the poor use health services significantly less than the non-poor, and that the main obstacle to use by the poor
seems to be the private costs of health care (mainly user fees). Other important obstacles to consumption of health care by the poor are physical access to qualified health care providers, quality of care, and educational levels. The relatively lower health status of the poor may be explained in part by their comparatively lower accessibility to health services. Similarly, children with acute respiratory infections (ARI) or suffering from diarrhea are significantly more likely to be taken to a health care provider if they are non-poor than if they belong to low income households. Similar contrasts arise with regard to maternal and obstetric health services. And the members of lower-income households are significantly less likely to seek care from public and private providers than those with higher socioeconomic status, and more likely to self treat or to go without any treatment.

Who will be exempted?

In order to avoid the negative incentives of user fees on those who are unable (or unwilling) to pay user fee, exemptions can provide a way of avoiding the negative equity impacts of such a policy. The poor people who are unable to pay the user fees should be separated properly under an efficient managerial skill so that there are no reductions in utilization because of the imposition of the user fee.

Some services such as family planning and sterilization services, immunization and other measures to combat infectious diseases, examination of and taking of samples from assault and rape victims, person suffering from communicable or notifiable diseases (e.g. tuberculosis, leprosy, cholera, venereal diseases), public sector health personnel injured in the performance of their duties should not be incorporated under the user fee schemes.

Conflict between viable exemption scheme and viable salary incentive

There is a systematic conflict between a viable exemption scheme and a viable salary incentive scheme. There is an inherent tension in a facility seeking to operate a viable exemption scheme and a viable salary incentive scheme. If the hospital is operating at full capacity and is striving towards improving efficiency, then granting exemptions would be virtually intolerable. Ironically, exemptions are more likely to be granted in facilities, which are performing less well, and where serving a patient for free does not necessarily mean excluding a fee paying patient. The competition, outlined above, between patients for more exemptions and staff for greater salary incentives is actually part of a broader systemic tension, inherent in the design of the health-financing scheme, between equity and efficiency. There is a real danger that increasing equity, by lowering costs and
providing more exemptions to the poor will undermine efficiency. Conversely, as facilities strive towards greater efficiency, there is a real danger that the poor will become even more marginalized. If the tensions outlined above are to be relieved, it is clear that the mechanism for financing exemptions must be completely separated from the mechanism for financing salary supplements and operating costs.

Health sector reform

It is commonly believed and recognized that the health system in developing countries needs to be changed for the better. It is a fact that in many countries the health system has undergone intensive reform. There have been many reasons as to why there is a need for change. As Frenk (1994) has pointed out, health system reform stems firstly from economic, political and ideological reasons. Economic crises in developing countries, scarcity of resources, the changing of political and ideological regimes, have led to macro economic reform, which inevitably inspires sectoral reform, including health sector reform as well. Secondly, the health system itself appears ineffective in facing the complexities posed by epidemiological transition. The health sector of developing countries is weak, stagnant, ineffective and inefficient in providing services, let alone coping with newly emerging challenges and new health needs. The disease pattern has changed the constituents for health improvements; these induced health systems have changed in order for these to be more responsive to new demands. In practice, reforms are the concern for all governments at present, though they have different emphasis in different countries, they share a common goal which is to improve the quality of basic services within very limited institutional capacity and resources (Cassels, 1994).

Gilson and Mills (1995) have summarized that health reform is a package of policy measures affecting the organizations, funding and management of the health system. Obviously, there is no universal package of approaches for undertaking these reforms as each country is in such a different political, social and economic circumstance that requires different ways to tackle the problems. Health reforms, however, can be characterized by a set of main elements:

1. Identifying and responding to major health problems
2. Organizational and management changes, including decentralization
3. Health financing strategies
4. Improving quality of care
Decentralization

One of the ways to improve service promotion by the government is decentralization. In recent years, decentralization of primary health care provision has been strongly supported by donors, and many countries have undertaken reforms along these lines. Decentralization may be viewed in narrow and broad terms. In a narrow sense, it may mean delegation or deconcentration of central government functions to lower levels while the central government exercises authority with respect to policy, finance and administration. In a broad sense, decentralization means devolution of central government authority to local levels. It can work in different spheres-administrative, fiscal and political.

Cassels (1995) has pointed out, in health, decentralization means the transfer of more responsibilities for the management, policy making and provision of health care to local level or to agencies within the health sector. This assumes that the lower level government is closer to people, hence they have been given power so that the work they do and the result of their work will be more responsive to the local people's needs. Therefore, many writers (Green 1992; Mills, 1994) have argued that decentralization, in whatever form it takes, should work towards common goals. The decision making should be brought closer to field-level service providers, so that their participation will be enhanced, voices will be heard, and, therefore, the government and people will become more responsive to each other.

Why decentralization is needed?

1. The differentiation of fees by income level is difficult to implement because many public sector institutions do not have the infrastructure or managerial capacity to administer the method appropriately. Furthermore, verification of the income declared by patients is often impossible, and the administrative cost thereof is high in relation to the revenue gained.

2. Providers have been found to be corrupt in the collection of user fees—when fees are not written down they can charge variable prices; fees are pocketed when there are no mechanisms in place to ensure money is accounted for; and providers do not always exempt those who should be.

3. In many cases, user fees are collected at the local health facility and sent directly to a central authority (Ministry of Health, Treasury), creating serious
obstacles to recycling the revenues to improve quality at the collection facility.

4. The introduction of user fees can introduce both efficient and inefficient medical practices and patient behavior. On the one hand, if health care facility is good, it is likely to enhance demand. This is partially evidenced by the wide reporting of polypharmacy throughout the developing world. On the other hand, the introduction of fees may reduce the ‘frivolous’ use of health services—health care that is not really needed by the patient.

**How decentralization improves quality?**

A World Bank study on Vietnam has revealed that in a highly centralized management system, where all decisions and planning are made at the central level and where the lower level just play the role of administrator or policy implementers, the quality of services is often poor. The officials at the lower level often think that they are not responsible for failures occurring locally but the accuse either the finance sector for not providing enough resources for them to fulfill the task or accuse the central ministerial level for their imposed, dogmatic policy and guidelines, which the local officials consider as the root causes of the failures of policy implementation (World Bank, 1996). The study has further pointed out that in practice the local leaders often have to modify the imposed policy unofficially in order to meet the local needs.

The reason for organizational and management reform in health is to improve the capacity of each level, to enable them to work more effectively and spend resources efficiently. With decentralization, local communities are given clear responsibilities, which inspire them to be more concerned about their staff, about the way to get the work done, and to fulfill the targets satisfactorily within the limitation of the budget they have. They are allowed to work flexibly and creatively to utilize and mobilize all potential resources available in their locality. Furthermore, they are replaced in a position where they must be accountable to the higher level of government, from whom they are assigned the work. In addition, it is commonly believed that at the lower level there is a greater potential for multisectoral collaboration, which is important for implementing primary health care programme and contributing to health improvement at the locality (Green, 1992).

Nevertheless, the positive ones included increased participation by less powerful groups in decision-making over the design of services and resource allocation,
improved access and utilization of services by the poor, reduction of disparities in
the provision of health facilities, and their use among various geographical
regions, improved quality of health services and responsiveness to local
preferences in health planning.

Besides, Rondinelli et al (1983), Green (1994) and World Bank (1997) have
identified a number of pitfalls of decentralization, such as developing countries
that lack capacity strengthening abilities for both local and central government,
can lead to negative impacts. Decentralization may also lead to local government
vulnerability resulting from control by locally dominant groups or it can lead to
the monopolizing of local political leaders. Perhaps the most severe weakness is
that decentralization can lead to disparities across regions and communities as
well as ignorance of equity in health services.

Section 6

A proposed model for the proper implementation of user fee

Empirical evidence suggests that user fees could be a source of welfare transfer if
fees are based on ability to pay and are channeled into improvements in service
quality and accessibility (Greese 1991). The vulnerable people should be
exempted from charging user fee so that they can get free access in the different
levels of health care institutions. Besides user fee should be differentiated
according to income level.

In our model, all the patients interested to take health care have to face a means
test to determine their eligibility. Then according to the results we divide the
patients into two groups. Patients applying but found not eligible for exemptions,
along with patients not applying for exemptions are subject to and must pay the
provider’s customary fees according to their income levels. Exempt patients,
instead, are offered care free or at a reduced price. In this way all the patients can
get equal health care under the user fee schemes.

Section 7

Conclusion

The overall analytic view and the available evidence suggest that user fee is
unlikely to accrue financial benefit if it is introduced in isolation. It should always
be considered as one of the policy tools for a broader health care and financing
The concept of equity, quality and efficiency should be the integral part of a user fee implementation package to achieve interactive benefit of this policy tool.

If the user fee can be implemented with the intention of keeping equity between rich and poor; improving the quality of health care and increasing its efficiency, then user fee may provide an attractive alternative to hundred percent government financing of the state health system for the underdeveloped or more revenue constrained countries.
References


9. *Which Health policies are Pro-Poor?*, Institute for Health Sector Development.


13. Alexis, Obrey, *Is decentralization the key to achieving equity in health care in developing countries?*


1. Introduction

Information is central in understanding and solving problems. Information Economics and study in Asymmetric Information (AI) brought a new approach to analyze problems. In this respect a number of studies contributed to augment knowledge. Early economists had awareness about the problems of information [1]. Arrow and Debreu (1954) formulated standard version of general equilibrium theory, and assumed perfect information. However, assumption of perfect information no longer holds. Raiffa (1968) searched for transaction costs and the degree of imperfect information. Akorlof worked on the market for lemons (1970), Spence worked on signaling in labor markets through education (1973), and Stiglitz (& Rothschild) worked on self-screening in the insurance markets [2]. Understanding how information is obtained and disseminated is critical for understanding how economies function. Practitioners are interested in real world economic and policy problems. This paper tries to answer what is meant by asymmetric information (AI), theoretical and practical reasons for studying AI, and economic & management implications of asymmetric information. The study in AI has considerable theoretical and empirical significance. This is to integrate knowledge from different studies, which can be employed in the process of management of resources.

Objectives: The objective of the study is to review the research relating to asymmetric information. Various concepts have been explored. The specific objectives are:

(i) To explore the knowledge framework of Asymmetric Information;

(ii) To identify the relevant concepts for generating usable knowledge; and

(iii) To identify how this knowledge can be better utilized in our context.

* Md. Ashraful Islam, Manager, Bangladesh Shilpa Bank, Dhaka. This study reflects views of the author and does not reflect the view of the organization he represents.
Methodology: Finding a strategy to create categories of variables of interest is the responsibility of investigators in order to understand and formulate a line of study. A number of concepts revolve around the knowledge framework of Asymmetric Information. These concepts have significant relation with asymmetric information. The relationships may be characterized as visible and invisible. The interactions among themselves are not always measurable. However, these can be conceptualized through logical analysis and description of the context, needs, and results. In this study, these concepts are grouped as Principal & Agent, Markets, Economic-Indicators (Vectors), Decision, Learning, Information, and Consequences. Concepts in a framework are shown in table # 1.

Table 1: Asymmetric Information: Concepts and Components

<table>
<thead>
<tr>
<th>Sl</th>
<th>Concepts</th>
<th>Components</th>
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<tbody>
<tr>
<td>1</td>
<td>Principal and Agent</td>
<td>Principal, Agents, Buyers, Sellers, Employers, Employee</td>
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<tr>
<td>3</td>
<td>Economic-Indicators (Vectors)</td>
<td>Interest, Repayments, Price, Wages, Employment, Skills</td>
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<tr>
<td>4</td>
<td>Decision</td>
<td>Decision Making, Risk, Uncertainty, Rationality, Rational Expectation, Bounded Rationality, Near Rationality</td>
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<tr>
<td>5</td>
<td>Learning</td>
<td>Information Problems, Employers’ Learning Problem, Background Information, Screening Problem, Signaling</td>
</tr>
<tr>
<td>6</td>
<td>Information</td>
<td>Imperfect Information, Cost of Information, Information Incompleteness, Information Flows, Private Information</td>
</tr>
<tr>
<td>7</td>
<td>Consequences</td>
<td>Adverse Selection, Moral Hazard, Enforcement Problem, Incentives Problems</td>
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Principal and Agent (Government, Organizations, Buyers, and Sellers) operate in a market. They consider Critical Success Factors (CSFs) and strive to gain in transaction. Decision process of Principals or Agents needs information, learning, and experience. Learning process suffers from inability to search for information (cognitive capability), and willingness to learn. Imperfect information, cost of information, and information incompleteness influence learning. So, consequences suffer from Adverse Selection, Moral Hazard, Enforcement Problem, Incentives Problems etc. These suffocate the principal or agent towards uncertainty, show different behavior towards risk, and deviate from rationality towards bounded rationality. However, this paper does not cover details of AI and only key concepts are explored in the following sections.
2. Key Concepts of Asymmetric Information

Asymmetric Information represents a situation when some parties know more than others. When one party to an exchange knows something relevant to the transaction that the other party does not know such a situation is known as asymmetries of information (McAfee and McMillan, 1987, p.699). AI characterizes many business situations. It explains the phenomena of variables (product quality, skill and abilities of worker, firm’s cost, competitive position, and investment opportunities) in many institutional arrangements in a society. It also helps to understand warranties offered (on parts & services), incentives and rewards (in contracts signed by firm and employees), monitoring the behavior of managers (by shareholders) etc. AI can lead to market failure. To overcome the problem, sellers may provide signal to potential buyers about the quality of products. Adverse Selection and Moral Hazard are two important terms that allow us to understand the problems of AI. Arrow invented the concept of moral hazard (1971), educational signaling (1973), and risk bearing (1964). The constraints imposed by information asymmetries can be as significant as any resource constraints. Concepts deserve exploration.

2.1. Principal & Agent: The Principal-Agent problem is a general class of problems with AI. The Principal is the uninformed party and the Agent is the informed party. Agents are better endowed than others about certain pieces of information. Asymmetric information is a problem for firm management, which can be labeled as the ‘Problem of the separation of ownership and control’ i.e. the Principal-Agent problem (Berle and Means 1933). In Employer and Employee relation, employee’s effort can not be monitored perfectly. This is also applicable in the relations between the stockholders and the manager of a firm, between insurer and insured, between regulated firm and the regulatory agency, between supplier and the consumers of public goods, between a socialist firm and the central planner. Also, between buyer and seller when the value of the item is uncertain.

2.2. Markets: An owner of a car usually has better knowledge about its condition than a prospective buyer. Such situations are fairly common and give rise to certain inefficient outcomes. The lower the difference in valuation between buyers and sellers and the higher the difference between peaches (good cars) and lemons (bad cars) in quality, the more severe are the market inefficiencies.

In insurance, regulation attempts to achieve two goals: (i) guarantee of continual fulfillment of commitments and (ii) equal access to or improved availability of
insurance. While the first can be secured by solvency regulation, premium regulation, compulsory or social insurance can attain the second. In competitive insurance market, asymmetric information may lead to dis-equilibrium, transfer from good to bad risk. Regulation may lead to welfare improvements (Eisen 1986). Competition in signaling could reduce the inefficiencies associated with it. Passive response signals involve receivers of signals simply reading them in the light of past experiences. Over-investment in the signals result inefficiency. Active response signals involve receivers anticipate the effect of their own responses on the patterns of investment in the signal with possibility of improved efficiency (Spence 1976). Auctions: A seller who does not know buyer’s valuation can use an auction to sell, while a buyer does not know seller’s costs can use an auction to buy. Auctions exploit strategic interaction among competing bidders to induce self-selection among the participants according to their respective values for the item. The winner’s curse in an auction to buy refers where the winning bidder over-estimates the true value of the item for sale, and in auction to sell refers where the winning bidder under-estimates the true cost of providing the item. The winners curse is more severe when number of bidders is larger, and true value of the item is more uncertain.

2.3. Economic Indicators: The study in AI hangs around several economic indicators such as loan repayment, Interest-Rate, Product-Price, Wages, skills, and Employment. Adam Smith (1776) observed that as interest rate rises the best borrowers drop out of the market. Alfred Marshall (1890) observed that workers are not always paid on the basis of tasks performed because of the difficulty of observing exactly what they do, and argued that information imperfections would ‘greatly complicate’ economic analysis. The increase in interest rate is a major factor that promotes financial crises. The same interest rate charged to all borrowers attracts more high-risk borrowers, which forces the interest rate go up, which forces the number of high-risk borrowers further and this continues causing credit market failure. The increases in interest rate quickly eroded the net-worth of the already highly indebted firms (Stiglitz 1999). Calculating net-worth of a firm requires asset position, adjustments in prices of goods it sells, factors it purchases and also an estimate of how these will move through time. Lowering price without advertisement expenditure induces no new customers to launch a data search, which may result in loss in sales. Search is costly and the extent of customer’s search depends on perceptions of whether the offered price deviates from that being offered by others. The changes in price, wage, interest rates occurred in many cases due to information imperfection (Stiglitz 1999).
2.4. Decision: **Bounded Rationality:** Herbert Simon (1955) was concerned with the problems of computability, and complexity of information and argued for the inevitability of bounded rationality. Conlisk (1996) identified searching costs as a fundamental source of bounded rationality in economic decision making. **Uncertainty and Risk:** The uncertainty arises for two reasons. First, changes in firms’ circumstances (including the signal they receive) are only imperfectly known by other firms. Second, firms receiving the same information or the same shocks will react differently, depending on their circumstances and characteristics, (which is not common knowledge). The larger the disturbances to the economy, the greater the uncertainty. In uncertain situation, bidder’s response depends on their attitude toward risk. In independent private values model i.e. any one bidder’s valuation is independent from any other bidder’s valuation, one bidder perceives any other bidder’s valuation from some probability distribution. This applies to an auction of an antique and also to government contract bidding. In common-value model, the bidders perhaps, having access to different information, have different guesses on worth (objectively) of item. The bidder may change his-own valuation on learning someone else’s valuation (information). But, in independent private value model, the bidder knows his own mind and learning about another’s valuation probably may not cause him to change his own valuation. The benchmark model suggests that increase in the numbers of bidders increases the revenue on average of the seller. Seller prior commitment resists him to exploit additional information, because he obtains it only after having committed himself (McAfee and McMillan, 1987, p.711). For an economy under uncertainty, the fundamental theorem of welfare economics is valid if, and only if, markets are complete. However, information asymmetries and control problems usually preclude the completeness of the market system. (Hellwing 1986).

2.5. Learning: Leon Walras (1874) noted that the problem of attainment is at least partly an information-processing problem. The auctioneer gathers the various responses to the proposed price vectors in order to adjust the price vector toward the general equilibrium, all prior to any market trading taking place (Rosser 2003, p.14). Friedrick Hayek (1945) worked on dispersed and tacit information in the socialist planning controversy. He argued that to plan efficiently, the central planner would never be able to learn the information that is dispersed throughout the economy in a tacit way.

**Signaling:** Lemons by their presence cause a negative externality to peach (good car) owners causing severe market inefficiencies. One way to restore efficiency is
by signaling. Signaling means providing reliable guide to quality or provide warranty. Candidates’ initiative in acquiring good grades / taking special training is the signaling. In selling, the informed party initiates the move. Signaling refers to an action initiated by the better-informed party to communicate its characteristics in a credible way to the less-informed party. Signaling is credible only if it induces self-selection among the better-informed parties (e.g. buy back offers by sellers). The cost of the signal must be sufficiently lower for parties with superior characteristics than for parties with inferior characteristics. In signaling models, the party which possesses the private information, offers the terms of exchange which the other party can either accept or reject.

**Screening:** Screening is an initiative of the party with less information, while signaling is the initiative of the party with better information. Potential employer initiates the move i.e. to select candidates devises an entrance test and earned grades. Screening is the initiative of a less-informed party to indirectly elicit the other party’s characteristics. This indirect method works only if the less informed party can identify and control some variables that the better-informed parties are differently sensitive to. The less informed party must develop alternatives around that variable to induce self-selection. He needs as many differentiating variables (policies) as there are characteristics (careless, risk aversion) that it can not observe.

**2.6. Information:** There are many information problems i.e. instance of prices and qualities of the various objects that are for sale in the market, the quality and efforts of workers they hire, the return of investment projects (Stiglitz 2001, p.483). Information leakage problem affects dealing. In order to overcome information leakage problem, the seller of information (signaling procedure) may prefer to sell noisier versions of information and to sell different signals to different traders (Admati and Paul, 1986). The bargaining ability of the auctioneer is limited by the asymmetries of information because he does not know any bidder’s valuation of the items. Thus auctioneers’ ability to extract surplus is more limited (McAfee and McMillan, 1987, p.704). More on information problems are given below.

**Imperfect Information:** Arrow (1974) expressed that imperfect information can lead to incomplete contracts, which cause inefficiencies. The monetary policy maker’s objectives shift through time causing asymmetries in information. Imprecise control procedures cause imperfect information (Cukierman and Allan, 1986). The absence of certain knowledge is also called imperfect information. When one party has better information than other i.e. the distribution of
information is asymmetric, then other party may have imperfect information and hence bear risk. Risk (uncertainty about benefits or costs) arises whenever there is imperfect information about something that affects benefits or costs. A market could be perfectly competitive even when buyers and sellers have imperfect information, as long as they all have the same imperfect information. Parties with imperfect information bear risk.

**Private information:** In bidding, it is important to a bidder that his information to be private than that to be precise. Having private information raises a bidder’s profit. A bidder who has information because he has already drilled near wells, gains from superior information. The gains from superior information is less if a rival also has superior information (McAfee and McMillan, 1987, p.731).

**Information Cost:** Vickery (1961) observed that because gathering information is costly, it is optimal to be less than fully informed. Williamson (1979) identified transaction costs as a source of incomplete information. In full information case (separating equilibrium-SE), lemon seller can not offer warranty, peach seller can offer a warranty to ensure that this is a good product but social welfare is lower because of the additional cost to the sellers of servicing their warranties. In a pooling equilibrium (PE) the price received by the peach seller does not cover his valuation for the car and the warranty cost. A lemon owner benefits while a peach owner is harmed in a pooling equilibrium (PE) relative to a separating equilibrium (SE) (Dhami 2003, p.3). Negative correlation exists between signaling costs and productive capability. Grade in schools is positively correlated with productive work capability (Spence 1973, p.21).

**2.7. Consequences:** Symmetric information sharing is not a commonly observed feature in the real world. So, one enjoys an informational advantage over others. Adverse Selection, Moral Hazard, Enforcement Problems and Incentive Problems are major factors for consequences.

**Adverse Selection:** In Adverse Selection, the effort is unobservable (employer can not observe). Adverse selection occurs when the potential insurer is unable to determine the exact status of the insurer’s health or the interviewer is unable to determine the candidate’s ability (here health / ability is the hidden information). In adverse selection, the party with relatively poor information draws a selection with relatively less attractive characteristics. The used car market and the loan market are the two live examples of adverse selection. In the used car market, quality of car is unknown before the customer buys it, price reflects average quality in pool, sellers of bad cars win, sellers of good cars lose, some sellers of
good cars might withdraw theirs and adverse selection of cars remains in pool. Severe adverse selection can cause a market to fail, and price changes do not help to restore equilibrium. In the loan market, expected income and honesty of borrower is unknown before loan is disbursed. Interest rate reflects average quality in pool, high-income borrowers get good deal, low-income borrowers get bad deal. Some high-income borrowers do not borrow, adverse selection of borrowers remains, and this leads to failure in loan market. Bank must check up on borrowers. Bank must be careful in selecting borrowers about whom there is a lot of asymmetric information.

**Moral Hazard:** Stiglitz (1976) introduced the concept of screening to address asymmetric information problems leading to both adverse selection and moral hazard in insurance market. The screening offer a variety of contracts that encourage agents in revealing accurate information about their riskiness through a process of self-selection. The lower risk agents will tend to select contracts that charge lower premiums (p.21). Moral hazard problem arises due to the fact that the auctioneer cannot control what the winning bidder does afterward (McAfee and McMillan, 1987, p.717). There are many examples. In oil extraction, if the royalty rate is high, then less oil will be extracted. The sales of a book vary with the amount of publicity the publisher chooses. The production costs incurred by a contractor in part depend on how much effort he makes to hold costs down. The car insurance market and the stock market are two most important examples of moral hazard. In the car insurance market, insurance company can not control how careful the driver is. After the contract is signed, the insured driver becomes more reckless than the uninsured, premium must go up and thus drivers may end up not insuring themselves. Government should impose strict regulation for solution. In the stock market, stockholders can not control whether manager prudently spends money or wastes funds, managers who have a lot of funds waste them, investors become reluctant to provide funds, firm ends up not getting needed funds and useful activities are not undertaken.

3. Observation of Application of Knowledge in Bangladesh

Top issues, which relate to Asymmetric Information, are outlined. Borrowers, after getting loan, do not invest in project as stipulated in the project proposal and as documented with bank (in many cases). Bankers, who sanction credit to a project, their inability to observe the credit-worthiness of the borrower might cause the lending market to cease (worsen). The credit market is hindered by the inability of the banker to obtain borrowers’ current status including financial,
management setup and owners’ detail information including their financial involvement. Bankers cannot control what the borrower set their line of business to do after getting the loan causing moral hazard problems. Inability to control the activities of the borrowers is also referred to as enforcement problem for the bankers. In civil construction, supply and services to government agencies, the weaknesses in bidding procedures are serious issues that remained unresolved since long. Management of natural resources, contracting procedures, and inability to develop natural resource based industry are serious problems. Moral degradation of officials, adoption of unfair means in transactions are both moral hazard and enforcement problems. Inability of the administrator to direct and regulate their officials caused principal-agent problems. Ill Motive of the public representatives in acquiring resources, direct and indirect facilities and money involve principal-agent problems. Problems of knowledge management in government agencies, corporations, research institutes, universities, and application suffer seriously causing information problems.

4. Conclusion

Asymmetric Information refers to a situation when two or more parties to a transaction, at least one of the parties has access to information that the other parties do not possess. Adverse Selection exists before the two enter into a relationship and Moral Hazard occurs after the parties enter into a relationship. Asymmetric Information raises many problems, which plague most economic transactions. The problems of AI can be resolved directly through appraisal method for observable phenomena or indirectly through screening, signaling or contingent payment methods for unobservable phenomena. The world is yet uncertain about the problems raised in the study of AI. We must relate the major concepts and components in respect of our major problems such as poverty reduction, social discrimination, employment generation, industrialization, capital and money market, and application of derived knowledge. Asymmetric Information is a rapidly expanding field. To me, understanding and application of concepts have far reaching impact. Concepts cross-cut many social science fields, and have theoretical and practical value for economists, administrators and businesses. We must try to resolve the major economic, social, and business problems considering the concepts and knowledge of Asymmetric Information. This review is very selective and brief. Interested readers may find it profitable to consult the references.
References


Walras, L. 1874, Elements d’Economie Politique Pure, Lausanne: F. Rouge.


Endnotes
[1]. Among them are Adam Smith (1776), Simonde de Sismondi (1814), John Stuart Mill (1848), Alfred Marshall (1890), Leon Walras (1874), Arrow and Debreu (1954), Friedrich Hayek (1945), Herbert Simon (1955), Berle and Means (1933) are prominent (Rosser 2003).

[2]. William Vickrey (1961) and James Mirrlees (1971) were given a Nobel Prize for work on asymmetric information in 1997. George A. Akerlof, A. Michael Spence, and Joseph E. Stiglitz were awarded again a Nobel Prize for work on the economic implications of asymmetric information in 2001.
Political Economy of Investment Climate in Bangladesh:
When Structure Impedes Progress

Abul Barkat*

Investment Climate within Overall Political Economy of Bangladesh

Development without investment is improbable. And in Bangladesh, accelerating the process of development without sustained large scale investment in both productive and human development fronts is more so true. For getting the desired investment, however, an investment friendly climate has to be ensured.

The investment related development in the broader sphere of the economy indicates a mix of encouraging and discouraging trends. The good news in the economic development associated with investment includes the following:

1. An increasing integration with the global economy: in 1990’s trade has been doubled and reached 31% of the GDP by 2001.
2. Deregulation of foreign investment, to a large extent (this blanket liberalization issue is debatable).
3. Boost in the accelerated repatriation of profit and income.
5. Shifting from fixed to floating exchange rate (limited to current account transactions and not to capital accounts).

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All these gains could not be realized to the desired level due to the prevalence of the **discouraging** factors which include, among others, the following:

1. Deteriorating law and order situation.
2. Weak state capacity to govern and deliver services primarily attributed to the lack of transparency and accountability of public institutions.
4. Slow growth of domestic investment in productive sectors.
5. Lack of interest of the investors (many foreign investors have already withdrawn).
6. Slow pace of reforms in the institutional and regulatory framework.
7. Lost momentum of liberalization, especially in infrastructure (An example: The cost of shipping a container of garments from Chittagong to US markets is about twice as high as shipping from Bombay or Shanghai – and this is due to inefficiency and corruption in the port).
8. Less emphasis on prioritization and sequencing of liberalization
9. High share of non-performing loans (out of total US$ 47 billion loans disbursed during the last 20 years 73.2% are ‘bad debt’: Bank Reform Committee Report, 10 July 2003).
10. Meagre foreign direct investment: about $620 million annually during 1992-2000, which is one of the lowest in emerging Asia (3-7 times less than in Cambodia and Vietnam).

**Structural weakness** deters investment-mediated development process in Bangladesh. A governance structure conducive-to-development acts as a powerful catalyst in promoting investment. The present day investment situation is a matter of structure, which was formed in a historical process, and an understanding of the content of that process is important to set the stage for a better future within globalized politico-economic system. From this standpoint, the following dimensions are in order:

- The initial 15 years (1975-1990) of development and investment in Bangladesh can be denoted as development within mis-governance by authoritarian regimes including pure military rule and legitimised civil system of military rule. The outcomes of which were at least two-fold.
1. Increased vulnerability to attract both the domestic and foreign private capital inflows in the form of foreign direct investment (FDI), portfolio investment, foreign currency loans, and suppliers credit and loans.

2. Slowing down the process of democratic transition, a *sine qua non* to pave the way for investment-friendly environment.

- After twenty years of independence, in 1990, the development journey started with a deep-rooted corrupt system. The last 14 years (1990-2004) can be denoted as the time of “Parliamentary democracy” operating within an inherited corrupt system. The unfortunate indications, include among others, the following:

  1. Narrow party-based politicization which acts as both cause and effect of bad investment climate.

  2. Expanded clientism indicated through lack of cohesion, mistrust, partisan bureaucracy, escalation of inefficiency, misuse of public office etc. Bureaucracy, in today’s Bangladesh, can best be portrayed as conglomerate of persons driven solely by personal interests.

The structure and extent of inefficiency in human resource management in the government has reached a level to act as a breeding ground for further inefficiency and wastage in the system. This could be seen as a factor retarding the process of *engaged governance*, which is absolutely necessary to ensure smooth flow of investment and job creation. The status of the relevant human resource management issues can best be termed as follows:

1. The whole process of recruitment, training and placement (transfer, posting) is politicised, i.e. merit is subordinated to political considerations.

2. There is no compatibility between the training and posting of investment personnel, i.e. wastage of trained human power.

3. The relevant officials responsible for managing investment opportunities can be characterized by people having inadequate policy and negotiation skill to efficiently participate in the multilateral and bilateral agreements, regional treaties etc.

In addition to the above, in terms of sustained human development, many daunting challenges remain. First, despite some gains, massive poverty persists, particularly in the rural areas and urban slums; and the basis for dis-empowerment
and inequality has broadened and increased. Second, confrontational politics weakens the political will and social stamina needed to challenge the self-serving elite, bureaucracy, military, labor unions and corrupt business forces that block the potentials of progress critical for accelerating and broadening development. Third, poor governance, weak institutions and public resources, and weak sector performance inhibit development and reduce the access of the excluded to public services and benefits. Fourth, foreign aid has been less effective than it could be, reducing its impact on growth and poverty reduction*.

Finally, on balance, in terms of both economic and human development perspectives, the following conclusions can be drawn to set the stage for an in-depth understanding about the political economy of investment climate in Bangladesh:

1. In 1990’s the real GDP growth averaged 4.8% (with declined volatility) credited to increased private investment and further integration with global economy reflected in the increased export, especially in the RMG sector.

2. The GDP growth has fallen short of growth potential. Started with similar incomes (in per capita PPP$), two decades ago, compared to a Bangladeshi citizen a typical Indian citizen receives 50% more incomes and a Chinese 3 times more. And, projections show that reaching MDG goals in Bangladesh will require at least a 7% GDP growth with distributive justice.

And ensuring this distributive justice has become a nightmare because of the overall economic criminalization of the Bangladesh society, which has boosted the effective demand for criminalization of politics*. This politico-economic criminalization acts as a major “blockade factor” constraining all necessary investments and endeavors to facilitate human development. The last 33 years developmental balance sheet (presented below in Table 1) shows vividly that we

* For details see Abul Barkat (2001). “How Much Foreign Aid Does Bangladesh Really Need: Political Economy of Last Three Decades”, Keynote paper presented at the National Seminar titled “How Much Foreign Aid Does Bangladesh Really Need?” organized by Bangladesh Economic Association, Dhaka, February 10, 2001. This article argued that 75% of all foreign aid (loans and grants officially channelled to the government) amounting a total of about US $ 37 billion has been misappropriated through corrupt practices and/or simply pocketed.

are now caught into a culture (trap) of plundering wherein the overall environment favors everything which is against human development, which is fully in congruence with the interest of criminalization. The status of all indicators conducive to economic and human development is getting worse, and indicators associated with criminalization trap are getting stronger, and thereby, limiting the scope for broadening human choices to exercise their own free will.

Based on the above analysis, it would be appropriate to conclude that the obvious way out shall include, among others, the improvements in investment climate accompanying with mitigation of the structural weaknesses through various political, economic, social, administrative, and legal reforms. All these reforms, in order to be true investment-friendly, shall be strong enough to address the complex trends in the economic and political criminalization indicated in Table 1.

Is Overall Investment Climate Bleak?

Under the overall economic and political criminalized structure, the overall investment climate is bleak. The domestic capital – due to the very nature of the capital (highly interested in being part of the trading and commission agency) – is reluctant to transform into productive capital. Investment usually flows if investment-friendly environment exists. Such investment-friendly environment presupposes sustained availability of the following: cheap labour; raw materials; infrastructural facilities (electricity, gas, transport, communication, IT); free from labour unrest and ‘trade unionism’; speedy movement of papers; speedy resolution of disputes (if any); developed banking; tax, excise, VAT incentives; corruption-free environment (or low extent of corruption or dynamic corruption*); congenial law and order situation; good governance and transparency; political stability; guarantee to secure uninterrupted and adequate profit; scopes for repatriation of profit. Viewing from these investment-facilitating factors, it would not be an exaggeration to conclude that the overall investment climate in Bangladesh is non-conducive to the potential investors and entrepreneurs. It is non-conducive due to many factors. The most critical ones include the lack of rule of law (crime, corruption, law enforcement); bureaucratic harassment (tax administration and other regulations); macro-economic instability; political

* The corruption in Bangladesh can be termed as non-dynamic, meaning the type of corruption in which the speed money or the grease payment is not enough to get things done. In dynamic corruption, once grease is paid the work will surely be accomplished quickly without further hassle. Transforming non-dynamic into dynamic corruption, according to some, can be a possible way out to attract investment.
<table>
<thead>
<tr>
<th>Indicators showing upward trend</th>
<th>Indicators showing downward trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Black economy/black money and associated plundering, crime, terrorism, illegal arms, muscle power, corruption, bribe, money laundering, bad governance, repression, oppression, torture, persecution, killing, physical assault</td>
<td>Strengthening economic foundation; development of national capital; industrialization; economic capability to run normal family economy; employment generation; efficacy of institutions dealing with black economy</td>
</tr>
<tr>
<td>2. Billionaire and beggars/paupers; forcibly grabbing of land and waterbodies; new cars and flats, and new techniques of begging; number of people die to collect Zakat clothes (during Eid); number of people sick and death due to cold and heat waves</td>
<td>Economic opportunities; employment generation; poor peoples' ownership and access to resources</td>
</tr>
<tr>
<td>3. Multistoried buildings; brick fields; child and women laborers for brick chipping</td>
<td>Housing facilities for the poor; environmental balance — natural environment</td>
</tr>
<tr>
<td>4. Super market; car sale centres; garments industries, women laborers; alienation/isolation from families</td>
<td>Industries, workshops, production equipment and machinaries, value addition in industries</td>
</tr>
<tr>
<td>5. Rural-to-urban forced migration; number of people living in slum; informal sector; nuclear families; distress and deprivation of children-women-older people</td>
<td>Poor and marginal farmers control over land; rural employment; real income/wage; extended families</td>
</tr>
<tr>
<td>6. Legal and illegal import and export; unearned income; imbalanced economic growth and development</td>
<td>Efficient use of human potentials and resources; use of capital for industrialization; development of small and cottage industries and entrepreneurship.</td>
</tr>
<tr>
<td>7. Foreign grant-loan projects; NGO activities</td>
<td>Local initiatives; incentives to promote best use of local resources; peoples' participation in social and economic development</td>
</tr>
<tr>
<td>8. Use of organic fertilizer, insecticide, pesticide and HYV seeds and associated business; hoarding and black marketing of agricultural inputs</td>
<td>Natural fertility of land; age-old traditional seed varieties; timber; fish; environmental balance; price of agricultural commodities</td>
</tr>
<tr>
<td>9. Communication; information technology; number of students in computer and business education</td>
<td>General science education; technological basis; students in science and philosophy; intellectual pursuits</td>
</tr>
<tr>
<td>10. Women’s employment and mobility; violence against women and children; women and child trafficking; acid throwing</td>
<td>Real wage/income of female workers; protective security of women and child; efficacy of institutions responsible to ensure protective securities for women and children</td>
</tr>
</tbody>
</table>
instability; lack of strong financial institutions; low quality infrastructure (power, gas, transport, communications). Unless domestic productive investment is attracted, the likelihood that foreign investment will come forward is minimal.

The cost of doing business, due to the factors stated above, is excessively high. This is evident from a recent study in which firms have reported constraints to operation as major or very severe. As depicted in Figure 1, these include all the factors stated above.

| 11. Private sector commercial universities, colleges, coaching centres, English medium schools, kinder garden, madrasha (including English medium); rich-poor disparity in education | Public/private schools, colleges and universities for common people; quality of education in public schools and low-cost private sector; efficacy of education system; public sector real allocation for basic education |
| 12. Use of religion with business motive; religious institutions; number of pir-fakirs; religion-based political parties; violence by the name of religion; expressed uneasiness to people belonging to other religion; fatalism; number of palmists | Equal respect to people of other religion; science institutions; scientific mind-set; enlightened worldview; discussion meetings about science and knowledge; healthy life style; secular feelings-behavior-mind-set |
| 13. Expensive private clinics, diagnostic centres; anxiety and poverty-related diseases; health expenditure; pauperization due to health expenditure | Primary health care; quality of public health service; actual per capita public health expenditure; efficacy of public health system |
| 14. Real expenditure on unproductive sectors: military (defense), administration, protective security related areas; distance between public and public servants; influencing the court | Good governance; justice; feeling of individual security; real public sector expenditure for human welfare and in productive sectors |
| 15. Investment in election; competition of black money holders in elections; distance between people and elected representative/institutions | Efficacy/utility of elected persons and institutions; people’s trust on the elected person and institution; enlightened politics |
| 16. Exogenous decadent culture; wastage of time in viewing and listening to decadent culture; mutual distrust | Practice of national culture; feelings of solidarity; mutual trust and respect; human(e) values - moral, ethical and aesthetic |
| 17. Erosion of political values; criminalization of politics; psychophanism; politics as business investment; autocracy, (latent) demand for welfarist politics. | Politicians love for people; politicians patriotism knowledge-based and humanitarian ideology-based politics, democratic values. |

Source: Abul Barkat, 2003b.
What is Deterring FDI in Bangladesh?

It is noteworthy that Bangladesh offers better facilities and incentives for FDI than many South Asian countries. But the reality is that despite all this, its neighbours continue to be the major recipients—China tops the list, followed by India and Pakistan.

What is deterring FDI in Bangladesh? Lack of political stability, frequent shift of policy, high cost of doing business, corruption and lack of good governance, poor infrastructure, narrow market size—all these give wrong signals to prospective investors.

Bangladesh is a signatory to various international treaties relating to investment. But the picture ends there. The people involved in channelising FDI more often are not aware of the issues, covered by these treaties, and as such the risks of investment remain. For example, Bangladesh is a signatory to Multilateral Insurance Guarantee Agency (MIGA), an offshoot of the World Bank, which seeks to promote investment in developing countries by covering country investment risks. But unless the coverage of MIGA operations in Bangladesh is advertised to the prospective investors, rapid flow of foreign investment will not be ensured.

The institutions responsible for attracting FDI is also at fault. For instance, the “one-stop service” of the Board of Investment (BOI), where a prospective investor is supposed to get all facilities provided by the BOI—land purchase/rent, registration, electricity and gas connection from one desk at the BOI office,

Figure 1: Firms reported constraints to operation as major or very severe (%)

Source: Prepared by author based on information in “Improving the Investment Climate in Bangladesh”, World Bank and Bangladesh Enterprise Institute, 2003: 63
fizzled out. The representatives of the line Ministries are not given authority to grant facilities such as electricity connection, etc. The procedural delay in getting the above-mentioned facilities to the investor naturally discourages him, and in most cases, drives him away.

The Board of Investment brings out a comprehensive investment guide named “Bangladesh Investment Handbook”. It provides a variety of useful information for would-be investors such as investment climate and incentives, a proposed list of sectors for investment, business set-up roadmap—the steps and procedures involved from ‘intention to invest’ to ‘commercial operation’—and what assistance the BOI can give in this regard; costs of doing business in Bangladesh; comparison of costs between Dhaka and neighbouring foreign cities like Bangkok, Hanoi, Jakarta and Karachi in respect of sub-heads like worker, industrial land purchase/rent, electricity rate for business use; etc.

Although the BOI handbook is quite exhaustive and full of propaganda about the investment climate in Bangladesh, it fails to attract FDI to desirable levels due to certain vital shortcomings.

Firstly, it does not contain sufficient sub-sector-specific or product-specific information such as size of the product market; what extent of the market Bangladesh exports constitute; who are the competitors; what is the minimum outlay; what are the sources of raw materials; etc., information which is of prime importance to any would-be investor in a product.

Secondly, although the Handbook gives an indication of the likely costs of doing business in Bangladesh as compared to neighbouring or competing countries, it does not address the situation squarely. Investors explore opportunities in a country from the viewpoint of where they can get the most competitive edge. Things such as the difference in time-lags across countries between registering with the investment authorities and going into commercial operation, and the snags in between, are important factors for their consideration. There is no necessity of expressing that Bangladesh is quite lagging behind others in this respect. This is an offsetting factor for many prospective investors.

Another important reason for poor FDI is lack of ‘the view from the other side’. From the investors’ perspective, despite all the incentives and allurements laid out, a multinational enterprise before investing in a country, will always try to get first hand information from his country mate who have already invested in that country, just like before tasting something new, a person will ask others who have tasted it, how it tastes. The signals a prospective investor gets from existing
investors about their business experience in Bangladesh more often than not discourages prospective investors from investing here. This image and reputation problem retards the positive decision making of investors.

Rigid bureaucracy and official hierarchy prevent decision-making at lower levels, and is a significant factor in adding to the costs of doing business here. Thus the representatives of the concerned Ministries and organizations involved in FDI in the one-stop service could not give on-the spot decisions to a would-be investors’ roadmap, such as sanctioning of land, electric connection, equity, etc. Such issues had to be relayed back to their respective Head Offices and decisions came there. The undue delay caused by this process is a significant deterrent to FDI.

The FDI situation has been erratic and not grown enough. One of the major weaknesses in the management of investments – foreign or local – in Bangladesh has been dominated by love for approval of investment units owned or patronised by vested political quarters. The result of this lopsided favour to politically influential investors has been reflected in the minimal change of country-wise investment portfolio in Bangladesh even over a relatively long timeframe during 1991-2001. This fact is substantiated by the following graph, which clearly shows that the largest country-wise participation in investments in Bangladesh has been made by USA followed by UK, Malaysia and other countries.

However, though the above data have been disseminated by BOI on various occasions, information related to how many of these registered investment units have come into operation and how many have been continuing their operations are not readily available with BOI. Knowledgeable quarters maintain that a very negligible portion of such registered investment units are in operations at any given point of time. Directives and initiatives for promotion of foreign investment have usually taken the shape of sales-oriented as a result of lack of tendency to look critically on the ramifications of the reasons for failures at the end of the overall domestic policy and practice scenario.

**Deep-rooted Corruption System Acts against Productive Investment**

Poor performance in the economy of Bangladesh is almost certainly related to the problem of deep-rooted and all encompassing rampant corruption. Bureaucracy’s infestation with corruption backed by criminalized politics is all-pervasive. This point is one of the most serious concerns made by the prospective foreign investors in Bangladesh. According to the World Bank’s estimates, corruption reduces 2-3% of annual GDP growth rate each year. Transparency International
has listed Bangladesh as the nation with the highest level of corruption for several consecutive years. According to the World Business Environment Survey, Bangladesh stood out as a country in which all the firms surveyed reported that they made off-the-record payments to get things done; nearly half of the Bangladeshi firms reported that they always had to pay to get government services; by comparison, in Indonesia, India, and Thailand, fewer than 25% of firms had to pay for these services (Stern 2002: 19).

Both domestic and foreign investors frequently report their obligations to pay extra fees for obtaining such government services as allotment of post office boxes, provision of electricity and telephone lines, various licences, customs clearance etc. Examples of higher-level corruption are those that take place frequently in the awarding of public and private tenders, as in the case of insider trading in the stock market. In this regard, business people consider Bangladesh Customs to be among the worst, a thoroughly corrupt organization in which officials routinely exert their power to influence the tariff value of imports and to expedite or delay import and export processing at the ports. A mandatory pre-shipment inspection system of import valuation was introduced in 2001 to help reduce discretionary power of customs officials, and lower costs and improve efficiency at Bangladesh’s trade entry points. Annoyed over the introduction of this new system, the customs officials were the first to say that the valuation system was weak.

The US Trade Centre in Dhaka, in its Country Commercial Guide 2003-2004, claimed that an American firm had tried unsuccessfully to gain from Customs
Inspector’s approval for its US$ 225 million container project while the US shareholder of a private television station had to protest the Government’s revoking of its licence. There is delay in payment of dues as well. As for instance, a US exporter was waiting to be paid for wheat shipment it made eight years ago and international oil companies were owed US$150 million in payment. The report also identified poor implementation of the country’s liberal investment policy as the main drawback.

In Bangladesh, the Prevention of Corruption Act 1947 is the basic law against corruption. The Criminal Law Amendment Act 1958 was enacted in the Pakistan period (on September 23 1958) with certain objectives and for more speedy trial of public servants. In fact, the Bureau of Anti-Corruption (BAC), recently replaced by Anti-Corruption Commission (ACC) cannot start a corruption case against a Cabinet Minister without prior permission of the Prime Minister. Because of rampant corruption and associated complexities, the demand for setting up of an independent and neutral Anti-Corruption Commission was always high on the agenda.

The Bangladesh Constitution provides for establishment of an Ombudsperson who will be an independent high level public official to receive complaints against government agencies, officials etc. and to keep watch and control over persons under his/her jurisdiction. Moreover, Ombudsman Act of 1980 had been enacted long ago, but almost every government of this country has so far avoided appointment of an Ombudsman, so that corrupt big fishes of the ruling party are not apprehended. The motive is not difficult to understand when a responsible Minister remarks “The donors wanted Ombudsman; we have passed a law in the parliament, but we do not know what that Ombudsman will do”.

Politics of Petty-reasoned Strike – As Deterrent to Investment

Frequent strikes (hartals) have long been a deeply embedded culture as a crude instrument for negotiations in Bangladesh politics. Strikes are called frequently by various political parties as well as trade unions and the associations of workers and businesspersons in diverse sectors on petty issues, as a way to press hard their demands, impeding business operations widely. The business houses in Bangladesh have partially adjusted to the hartal culture, but the disruptions inflict a severe cost on the economy and on individual businesses.

Though hartals are quite frequent in Bangladesh, there have been no incidents of politically designed damage to foreign business or installations over the past few years. Hartals (strikes) or blockades called by political parties, in general, affect businesses by keeping workers away with the threat of violence and blocking
transport, resulting in productivity losses. Arson to vehicles and other property from vandalism and looting of shops has occurred during such programs. Strikes, besides causing productivity losses, have significantly led to obstacles to domestic investment as well.

**Low Knowledge-base and Negotiating Skills in Government: A Disadvantage**

One of the prerequisites of standing to gain from FDI or multilateral treaties for a country is having adequate skills at the negotiating table. This means having proper knowledge of beneficial areas of FDI is in terms of comparative advantage, what are the international and domestic market conditions for that product, what are the safety measures in the treaties, what is the position of competitors, etc. Unfortunately, however, in most cases lack of proper negotiating skills paves the way for the foreign investors to dictate terms according to their advantage.

The outcome of a relatively low level of knowledge-base and negotiating skills has given rise to terms of trade with participating countries or investors unfavourable for Bangladesh.

Shortage of participation of the business class in various negotiations has often weakened the negotiating personnel. There are also reports that the views and ideas of the business class expressed in a few policy formulation sessions often remain unheeded to and not reflected in various policy papers.

**Long-Term Issues in Negotiation:** While the negotiation skills of the government personnel are relevant factors for creation of an enabling environment for the investors to perform, there are also certain long-term factors that weaken the position of Bangladesh in negotiations on investment. A generally weakened economy, coupled with long-term issues of interest to the stronger economies, leaves little scope to utilise the personal skills of negotiating personnel from Bangladesh.

**State of Regulatory Framework to Promote Investment**

Governmental regulation of trade and investment since the early 1990s has been decreasing. It is mainly the donors’ advice and the wave of growing global trend toward market economy which prompted Bangladesh to opt for liberalised

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* A substantive part under this title is drawn from a recent study by Abul Barkat, M Hoque and ZH Chowdhury (2004), *State Capacity in Promoting Trade and Investment: The Case of Bangladesh*, prepared for UNDESA-UNDP, New York.
policies for promotion of trade and investment. Despite political commitment to the policy of liberalisation, various legislations failed to trigger significant investment because of non-implementation of a number of regulatory changes. The stumbling blocks toward implementation of many of the pro-investment policy changes have been the following:

1. Apparent commitment of the bureaucracy and the political parties to reforms for deregulation of businesses has been ineffective in the face of opposition from many groups in the economy, including influential members of the business community having broad access to trade and investment through ownership or otherwise. Proliferation of enterprises has thus been stifled.

2. Members of various chambers of commerce or industry are also the manufacturers in protected industries and well-connected commission agents pursuing government contracts. They, therefore, call for a greater voice for the private sector in government decisions and for privatization, but at the same time many support protectionism and subsidies for their own industries.

3. The vicious culture of un-regulated political party nominations in national elections and other elections coupled with faulty election rules and faulty application of even certain correct election rules have opened the way for the richer business class people having vested business interests to find a way to power or affiliation with the ruling party. Finally, these classes of people influence policy formulation for regulation of businesses from the viewpoint of their own interests, often hindering open competition in domestic or foreign investment.

Rules pertaining to investment in Bangladesh are usually not well-publicised or transparent. This lack of transparency is practiced by bureaucrats, businesses, professionals, trade unions and political parties having vested interests in a system by way of using confidentiality as an essential norm in policy formulation. Business persons have to seek support for action from the bureaucrats, but bureaucrats’ support is impossible without the recommendations or intervention of the higher political levels. The poorly paid civil servants have regarded business people as exploitative, and regard themselves as having a near monopoly on economic acumen and patriotism. Despite fear from risks to their careers from illegal activities, the incidents of solicitation of bribes from foreign investors are rampant.
Public administration reforms in Bangladesh has not yet been able to bring about minimum levels of honesty and transparency in the bureaucracy, which is central to policy formulation and practices toward improved investment climate.

Generally speaking, the country’s laws and regulations and their implementation are impediments to investment. Unfriendly treatment of businesses by some of the government officials and other negative elements in the investment scenario always add to the start-up and operational costs, risks, and broadly reduces the effectiveness of government’s otherwise praiseworthy investment incentives.

Various activities pertaining to investment are regulated by the Government through mainly three ministries, that is, Ministry of Industries, Ministry of Commerce, and Ministry of Finance. On another level, there are a number of departments and directorates that operate as autonomous bodies performing specialised tasks toward both promoting and regulating investment under the guidance of their respective ministries. The Parliament, with its related sub-committees and the lawmakers at large, stand out as the supreme law-making body for any legislation related to investment or any other issue. The following flow diagram shows the required process for establishment of an enterprise in Bangladesh by any expatriate and/or for establishment of a very large enterprise by any Bangladeshi national. This diagram indicates the regulatory institutions assisting the government for promotion and regulation of investment in Bangladesh.

As in the case of CBAs and Trade Unions, representations to various chambers of commerce and industry as well as product or service-specific associations of entrepreneurs are dominated by influence from the political parties (as a result of a high level political orientation of the citizens of this country). It has been observed that manipulations by the ruling political parties have often led to top level management of such institutions by members having access to or being members of these ruling parties. As a result, professional leadership in business and investment sector by these institutions have run short of optimum success. On the other hand, whatever achievements they have made in negotiations with the Government on rules and practices in business and investment, these achievements have not been poised at mass welfare, and have rather facilitated maximisation of profit of a limited few entrepreneurs.
Arrival in Bangladesh

Complete Immigration, and Customs Formality

Meet BOI for necessary counselling, and apply for registration

Obtain environmental clearance, infrastructure and utility facilities on priority basis with the assistance of utility Service Cell of BOI

Service Centre issues Registration Letter within 7 days on receipt of fully documented application

Register with the Chief Inspector of Factories and Establishment which regulates working conditions and ensures measures for safety in the factories

Register company With the Register of Joint Stock Companies & Firms

SET UP PLANT

Secure Trade Licence from Local Government Authority

Apply in prescribed forms to the Registration and Incentives Wing of BOI for foreign borrowing, technology transfer fees and expatriates’ work permits

Import machinery & equipment by opening Letter of Credit or as Equity Investment

Release consignment at the customs point at a concessional rate of import duty

Source: Abul Barkat, M Hoque and ZH Chowdhury (2004).
Issue of Property Right Protection: A Serious Concern to Investors

The mechanism of protection of property rights is not transparent and is a point of serious concern to the investors and prospective investors in Bangladesh. There are two particular reasons for the lack of transparency of this mechanism, such as:

1. The ingrained culture of delay in disposal of legal cases, especially the ones under the jurisdiction of CPC (Civil Procedure Code).
2. Insufficiency of enactments necessary for addressing property rights issues.

Bangladesh, being a signatory to the Uruguay Round agreements and being a member of the World Intellectual Property Organization (WIPO) in Geneva since 1995, also acceded to the Paris Convention on Intellectual Property in 1991. Following these affiliations, Bangladesh is obliged to bring its laws and enforcement efforts into TRIPS (Trade Related Intellectual Property Rights) compliance by January 1, 2006. Copyright conformity with the World Trade Organisation’s TRIPS has been established by way of legislation in November, 2000. But absence of laws to enforce the new copyright legislation turned the bill to be ineffective at this moment. Land for purchase or lease has to be commonly transacted in by any investor; but the obsolete laws relating to land are complex and frequently give rise to chaos. Papers relating to land registration records are almost commonly spurious. Parties to transactions in land frequently avoid registering mortgages, liens, and encumbrances because related stamp duties and charges have been set at high levels. Instruments take effect from the date of execution, and not the date of registration. As such, a bona fide purchaser can never be certain of title. In brief, whatever provisions have been in writing, there is little enforcement of Intellectual Property Rights and other property rights laws in Bangladesh.

Legislation to update the Patents and Designs Act and the Trademarks Act is still pending final vetting by the Ministry of Law, Justice and Parliamentary Affairs. The Country Commercial Guide 2003-2004 published by the US Trade Centre in Dhaka indicated that Bangladesh’s dispute settlement mechanism was a fundamental impediment to foreign investment. The Guide added that dispute settlement was also hampered by shortcomings in accounting principles and registration of real property.

“Special 301” Watch List of the U.S. Trade Representative, that identifies countries denying sufficient protection of intellectual property rights or fair and equitable market access for persons that rely on intellectual property protection,
has never included Bangladesh. However, in 2003, a U.S. trade association proposed, though to no effect, adding Bangladesh to the Watch List. In Bangladesh, intellectual property infringement is common—especially in computer software, motion pictures, pharmaceutical products, CDs/DVDs, and audio and videocassettes. As a result of the rampant copying of CDs/DVDs audio and videocassettes, there have been two particular impacts on the local economy:

1. The violation of copyright laws, depriving the foreign producers of these audio-video materials of their entitlements in return of such copying
2. Poising of unhealthy competition to the local film and music industry when the very latest foreign films are available in the market within 24 hours of their release abroad.

Lack of Independent Judiciary: A Disincentive for Investment

The country’s legal system comprises Administration of Civil Justice and Administration of Criminal Justice regulated procedurally by two distinct sets of laws, that is, Civil Procedure Code (CPC) 1908 and Criminal Procedure Code (CrPC) 1898. Beside certain special laws enacted from time to time in specific urgent situations, the Penal Code 1860 deals with the offences in terms of definitions, extent of punishment and exceptions etc.

The Supreme Court of Bangladesh comprises the High Court Division and the Appellate Division headed by the Chief Justice of Bangladesh. The High Court Division, beside its appellate and revisional jurisdiction in civil and criminal matters, has extraordinary jurisdiction known as writ jurisdiction toward enforcement of fundamental rights. The subordinate judiciary consists of the courts of District Judges, Additional Judges, Joint District Judges, Assistant Judges and the Magistrates. Although according to the constitution the judiciary is supposed to be independent, it is both highly dependent and highly politicised. And when politics is criminalized the outcome of dependent judiciary will be incongruent with such dependency.

At present, the judges of the subordinate courts are under the administrative control of the Ministry of Law, Justice and Parliamentary Affairs which exercises this control in consultation with the Supreme Court. However, the magistrates are under the administrative control of the Ministry of Establishment. The magistrates perform both executive and judicial functions. The dual administrative control over the judges and the magistrates has adverse reflection on the independence of the judiciary, affecting fair trial.
As a current practice, the judicial officers of the subordinate judiciary are appointed by the Public Service Commission, an executive unit of the state. The advice given to the Government in its conclusion of the case on Secretary, Ministry of Finance vs. Masdar Hossain (1999), the Government also mentioned that the Government should appoint, in its process of separation of the judiciary, judicial officers of the subordinate judiciary by a Judicial Service Commission, instead of the Public Service Commission.

The crucial element that plagues the judiciary of Bangladesh quite often are the increasing incidents of politicisation and superseding of one incumbent with another by the ruling political parties in appointments to positions of justices to the Supreme Court. One such incident in July 2003 pushed the Supreme Court Bar Association at bay with the Government; and it also resulted in boycotting of the Supreme Court by them. The similar incident happened another time when High Court judges were posted based on political considerations.

Presence of an Independent Judiciary is one of the most powerful instruments for ensuring inclusive governance and appropriate investment climate. This is important in view of the following: court’s impartiality is questioned by all; the lower court is 100% controlled by ruling party—the lower court is being alleged as extension of the ruling party; the courts are now clogged with 3.2 million pending cases; resolution of each case requires 9 years time, on average (Barkat and Roy 2004); the dispute settlement mechanism is a fundamental impediment to foreign capital inflow; there exists no efficient mechanism to protect property rights; partisanship is the main criteria followed in appointing public prosecutors. The government is apparently interested in making judiciary independent, but it took 18 times time extensions during the last 3 years.

Some Suggestions to Promote Investment Climate

Throughout this article, it has been argued that investment per se may not be important, rather mass investment—both public and private, both domestic and foreign—can be tuned to serve the purposes of both economic growth and ensuring benefits of growth to the poor. This can be achieved through concerted efforts to improve the investment climate, which in turn can be ensured only through better governance—an inclusive governance. Before concluding with more detailed specific issues, three key points on future possibilities are in order:

1. It is possible to change investment climate by changing the institutions and policies in ways that will spur investment.
2. It is possible to ensure both pro-investment climate and address the issue of social inclusion through governance reforms. The strengthening of government institutions and rule of law will do a lot to improve the climate for productivity, jobs, economic growth and human development.

3. It is possible to make growth more inclusive by implementing a development agenda in which development will be viewed as a freedom-mediated process to ensure five substantive freedom for all: political freedom, economic opportunities, social facilities, transparency guarantee, and protective security. This is basically an issue of creating opportunities for choice towards full life.

In an era of globalization and interdependence of economies, the following specific issues need proactive thinking to promote higher investment for economic development of Bangladesh:

1. Regarding Political Will, Commitment and Stability:
   Institutionalizing democratic norms and values;
   • Ensuring Rule of Law
   • Improving law and order situation;
   • Mapping of local resources.

2. Regarding Good Governance to Minimize the Costs of Doing Business in Bangladesh:
   a. Streamlining bureaucracy (training, posting, transfer, and promotions);
   b. Curbing Corruption;
      i. Make AAC not only independent but also truly transparent and effective;
      ii. Strengthen and reform NBR and other relevant agencies for increased financial transparency;
   c. Strengthening BOI to promote sectoral priority, and areas of comparative advantage by sector including export-oriented FDIs;
   d. Promotion of economic diplomacy;
   e. Introducing e-governance for increased transparency;
   f. Engaged governance: Increased efforts to improve relationships between public officials at the grass root level and local business people.
It is repeatedly noted that it is not policy failure but structural weaknesses of the state and its bureaucracy that is responsible for failure to attract FDIs in Bangladesh. This structural weaknesses work as an extra tax, and thus dissuades investors from coming to Bangladesh.

3. Regarding Conducive Infrastructure:
   a. Improving service delivery of utilities, including electricity and gas;
   b. Increasing efficacy of ports;
   c. Development of information technology backbone.

Bangladesh could never attract FDIs without adequate infrastructural support. It is however important to note that although expansion of public sector amenities is vital, it is even more important to ensure quality and prompt service delivery of what we already have.

4. Regarding Development of Capital Market:
   a. Proper use of remittance (the prime source of foreign currency earning)
   b. Transparency of the stock exchange activities.

5. Regarding Image Building of Bangladesh:

Chinese and Indian experience suggests that in general expatriate investors pioneer FDIs in a country. But Bangladesh is seriously suffering from an image crisis. Even the local investors are highly reluctant to invest in Bangladesh. Hence, the government has to take concerted efforts, along with aforementioned activities, to uplift the popular image of Bangladesh.

It is most likely that all these steps would improve Bangladesh’s performance in inclusive economic development through accelerated mass investment in both the public and private sectors through both domestic and international sources.
References


Barkat Abul (2001). “How much Foreign Aid Does Bangladesh Really Need:


Barkat Abul, M Hoque and ZH Chowdhury (2004). State Capacity in Promoting Trade and Investment, UNDESA-UNDP.


Investment Facilities in Bangladesh: as available from Bangladesh Bank’s website.


Sen Kunal: *Globalisation and Employment in Bangladesh and Kenya- Discussion Paper 7* produced under the *Globalisation, Production and Poverty Project* of DFID; by Overseas Development Group at the University of East Anglia, and the Institute of Development Studies at the University of Sussex, UK.


How flexible are the financial services to the export sector in Bangladesh

Atiur Rahman*
Mohammed Hossain**
Mohammed Abu Eusuf***

Abstract

The paper makes an attempt to critically analyze the different financial problems encountered by exporters in Bangladesh, particularly in the context of post-MFA phase-out of Apparel export, which accounts for three-quarters of Bangladesh’s total exports of Bangladesh. The paper also highlights practical solutions to those problems to improve the quality of services provided by banks and other financial institutions. The paper further analyzes the operational problems of banks and other financial institutions that have a direct negative impact on the export sector, in particular on SMEs. Possible solutions to those constraints are also recommended. Primary data have been collected from a survey of 37 exporters, 12 banks and 5 non-bank financial institutions (NBFIs). The data have also been collected from a number of secondary sources. Officials of various regulatory authorities have been interviewed to identify the initiatives undertaken by them to address the financial problems of exporters.

1. Background

During the 1980s and 1990s, policy focus in Bangladesh shifted to trade as the engine of growth and the key to development. This was in the backdrop of significant increase in the national income of many developing countries through export led growth. The Government of Bangladesh also initiated several policy
measures at the macroeconomic as well as the microeconomic level to boost foreign currency earnings through a diversified portfolio of exports. These policy initiatives however, required massive changes in the mindset of individuals and institutions for effecting a transition from a control mode to a liberalized mode. The completion of the Uruguay Round and the establishment of the WTO facilitated the transition. It also brought to the fore core issues affecting performance. Bangladesh was faced as much with the problem of market access as with the need for diversification of its export basket. The response essentially rested on trade facilitation. Banking and financial services for the export sector was central to this facilitation – for addressing issues of efficiency as well as expansion and diversification of export. Hence, the priority focuses on the efficiency and effectiveness of banking and financial services for exporters.

This has become all the more imperative in the changed context of the Multi-Fiber Agreement (MFA) phase out at the end of 2004. In the post-MFA phase, the most important export sub-sector (RMG) contributing three-quarters of the total export earnings will probably be badly affected. The Government of Bangladesh played an instrumental role in facilitating the phenomenal growth of RMG sector by providing various incentives. It now will have to play similar positive role in facing the post-MFA challenge. It particularly has to focus sharply on both infrastructure development to reduce lead time and as well as reduction of cost of doing business so that exporting firms remains competitive vis-à-vis well organized Chinese or Indian exporters.

However, It has been observed in a study (International Business & Technical Consultants, Inc, Bangladesh Export Diversification Project - BDXDPD, 2003) that inadequate access to bank finance by exporters, high cost of financing and lengthy procedures are the major constraints to the expansion of the export sector. At least 90% of the exporters faced the problem according to this study. In addition, the study indicated that sectors like shrimp, agriculture and light engineering considered inadequate financing as a major constraint to their expansion. A number of initiatives were under taken in the meantime to enhance the efficiency of the banking system to cater to the demands of exporters. There has been, however, no in-depth analysis of the impact of these initiatives on the export sector in general or on service delivery on the part of banks and financial institutions. In this backdrop the paper makes an attempt to examine the operational problems of banks and other financial institutions that have a direct negative impact on the export sector.
2. **Objectives of the paper**

The objectives of the paper are

- to analyze the current financial environment under which the exporters operate and to identify critical financial factors impeding the desired growth of the export sector.
- to evaluate the current practices followed by different financial institutions (Fls) in financing the exporters and to identify critical procedural and legal obstacles that restrict and/or discourage the Fls from providing all the necessary financial support and services to the exporters.
- to identify other sources of finance for the export sector and assess the current practices and importance of the informal sector in providing financial support to the export sector.
- to make specific recommendations of feasible measures to remove the constraints and to identify critical success factors for the development of an effective banking and financial system for the export sector.

3. **Methodology**

Primary data have been collected from a survey of 37 exporters, 12 banks and 5 non-bank financial institutions (NBFIs) through both open-ended questionnaires and informal interviews. The data have also been collected from a number of secondary sources. Officials of various regulatory authorities have been interviewed to identify the initiatives undertaken by them to address the financial problems of exporters. A detailed survey was also conducted for identifying other sources of finance and financial services available to the exporters. Interviews have been conducted with the management of Dhaka and Chittagong Stock Exchanges for evaluating their responsiveness to the financial needs of the exporters and their liquidity position. Various government bodies have also been interviewed for identifying the critical issues surrounding informal money markets, such as overseas facilities, counter trade, Non-Resident Bangladeshis (NRBs), private funding from established Bangladeshi and foreign companies, ‘sleeping’ equity partners, etc. Policies of Government on Foreign Direct Investments (FDIs) and their cost and effectiveness have also been analyzed.
4. Banking and Financial Services: an overview

4.1 Financial support and services required by exporters

The most important aspect of export is the financial involvement of the exporters and the role of institutional finance. Ordinarily, exporters require a wide range of banking/credit facilities at the pre-shipment and post-shipment stages. Besides, they operate in the highly competitive area of international commerce, and as such, these facilities need to be made available at competitive rates. Exporters require finance for the procurement and/or manufacture of goods for export. Where goods are shipped on credit terms, they look towards the banks/financial institutions for finance against export bills/deferred terms of payment. Finance apart, the exporters need banking services to collect export bills, convert export bills into local currency and eliminate exchange risk. The exporters also need other ancillary services to meet the terms of many commercial contracts and collect information about financial standing and business integrity of foreign buyers, foreign markets etc. Availability of these services to the exporters at the right time, in adequate volume and on reasonable terms, therefore, is essential for developing and expanding exports.

4.2 Current financial environment under which the exporters operate

The exporters in Bangladesh meet their financial requirement mainly from institutional sources. The commercial banks are the single important source of their institutional finance. In their export financing operations, the commercial banks (CBs) are assisted by the Bangladesh Bank (the central bank), the Sadharan Bima Corporation (SBC) and other non-bank financial institutions (NBFIs). The Bangladesh Bank (BB) provides refinance at concessional rate of interest and operates various export promotional schemes of the government. The Sadharan Bima Corporation, through its Export Credit Guarantee Department (ECGD) issues insurance policies to cover risks involved in export and provides guarantee facilities to enable the commercial banks to allow finance flexibly to the exporting community. The non-bank financial institutions (NBFIs) extend term loans and do not provide any working capital facility. The NBFIs are of course, not substitutes for banks and are not in a position to provide banking and other ancillary services needed by the exporters. Efficient and effective banking and financial services therefore, play a vital role in promoting foreign trade, particularly in giving a push to exports.

Of these commercial banks that are Authorized Dealers (ADs) in foreign exchange are the actual bankers to the exporting community in Bangladesh. The total number of authorized dealers catering to the exporters’ need is as under:
Table 1 shows that the sources of bank finance and services for the exporters are centralized in Dhaka and Chittagong.

Bangladesh Bank is the central bank of the country. It is the Regulatory Body of all banks and financial institutions. It controls the foreign exchange transactions and co-ordinates the import/export activity of the country. The major roles that Bangladesh Bank plays in financing export are provided in the box below.

### Table 1: City wise numbers of Authorized Dealers

<table>
<thead>
<tr>
<th>City</th>
<th>Authorized Dealers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhaka</td>
<td>354</td>
</tr>
<tr>
<td>Chittagong</td>
<td>139</td>
</tr>
<tr>
<td>Khulna</td>
<td>51</td>
</tr>
<tr>
<td>Rajshahi</td>
<td>32</td>
</tr>
<tr>
<td>Sylhet</td>
<td>32</td>
</tr>
<tr>
<td>Barishal</td>
<td>7</td>
</tr>
<tr>
<td>Others</td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td>647</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhaka</td>
<td>55%</td>
</tr>
<tr>
<td>Chittagong</td>
<td>21%</td>
</tr>
<tr>
<td>Khulna</td>
<td>8%</td>
</tr>
<tr>
<td>Rajshahi</td>
<td>5%</td>
</tr>
<tr>
<td>Sylhet</td>
<td>5%</td>
</tr>
<tr>
<td>Barishal</td>
<td>1%</td>
</tr>
<tr>
<td>Others</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Bangladesh Bank

4.3 Financial support and services provided by the banks

A summary of the various banking and financial services provided to the exporters is given below:

4.3.1 Providing settlement mechanism

The commercial banks in Bangladesh (particularly the Nationalized Commercial Banks (NCBs) and Foreign Commercial Banks (FCBs) equipped, as they are, with a large net-work of branches/correspondent banks abroad are placed in an ideal position to assist both established exporters and the new exporters. The Private Commercial Bank (PCBs), with less international exposure, are not in an ideal position to provide settlement mechanism.

4.3.2 Providing export finance

Export finance refers to the credit extended to the exporters for financing their transactions. It includes finance for assembling of raw materials and manufacturing into goods for export and the finance for the deferred payment to exporter. Short-term credit provided by the banks is of two types: ‘pre-shipment finance’ commonly known as ‘packing credit’ and ‘post-shipment finance’.\(^1\)

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\(^1\) Packing credit refers to any loan to an exporter for financing the purchase, processing, manufacturing or packing of goods meant for export orders. Post-shipment credit means any loan or advance granted or any credit provided by an institution to an exporter of goods from Bangladesh from the date of extending the credit after shipment of the goods to the date of realization of the export proceeds, and includes any loan or advance granted to an exporter, in consideration of, or on the security of, any drawback or any cash payment by way of incentive.
### Box 1 Bangladesh Bank’s role in exports financing

- **Issuance of AD license**: Bangladesh Bank (BB) has issued Authorized Dealer (AD) license in favour of 647 branches of CBs all over the country. Among them 354 (55%) ADs are in Dhaka City. 139 (21%) ADs are in Chittagong city and the remaining ones are located in other major business centers of the country.
- **Refinancing for the commercial banks against export finance**.
- **Implementation and maintenance of Cash Subsidy (CS) accounts declared by Government of Bangladesh (GOB)**. [GOB allocates CS from its annual budget, which the Bangladesh Bank disburses through the commercial banks. Two departments of BB are involved in handling of CS. Banking Regulation and Policy Department (BRPD) announces the policy and issues circular and the Currency Management Department makes the disbursement. During the year 2003, BB disbursed Tk. 823 billion against CS among the exporters.]
- **Implementation of the schemes initiated by GOB for expediting the country’s export business**. [BB announces policies related to the admissible uses of exporters retention quota and international credit cards. BB controls and monitors the implementation of schemes and maintains the statistical data of the schemes.]
- **Bangladesh Bank closely monitors interest rate on export finance charged by commercial banks**.

### 4.3.3 Existing Financial Schemes, Facilities, Subsidies offered to the Exporters

The existing packages of schemes and facilities subsidies offered to exporters are shown in the following figure. Details are at annex.

<table>
<thead>
<tr>
<th>SCHEMES</th>
<th>FACILITIES/SUBSIDIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Foreign Exchange Retention quota for exporters.</td>
<td>1. Duty Draw Back</td>
</tr>
<tr>
<td>2. International Credit Card issued against retention quota for exporters.</td>
<td>2. Cash Subsidy</td>
</tr>
<tr>
<td>2. Credit Guarantee Insurance Scheme.</td>
<td>3. Bonded Warehouse</td>
</tr>
<tr>
<td>4. Export Development Fund</td>
<td>5. Equity Entrepreneurship Fund</td>
</tr>
<tr>
<td>8. Export Promotion Bureau’s (EPB) Export Promotion Fund</td>
<td></td>
</tr>
</tbody>
</table>
Table 2: Financial support and services provided by banks

<table>
<thead>
<tr>
<th>SI #</th>
<th>Banking services</th>
<th>Nature of services</th>
</tr>
</thead>
</table>
| 1    | Payment settlement mechanism | • Banks collect/negotiate the documentary and other bills drawn upon the overseas buyers.  
• Banks also buy the proceeds of the foreign currency bills, on spot or forward basis, as the case may be, in order to eliminate the exchange risk. |
| 2    | Export Finance | • Pre-shipment credit.  
• Post-shipment credit.  
• Financing of export under deferred payment terms.  
• Finance against collection of export bills.  
• Finance against export incentives. |
| 3    | Other services | • In order to meet the terms of many commercial contracts, exporters need tender guarantees when tenders are submitted, followed by performance guarantees for the successful tender(s).  
• Information about financial standing and business integrity of foreign buyers, foreign markets etc. |

4.3.3.1 Foreign Exchange Retention Quota for Exporters

Under this scheme merchandise exporters are entitled to maintain a certain percentage of foreign exchange in their F/C accounts out of the repatriated fob value of their export. The following table shows the admissible quota and recent initiative taken by the government:

4.3.3.2 International Credit Card against Retention Quota

International Credit Cards may be issued against retention quota in favor of up to 3 top-level executives of an exporting firm/organization holding retention quota Foreign Currency Account (FCA). The international credit card is useable for business travel only.²

² At present the following banks are issuing International Credit Cards:
   1. Standard Chartered Bank
   2. American Express Bank
   3. National Bank Ltd
   4. Prime Bank Ltd.

The following banks have applied for permission to issue international credit cards:
   1. Premier Bank Ltd.
   2. Eastern Bank Ltd.
   3. National credit and Commerce bank Ltd.

(Source: Bangladesh Bank)
4.3.3.3 Export Credit Guarantee Insurance in Bangladesh

Sadharan Bima Corporation administers the scheme to deal with credit risk associated with export trade. Under this, Export Finance (Pre-Shipment) Guarantee provides guarantee to the financing banks or financial institutions to the extent of 75% of the total amount of loss suffered due to insolvency of the exporter or non-payment of the loan by the exporter after four months from the due date of payment. The Export Finance (Post-Shipment) Guarantee is provided to banks or financial institutions to the extent of 75% of the total amount of loss suffered due insolvency of the exporter or non-payment of the loan by the exporter after four months from the due date of payment.

The guarantees are issued for a period of one year and are renewable on request of the lending banks and financial institutions. The premium is 0.05% per month on the highest amount outstanding at any time in each calendar month.

A Comprehensive Guarantee provides protection to exporters against overseas commercial as well as political risks.

It covers 85% of loss caused by commercial risks and 95% of loss caused for political risks and is issued for one year and renewable at the option of the insured. The premium rate varies from 0.125% to 0.65% for exports made against Letter of Credit (LC) and 0.40% to 2.00% for transactions under contracts.

<table>
<thead>
<tr>
<th>Table 3: Foreign Exchange Retention Quota for Exporters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Si No.</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>01.</td>
</tr>
<tr>
<td>02.</td>
</tr>
<tr>
<td>03.</td>
</tr>
<tr>
<td>04.</td>
</tr>
</tbody>
</table>
4.3.3.4 Duty Draw Back

An exporter of manufactured products is entitled to draw back the value of the customs duties, sales tax, etc. already paid on the importation of raw materials used in the production or manufacture of the export products.

Currently, there are three methods of duty drawback, viz.:

- Duty draw back on actual export
- Notional payment of duty.
- Duty draw back at flat rate for realizing draw back.

4.3.3.5 Cash Subsidy

The following table summarizes the product/sector wise entitlement of cash subsidy (CS).

There are many cases of malpractice in cash subsidy. There have been extensive abuse of the facilities by certain groups of exporters who have taken away several billion Taka mostly against advance payment of T.T. Consequently, the government has discontinued cash subsidy against T.T.

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3 Procedure for claiming duty drawback:

For the purpose of claiming duty drawback, the exporter is required to file a drawback-shipping bill in the prescribed Format as required alongwith necessary declaration. Supporting documents required for processing the claim:

a. Triplicate of the shipping bill
b. Copy of the Bank Certified Invoices
c. Copy of Bill of Lading/Airway Bill
d. Freight and Insurance Certificate
e. Copy of the contract or L/C
f. Worksheet showing the drawback amount claimed
g. Transshipment certificate where applicable
h. Blank acknowledgement card in duplicate

4 Duty drawback disbursed during the last three years

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Duty draw back</td>
<td>160.00</td>
<td>*66.10</td>
<td>146.43</td>
<td>*59.21</td>
<td>172.02</td>
</tr>
<tr>
<td></td>
<td>**98.41</td>
<td>**88.38</td>
<td>**32.42</td>
<td>**498.34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: Statement collected from Bangladesh Bank)

*Given by Bangladesh Bank, ** Given by DEDO
# Table 4: Product / Sector wise entitlement of Cash subsidy (CS)

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Product/ Sector</th>
<th>Cash Subsidy admissible in % of net repatriated fob value</th>
<th>Procedure/terms and conditions</th>
</tr>
</thead>
</table>
| 01.    | Agriculture, Agro Product | a) (Vegetable, Fruits /Agro processing) 25% for export local Agro Product (vegetable) and Agro Processing industries  
  b) 25% for export of fresh fruits<sup>5</sup> | a) CS is released after repatriation of export proceeds in foreign currency. ADs must submit the CS application to Bangladesh Bank within 180 days after credit of export proceeds to their Nostro Account abroad.  
b) Export proceeds realized through banking channel against documents drawn under L/C is considered for CS.  
c) Recently Bangladesh Bank has amended the condition and allowed export proceeds realized in banking through documents drawn against export contract to be considered for cash incentives<sup>6</sup> |
| 02.    | Frozen Shrimp and other Fishes Export | c) 10% for export of 100% local product<sup>7</sup> | 1. CS is released after repatriation of export proceeds in foreign currency. ADs must submit the CS application to Bangladesh Bank within 180 days after credit of export proceeds to their concerned Nostro Account abroad.  
2. Export proceeds realized in banking channel through documents drawn after export against L/C opened through banks is considered for CS. |
| 03.    | Local Textile Product | d) 15% up to June 2003  
  e) 10% for fiscal year 2003-04  
  f) 05% for fiscal year 2004-05  
  g) No cash subsidy after June 2005<sup>8</sup>  
  h) CS is considered for repatriated export proceeds against documents drawn under L/C. Cash incentive is also considered against documentary collection through banks after export  
  i) CS is payable through banking instrument and priority is given to ensure adjustments of installment of Term Loan & working capital finance, | |
| 04.    | Jute & Jute Goods | 5% for shipment up to June 2003<sup>9</sup> | Jute mills after shipment submit the application for CS with relevant documents to negotiating AD. ADs release the cash subsidy determining the net fob value after repatriation of export proceeds. |

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<sup>5</sup> BB FE circular No. 12 date: 2-11-2002.  
<sup>7</sup> BB FE circular No. 23 date: 12-12-2002.  
<sup>8</sup> BB FE circular No. 10 date: 05-06-2002.  
<sup>9</sup> BB FE circular No. 19 date: 12-08-2002.
<table>
<thead>
<tr>
<th>No.</th>
<th>Product Description</th>
<th>Subsidy Rate</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>05.</td>
<td>Light Engineering, By-cycle</td>
<td>15% for export with minimum 40% value addition. Admissible for shipment up to June 2005</td>
<td>CS is released after repatriation of export proceeds in foreign currency. ADs must submit the cash subsidy application of the exporters to Bangladesh Bank within 180 days after credit the export proceeds to their concerned Nostro Account abroad. ii. CS is admissible only against the export against L/C.</td>
</tr>
<tr>
<td>06.</td>
<td>Bone crust</td>
<td>15% for local product</td>
<td>CS is released after repatriation of export proceeds in foreign currency. ADs must submit the cash subsidy application of the exporters to Bangladesh Bank within 180 days after credit the export proceeds to their concerned Nostro Account abroad. ii. CS is admissible only against the export against L/C.</td>
</tr>
<tr>
<td>07.</td>
<td>Hogla, Straw, Wastage of Sugarcane</td>
<td>a) 15% for use of local product more than 80% b) 10% for use of local product of more than 50%</td>
<td>CS is released after repatriation of export proceeds in foreign currency. ADs must submit CS application of exporters to Bangladesh Bank within 180 days after credit of export proceeds to their concerned Nostro Account abroad. ii. CS is admissible only against export against L/C.</td>
</tr>
<tr>
<td>08.</td>
<td>a) Leather goods</td>
<td>15% for use of local product</td>
<td>CS is released after repatriation of export proceeds in FC. ADs must submit the cash subsidy application of the exporters to Bangladesh Bank within 180 days after credit of the export proceeds to their concerned Nostro Account abroad. CS is admissible only against the export against L/C.</td>
</tr>
</tbody>
</table>

4.3.3.6 Bonded warehouse

a. Bonded warehouse has generated special enthusiasm among the import-led export oriented industries. Bonded warehouse provides storage facilities for imported goods under the control of the Customs. Since bonded goods are not released for consumption, duty is not collected immediately on such goods.

b. Bonded warehouse warrants are transferable. They are however, not negotiable. This means that while the holder can transfer the title of

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10 BB FE circular No.27 date: 12-12-2002.
11 BB FE circular No. 12 date: 12-12-2003.
12 BB FE circular No. 26 date: 12-12-2002.
these goods to the transferee, the transferee takes this subject to all the defects and liabilities attached to the original holder. In foreign countries, certificate of licensed warehouse are fully accepted as security against advances.

c. Bond License remains valid for one year from the date of issue and the license is renewable subject to satisfactory performance. The bondholder applies to the Dept. of Customs in printed form 2 months before the expiry date with necessary papers.

For change of lien bank, the license holder is required to apply to the Dept. of Customs with import/export performance with the existing lien bank.

4.3.3.7 Export Development Fund

The Export Development Fund (EDF) has been created for sustaining export drive and the long-term development of non-traditional export by

(a) assuring continued availability of foreign exchange to meet the import requirements of non-traditional exporters, particularly newer exporters;

(b) encouraging foreign suppliers, overseas confirming houses, and foreign commercial banks to provide short-term credit lines to Bangladeshi exporters; and

(c) complementing other export development policies, such as improved access to duty-free imported inputs and to promote non-traditional exports, diversify exports, and encourage higher value added exports.

(d) ensuring availability of foreign exchange to exporters to finance their imported inputs requirements. This is expected to act as a stimulus to private sector export production and marketing effort, and to encourage investments in market development as well as plant and equipment necessary to expand export capacity.

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14 Export Development Fund (EDF) has been created jointly by the International Development Agency (IDA) and the Government of Bangladesh (GOB) for financing imports of raw materials and spare parts of export oriented manufacturers in order to diversify export and to promote and encourage non-traditional and higher value added export. The fund is utilized by the commercial banks for financing exporters to the maximum of 70% of the export L/C at an interest rate of 1% above London Inter bank Offer Rate (LIBOR). The fund is owned by GOB and managed by Bangladesh Bank. Bangladesh Bank provides a spread of 3.5% to the financing commercial banks on their advances to the new non-traditional exporters and a spread of 2.5% on all other advances rediscounted with EDF.
The object of providing this fund is to gradually eliminate structural and regulatory constraints to financing of imported inputs required for export manufacturing, so that the need for a separate EDF will be eliminated in due course.

**Participating Financial Institutions**

All scheduled commercial banks may allow lending to eligible non-traditional exporters and avail of the facilities of the EDF. The financing banks will utilize their foreign exchange positions and obtain refinance from Bangladesh Bank on first come first served basis. They will disburse directly to foreign or domestic suppliers to enable the eligible exporters to use EDF. The commercial banks will assign the export proceeds to EDF after using the fund.

**Eligibility**

Direct and indirect non-traditional exporters (firms, individuals or partnership) exporting goods other jute and jute goods (excluding jute carpets) and tea, (excluding consumer packaged tea and tea bags) and high domestic content (with 30% value addition or more) ready-made garment exporters are eligible for EDF to the maximum extent of 70% of the value of export L/C.

**4.3.3.8 Equity Entrepreneurship Fund (EEF)**

Bangladesh bank has introduced EEF in order to support fledging and risky new projects; especially software and food/agro based processing industry. EEF fund has so far sanctioned Tk.840 million in the two sectors and Bangladesh Bank has earmarked Tk.3 billion for the fiscal year 2002-2003. Main features of Equity Entrepreneurship Fund are as follows:

1. EEF provides finance to the software and food processing and agro-based industries.

2. Fund is available up to 49% of the combined capital of the project, which shall not exceed 33.33 percent of the total project cost. If the project is not

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15 Loan disbursed under EDF in the last three years is given below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount in million US$</th>
<th>Amount in million Taka</th>
<th>Increase/decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-2000</td>
<td>105.15</td>
<td>6098.70</td>
<td></td>
</tr>
<tr>
<td>2000-2001</td>
<td>137.75</td>
<td>7989.50</td>
<td>31%</td>
</tr>
<tr>
<td>2001-2002</td>
<td>136.54</td>
<td>7919.32</td>
<td>(0.9%)</td>
</tr>
</tbody>
</table>
leveraged, the contribution of EEF may go up to 49 percentage of the total cost.

3. The total cost of the project shall be minimum of Tk. 10 million (inclusive of net working capital).

4. The finance may be disbursed through all the scheduled banks and the Industrial Promotion and Development Company Limited (IPDC).

**Export promotion fund of EPB**

Export Promotion Bureau of Bangladesh (EPB) and Janata Bank signed an Memorandum of Understanding (MOU) to extend financial support to Information and Communication Technology (ICT) and handicraft exporters. Initially EPB placed a fund for Tk. 50 million for this purpose, which increased to about Tk. 80 million. Janata Bank realises service charge @ 2.5% for itself and interest of 4.50% for EPB of loan amount19:

**4.4 NBFIs in export financing**

There are 19 non-bank financial institutions in operation in Bangladesh. Among them five have been interviewed during field survey. The financing products of the NBFIs are:

- a. Loan
- b. Lease.

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16 BB EEF Circular No. 06
18 http://www.Bangladesh-bank.org.uk/organisation/about/dept/eefu/eefu.html
19 Number of projects and amount financed under EPB

<table>
<thead>
<tr>
<th>Agro-processing companies</th>
<th>Software companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Amount Sanctioned</td>
</tr>
<tr>
<td>27</td>
<td>Tk. 1555.3 million</td>
</tr>
</tbody>
</table>

20 Non-banking financial institutions (NBFIs) are those institutions which (i) give loans or advances for industry, commerce, agriculture or housing or (ii) carry on business of the underwriting or acquisition of, or investment or re-investment in, shares, stock, bonds, debentures or debenture stock or securities issued by the Government or any local authority or (iii) carry on business of hire purchase transactions including leasing of machinery or equipment or (iv) finance venture capital and includes merchant bank, at a premium but does not include a loan to a company or other body corporate upon terms involving the issue of debentures or other securities.
The NBFI is extending term finance for installation of capital machinery and construction of factory building. They do not provide working capital finance.

**Table 5: Sources of funds of NBFI**

<table>
<thead>
<tr>
<th>Sources of fund</th>
<th>Rate of interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local commercial Banks</td>
<td>11% to 13%</td>
</tr>
<tr>
<td>Loan from Foreign agencies</td>
<td>LIBOR+3%</td>
</tr>
</tbody>
</table>

4.4.1 Utilization procedure of Foreign Currency (FCY) by NBFI:

FCY funds received from abroad against foreign credit lines are kept deposited by NBFI in foreign currency with local banks as cash collateral. Interest earned on such deposit is transferred to the company by these banks. Overdraft facilities at hundred percent equivalent Takas are obtained from the banks at much lower rates than market rates. The overdrafts are utilized for funding both long term and short-term investments. In this way, it is possible to enjoy long term fund facility at lower rates.

**Table 6: Lending Rate of NBFI**

<table>
<thead>
<tr>
<th>Products</th>
<th>Rate of interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lease</td>
<td>15% to 18%</td>
</tr>
<tr>
<td>Short term loan</td>
<td>15% to 16%</td>
</tr>
<tr>
<td>Long term loan</td>
<td>15% to 18%</td>
</tr>
</tbody>
</table>

4.4.2 Contributions of NBFI in export financing:

Field survey reveals that NBFI is extending financial support to all potential sectors like textile and Ready Made Garments (RMG), food and allied products, agro based industries, leather, ICT etc. The national investment figures of their contributions to the exporters/export-oriented industries however are not available.21

It has been observed from the study that the banks and financial institutions are not maintaining any separate statistical data set for credit/finance offered to the

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21 FIs /NBFI’s financial support to exporters in the last 5 years:
exporters in different type of product. There is no monitoring and budgetary system in the financial institutions for export credit either. Bangladesh Bank also has no special monitoring system in place for this sector. The concerned individuals/ bodies/ authorities are more interested in the export earnings rather than export credit/ finance. They are only looking after the export earnings rather than investment in the export sector. In other words, there is void in strategic planning for this sector.

No investment in export is shown separately in their annual reports.

The NBFIs provide their service at the doorsteps of the investors. The response time is very short as shown in the following table.

The lending rate of NBFIs is higher than that of NCBs and PCBs. Although, borrowers still prefer to borrow from the NBFIs. This is because of their quality service and simple procedure and for non-existence of trade union activities.

NBFIs are extending long-term financial support, which is not defined as export credit by Bangladesh Bank. They do not provide working capital or any other banking services to the exporters and are not substitutes for banks. The mainstream banking sector can learn important lessons from them, particularly with regard to quick service.

<table>
<thead>
<tr>
<th>Sl</th>
<th>Nature of job</th>
<th>Response time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Green field projects proposals</td>
<td>4-6 weeks</td>
</tr>
<tr>
<td>2</td>
<td>Projects expansion proposals</td>
<td>4 weeks maximum</td>
</tr>
<tr>
<td>3</td>
<td>Existing clients with satisfactory performance</td>
<td>1 week.</td>
</tr>
<tr>
<td>4</td>
<td>Regular correspondences (balance confirmation, liability position etc)</td>
<td>1 working day</td>
</tr>
</tbody>
</table>

4.5 Venture Capital for Exporters

Equity capital in fledging and risky business is known as venture capital and it is provided by specialist venture capital firms, wealthy individual, and specialist firm and investment institutions such as pension fund. It usually implies involvement by a venture capitalist in the management of client enterprise since the success of a new company depends on the efforts its managers put in. Furthermore, venture capitalists can ensure better utilization of their investment by participating in the management of the new companies. In broad terms, venture capital is the investment of long-term finance where the venture capitalist earns his/her return primarily in the form of capital gain.
4.5.1 Features of venture capital

Venture financing is actual or potential equity participation through direct purchase of shares, options, or convertible securities. The objective is to make capital gains by selling off the investment once the enterprise becomes profitable. It is a long-term investment. Venture Capital Firms (VCFs) need to wait for a long period, say 5-10 years, to make large profit (Pandey (1999)). It ensures continuing participation of the venture capitalist in the management of the entrepreneur’s business. The hand-on management approach helps him/her to protect and enhance his/her investment by actively involving and supporting entrepreneur. More than finance, the venture capitalist gives his/her marketing, technology, planning and management skill to the new firm.

4.5.2 Venture Capital in Bangladesh

There are a number of thrust sectors in Bangladesh that have significant potential to grow but are also fraught with risks. Venture capital can make the enterprises profitable through flexible financing and appropriately guiding their expanding businesses. Agro-processing industries, IT (software), light engineering, handicrafts, leather and leather products, garment industries with capital upto Tk. 50 million etc. are a few among the potential sectors of venture capital financing.

4.5.3 Government and Private Initiatives for Venture Capital

4.5.3.1 Government Initiative

Bangladesh Bank has already introduced EEF\textsuperscript{22} in order to support risky new projects; especially software and food/agro based processing industry. EEF fund

\textsuperscript{22} EE circular no.6 dated June 24, 2002 of Bangladesh Bank
has so far sanctioned Tk. 840 million in the two sectors and the Bank has earmarked Tk. 3000 million for the fiscal year 2002-2003.

Features of Equity Entrepreneurship Fund of Bangladesh Bank:

1. EEF provides finance to the software and food processing and agro-based industries.
2. Fund is available up to 49% of the combined capital of the project not exceeding 33.33 percent of the total project cost.
3. The total cost of the project shall be minimum of Tk. 5 million (inclusive of net working capital).
4. Finance may be disbursed through all the scheduled banks and the Industrial Promotion and Development Company Limited (IPDC).
5. The fund is available only during the time of start-up and the loan applicant is registered as a private limited company.
6. Companies registered after 1st January, 1997 shall be regarded as new companies and will be eligible for finance.
7. Subsidiary companies of an established company are also eligible for getting the finance
8. Non-Resident Bangladeshi sponsors are given priority.
9. The investment is made in the form of equity and the projects are required to issue ordinary share certificates in name of the Government
10. The supervising financial institutions (FI) of EEF represents the Government in the Board of Directors of the financed companies and also monitors the business activities of the project on a regular basis.
11. The Supervising FIs are entitled to have 25% of the dividend earned by EEF.

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24 http://www.Bangladesh-bank .organisation/about/dept/eefu/eefu.html
25 EEF Circular NO. 12 dated April 17,2003 of Bangladesh Bank
4.5.3.2 Private Organizations in Venture Capital Financing

Grameen Fund:

Grameen Fund is a sister concern of Grameen Bank providing venture capital to the risky-technology oriented enterprises which are otherwise deprived of finance from the conventional sources. Grameen Fund was incorporated as non-profit organization in 1994. They invest the capital gain in risky technology oriented ventures.\(^{26}\)

BASIC Bank

BASIC Bank took initiative for providing venture capital for different companies with earmarked capital of Tk. 30 million\(^{27}\) from the profit. However, it has not yet been made operational.

VANIK Bangladesh Limited

VANIK has conducted market survey to introduce venture capital in Bangladesh and trained some of their officials as well. Due to change in ownership, they could not introduce venture capital finance in Bangladesh.\(^{28}\)

5. Other sources of export finance

In addition to banks and NBFI’s, several other sources, both formal and informal, provide finance for exporters. Informal money lending has been a common centuries old practice across the sub-continent. The newly evolved sources include overseas facility and venture capital as well as factoring services.

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\(^{26}\) Major objectives of the Grameen Fund:
- Participate in the majority of equity capital in companies trying to innovate in various sectors that hold promise for future growth, having direct or indirect impact on poverty alleviation.
- Provides loans, equity or both, to risky firms using untested technology and/or producing untested but innovative products; both for existing companies for balancing, modernization or expansion.
- Assist in management buy-in or buy-out of existing companies needing financial and management support, provided that such companies activities/product bring direct and/or indirect benefit to the poor.
- Promote or develop enterprises having prospects for export and for import substitution that will use indigenous raw materials, provide extensive employment to the poor and/or help upgrade the skills of the rural or urban poor.

\(^{27}\) Executive Interview with the Management of BASIC Bank

\(^{28}\) Informal Interview with Mr. Mahmudul Bari, Assistant Vice President, Merchant Banking, VANIK.
5.1 Informal Money Market

It is a widely known fact that informal moneylenders charge usurious rates of interest from rural borrowers who primarily take loan for crop cultivation, purchase of bullocks etc. With rapid urbanization, informal money lending is widely practiced in industrial areas and cities of Bangladesh.

Study reveals that exporters of certain sectors borrow from other sources; namely:

i) Relatives/friends: Terms and conditions of repayment of loan differ widely.
ii) Moneylenders: Terms and conditions of their loans are more or less similar. They charge high interest rates, usually 10% per month.
iii) Traders cum moneylenders: Yarn traders for example, sell yarn etc. to the knit garment exporters on credit and charge interest @ 4%-5%.

5.2 The sectors borrowing from other informal sources are:

- Frozen Food: Shrimp

There are five tiers shown below to support the export-oriented shrimp industry. Hatchery and shrimp factories get bank finance and they do not need to borrow from informal sources.

Middlemen, ‘Gher’ owners, suppliers and agents sometimes get bank finance in the form of Cash Credit (H) against collateral security of real estate. Many of them borrow from local money lenders at monthly interest of 5% to 8% and in some areas, the monthly lending rate is 15% - 8%. In rare instances, the factory owners borrow from informal sources.

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**Figure 3**

HATCHERY

- Riverlsea
  - Women & children collect fry & sell

- Middlemen (traders)
  - gets “dadan” from Gher owner

- Gher owners: Growers of shrimp

- Supplier: Middlemen who buy from ‘Gher’ & sell to Agents

- Agents: Buy from suppliers & sell to factory owners

- Factory owners: process and export
- **Handicrafts**

There are a large number of handicraft items produced in different areas of the country, mostly by family members. Exporters make advance ("dadan") to the artisans for procurement of raw materials to ensure supply of high standard and quality products. Organized institutional finance for the producers is very limited.

- **Vegetables**

Vegetable exporters make advance payment (dadan) to the growers to ensure production and supply of vegetables of required quality and standard. The growers normally do not get institutional finance.

- **Garments**

A large number of knitwear garment exporters having capital of Tk. 10 million to Tk. 20 million with a workforce of 150-300 borrow from the local money lender at a monthly interest of Tk. 10000 per month plus brokerage of Tk. 1,000 for borrowing Tk. 1,00,000. They are compelled to take such loans when they fail to get urgent bank finance due to stock-lots and/or to avoid further stock lot. Sometimes they also borrow from the traders cum moneylenders who sell yarn etc. on credit at market price and charge interest @ 4% to 5% per month and the loans are utilised for:

- Lifting yarn under quota from the local mills.
- Providing L/C margin of the importers of commercial banks when they fail to arrange it from their own source.
- Meeting the shortage of margin for availing cash credit (pledge) limit sanctioned by the commercial banks.
- Payment of salary and wages of worker.

5.3 **Factoring Services**

5.3.1 **Factoring Services in Bangladesh: Prospects & Potential**

Bangladesh is a developing country. Factoring will be of great assistance to the entire industrial and trading sector. Factoring will be specially helpful for the

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29 Factoring is a device of transforming a non-productive, inactive asset (i.e. book debts) into productive asset (viz. Cash) by selling book debts (receivables) to a company that specialises in book debt collection and administration. It is a popular mechanism of managing, financing and collecting receivables. The arrangement between the client and the factor primarily depends upon the needs of the clients. This could be either financial or sales ledger administration or collection of book debts or credit risk coverage etc. or all together. The type of factoring arrangement concluded at a given time depends upon client needs, nature and volume of client’s business and financial strength, type of business, cost of services etc. Factoring is now universally accepted as vital to the financial needs of particularly small and medium sized business. Factoring has become well-established in developing countries as well as in those that are highly industrialized. In South Asian, India and Sri Lanka have already launched its service. In Sri Lanka, factoring is now accepted as a useful financing service. In India also, factoring is gaining acceptance in the business community.
development of SMEs in Bangladesh. Small and Medium-sized Enterprise (SMEs) suffer from the lack of adequate bank finance, because of reluctance on the part of banks against book debts of SMEs. Furthermore, factoring could be a supplementary financial service with the existing financial services provided by banks. The commercial banks are over burdened with huge amount of non-performing assets. There is a good prospect for setting up of factoring companies for taking over the non-performing assets of Tk. 26,000 crore of the commercial banks.

5.4 Counter Trade

5.4.1 Counter Trade in Bangladesh

Bangladesh has undertaken different initiatives to start counter trade arrangements with different countries. The objective of starting counter-trade in Bangladesh is to reduce trade deficit and to reduce pressure on foreign currency reserve. In the initial stage, Bangladesh has established trade relationship with three countries viz. Myanmar, Thailand and Indonesia. If potential counter trade relationship brings fruitful results, Bangladesh will go for such arrangements with other regional countries in phases.

5.4.2 Overseas facility

Both bankers and exporters reported that some industries have been set-up with imported capital machineries funded by non-resident Bangladeshi (NRB). Furthermore, it was also reported that machineries and raw materials are often imported with undisclosed funds through under invoicing funded by the “sleeping equity partners” in and outside the Export Processing Zone (EPZ). However, with a significant overseas population, overseas facility remains an attractive source of finance for many exporters.

30 The following reasons are cited for this:
✓ SMEs do not maintain a proper accounting system and therefore banks are unable to verify the accuracy of book debts.
✓ Most SMEs are organized in as proprietary or partnership firms and thus are not required to have audited accounts. Banks cannot put much reliance on unaudited accounts.
✓ Most SMEs have poor credit management. They have inadequate and inefficient systems of book debt collection. Thus, the incidence of bad debt losses is high in the case of SME sector.
✓ SMEs have a tendency of slackening their effort of collecting book debts once banks have financed their book debts.
✓ SMEs are not in a position to provide sufficient collateral security.
5.5 Role of Stock Exchange

Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE) are non-profit organizations. They work as intermediaries between investors and companies. They help the companies to raise capital through initial public offering. They perform the valuable secondary function of buying and selling their securities. Since the stock exchanges are not lending or borrowing institutions, DSE and CSE do not have any provision to maintain liquidity. At present, there is good market liquidity to attract investment for all types of companies including the emerging export enterprises. They do not have any scope to extend special help to the exporters. They help investors in getting their shares liquidated through their enlisted brokers. It has been observed from the daily price index published by the DSE and CSE, that most stocks are traded at half the price of face value, which indicates that they have not been able to regain the confidence of general investors despite recent positive initiatives undertaken by Security and Exchange Commission (SEC). Until the full confidence is regained it will not be meaningful to expect DSE and CSE to come forward to assist exporters in need of finance.

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31 Executive Interview with the Dhaka Stock Exchange and PRO of Chittagong Stock Exchange. 5. Box 4.1 Background of DSE and CSE

32 Dhaka Stock Exchange was incorporated in 1954. As on 30th June, 2001 there were 244 securities listed with DSE and the total issued capital of all listed securities was Tk.32,227 million and market capitalization was Tk.72,168 million. On the other hand, The Chittagong Stock Exchange (CSE) was registered as a public limited company in April 1995. As on 30th June, 2001 there were 171 securities listed with CSE and issued capital of all securities was Tk.27,350 million. Total market capitalization of all securities of CSE as on 30th June 2001 stood at Tk.62,820 million. Form July 1996, the market index of Dhaka and Chittagong Stock exchange started increasing and it continued till the market collapsed in Nov 1996. Thousands of new and small investors who knew very little about the stock market suffered most. Following the debacle of 1996, Securities and Exchange Commission (SEC) seeks comment from the DSE/CSE whenever they receive any application from companies intending to float their shares in public.

While sending comments to SEC, DSE/CSE ensures that the company has a good track record and sound performance in the previous three years. On the basis of DSE/CSE’s comments, SEC accepts the proposal only if found satisfactory. Comments are incorporated with the prospectus.

33 Dhaka Stock Exchange: (September 2003), Monthly Review: Dhaka
5.6 Role of Export Promotion Bureau

The Export Promotion Bureau was established by the then Pakistan Government as a Department of the Ministry of Commerce. Subsequently, it was re-organized as a semi-autonomous body for promoting export of Bangladeshi products by a Presidential Order in 1977. The Head Office of EPB is in Dhaka and three regional offices are situated in Chitagong, Khulna, and Rajshahi.

5.6.1 The functions of EPB are

- Adoption of dynamic policy and program measures for active promotion of exports;
- Co-ordination of export development efforts at various levels;
- Co-ordination and monitoring of national export performance and progress;
- Carrying out of promotional activities in product and supply development;
- Exploration of markets abroad;
- Collection and dissemination of trade information;
- Organization of participation in international trade and export fairs abroad;
- Imparting of training for HRD;
- Conducting of studies, surveys, research etc on products and markets;
- Administering and monitoring of RMG quota.

Table 8: Loan from EPB’s Export Promotion Fund

<table>
<thead>
<tr>
<th>Information Communication Technology</th>
<th>Amount Sanctioned</th>
<th>Amount Disbursed</th>
<th>Present Outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Soft</td>
<td>Tk. 25 lac</td>
<td>Tk. 25 lac</td>
<td>Nil</td>
</tr>
<tr>
<td>The Decode</td>
<td>Tk. 50 Lac</td>
<td>Tk. 50 lac</td>
<td>Tk. 35</td>
</tr>
</tbody>
</table>

| Handicraft                           |                  |                 |                     |
| Craft International                  | Tk. 5 Lac        | Under Process   | -                   |
| Prianka Banarashi                    | Tk. 5 Lac        | Under Process   | -                   |

Source: EPB

34 EPB, “What it is, What it does” published by Trade Information Center of EPB, Dhaka
5.6.2 Activities and Contribution of EPB in Export

5.6.2.1 Export promotion fund of EPB

EPB has signed an MOU with Janata Bank for disbursing loan from Export Promotion Fund to ICT and handicraft exporters. It allocated Tk. 40 million for ICT and Tk. 10 million for handicraft exporters.

5.6.2.2 Country of Origin Certificate & trade license

The Certificate of country of origin is a very important document used in international trade finance. In Bangladesh, EPB issues six different types of certificates of origin. They also issue trade license for textile and visa for the textile exporters to the USA.

5.6.2.3 Trade Fair

EPB arranges different types of trade fairs in Bangladesh and other countries for promotion of exportable goods. EPB also helps different Bangladeshi companies to participate in international trade fairs abroad to create market for Bangladeshi products. In 2001-2002, EPB participated in 22 different trade fairs and organized 4 single country exhibitions.

Box 2: Country of Origin Certificate issued by Bangladeshi Company

Generalized System of Preference (GSP): It is issued for 15 different EU countries and 14 developed countries including USA, one of the major importers of Bangladeshi goods.

South Asian Preferential Trade Agreement (SAPTA)*: It is issued for the SAARC member Countries such as Sri Lanaka, India, Maldives, Pakistan, Bhutan and Nepal.

Bankot Agreement*: This country of origin certificate is issued for China, Sri Lanka, Korea and India.

GSTP( Global System of Trade Preference ): It is issued for the Group of 77 member country

Annex-3 : It is exclusively for Mexico

KPT( Korea Preferential Trade): It is used exclusively for Korea.

*Bangladesh is a the member of SAPTA & Bang ot Agreement
5.6.2.4 Publications on Export

Export Promotion Bureau Publishes different types of printed materials on export for home and abroad. Printed publications are circulated to Bangladesh Missions abroad, concerned Ministries, Government Departments, National and International Trade Organizations, Trade Associations, Chambers of Commerce, and leading exporters.

Trade Information Center (TIC)

Trade information Center (TIC) is a commercial library of Export Promotion Bureau. There are 9677 books/publications and 72 international and national periodicals preserved in the TIC at present. Day-to-day activities of Trade Information Center (ITC) have been computerized and includes the following database:

- Database “TICL” contains books available in the Library.
- “COM” database contains information on local exporting companies. It is the export directory with detailed information.
- Database “PREIO” contains journals/periodicals available in the TIC.
- CD-ROM “PATAS” contains statistical Information on export and import of 71 countries.

6. Issues and recommendations

Heretofore, a broad overview has been presented of extensive spread of financing services that are currently available for exporters. The study has identified several critical issues that affect the efficiency of these services as well as act as impediments to export. They are given below along with their recommendations.

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List of Publications published during the year 2001-2002 is given below:
2. Brochures and Posters on International Trade Fairs/Single Country Exhibitions held abroad;
3. Quarterly Trade Information Journal;
4. Folder on National Export Training Program;
5. Folder and Poster on Dhaka International Trade Fair (DITF) 2002;
6. Directory on DITF 2002;
7. Souvenir on DITF 2002;
8. Application form for Pavilion/Stall of DITF 2002;

Source: Annual Report 2001-2002 of EPB
6.1 Impediments to export – issues and recommendations

6.1.1 Banking related impediments

**Issue: Centralisation of Business Power**

1. NCBs take a long time to communicate decisions on application for financial support from new clients. According to the Business Delegation Power of NCBs & PCBs, the sanction of Long Term Project Finance is approved by the Head Office/Board of Directors in most of the banks, irrespective of the collateral issue.

2. In the case of shrimp culture, finance is treated as rural finance. Since all frozen food exporting organizations are situated in Chittagong and Khulna, obtaining finance from the bank becomes very time consuming and lengthy.

**Recommendations**

**Short Term**

1. CBs may be advised to delegate the sanctioning power of long term project finance for setting up the backward linkage industries to the field level as per

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36 The above information is available from the ‘delegation of business power’ of the following banks reviewed:

NCBs
1. Sonali Bank
2. Janata Bank
3. Agrani Bank
4. Rupali Bank Ltd.

PCBs
1. IFIC Bank Ltd.
2. Prime Bank Ltd.
3. National Credit and Commerce Bank Ltd.
4. Mercantile Bank Ltd.

Islami Banks
1. Social Investment Bank Ltd.
2. Al-Arafa Islami Bank Ltd.

The following commercial banks informed that they do not have delegated business power:
1. Dhaka Bank Limited
2. Dutch Bangla Bank Limited

37 According to the Delegation of Business Power of NCBs & PCBs, the sanction of Long Term Project Loan is centralized at Head Office/Board of Directors, while the sanctioning power of pre-shipment and post shipment credits against export order/ L/C and working capital finance are delegated to the different levels of the sanctioning authority.

Unfortunately, some PCBs do not have delegation of business power. As a result, loan-sanctioning power is centralized to the Board of Directors of these banks, which does not conform to the BB’s BRPD circular # 16/03 dated July 24, 2003.
BRPD circular No. 16/03 of BB(ST). In addition, loan sanctioning power of the banks should be decentralized for the SMEs as they usually need small project loans amounting Tk. 10 million to Tk. 20 million.

2. Specifically for Shrimp growers, sanctioning authority should be delegated to the branches at field level.

**Issue: Rigidity of Collateral Security in export financing**

1. In the event of export failure/ stock-lots, garment sector SMEs are compelled to suspend/close their production. This is because they do not get further bank finance due to non-receipt of export proceeds, rigidity of collateral security, etc. In case of one-two stock-lot(s), they borrow money from informal moneylenders at a rate of 11% interest per month including 1% per month paid to the broker. BKMEA (Bangladesh Knitwear Manufacturing Exporters Association) reported that about 200 knitwear garments of this category regularly borrow money from the moneylenders as they fail to get additional bank finance.

2. According to the Delegation of Business Power of commercial banks, no project finance is allowed without collateral security. Shrimp exporters claim that 85% of the freezing capacity remains unutilized for want of finance. Processing bank loans is a lengthy procedure which has a cost to the exporters. Any attempt to expedite the process also has a cost in the form of ‘speed money’ and other forms of hidden costs as well.

**Recommendations**

**Short Term**

1. Delegation of business power should be appropriately amended so that banks extend finance against genuine export L/C or export order as per existing practice without insisting on collateral security. Industries with large workforce but small capital may be allowed to get finance from Equity Entrepreneurship Fund (EEF).

2. Shrimp growers should be declared as deemed exporters and also be allowed bank finance without collateral security since shrimp growers are of very small means.

3. Processing of bank loans has to be completed within a stipulated time mutually agreed by the bank and exporters.

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38 Stock-lot: Failure of the exporter to make shipment of the manufactured goods (stock-lot) in which case his banker makes payment of import bills for the value of raw materials imported under Back-to-Back L/C creating forced loan. Such goods are sold at a distressed price.
Issue: Banks’ customer response cycles

Response time means the time spent from the date of loan application submitted by the borrowers to the date of disbursement of the applied loan\(^{39}\). The response time varies from bank to bank, size type and nature of the loan applied for. An industrial term loan proposal needs a long time for sanction by the financing banks while a working capital loan proposal needs a shorter period of time (generally 35 days). Again a loan proposal of a company or a group requires more time than that of an individual or a proprietorship concern due to simplicity of processing.\(^{40}\) If this industrial loan is related to an export product, then, clearly its growth is bound to be constrained by this lengthy response cycle.

Discussions with bank officials reveal that most of the banks do not maintain the response time schedule for disposing a loan proposal. Some banks have introduced a “Top Sheet” or “Movement Sheet” to monitor the time taken in each of the steps to ensure speedy disposal. Two out of the three foreign banks did not provide the relevant information in this regard.

Recommendations

**Short Term**

1. Measures should be taken to reduce the customer response cycles of financing banks. There has to be a regular monitoring mechanism in place to oversee this cycle.

2. The decentralization of authority of NCBs is a must to reduce the total length of time needed to get financial services.

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\(^{39}\) The time taken at different levels of the sanctioning authority varies.

\(^{40}\) Loan sanctioning procedure of any bank is governed by the “Business Delegation Power” of the banks. This procedure begins from the very field level of the banks. Generally, exporters apply to the branch for extending credit support. The branch then prepares a proposal in printed format and collects all other necessary papers and documents from the applicant. In many cases, sanctioning power is concentrated at the head office. Branches in that case forward that proposal to the head office. Head Office collects Credit Information Bureau’s report prepared by the Central Bank and for lending analysis. These two steps need about fifteen days (see Annex --).
Issue: Foreign Exchange Retention quota for Exporters

1. Exporters are entitled to retain 10% to 50% foreign exchange of their repatriated export proceeds in the FC account, which is termed as retention quota. The export retention quota for ICT exporters has been increased from 40% to 50%. Most exporters in this sector are not happy with the 50% retention quota and they demand 100% retention quota. However, the concerned officials of Bangladesh Bank revealed that the use of retention quota by ICT exporters is only 18% to 25% during the current year.

2. According to exporters of leather goods, retention quota cannot be used to import spare parts for machineries and 35% duty has to be paid on import of spare parts.

Recommendations

Short Term

1. The demand for further enhancement of the retention quota by the exporters need to be examined more thoroughly before making any decision in this regard. In any case, there cannot be a blanket of enhancing quota for all the exporters as many of them have not been able to utilize even half of the quota provided to them. But certainly, better performers should get higher quota and if needed more than 50%.

2. Leather goods exporters, however, should be allowed to utilize their retention quota to import spare parts duty free.

Issue: International Credit Card

The financing commercial banks are permitted to issue international credit cards in favour of exporters against F/C account under Foreign Exchange Retention Quota which can be utilized for business travel only. Software developers, however, spoke of the requirement for upgrading software, ordering technical books, booking conferences, paying for vendors certification or business partner’s affiliation fees etc. for which online payment by International Credit Card is the normal mode of payment. The standard alternative is to pay using a US$...

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41 Use of foreign exchange under retention quota is limited to bonafide business purpose as under:
- Business visits abroad.
- Participation in exports fairs and seminars.
- Establishment and maintenance offices abroad.
- Import of raw materials.
- Import of machineries and spares
denominated cheque drawn on a USA bank. But this is not possible under current foreign exchange regulations. Very limited foreign currency exposure is involved – the typical purchases are less than US $1000 and most purchases are in the US$ 500 range.

**Recommendations**

**Short Term**

The use of the International Credit Cards should be widened as per recommendation of the Project Coordination and Development Unit (PCDU) report, which is as under:

1. Establishing a list of items and services that can be purchased online under pilot scheme in consultation with BASIS.
2. Approving companies in the software industry that have genuine need to purchase the approved items online.
3. Issuing a supplementary credit card for online purchase in foreign currency.
4. Setting a limit on the credit card equivalent to 3 months online spending.
5. Requiring the cardholder to produce documentation to validate the online purchases as part of the normal payment of outstanding balance. Failure to produce such documentation would result in the card to be withdrawn.

**Issue: Delay in disposal of Duty Draw Back Claim**

1. An exporter of manufactured products is entitled to draw back the value of the customs duties, sales tax, etc. already paid on the importation of raw materials used in the production/ manufacture of the export products.

2. There is, however, inordinate delay in receiving duty drawback. Claims submitted in year 2000 have not as yet been settled. The required documents are sought from exporters in several phases, which is time consuming.

**Recommendations**

**Short Term**

1. There should be specific time frame for settling the duty draw back claims.

2. The queries/documents should be requested at a time to avoid unnecessary time loss.
Issue: Cash Subsidy

1. There is unusual delay in payment/reimbursement of cash subsidy (CS) by BB (takes 1-2 years) due to inadequate budget allocation by the GOB and the lengthy procedure followed by the BB.

2. CBs provide loan against cash subsidy claim and charge interest @ 9% for first three months and @ 14% for subsequent periods which incurs a fairly high cost for the exporters.

3. The leather and pharmaceutical industries do not get any cash subsidy. The value addition of leather and pharmaceutical industries is 85% and 50% respectively. Garments industries with lower value addition of 20% to 25% have been receiving cash subsidy. It was reported by the pharmaceutical companies that Indian pharmaceutical exporters are getting 40% CS.

4. Until recently, export had to be made against L/C to get CS. But fruits and vegetables are exported without L/C as the importers prefer to import under Cash Against Delivery (CAD) or against advance payment by Telegraphic Transfer (TT) to avoid the time lag involved in receiving export documents for release of goods. As such, the exporters of perishable goods are not entitled to receive CS. BB has recently waived the condition. However, the exporters are not aware of the withdrawal of restriction by BB.

Recommendations

Short Term

1. Interest for finance against cash subsidy should be charged at the rate applicable for export finance (at flat rate over the period).

2. Considering the high value addition in the export of leather and leather products and pharmaceuticals, GOB should extend a reasonable percentage of cash subsidies for both the sectors.

Medium Term

3. GOB should allocate adequate budget for cash subsidy on the basis of past export volume and projected export. There should be a specific time frame for settling the cash subsidy claims.

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42 Bangladesh Bank, FE Circular No. 24, 12th December 2002.
4. The government may consider making arrangements with foreign airlines to operate cargo flights and encourage private airlines to introduce cargo flights for vegetable exporters. The government may further provide Cash subsidy on airfreight instead of value of export. For instance, national/foreign airlines may be subsidised to introduce cargo flights for the exporters.

5. Decision taken by Bangladesh Bank should be promptly disseminated to the stakeholders involved in simple language. They should be posted on BB website and appropriately highlighted.

**Issue: High rate of interest for export finance**

High rate of interest is a major issue raised by exporters from all sectors. The commercial banks are not in a position to lower their lending rate mainly due to high cost of non-performing assets and high deposit rate. In order to allow some relief, export financing is being allowed at a concessional rate of interest from Export Development Fund (EDF). The rate of interest on EDF is LIBOR (which is around 1.2%) plus 3.5% including their spread of 2.5%.

**Recommendations**

**Short Term**

1. Bangladesh Bank should continue to put its weight behind management reform in NCBs to improve their efficiency. If this happens, the cost of banking operation will come down leading to lower cost of fund and hence, lower interest rates. It should also continue to put pressure on PCBs to further reduce interest rate as they are not saddled with high level of non-performing assets.

2. **Reduce interest rate on export finance to a single digit.**

**Medium Term**

3. Bangladesh Bank should widen the size of existing EDF of US $ 30.00 million and make export finance through banks. Commercial Banks should be allowed to borrow fund from international sources at LIBOR like EDF and NBFIs should be

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44 Export Development Fund (EDF) of US 30 million has been created jointly by the IDA and the GOB for financing imports of raw materials and spare parts of export oriented manufacturers in order to diversify export and to promote and encourage non-traditional and higher value added export. The fund is to be utilized by the commercial banks for financing their exporters to the maximum of 70% of the export L/C at an interest rate of 1% above LIBOR. BB will provide a spread of 3.5% to the financing commercial banks on their advances to the new non-traditional exporters and a spread of 2.5% on all other advances rediscounted with EDF.
encouraged to extend support to the exporters. For this purpose, Bangladesh Bank and Board of Investment should simplify the existing procedure of approval.

**Issue: Higher rate of interest for project finance**

There is no scope for providing Project Finance to an export oriented organization at concessional rate of interest because according to BB regulations, “Export Credit” does not cover project finance for export credit. Large enterprises are entitled to get project loan at concessional rate of interest if Bangladesh Bank recommends but SMEs are not entitled to such facilities. Interest rates on project finance of some commercial banks are given below:

Task Force of GOB formed to Eradicate Different Problems and Hindrances in Export Business decided in their 28th meeting held on June 3, 2002 that commercial banks must provide export credit at 7% interest rate.

**Recommendations**

**Short Term**

Recently Bangladesh Bank has made concessional interest rate for following items mandatory and for others a band of 7% to 10%:

**Table 9 : Interest rates for project finance of different banks**

<table>
<thead>
<tr>
<th>Name of the Bank</th>
<th>Rate for SMEs</th>
<th>Rate for Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFIC Bank Ltd.</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>Islami Bank Ltd.</td>
<td>14.50</td>
<td>14.50</td>
</tr>
<tr>
<td>Prime Bank Ltd</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>UCBL</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>NCCBL</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>AIBL</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>NCCBL</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Mercantile Bank Ltd.</td>
<td>12.5</td>
<td>12.5</td>
</tr>
</tbody>
</table>

This is preferential system of interest rate should be waived and a standard concessional rate of interest should be declared.

**Table 10 : Concessional interest rate**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Revised interest rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Ready made garments</td>
<td>7%</td>
</tr>
<tr>
<td>2 Frozen food.</td>
<td>7%</td>
</tr>
<tr>
<td>3 Agro-based industry</td>
<td>7%</td>
</tr>
<tr>
<td>4 Leather shoes and Leather products</td>
<td>7%</td>
</tr>
<tr>
<td>5 Potato</td>
<td>8%</td>
</tr>
</tbody>
</table>
### Issue: equity entrepreneurship fund

BB has introduced EEF in order to support risky new projects; especially software and food/agro based processing industries. Bangladesh Bank intended to introduce venture capital through EEF although there were some limitations. EEF has so far sanctioned Tk. 840 million for the two sectors and BB has earmarked Tk. 3 billion for the fiscal year 2002-2003.

### Recommendations

**Short-Term**

*Bangladesh Bank should continue to simplify procedures related to disbursement of EEF which has already started picking up. Given necessary policy support and regular monitoring, EEF may emerge as a major funding source for risk bearing techno based export. EEF should also be made available to other risky export sectors and not restricted only to software and agro-based industries.*

### Issue: Export Promotion Fund of EPB

Many exporters of ICT and handicraft sector informed that they are not aware of EPB’s scheme for financing from its Export Promotion Fund.\(^{45}\)

### Recommendations

**Short Term**

*EPB should arrange presentation for the members of the trade associations of the ICT and handicraft. EPB and Janata Bank should jointly publicize detailed procedure of export finance through Export Promotion Fund. The relevant information should also be made available electronically.*

### Issue: Export Credit Guarantee Insurance

GOB has introduced an Export Credit Guarantee Insurance (ECGI) to deal with credit risk associated with export trade. Administration of the scheme has been entrusted to Sadharan Bima Corporation (SBC), which has created a separate department known as Export Credit Guarantee Department (ECGD) to deal with

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\(^{45}\) EPB and Janata Bank signed a MOU to extend financial support to ICT and handicraft exporters. Initially, EPB placed a fund of Tk. 50 million for this purpose. The fund has now increased to about Tk. 80 million. After the evaluation of the Technical Committee, EPB sanctions credit facility and Bhaban Branch of Janata Bank disburses the loan. From the inception of the scheme, two ICT companies have been financed against export order.
export credit insurance. However, being a public commercial organization, Sadharan Bima Corporation is not perceived as the right institution to run such promotional schemes and besides, the department has no trained manpower to sell the products. SBC itself has advised MoC that unless the government makes its ECGD a separate corporation and diversifies the schemes, the schemes themselves would be at stake. Asian Development Bank (ADB) has also recommended that making ECGD an independent corporation is the only option for its survival. The Bank also added that export credit schemes are run by separate corporations in countries like India, Sri Lanka, Malaysia, South Korea, Hong Kong and Australia. In India, the Export Credit Guarantee Corporation is an autonomous company with 100% share being held by the government.

**Recommendations**

**Medium Term**

As suggested by Asian Development Bank (ADB), the ECGD should be made an autonomous company so that it suits the need of the larger companies, SMEs and lending institutions. The SBC and Jiban Bima Corporation could be partners to its capital.

**Issue: Lending rate**

On the basis of current lending rates band prescribed by BB each CB determines its lending rate depending upon the cost of fund. The lending rates are still high compared to neighboring countries like Pakistan and Thailand.

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46 When it started on January 1, 1978, the Export Credit Guarantee Scheme Department (ECGD) had three schemes to offer. Since then the services remained the same, making it difficult for the ECGD to adjust to new realities.

47 Present deposit and lending rate of CBs in Bangladesh

<table>
<thead>
<tr>
<th>CBs</th>
<th>Deposit Rate</th>
<th>Lending Rate</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lowest</td>
<td>Highest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCBs</td>
<td>4.5%</td>
<td>7.25%</td>
<td>5%</td>
<td>15.15%</td>
</tr>
<tr>
<td>PCBs</td>
<td>4.75%</td>
<td>11.25%</td>
<td>8%</td>
<td>19.00%</td>
</tr>
<tr>
<td>FCBs</td>
<td>4.75%</td>
<td>11%</td>
<td>7%</td>
<td>19.00%</td>
</tr>
</tbody>
</table>

Average lending rate 12.8%

48 It is pertinent to mention here that the Task Force formed for immediate elimination of the problems and hindrances in export business in a meeting recommended for reduction in interest rate on export credit to 7%. Bangladesh Bank vide their BRPD circular revised interest rate for commodities like Ready Made Garments; Frozen Food; Agro-Based Industry; Leather Shoes and Leather Products; and Potato.
The Private Commercial Banks (PCBs) being newer generation banks have to offer higher rate of interest to attract deposits. Higher cost of fund in the NCBs may be attributed to the following facts:

a) The high incidence of non-performing loans of the banks pushes up the cost of bank financing.

b) About 30% of the total employees of the NCBs are directly or indirectly involved in trade union activities. They do no work at all or put in negligible working hours. 30% manpower of the NCBs is virtually surplus, and hence impacts negatively on their profit position.

c) NCBs conduct government transactions free of cost employing huge human and financial resources like collecting different types of utility bills, payment of “Distressed Women Allowance”, providing pension to government servants and the Army. This too has a cost that has to be ultimately borne by borrowers.

d) National Savings Certificates offer artificially high interest rates and drive up the costs of funding.

**Recommendations**

**Short Term**

1. The GOB enacted a law, Artha Rin Adalat Ain 2003 to recover the bad loans (including non-performing loan to the exporters). A machinery may be set up to closely monitor the effectiveness of the law in loan recovery and suggest necessary improvements.

2. Minimum commission @ 2.5% should be paid to the NCBs to compensate the operational cost for government transactions.

3. The concerned ministry should place funds with the NCBs beforehand to meet the government obligations against army pension bills, food procurement bills and so on. Alternatively, the govt. should pay the cost of fund on the amount involved by the NCBs.

4. BB realizes penal interest on the debit balances in the accounts of the commercial banks. BB should also pay interest on the credit balances of such accounts so as to improve the financial position of the CBs.
**Issue: Time and Cost of Recovery**

Bangladeshi banks are burdened with huge amount of non-performing loans (25%). Non-performing loans are one of the major causes of high cost of recovery. Cost of recovery is not worked out by any of the banks/FIs interviewed and they do not have any procedure for calculation of the cost of recovery. However, for the purpose of this paper, a procedure has been devised to calculate the cost of recovery using the formula:

\[
C = \left\{ \left( NL + RL \right) \times ALR \right\} + \left\{ \left( NL + RL \right) \times ABR \right\} + \left\{ IW + AF + LF \right\} / \left( TLA \times 100 \right)
\]

But these factors are not disclosed in the annual report of Banks and FIs and the relevant statistics are not available even in the central bank.

**Recommendations**

**Medium Term**

Bangladesh Bank should make it mandatory for banks and FIs to disclose the cost of recovery of non-performing loan and advances in order to make it public how much the good borrowers are paying for the non-compliance of the bad

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49 Where:
- \( C \) = Cost of recovery
- \( NL \) = Total non performing loan
- \( RL \) = Rescheduled and Blocked loan
- \( ALR \) = Average lending rate
- \( ABR \) = Average borrowing rate
- \( IW \) = Amount of Interest waived
- \( AF \) = Fees and commission paid to recovery agent
- \( LF \) = Legal expenses for recovery
- \( TLA \) = Amount of outstanding Loan and advances

This formula has been devised by Mohammad Abu Taher, financial analyst in Al-Arafa Islami Bank.

50 The authors identified the following components of cost of recovery and devised the above formula to calculate the cost of recovery.

- Loss of income due to non-performing assets: Banks lose income, which would have been generated from its non-performing loans and advances.
- Cost of non-performing assets: Banks have to pay for the depositors’ fund, which yields no return in case the loans become non-performing.
- Amount of interest waiver: Very often banks waive interest to recover the principal loan. Banks also have to waive interest on Government directive.
- Loss for rescheduled loan: Banks incur loss when rescheduled loans are transferred to interest free blocked account.
- Operational Cost of recovery
- Amount of fees and commission paid to the recovery agents.
borrowers. These statistics should also be included in the Resume of Financial Institutions published by the Ministry of Finance and in the annual report of BB.

**Issue: Schedule of charges on banking services**

Most exporters interviewed (both large and SMEs), claimed that the prevailing charges on banking services are high and that they should be lowered for growth of the export sector. Such a decision has been taken by the banks on March 2003. Following the decision, Bangladesh Bank has provided a comparative list of charges to the banks for necessary actions. From the available schedule of charges of different NCBs and PCBs, it has been observed that banks are yet to rationalize their charges. The FCBs however, have not provided any information on this issue. And also, the banks charge very high service charge that increases the cost of doing business. For example, while DHL charges Taka 350 for a document delivery, banks would charge Taka 1,500. While Society for World-wide International Financial Telecommunication (SWIFT) costs Taka 50 for a money transfer to a bank, the bank charges Taka 3,000 for the same.

**Recommendations**

**Short Term**

1. Commercial Banks should rationalize schedule of charges especially for the exporters as per decision taken by the Bankers on March 11, 2003.
2. Reduce bank charge: remittance charge, postage, courier (DHL), etc.

**Issue: Lack of correspondent banking arrangement**

In the absence of banking relationship with several countries including Russia, Ukraine, Afghanistan etc., export transaction with these countries are time consuming and risky.

**Recommendations**

**Short Term**

Bangladeshi commercial banks should establish correspondent banking relationships with foreign banks abroad, where such arrangements are absent. Bangladesh Bank may extend necessary assistance in this regard.

**Issue: Consortium Finance**

Bangladesh Bank has advised for syndication of any single credit facility equivalent to 50% and above of total capital (paid up capital plus reserves) of a

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51 BB’s letter No. BRPD(P)661/29/2003/1059 date: March 11, 2003
particular bank. But entrepreneurs, specially exporters do not feel comfortable in Consortium Finance arrangements as the system is complicated and time consuming.

**Recommendations**

**Long Term**

A government sponsored “Exim Bank” should be established to co-ordinate the services of the financing commercial banks, syndication of term loans and to cater the Imports/Exports need of the country.

**Issue: Delay in repatriation and payment of export proceeds**

Repatriation of export proceeds through most of the banks takes a long time. TT takes at least 7 days on an average. This adversely affects the cash flow. The delay is mainly due to bureaucratic bottleneck in the system and the absence of direct correspondent banking relations of the paying banks with the remitting banks.

**Recommendations**

**Short Term**

Bangladesh Bank should ensure speedy inward remittance of export proceeds through close monitoring. It is mentionable that recent steps taken by Bangladesh Bank in monitoring private foreign remittances from NRBs has produced very good results.

6.1.2 NBFIs related impediments

**Issue: Complicated procedure for getting fund from International sources**

NBFIs borrow fund from the local commercial banks at the rate of 11%-13% and lend to exporters at the rate of 15%-18%.

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52 BB’s BRPD circular No. 08 date: 18/03/2003  
53 Rates quoted here were as on the day of interviewing  
54 There are 19 non-bank financial institutions in operation in Bangladesh. Amongst them, five have been interviewed during the field survey. The NBFIs are extending term finance for installation of capital machinery and construction of factory building. They do not provide working capital finance. NBFIs usually raise fund by taking loan from local commercial banks and in a few cases from foreign agencies. Field survey shows that the NBFIs are extending financial support to all the potential sectors like Textile and RMG, food and allied products, agro based industries, leather, ICT etc. The NBFIs provide service at the doorsteps of the investors; their officials going to the potential borrower for appraisal and evaluation. Borrowers are rarely required to visit NBFIs officials.
The exporters usually utilize the high cost fund of NBFIs for procurement of capital machineries, which increases their cost of production. NBFIs also borrow funds from international sources at LIBOR plus 3%. For availing of international funds, NBFIs need to obtain permission from Board of Investment (BOI) and BB. This is a lengthy and complicated procedure.

**Recommendations**

**Short Term**

BB should extend necessary guidelines and assistance to NBFIs to reduce their lending rates in order to provide lending to the SMEs at a lower rate. With this end in view, BB and BOI should simplify the existing system of approving borrowing by the NBFIs from the foreign sources. Besides, NBFIs should also have access to local sources of financing.

### 6.1.3 Some other major sector-specific issues

#### Issue: Bonded Warehouse operating hours for jewellery

The gold imported through L/C (direct import) is stored in the bonded locker under joint custody of the manufacturer and the Customs authority. The Customs authority opens the bonded locker at 9 A.M. when workers are allowed to take the gold out and start work under the supervision of Customs authority. At 5 P.M., the stock of gold is stored again under joint custody.

Because the artisans are paid on a piece rate basis, they often require to work till late hours for completion of the task assigned to them. Besides, during shipment time, the exporters need to keep the factory open even for 24 hours to complete the export order.

**Recommendations**

**Short Term**

The Customs authority should accommodate flexible working hours for the jewellery artisans as in the case of the garment industry. It may be mentioned here that the garments industry, which also operates under bonded warehouse, is not subject to rigid 9.00 A.M - 5.00 P.M working hour.

**Issue: Central Bonded Warehouse for RMG exporters**

Representatives from BGMEA demanded for setting up of a central bonded warehouse. They claimed that this would reduce the lead-time and make the RMG
sector more competitive in the international market, but they did not give any mechanism for setting up and working of a central bonded warehouse. The proposal however, received criticism from representatives of the BTMA as each individual RMG exporter is enjoying bonded warehouse facilities and the central bonded warehouse will only import material when there is a bulk order from a number of exporters. Under such a system, the RMG exporters will place order to the central bonded warehouse to import fabrics against their Master L/C or export order. But it will not be profitable for the central bonded warehouse to import fabric/yarn/accessories for any single RMG exporter. This system may increase the lead-time rather than reducing it.

Recommendations

Short Term

An in-depth cost-benefit analysis needs to be conducted on central bonded warehouse and how it will impact the volume of export, lead time, international competitiveness of RMG exporters in Bangladesh and the local textile industries.

Issue: Value addition by the customs authority

Under the existing rule, there has to be a 10% value addition on the exportable items of ornament whereas the actual value addition does not exceed 8%. The fixed value addition of 10% inflates price of the Bangladeshi ornaments. Recently the exporters’ association made a representation for reduction of the value addition to 8%. The authorities have agreed to the proposal although but there is no Statutory Regulatory Order (SRO) as yet.

Recommendations

Short Term

Value addition should be reduced to 8% to make Bangladeshi jewellery more competitive in the international market. Furthermore, it is also recommended that the government should grant cash incentive of 50% on value addition to enhance competitiveness of the industry.

Issue: Financial support for setting up backward linkage industries

In the post MFA context, there is an urgent need for establishing backward linkage industries as Bangladesh will face stiff competition in the global market from 2005, when present trade protections/barriers will be abolished. There is
apparently a conflict between the yarn/cloth producers with the garments manufacturers. Garments manufacturers are supporting the open market mechanism for importing/procuring yarn rather than for setting backward linkage industries. On the other hand the yarn and cloth producers are lobbying for setting up backward linkage industries.

**Recommendations**

**Short Term**

The banks may give financial support to the entrepreneurs of good track record coming forward to set up backward linkage industries.

**Medium Term**

An in-depth study on setting up of backward linkage industries may be undertaken. The garment industry will prefer to purchase raw materials from other countries if our backward linkage industries fail to offer quality products at an internationally competitive price. Therefore, the conflict between the two groups of exporters should be resolved immediately so that Bangladesh can cope with post MFA situation.

**Issue: Valuation of Software**

BASIS and its members observed that there is no standard mechanism or norms for valuation of software in Bangladesh, which deprives them from borrowing from financial institutions.

**Recommendations**

**Short Term**

Software valuation mechanism may be developed and finalized on the basis of:

(a) the recommendations of Bangladesh Bank’s Committee and comments of CBs in this report.

(b) Software valuation mechanisms which already exist in Sonali Bank, Janata Bank and EPB.

**Issue: Repeated financing of software**

Software products can be sold several times after customisation. It is well recognized that ICT finance is quite different from financing RMG or vegetables for instance. But the financing banks do not consider this special feature of the industry for repeated financing, particularly to the SMEs.
Commercial banks should extend finance for customisation of software against irrevocable work/export order even if the software was financed previously. Bangladesh Bank should issue clear guidelines to the financing banks. Besides, it should also monitor regularly whether these guidelines are followed by the banks or not.

**Issue: High interest rate on outstanding loans**

Eid Advance is allowed during Qurbani which is adjustable within the investment cycle of 270 days. Almost every tannery has to sell out the cycle closing stock at a forced sale value to avail the next Eid advance which results in trade loss. The leather industries are allowed Export Cash Credit –ECC (Hypothecation), ECC (Pledge) and ECC (qurbani) facilities at 9% rate of interest for a period of 270 days. However, after expiry of credit line, interest is charged @ 14%.

**Recommendations**

**Short Term**

*The value of carried over stock and the current year’s finance taken together should be considered as Eid advance. Financing banks should charge interest @ 4% and Bangladesh Bank should provide them refinance @ 2%.*

**Issue: Restriction on remittance of registration fees in FCY**

Cost of registration for each pharmaceutical product in different countries varies from US$10,000 to US$50,000. In Russia, each product registration costs US$50,000. It is extremely difficult to obtain this foreign currency through official channels before export begins. Moreover, remittance of registration fee in FCY is cumbersome and lengthy. A typical pharmaceutical firm has to spend between US $6000 and US $10,000 per month to maintain a marketing office abroad. But Bangladesh Bank allows remittance of only US $2,500 per month for this purpose.

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55 The country’s leather industry has been passing through a bad patch for the last two consecutive fiscal years as export earnings from the sector dropped by a quarter from its peak in 2000-01. Bangladesh has 206 tanneries, 83 of them are sick due to huge overdue bank loans. They have a total production of about 400 million square feet of wet blue, 300 million square feet crust leather and 130 million square feet finished leather per year. Bangladesh produces about 223.71 million square feet leather including 117.54 million square feet crust leather for export and 106.17 million square feet various type of finished leather for export and local consumption (source: Bangladesh Tanners Association).
Recommendations

Short Term

Remittance of foreign currency for registration of products to the importing countries should be simplified and rationalized for which Bangladesh Bank/EPB should:

I. Prepare a list of exporters and their items of export.
II. Prepare a list of the importing countries and the amount of registration fees required by them.
III. Set a time frame for settling the remittance procedure.

Bangladesh Bank should accord permission for remittance of registration of items and maintenance of office on the basis of the above information/export performance within the set time frame.

Issue: Fraudulent use of Export Form (EXP) for agro-based products

There is a wide gap between the value of export proceeds realised and actual value of export. This is due to a large quantity of export being made against fake EXP. Interview with the financing bank reveals that their weakness in the controlling system has many loopholes to make fraudulent use of EXP, resulting in drainage of foreign exchange. In a meeting of the commercial banks, Bangladesh Bank and exporters of fruits & vegetables, it was decided to take corrective steps to stop fraudulent use of EXP. Accordingly, Bangladesh Bank issued a circular instructing the financing banks to implement the steps stipulated in the circular.  

Recommendations

Short Term

Bangladesh Bank should monitor and follow up the implementation of the decision taken in the meeting of the concerned parties involved in export of vegetables, which was subsequently circulated by BB to the CBs.

Issue: Local L/C for components

Bi-cycle composition requires various types of small parts, which are imported/procured under bonded warehouse facility. The exporters assemble the parts under the brand name of the parent concern. Customs insist upon opening of L/C for procurement of components from their allied concerns providing forward linkage. Each allied concern is a limited company and they partially procure

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components locally and partially through import from abroad. When the allied units supply components from the bonded warehouse, Customs Authority insists for L/C from the parent company. The problems associated with opening L/C are:

- Additional bank charge for opening six L/Cs.
- Preparation of 6 sets of export documents by specialised staff. Such L/C requires signing of a minimum of 21 papers for the opening bank and others institutions concerned.

**Recommendations**

Customs authority may allow delivery of parts and components manufactured/imported/procured by the allied concerns if the customs officer in the bonded warehouse of the parent company ensures full utilization of the components delivered by the allied concerns. Under the proposed system, non-export and non-payment of duty will disqualify the parent/manufacturing company to get subsequent delivery.

**6.2 Issues related to other sources of finance**

This study also identifies other sources of finance available for exporters. Some of the major issues and recommendations are discussed below:

**Issue: Factoring Service**

Factoring is a device of transforming non-performing or inactive assets into productive assets by selling book-debts to a company that specializes in book-debt collection and administration. Since Bangladesh is a developing country, there is good potential of launching such factoring services. However, there is no baseline information on factoring services in Bangladesh. There are no factoring companies or banks for taking over non-performing assets of the commercial banks.

**Recommendations**

**Short Term**

The following steps could be considered to introduce factoring services in our country:

1. BB may conduct a comprehensive study taking into account the various aspects of factoring services such as scope, procedure, organization, legal issues, funding, pricing, accounting, credit rating and managerial issues.
2. BB should facilitate establishment of Factoring Companies/Banks for taking
over non-performing assets of the banks and providing services to the business enterprises through collection of book-debts (receivables).

**Issue: Counter -Trade**

Bangladesh has undertaken different initiatives to start counter trade with different countries. The objective of starting counter-trade in Bangladesh is to reduce trade deficit and to reduce pressure on foreign currency reserve. In case of counter-trade, both the countries have to maintain non-convertible US Dollar account. In every three months, accounts of both the countries will be settled.

**Recommendations**

The committee on counter-trade should make its recommendations public immediately so that GOB can start negotiating with potential partners like India, Philippines and others.

**Issue: Stock Exchanges**

Dhaka Stock Exchange and Chittagong Stock Exchange are non-profit organizations. They work as intermediaries between investors and companies. They help the companies to raise capital through initial public offering. Since the stock exchanges are not lending or borrowing institutions, DSE and CSE do not have any provision to maintain liquidity.

**Recommendations**

**Short Term**

Although the stock exchanges do not have any scope to extend special help to the exporters, they can certainly attract good companies to list with them to help raise fund from the shareholders.

**Issue: EPB’s service delivery**

Many exporters and trade association complained that they face serious problems in getting timely delivery of the Certificate of Origin from the EPB for which sometimes there is delay in submission of export document to banks. They also complained that the officials of EPB take speed money for issuing certificates.
Recommendations

Short Term

With regards to complaint on delay in issuing Certificate of Origin, EPB should set a time frame for the issuance of the certificates and depute a senior executive to make regular monitoring. The complaint of taking “speed money” should be investigated into and appropriate action should be taken.

Issue: Venture Capital

Equity capital in young and risky business is known as venture capital. BB has already introduced EEF in order to support the risky new projects. Grameen Bank has already started venture capital financing despite some limitations and Basic Bank and VANIK have taken some initiatives but equity capital financing has not started as yet. Bangladesh Bank is currently working on Credit Bridge and stand-by facilities.

Recommendations

Short Term

1. Bangladesh Bank should accelerate the process.
2. SRO should be issued for withdrawal of Stamp duty on conveyance.
4. SRO for VAT on Special Purpose Vehicle which has been issued should be disseminated to potential investors.

7. Conclusions

There is general consensus in the government, the banking sector, and the market that trade facilitation has a positive bearing on economic growth and on development in general. It is central to generating employment, promoting investment, upgrading technology, diversifying and strengthening the industrial base, developing infrastructure and aiding closer international economic linkage. There is therefore, a shared commitment of all stakeholders to ensuring a level playing field for trade, specially export. This is reflected in the extensive spread

57 Specialist venture capital firms, wealthy individuals, and specialist firms and investment institutions such as pension funds provide it. The venture capitalist earns his/her return primarily in the form of capital gain. The main attributes of venture capital are equity participation, long-term investment, and participation of venture capitalist in management.
of services that are geared to export promotion. This study provides a broad overview of this spread. The study goes on to identify the deficiencies that characterize the existing portfolio of banking and export financing services. The study shows that these issues that affect efficiency range from structural problems (banks and FIs) to policy incongruities to lack of proper dissemination of information as well as the lack of financial discipline as part of the prevailing corporate culture.

The paper recommends specific remedies, and where necessary, also addresses the contributing factors behind such inefficiencies.

Paradigms in trade continue to evolve and it is essential to look beyond current trends and parameters for continuously upgrading the efficiency and effectiveness of export financing. Arrangements such as counter trade would be attractive to smaller economies due to its potential to reduce foreign currency dependency. One other issue that would have to be examined in a broad frame is the question of regional cumulation.

As mentioned before, there is a duality in export financing that stems from the competing claims of effective export facilitation on one hand and financial discipline on the other. The efficiency and effectiveness of financial institutions rest on how responsive and sensitive they are to the needs of exporters. The FIs have to restructure themselves more vigorously to face up to the challenge of MFA phase out. The efficacy of response of FIs again, is affected by the financial responsibility shown by exporters. This critical linkage would provide an important direction for manipulating both short-term and long-term variables to enhance the efficiency and effectiveness of banks and financial institutions. This linkage could perhaps, present a major challenge for policy makers to identify a Pareto optimal level which is firm on regulations and flexible on facilitating increased and diversified export.
References


Bangladesh Bank, Equity and Entrepreneurship Fund Unit, Bangladesh Bank, Dhaka. October 2003.


Rahman, M. *Surviving In a Quota-free World: Will Bangladesh Make It*, Paper presented at a dialogue on 18 March, 2004


State Bank of Pakistan, *Prudential Regulations for Banks*, Banking Policy and Regulations Department, Pakistan.8th July 1997.


Atiur Rahman et al.: How flexible are the financial services to the export sector in Bangladesh


The Financial Express, Announced Interest Rate Chart (Lending Rate) 20 October, 2003.


The World Bank, Bangladesh: Key Challenges for the Next Millennium, New York, 1999

The World Bank and Bangladesh Enterprise Institute, Improving the Investment Climate in Bangladesh, May 2003.

Union Bank of Switzerland, Documentary Credits Documentary Collections Bank Guarantees, Union Bank of Switzerland, Switzerland, May 1995.
The Money Demand Behavior in Bangladesh

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Abstract
This paper has examined the money demand behavior in Bangladesh with annual data since the mid-1950s. However the focus of the study has been the post-independence period (1972-2003), especially the 1980s and 1990s. The main findings of the paper are as follows. (i) There existed a relatively well-defined narrow money demand function in Bangladesh during the 1950s and 1960s. However the narrow money demand function for this period did not include the nominal interest rate as an opportunity cost variable and has been found inadequate to explain the money demand behavior for the post independence period. (ii) There exists a stable money demand function for Bangladesh for the post-independence period, especially for the sample period beginning from the early 1980s. However the values for income and interest elasticities of demand for money have changed since the early 1990s. The above findings, in conjunction with related findings in other papers, suggest that monetary targeting is the appropriate strategy of monetary policy, at least as an interim measure. Adoption of monetary targeting, in place of a discretionary monetary policy strategy, would provide Bangladesh a nominal anchor for price stability under the present floating exchange rate system.

I. Introduction
With ongoing financial sector reforms in Bangladesh since the early-1980s, monetary policy has gained increased role in maintaining macroeconomic stability in general and price stability in particular. However, the Bangladesh Bank is yet to announce a monetary policy framework for the conduct of monetary policy to achieve price stability.

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Until recently the choice of a monetary policy strategy did not get priority in this country. Apparently, under both a pegged exchange rate system and capital controls, monetary policy was conducted passively in conjunction with fiscal policy and their main objective was to maintain a desired level of foreign exchange reserves rather than price stability *per se*. Implicitly, inflation had an external anchor: the nominal exchange rate, which was kept at an overvalued level for price stability. However, the prices of non-tradable goods, which are determined by domestic factors, dominated the behavior of inflation, given that the share of non-tradable goods in national expenditure has remained high [Hossain 2000].

Historically being a relatively low-inflation country [Hossain and Rashid 1996], exchange rate pegging was neither suitable nor sustainable for Bangladesh as a strategy of monetary policy [Hossain 2000]. It was rightly abandoned on 31 May 2003 in favor of a floating exchange rate system. This was a bold decision, as it has made monetary policy independent, at least in principle. However, the gain of monetary policy independence under a floating exchange rate system generally requires a monetary policy strategy that uses a nominal anchor for price stability. Monetary and inflation targeting are two alternative strategies of monetary policy that can achieve this goal [Blejer, Ize and Leone 2000; Mishkin, 2000]. Having gained some monetary policy independence, Bangladesh should therefore make a choice between the two for the conduct of monetary policy more credibly and effectively.

Monetary targeting has a long tradition and is (was) adopted by many countries. There are strong arguments for monetary targeting as a strategy of monetary policy. Milton Friedman’s [1959] argument for a ‘k-percent’ money growth rule is based on the potentially destabilizing effects of active monetary policy when there are long and variable lags present. His suggestion for a constant money supply growth rule was not rigid but pragmatic, in the sense that policymakers not

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1. In the monetary literature, a fixed exchange rate is considered a monetary rule, one approach to achieve monetary and price stability. Therefore, by definition, a flexible exchange rate implies the removal of a monetary rule and is not a policy in itself. Given that a flexible exchange rate is consistent with both price stability and hyperinflation [Mundell 1968], a nominal anchor, a variable that is the intermediate target of monetary policy, is needed to maintain inflation at a desired level. For a discussion on different types of nominal anchors, see Flood and Mussa [1994].

2. The developed countries that adopted monetary targeting during the mid-1970s include Australia (1976), France (1976), Germany (1974), Italy (1974), Switzerland (1975), Canada (1975), USA (1975), the United Kingdom (1976), and Japan (1978). Germany, Switzerland and Japan continued with this strategy throughout the 1980s and 1990s, but in a loose form [Cobham 1992; Mishkin 2000; Blejer, Ize and Leone 2000].
bound by a fixed money supply growth rule may be tempted into excess activism, thereby destabilizing rather than stabilizing the economy. Kydland and Prescott [1977] have formalized this theme by way of the time-inconsistency problem.

Monetary targeting became popular in the midst of worldwide inflation during the mid-1970s and peaked in the late-1970s. However, once they brought inflation under control by the mid-1980s, most developed countries discarded monetary targeting for all intents and purposes. The situation is somewhat different in developing countries where formal or informal monetary targeting has gradually become popular. There are a number of reasons for such popularity. First, the money demand function, which plays the critical role in the design of monetary targeting, has remained largely stable in these countries despite some financial deregulation and financial innovation since the 1980s. Second, since the mid-1980s most developing countries have switched from a fixed/pegged to a flexible exchange rate system and gained greater control over the monetary base that can act as a nominal anchor. Third, most developing countries find it difficult to fulfil the stringent conditions of inflation targeting, which has become the favorite strategy of monetary policy in many developed countries since the early 1990s [Blejer, Ize and Leone 2000; Debelle, Masson and Savastano and Sharma 1997].

Insofar Bangladesh is concerned the question remains what should be the strategy of monetary policy under the present floating exchange rate system. The ad-hoc manner that monetary policy is conducted is neither effective nor desirable. Changes are afoot. The prevailing view of high officials in the Bangladesh Bank is that inflation targeting is not appropriate for Bangladesh at this juncture. However, monetary targeting is considered as a plausible alternative, given that some form of monetary base targeting is already in place under the World Bank-IMF-supported PRGF program. In practice, whether monetary targeting should be adopted formally depends on the presence of a stable money demand function. This follows the general principle that a stable money demand function is the

3. The key requirements of inflation targeting include: a political mandate to achieve and maintain price stability, central bank independence (instrument independence), developed money and capital markets, flexibility in wages, interest and exchange rates, absence of fiscal dominance (that is, monetary policy is not dictated by fiscal needs of the government), central bank’s technical ability to forecast inflation, a well-defined and understood analytical framework of monetary policy that includes the transmission channels between policy instruments and inflation, macroeconomic stability, meaning low and stable inflation, and above all, policy credibility and accountability [Debelle 1997; Debelle, Masson, Savastano and Sharma 1997].

4. The main attraction of inflation targeting is that unlike monetary targeting, it can bypass the step of intermediate targeting in the monetary policy transmission mechanism and therefore does not require the presence of a stable money demand function.
necessary condition for any causal relationship between money supply growth and inflation.

Having outlined the necessity for choosing a monetary policy strategy, this paper re-examines the money demand behavior in Bangladesh in a historical context. Annual data since the 1950s are used for the study. The remainder of the paper is organized as follows. Section II specifies a monetary model of inflation. Section III specifies and estimates a money demand function for Bangladesh with data for different sample periods. Section IV examines the stability of the money demand function for Bangladesh for the post-independence period. Section V draws conclusion.

II. A Monetary Model of Inflation

Consider the money market equilibrium condition:

\[ m^s = m^d \]  

where \( m^s = M/P \) (real money supply, \( M \), is the nominal money stock and \( P \) is the price level) and \( m^d(y_p,i) \) is the real money demand, which is an increasing function of real permanent income (\( y_p \)) and a decreasing function of the nominal interest rate (\( i \)). From this money market equilibrium condition, the following relationship can be derived in proportional growth form:

\[ i = (y_g - i_g) \]  

where \( i \) is the inflation rate, \( g \) is the money supply growth rate, \( g_y \) is the permanent income growth rate, \( g_i \) is the percentage change in the nominal interest rate, and \( y \) is the income (interest) elasticity of demand for money.

This shows that the inflation rate equals the growth rate of the money supply less the growth rate of money demand. Assume that the money supply growth rate is a policy instrument and set by the monetary authority and that it does not affect the money demand growth rate in the long run. This makes inflation a policy variable that roughly equals the money supply growth rate less the growth rate of the economy times the income elasticity of demand for money.

This simplified monetary model of inflation rests on a number of testable propositions:

5. The low-frequency data capture the long-term monetary relationship better and are in the spirit of the classical-monetarist tradition [Laidler 1990].

• the nominal interest rate does not affect the long-run money demand,
• the money demand function is stable, in the sense [Friedman 1956; Judd and Scadding 1982] that:
  1. there exists a parsimonious relationship between real money balances and the scale variable, say, real permanent income,
  2. the real permanent income is functionally related to macroeconomic variables that represent economic activity, such as consumption expenditure, and
  3. the money demand relationship is robust in the statistical sense of high explanatory power, precision of parameter estimates, and forecasting ability,
• the monetary authority has the ability to bring changes in the monetary base growth rate through monetary policy instruments at its disposal.¹

The fulfilment of above conditions may establish a causal relationship between money supply growth and inflation under monetary targeting.

III. The Demand for Money: Theory, Specification and Estimation

In the theoretical literature at least three broadly defined groups of money demand models are dominant. They are single equation demand theory models, portfolio theory models, and inventory theory models. The Chicago School-based demand theory models derive the money demand function in the same way as the demand for other durable goods.² The portfolio theory models are associated with the Yale

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7. This follows the classical neutrality and super-neutrality of money propositions. According to the neutrality of money proposition, the expansion of money supply in the long run leads to an increase in the price level but not an increase in real income, which is determined in the real sector of the economy by real, and not nominal, factors of production. The super-neutrality of money proposition suggests that economic growth remains invariant to an increase in the money supply growth rate, implying that the money growth rate would not increase the money demand growth rate through the income growth channel. However, the money supply growth can lower the nominal interest rate in the short run through the liquidity effect but the nominal interest rate would rise proportionately to the inflation rate in the long run through the Fisher equation, leaving the real interest rate, capital-intensity and per-capita output (or consumption) independent to the rate of money growth. For a review of these propositions and critiques, see Friedman [1992], Orphanides and Solow [1990] and Tobin [1992].

8. This is based on the assumption that the country operates under a flexible exchange rate system and thus has control over the monetary base.

9. Real money balances are considered a type of real asset ¾ a form of wealth with the attractive property of higher liquidity, providing a flow of non-observable services, which are proportional to the stock of real money balances and which enter into an individual's utility function. Individuals maximize their utility functions subject to the budget constraints. The demand for real money balances, derived from the utility maximization principle, is then shown to depend on real permanent income (or wealth) and the opportunity cost of holding money instead of other financial and real assets [Friedman 1956, 1959b].
School view of the demand for money. The original insight of this theory is attributed to John Maynard Keynes and has been developed further by James Tobin [1958] in his article on liquidity preference, where the demand for money is viewed in the context of a portfolio choice problem with emphasis on risk and expected returns from alternative financial assets. The inventory theoretic approach to transactions demand for money was originally developed by William Baumol [1952] and James Tobin [1956], and later extended by Feige and Pearce [1977]. It focuses on the need to hold money in order to smooth the difference between income and expenditure flows, and explicitly specifies a transactions cost function, where the cost function includes inventory holding costs as well as brokerage costs.\(^\text{10}\)

Of these theoretical models, the Friedmanite demand theory model is widely used for empirical studies. This model is appropriate for developing countries, including Bangladesh, for both theoretical and pragmatic reasons. For example, in the absence of broad range of financial assets and due to a relatively narrow durable consumer goods market, money plays the role as a major component of wealth, its important virtue being its versatility. The absence of well-developed money and capital markets, and the resultant lack of various financial assets of domestic and foreign origins, makes the portfolio approach less appropriate for poor countries. In the similar lines of argument, the inventory theoretic approach is too rigid in its specified form one would also face practical difficulties in finding the data series on brokerage costs and other forms of transactions costs.

This paper uses the Friedmanite demand theory model in its spirit but not in the exact form that he has developed in his classic paper [Friedman 1956]. For Bangladesh, whether this model is appropriate remains an issue. One prevailing view is that, in the absence of well-developed money and capital markets, the demand for money in a country like Bangladesh originates from the transaction and precautionary motives and as a result, at least from a theoretical point of view, Baumol or Tobin’s transactions demand theory may be appropriate [Taslim 1983]. Yet the fact that money is used for transaction purposes does not necessarily imply that a more general theory is not appropriate for Bangladesh. This is because the Friedmanite model acknowledges the use of money for transactions and precautionary purposes.\(^\text{11}\)

\(^{10}\) The money demand function that emerges from the cost minimization procedure provides a precise formula for the transactions demand for money. The expected values of income and interest rate elasticities are 0.5 and -0.5, respectively.
Modelling of Money Demand

In the lines of the traditional literature [Friedman 1956; Ericsson 1998; Laidler 1993], the asset theoretic money demand can be specified in the following general form:

\[ \frac{M_d}{P} = m(y, R, e) \]  

(3)

where \( m \) is real money demanded, defined as nominal money \( M_d \) deflated by the price level \( P \), \( y \) is a generic scale variable, for example, real measured or permanent income, \( R \) (in bold) is a vector of returns on various financial assets, and \( e \) is expected inflation. The function \( m(.,.) \) is increasing in \( y \), decreasing in those elements of \( R \) associated with financial assets excluded from \( M \), and increasing in those elements of \( R \) associated with financial assets included in \( M \). Goods are an alternative to holding money and the function \( m(.,.) \) is decreasing in expected inflation \( e \).

In empirical studies, such as Ericsson [1998], Equation (3) is specified in the following log-linear form, albeit with interest rates entering in logs or levels.\(^{12}\)

\[ \ln \left( \frac{M_d}{P} \right) = 0 + 1 \ln y + 2 R^{\text{out}} + 3 R^{\text{own}} + 4 e \]  

(4)

where \( s \) are coefficients; and somewhat symbolically, \( R^{\text{out}} \) and \( R^{\text{own}} \) are the rates of return on assets outside of money and on money itself. The expected signs and magnitudes of coefficients are: \( 1 = 1 \) (quantity theory) or \( 1 = 0.5 \) (Baumol-Tobin framework), 20, 30 and 40. Empirically, the own and outside rates of return may have coefficients of equal magnitude but opposite sign. If so, \( 2R^{\text{out}} + 3R^{\text{own}} \) in (4) simplifies to \( 2(R^{\text{out}} - R^{\text{own}}) \) with the spread \( (R^{\text{out}} - R^{\text{own}}) \), being economically interpretable as a measure of the opportunity cost of holding money.

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11. It is maintained that once the quantity of money demanded is determined by the asset demand theoretic approach, there is no inconsistency in money's providing services to wealth-holders in the same way as other durable goods provide services to them. Note that in a world of certainty, the two reasons for holding wealth are to straighten out the consumption stream and to earn interest. In a world of uncertainty, another important motive for holding wealth is the availability of liquid funds or reserves for emergencies [Friedman 1957]. However, not all forms of wealth are equally satisfactory as a reserve for emergencies. Of the various kinds of wealth, money has been an attractive asset to wealth-holders because of its versatility. The more uncertain is the future, the greater the value of liquidity (or money's other unique attributes) and thus the greater the demand for money [Friedman and Schwartz 1963].

12. There are no clear-cut theoretical guidelines for the appropriate functional form of the money demand function. A log-linear form is commonly preferred to alternative forms on statistical grounds. For example, in such a specification, the estimated parameter values are easy to interpret as elasticities.
Finally, the expected inflation rate measures the expected return on holding goods, so the coefficient 4 on $e$ should be negative.

The Short-Run Money Demand Function

Whilst there is reasonable consensus in the literature on the specification of the long-run money demand function, a cloud of controversy and uncertainty has surrounded the entire subject of the short run specification of the money demand function. The controversy persists due to lack of understanding of dynamic adjustments of the economy in the event of monetary disturbances. While in the long run the desired demand for real money balances is equal to actual real money balances, in the short run there may be a discrepancy between the two. In such a situation it is expected that actual real money balances would show a tendency to move towards the desired level, not instantaneously but rather through a series of partial adjustments over time. The reasons for such adjustment include market imperfections and implicit and explicit costs of adjustment, such as transaction costs, search costs, and optimization costs.

Chow [1966] suggests that actual changes in real money balances spring from two sources: first, a fraction of the discrepancy between desired and actual real money balances is eliminated through changes in actual real money balances; and, second, a fraction of savings out of transitory income (savings being defined by measured income less consumption expenditure where consumption expenditure is a fixed proportion of permanent income) is held in monetary form and brings changes in the actual real money balances.

Assuming that changes in real money balances arising from savings out of the transitory component of income are white noise, Chow’s real money balances adjustment function can be specified as:

$$\ln \left( \frac{M}{P} \right)_t - \ln \left( \frac{M}{P} \right)_{t-1} = (\ln \left( \frac{M}{P} \right)^d_t - \ln \left( \frac{M}{P} \right)_{t-1}) + t$$ (5)

where $\gamma$ is the coefficient of elasticity of adjustment, and $t$ is the random error term.

Substitution of equation (4) into equation (5), and after rearrangement of terms, yields the following estimable equation:

$$\ln \left( \frac{M}{P} \right)_t = 0 + 1 \ln y_t + 2 R^{out}\_t + 3 R^{own}\_t + 4 e_t + (1-\gamma) \ln \left( \frac{M}{P} \right)_{t-1} + t$$ (6)

In the empirical literature, this is the widely used specification of the money demand function in disequilibrium form. A brief discussion follows on the choice of variables that enter into the empirical money demand function for Bangladesh.
Empirical Money Demand Function: Choice of Variables

In the money demand literature, the choice of an appropriate definition of money remains an empirical issue. The choice is between the narrow and broad definitions of money. This is useful for examination of whether the estimated coefficients are different for the two money variables and whether one definition of money is superior to other in the sense of stability of a money demand function. The demand for money, as widely agreed, is a demand for real balances. That is, in the absence of money illusion, an increase in the price level would induce a proportionate increase in the demand for nominal money, leaving the level of real balances unchanged. This paper uses this proposition as a maintained hypothesis.

Given the competing theories of money demand, there is controversy over the use of scale variable in the money demand function. Measured income and permanent income are the main contenders. In the asset-theoretic demand for money, real permanent income, rather than real measured income, is used for estimation purposes. This paper uses real permanent income as a scale variable. There are two reasons for it. First, measured income, due to its volatile nature in an agricultural economy, may not be a good proxy for wealth and therefore may exhibit instability in an otherwise stable money demand function. Second, money may not act as a key shock-absorber for transitory component of income; this function could be performed by other items in a wealth-holder’s balance sheet, such as durable goods, consumer credit outstanding, personal debt, and securities [Friedman 1959b]. To the extent that the transitory component of income is stored in the form of money, this may have the characteristic of a white noise. In the short run money demand function, this can be captured by a random error term.

The choice of a proxy for the opportunity cost of holding money remains a difficult one. In developed countries, the nominal interest rate is the appropriate opportunity cost variable. However the case for this variable has less force in developing countries. This is because in most developing countries nominal interest rates are institutionally set at levels below the rates that competitive

13. Milton Friedman, Alan Meltzer and others suggest that the appropriate definition of money should be considered an empirical matter. If it is found empirically that broad money is more stably related to economic variables than narrow money, the broad money should be taken as the appropriate definition of money [Mishkin 2003].

14. In Friedman’s permanent income hypothesis, the transitory components of the measured income of the community as a whole tend to average out, so that the mean measured income of the community equals the mean permanent income, and the mean transitory component equals zero [Friedman 1957].
markets would have otherwise generated. In many instances, the interest rates are kept well below the actual or expected inflation, implying negative real interest rates. Furthermore, in the absence of a broad range of financial assets, asset substitution may take place between money and real assets (like land, houses, gold, silver, and consumer durables) and not between money and interest-earning financial assets, since if the prices of alternate assets rise with the general price level, their real returns are zero, whereas the real return on money (unlike other assets its nominal value is fixed) would be minus the inflation rate. Physical assets thus represent the major hedge against inflation and the alternative asset in the portfolio of the non-bank public. All these factors make expected inflation a proxy for the opportunity cost of holding money, especially in an inflationary economy. Whether this remains true for a low inflationary country like Bangladesh is an empirical issue. In the empirical literature, the nominal interest rate and expected inflation are sometimes used simultaneously and their respective effects on money demand are determined empirically.

This paper adopts the empirical approach, which would allow the investigation of structural change in the money demand function in Bangladesh due to financial deregulation and financial innovation since the early 1980s. To be specific, in the case of real narrow money demand, the time deposits are considered alternative assets to holding demand deposits. This makes the time deposit rate of interest \( i_d \) the appropriate opportunity cost variable. However, as neither currency nor demand deposits pay interests, the opportunity cost variable in the narrow money demand function

\[
2(R_{\text{out}} - R_{\text{own}}) = 2(i_d - 0)
\]

would bear a negative sign. Likewise, in the real broad demand function, real goods are considered an alternative to holding time deposits. Therefore the real deposit rate of interest \( R_{\text{out}} - R_{\text{own}} = - (i_d - ) \) is the relative return on time deposits and the coefficient of \( 2(i_d) \) would bear a positive sign. Whether expected inflation would have an independent negative effect on money demand in the presence of an interest rate variable is considered an empirical issue in this study.

15. The argument for the nominal interest rate (it) being used as one of the proxies for the opportunity cost of holding money has some merit. This is because with money narrowly defined so as to exclude interest-bearing assets, the expected real return from holding money would simply be equal to minus the expected rate of inflation (-pet), whilst the expected real return from holding substitute assets (for example, an interest-bearing financial asset) would equal the nominal rate of interest minus the expected rate of inflation (it-pet). It follows that the appropriate measure of the relative return from holding money compared with other assets is simply measured by the nominal interest rate, as -pet-(it-pet) = - it.
The Time Series Properties of Variables

After identifying the variables in the money demand function, their time series properties have been examined by conducting unit root tests in order to determine whether the variables are eligible to establish a long-term equilibrium relationship. Four tests for the unit roots—the Augmented Dickey-Fuller (ADF), the GLS-detrended Dickey-Fuller (DF-GLS), the Phillips-Perron (PP), and the Kwiatkowski, Phillips, Schmidt and Shin (KPSS)—have been conducted for both complete and post-independence sample periods.

The test results, not reported in the paper, suggest that real narrow money balances, real permanent income and the deposit rate of interest are eligible to form a long-term money demand relationship. The real deposit rate of interest, however, does not seem to be a long-term determinant of real broad money demand. The inflation rate, as a proxy for expected inflation, also does not seem to be a long-term determinant of money demand. The time series properties of variables thus provide the desired parsimonious specifications for the real narrow and broad money demand functions for Bangladesh.

Regression Results

Table 1 reports the empirical results for the narrow money demand function, which has been estimated for different sample periods. As specified, the log-levels specification of the partial adjustment model is used for estimation purposes. In the estimating model, the real money balances represent the narrow money stock in Millions of Taka, deflated by the GDP deflator (P) (1995=1.00). Real permanent income (y\textsuperscript{p}=RGDP\textsuperscript{p}) is computed as the weighted average of current and two lagged real GDPs, with 0.5, 0.3 and 0.2 weights as they perform best empirically. In the real narrow money demand function, the nominal deposit rate of interest (i\textsuperscript{d}) is used as a proxy for the cost of holding money.

Real Narrow Money Demand Function

In the real narrow money demand equation, the coefficients on real permanent income and one period lagged real balances bear their expected signs and are

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16. Unless specified otherwise, all the regression equations have been estimated by OLS. Given the small sample size, no system estimator has been used to capture the simultaneity and other statistical problems.

17. The cointegral and error correction models of real money balances are also estimated for purpose of the study, although the results are not reported in the paper.

18. Although the real broad money demand function was estimated with a real interest rate variable, only the results obtained without this variable are reported in this paper.
significant at the one percent level. The estimated value for the short-run income elasticity of demand for real narrow money is lower than one for most sample periods. This coefficient value is marginally greater than one in the long run.

The narrow money demand equation was estimated with the time deposit interest rate for a shorter sample period during the pre-independence period. The coefficient has been found statistically insignificant. However, when the equation has been estimated for the post-independence period (1977-2003), the nominal interest elasticity of demand for real narrow money is found –0.15 in the short-run and –0.28 in the long-run. With data for the period 1983-2003, that covers the period of financial reforms, the interest elasticity of demand for narrow money is found –0.32 in the short-run and -0.76 in the long-run. This can be considered an important finding, given the emerging importance of the nominal interest rate in the narrow money demand function.

Thus the regression results in Table 1 suggest that there was a structural change in the narrow money demand function for Bangladesh since its independence. To put it another way, this caused instability in the money demand function. For example, one condition for stability of the money demand function is its ability to forecast money demand accurately out of sample [Judd and Scadding 1982]. On an exploratory basis, the narrow money demand function was estimated for the period 1954-1971 and used for dynamic forecasting during 1972-2003. Table 2 reports the summary statistics, based on 32 observations (1972-2003), which show that the forecasting performance of the estimated equation is not good.

When the narrow money demand function was estimated with data for the post-independence period (1973-2003), it exhibited some instability. This is somewhat expected because the 1970s were a period of economic instability and uncertainty. The empirical results reflected this situation. However, when the model was estimated with data for the period 1985–2003 that represents the period of deregulated financial system, it was found stable. Apparently, the money demand function remained stable despite financial reforms over this period. The CUSUM and CUSUMSQ plots in Figure 1 reveal this stability.

**Real Broad Money Demand Function**

Table 3 reports the regression results for the real broad money demand function. In the estimated equations, the coefficients on real permanent income and one-period lagged real balances bear their expected signs and are significant at the one percent level. The estimated value of the short-run income elasticity of demand is lower than one but remains significantly greater than one in the long run.
The explanatory power of the estimated equation is very high. The Dh statistic does not suggest any first-order autocorrelation problem in any of the estimated equations. Further diagnostic statistics do not suggest other statistical problems. However, like the narrow money demand function, the broad money demand function is found relatively stable for a shorter sample period, 1983-2003. The plotted CUSUM and CUSUMSQ residuals in Figure 2 reveal this stability.

In a regression equation of the broad money demand function (not reported here), the coefficient of the real interest rate is found positive and significant. Note that the share of time deposits in the stock of broad money has increased sharply since the late 1980s and the positive sign of the real deposit rate of interest reflects this development. It appears that the real deposit rate of interest induced asset-holders to put their assets in monetary rather than other financial and real asset forms. As the absolute value of the coefficient of the real interest rate is very small (0.01), the exclusion of this variable on the basis of time series properties may not make much difference to overall empirical results.
### Table 1: Regression Results of Real Narrow Money Balances

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>ln (M1/P)_t</td>
<td>ln (M1/P)_t</td>
<td>ln (M1/P)_t</td>
<td>ln (M1/P)_t</td>
<td>ln (M1/P)_t</td>
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<tr>
<td></td>
<td>-2.72 (2.94)</td>
<td>-2.17 (1.66)</td>
<td>-2.94 (3.09)</td>
<td>-1.30 (1.84)</td>
<td>0.91 (1.03)</td>
</tr>
<tr>
<td>ln (M1/GDP)_t-1</td>
<td>0.33 (2.36)</td>
<td>0.54 (3.32)</td>
<td>0.10 (0.66)</td>
<td>0.47 (2.98)</td>
<td>0.58 (4.30)</td>
</tr>
<tr>
<td>ln RGDP_p</td>
<td>0.76 (4.54)</td>
<td>0.55 (2.61)</td>
<td>1.03 (5.73)</td>
<td>0.59 (3.30)</td>
<td>0.36 (2.36)</td>
</tr>
<tr>
<td>ln i_d</td>
<td>-0.12 (-1.41)</td>
<td>-0.15 (-2.40)</td>
<td>-0.32 (3.44)</td>
<td>-0.26 (4.24)</td>
<td></td>
</tr>
<tr>
<td>DUM_71</td>
<td>0.37 (3.92)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted-R^2</td>
<td>0.95</td>
<td>0.93</td>
<td>0.92</td>
<td>0.96</td>
<td>0.96</td>
</tr>
<tr>
<td>SER</td>
<td>0.134</td>
<td>0.06</td>
<td>0.12</td>
<td>0.08</td>
<td>0.06</td>
</tr>
<tr>
<td>Dh</td>
<td>None</td>
<td>0.57</td>
<td>2.73</td>
<td>1.91</td>
<td>3.43</td>
</tr>
<tr>
<td>Serial Correlation</td>
<td>F(1,45)=7.9</td>
<td>F(1,14)=0.01</td>
<td>F(1,26)=7.6</td>
<td>F(1,22)=1.4</td>
<td>F(1,16)=8.3F(1,14)=0.1</td>
</tr>
<tr>
<td>Functional Form</td>
<td>F(1,43)=0.1</td>
<td>F(1,14)=0.03</td>
<td>F(1,26)=0.2</td>
<td>F(1,22)=0.6</td>
<td>F(1,16)=4.4F(1,14)=0.2</td>
</tr>
<tr>
<td>Normality</td>
<td>$2(1)=83.3$</td>
<td>$2(2)=1.1$</td>
<td>$2(1)=31.2$</td>
<td>$2(2)=1.8$</td>
<td>$2(2)=0.9$</td>
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<td>Heteroskedasticity</td>
<td>$2(1)=0.3$</td>
<td>$2(1)=1.2$</td>
<td>$2(1)=4.9$</td>
<td>$2(1)=7.4$</td>
<td>$2(1)=3.5$</td>
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<tr>
<td>Sample Size</td>
<td>50</td>
<td>18</td>
<td>31</td>
<td>27</td>
<td>21</td>
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<tr>
<td>Adjustment Coefficient</td>
<td>0.67</td>
<td>0.46</td>
<td>0.90</td>
<td>0.53</td>
<td>0.42</td>
</tr>
<tr>
<td>Income Elasticity: Short-Run</td>
<td>0.76</td>
<td>0.55</td>
<td>1.03</td>
<td>0.59</td>
<td>0.36</td>
</tr>
<tr>
<td>Long-Run</td>
<td>1.13</td>
<td>1.20</td>
<td>1.14</td>
<td>1.11</td>
<td>0.86</td>
</tr>
<tr>
<td>Interest Elasticity: Short-Run</td>
<td>-0.12</td>
<td>-0.15</td>
<td>-0.32</td>
<td>-0.26</td>
<td></td>
</tr>
<tr>
<td>Long-Run</td>
<td>-0.13</td>
<td>-0.28</td>
<td>-0.76</td>
<td>-0.65</td>
<td></td>
</tr>
</tbody>
</table>

**Stability Tests:**
- CUSUM Test: Unstable
- CUSUMSQ Test: Unstable

**Notes:**
(i) The figures in parentheses are absolute t-ratios, unless defined otherwise.
(ii) SER is the standard error of the regression and Dh is the Durbin h-statistic.
(iii) DUM\_71 is a dummy variable (0,1) that represents the independence of Bangladesh from Pakistan in 1971.

### Table 2: Summary Statistics of Dynamic Forecasting of Narrow Money Demand, 1972-2003

<table>
<thead>
<tr>
<th></th>
<th>1972-2003</th>
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</thead>
<tbody>
<tr>
<td>Mean prediction errors</td>
<td>0.50892</td>
</tr>
<tr>
<td>Sum squares prediction errors</td>
<td>0.29162</td>
</tr>
<tr>
<td>Predictive failure test: F(32,15)</td>
<td>8.4</td>
</tr>
<tr>
<td>Structural stability test: F(3,44)</td>
<td>5.1</td>
</tr>
</tbody>
</table>
### Table 3: Regression Results for Real Broad Money Balances

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable</td>
<td>ln (M2/P)</td>
<td>ln (M2/P)</td>
<td>ln (M2/P)</td>
<td>ln (M2/P)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-9.07 (5.58)</td>
<td>-3.41 (2.12)</td>
<td>5.74 (6.39)</td>
<td>-3.86 (2.54)</td>
</tr>
<tr>
<td>ln (M2/GDPD)_{t-1}</td>
<td>0.24 (2.03)</td>
<td>0.67 (4.90)</td>
<td>0.29 (3.06)</td>
<td>0.57 (2.88)</td>
</tr>
<tr>
<td>ln RGDP_{t}</td>
<td>1.42 (6.14)</td>
<td>0.58 (2.31)</td>
<td>1.13 (7.21)</td>
<td>0.72 (2.36)</td>
</tr>
<tr>
<td>Adjusted-R²</td>
<td>0.98</td>
<td>0.99</td>
<td>0.99</td>
<td>0.99</td>
</tr>
<tr>
<td>SER</td>
<td>0.11</td>
<td>0.06</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>Dh</td>
<td>0.98</td>
<td>0.55</td>
<td>1.30</td>
<td>1.32</td>
</tr>
<tr>
<td>Serial Correlation</td>
<td>F(1,27)=0.9</td>
<td>F(1,23)=0.1</td>
<td>F(1,17)=1.4</td>
<td>F(1,15)=0.9</td>
</tr>
<tr>
<td>Functional Form</td>
<td>F(1,27)=11.2</td>
<td>F(1,23)=0.9</td>
<td>F(1,17)=0.1</td>
<td>F(1,14)=0.7</td>
</tr>
<tr>
<td>Normality</td>
<td>2 (2) = 58.7</td>
<td>2 (2) = 1.4</td>
<td>2 (2) = 2.0</td>
<td>2 (2) = 5.6</td>
</tr>
<tr>
<td>Heteroskedasticity</td>
<td>2 (1) = 2.8</td>
<td>2 (1) = 8.9</td>
<td>2 (1) = 0.1</td>
<td>2 (1) = 0.1</td>
</tr>
<tr>
<td>Sample Size</td>
<td>31</td>
<td>27</td>
<td>21</td>
<td>19</td>
</tr>
<tr>
<td>Adjustment Coefficient</td>
<td>0.76</td>
<td>0.33</td>
<td>0.73</td>
<td>0.43</td>
</tr>
<tr>
<td>Income Elasticity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-Run</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-Run</td>
<td>1.42</td>
<td>0.58</td>
<td>1.13</td>
<td>0.72</td>
</tr>
<tr>
<td></td>
<td>1.87</td>
<td>1.76</td>
<td>1.55</td>
<td>1.70</td>
</tr>
</tbody>
</table>

**Stability Tests:**
- CUSUM Test: Unstable, Unstable, Stable, Stable
- CUSUMSQ test: Unstable, Unstable, Stable, Stable

**Notes:** The figures in parentheses are absolute t-ratios, unless specified otherwise. Other variables have been defined earlier.
The broad money demand function was also estimated for the period 1983-2000 and used for forecasting for the period 2001-2003. Table 4 reports the forecasts and their summary statistics. They show that the model’s forecasting ability is very good.

**Table 4: Forecasting of the log of Real Broad Money Balances, 2001-2003**

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>Prediction</th>
<th>Error</th>
<th>Standard Deviation of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>13.4436</td>
<td>13.4209</td>
<td>0.022751</td>
<td>0.037757</td>
</tr>
<tr>
<td>2002</td>
<td>13.5501</td>
<td>13.5102</td>
<td>0.039939</td>
<td>0.042670</td>
</tr>
<tr>
<td>2003</td>
<td>13.5756</td>
<td>13.5926</td>
<td>-0.016930</td>
<td>0.044945</td>
</tr>
</tbody>
</table>

Mean prediction errors = 0.015253
Mean sum absolute prediction errors = 0.026540
Sum squares prediction errors = 0.0008
Root mean sum-square prediction errors = 0.02828
Prediction failure test: F(3,15) = 0.775

Thus, in short, the regression results and the stability tests suggest that both the narrow and broad money demand function were stable for the period beginning from the mid-1980s. It is to be noted that the money demand function for which Friedman [1956] claims stability is the long-run relationship. The fact that even the short-run money demand function is found stable in Bangladesh is reassuring. The presence of a stable long-run money demand relationship has been investigated further within the cointegral and error correction-modelling framework. The detailed results, which are not reported here but may be available from the author on request, are found consistent with those reported in the text.

**IV. Income and Interest Elasticities of Money Demand: Application of the Recursive and Rolling Regression Techniques**

Financial innovation and financial deregulation are suspected to be the primary cause of instability in the money demand function. They may affect stability of the money demand function in a number of ways. First, in a financially repressed economy the role of the interest rate in the money demand function remains latent, which may become transparent once the interest rate is allowed to be determined by market forces or at least adjusted frequently in response to changes in actual or expected inflation. Second, any reform measures that promote financial market development may create financial assets with attractive yields. This may cause a portfolio shift away from monetary assets, which could be reflected in a shift of the intercept term of the money demand function. Third, the observed
relationships among money, income, prices and interest rates may alter after relaxations of controls over bank credits and interest and exchange rates and a switch from direct to indirect instruments of monetary policy [Jonson and Rankin 1986; Tseng and Corker 1991]. The rise in competition among financial institutions may also lower financial transactions costs and thereby cause money demand to respond differently to interest rates changes than before. Fourth, financial deregulation may lead to unpredictability of money demand by changing the speed of adjustment at which actual money balances move toward the desired level. On the whole, financial deregulation may cause a onetime or a gradual shift in the level of money holdings and alter sensitivities of money demand to changes in income and interest rates [Judd and Scadding 1982; Tseng and Corker 1991].

The empirical results reported in the earlier section confirm that real permanent income is the key determinant of money demand in Bangladesh and that the income elasticity of demand for broad money is significantly greater than one. There is evidence that the nominal interest rate has gradually become significant in the real narrow money demand function, especially since the 1990s. The absolute value of the interest elasticity of demand for money has indeed increased over time. Apparently, this could be the consequence of ongoing financial deregulation and financial innovation.

Table 5A: Recursive Coefficients of Real Narrow Money Balances

<table>
<thead>
<tr>
<th>Period</th>
<th>Intercept (Short)</th>
<th>Income Elasticity</th>
<th>Interest Elasticity</th>
<th>Adjustment Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Short (Long)</td>
<td>Short (Long)</td>
<td></td>
</tr>
<tr>
<td>1973-1990</td>
<td>-1.4</td>
<td>0.97 (0.99)</td>
<td>0.01 (0.01)</td>
<td>0.98</td>
</tr>
<tr>
<td>1973-1991</td>
<td>1.0</td>
<td>0.76 (0.79)</td>
<td>0.08 (0.08)</td>
<td>0.97</td>
</tr>
<tr>
<td>1973-1992</td>
<td>1.7</td>
<td>0.69 (0.71)</td>
<td>0.12 (0.12)</td>
<td>0.97</td>
</tr>
<tr>
<td>1973-1993</td>
<td>0.0</td>
<td>0.84 (0.88)</td>
<td>0.03 (0.03)</td>
<td>0.96</td>
</tr>
<tr>
<td>1973-1994</td>
<td>-2.2</td>
<td>0.99 (1.09)</td>
<td>0.08 (0.09)</td>
<td>0.91</td>
</tr>
<tr>
<td>1973-1995</td>
<td>-2.9</td>
<td>1.04 (1.14)</td>
<td>-0.01 (-0.01)</td>
<td>0.91</td>
</tr>
<tr>
<td>1973-1996</td>
<td>-3.0</td>
<td>1.04 (1.06)</td>
<td>-0.12 (-0.12)</td>
<td>0.98</td>
</tr>
<tr>
<td>1973-1997</td>
<td>-3.1</td>
<td>1.05 (1.16)</td>
<td>-0.13 (-0.14)</td>
<td>0.90</td>
</tr>
<tr>
<td>1973-1998</td>
<td>-3.1</td>
<td>1.05 (1.16)</td>
<td>-0.13 (-0.14)</td>
<td>0.90</td>
</tr>
<tr>
<td>1973-1999</td>
<td>-3.1</td>
<td>1.05 (1.16)</td>
<td>-0.13 (-0.14)</td>
<td>0.90</td>
</tr>
<tr>
<td>1973-2000</td>
<td>-3.0</td>
<td>1.04 (1.16)</td>
<td>-0.13 (-0.14)</td>
<td>0.90</td>
</tr>
<tr>
<td>1973-2001</td>
<td>-3.0</td>
<td>1.04 (1.16)</td>
<td>-0.13 (-0.14)</td>
<td>0.90</td>
</tr>
<tr>
<td>1973-2002</td>
<td>-3.0</td>
<td>1.04 (1.16)</td>
<td>-0.13 (-0.14)</td>
<td>0.90</td>
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<tr>
<td>1973-2003</td>
<td>-2.9</td>
<td>1.03 (1.14)</td>
<td>-0.12 (-0.13)</td>
<td>0.90</td>
</tr>
</tbody>
</table>

Note: The figures in parentheses are long-run elasticities, calculated as the short-run elasticity divided by the estimated value of the adjustment coefficient.
In order to investigate further the nature of structural change in the money demand function in Bangladesh, the specified money demand equation has been estimated by both the recursive and rolling regression techniques. In the case of the narrow money demand function, the coefficients of interest are income and interest elasticities of money demand, while in the case of the broad money demand function, the coefficient of interest is the income elasticity of money demand.

Table 5A reports the estimated recursive coefficients of the real narrow money demand. It is found that the income elasticity of demand for narrow money has stabilized since the early 1990s. The long-run income elasticity of demand for narrow money is about 1.16, while the short-run income elasticity of money demand is about one. However the interest elasticity of demand for narrow money remains about -0.13 in both the short and long run. In the case of broad money demand, the income elasticity value has shown a declining trend, falling from 2.3 for the sample period 1973-1985 to 1.86 for the sample period 1973-2003 (Table 5B).

<table>
<thead>
<tr>
<th>Estimation Period</th>
<th>Intercept (Short)</th>
<th>Income Elasticity</th>
<th>Adjustment Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973-1985</td>
<td>-16.9</td>
<td>2.23 (2.30)</td>
<td>0.97</td>
</tr>
<tr>
<td>1973-1986</td>
<td>-17.0</td>
<td>2.24 (2.31)</td>
<td>0.97</td>
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<tr>
<td>1973-1987</td>
<td>-17.0</td>
<td>2.23 (2.30)</td>
<td>0.97</td>
</tr>
<tr>
<td>1973-1988</td>
<td>-17.0</td>
<td>2.21 (2.28)</td>
<td>0.97</td>
</tr>
<tr>
<td>1973-1989</td>
<td>-17.0</td>
<td>2.20 (2.27)</td>
<td>0.97</td>
</tr>
<tr>
<td>1973-1990</td>
<td>-16.2</td>
<td>2.18 (2.25)</td>
<td>0.97</td>
</tr>
<tr>
<td>1973-1991</td>
<td>-15.6</td>
<td>2.12 (2.18)</td>
<td>0.96</td>
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<tr>
<td>1973-1992</td>
<td>-14.9</td>
<td>2.06 (2.17)</td>
<td>0.95</td>
</tr>
<tr>
<td>1973-1993</td>
<td>-14.5</td>
<td>2.01 (2.14)</td>
<td>0.94</td>
</tr>
<tr>
<td>1973-1994</td>
<td>-14.4</td>
<td>2.00 (2.13)</td>
<td>0.94</td>
</tr>
<tr>
<td>1973-1995</td>
<td>-14.1</td>
<td>1.98 (2.11)</td>
<td>0.94</td>
</tr>
<tr>
<td>1973-1996</td>
<td>-13.5</td>
<td>1.93 (2.08)</td>
<td>0.93</td>
</tr>
<tr>
<td>1973-1997</td>
<td>-12.8</td>
<td>1.85 (2.06)</td>
<td>0.90</td>
</tr>
<tr>
<td>1973-1998</td>
<td>-12.0</td>
<td>1.76 (2.02)</td>
<td>0.87</td>
</tr>
<tr>
<td>1973-1999</td>
<td>-11.2</td>
<td>1.66 (1.98)</td>
<td>0.84</td>
</tr>
<tr>
<td>1973-2000</td>
<td>-10.2</td>
<td>1.55 (1.94)</td>
<td>0.80</td>
</tr>
<tr>
<td>1973-2001</td>
<td>-9.7</td>
<td>1.49 (1.91)</td>
<td>0.78</td>
</tr>
<tr>
<td>1973-2002</td>
<td>-9.4</td>
<td>1.46 (1.90)</td>
<td>0.77</td>
</tr>
<tr>
<td>1973-2003</td>
<td>-9.1</td>
<td>1.42 (1.86)</td>
<td>0.76</td>
</tr>
</tbody>
</table>

Note: The figures in parentheses are long-run elasticities, calculated as the short-run elasticity divided by the estimated value of the adjustment coefficient.
The elasticity estimates by the rolling regression technique suggest that both the short-run and long-run income elasticity of demand for money has declined over time. The absolute value of the interest elasticity of demand for narrow money has, however, increased significantly (Tables 6A and 6B).

### Table 6A: Rolling Regression Coefficients of Real Narrow Money Balances

<table>
<thead>
<tr>
<th>Period</th>
<th>Intercept</th>
<th>Income Elasticity</th>
<th>Interest Elasticity</th>
<th>Adjustment Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short</td>
<td>Short (Long)</td>
<td>Short (Long)</td>
<td></td>
</tr>
<tr>
<td>1972-1992</td>
<td>1.74</td>
<td>0.69 (0.71)</td>
<td>0.11 (0.11)</td>
<td>0.97</td>
</tr>
<tr>
<td>1973-1993</td>
<td>-0.16</td>
<td>0.71 (0.88)</td>
<td>0.08 (0.10)</td>
<td>0.81</td>
</tr>
<tr>
<td>1974-1994</td>
<td>-2.72</td>
<td>0.96 (1.12)</td>
<td>0.01 (0.01)</td>
<td>0.86</td>
</tr>
<tr>
<td>1975-1995</td>
<td>-1.01</td>
<td>0.60 (1.07)</td>
<td>-0.16 (-0.29)</td>
<td>0.56</td>
</tr>
<tr>
<td>1976-1996</td>
<td>-1.00</td>
<td>0.57 (1.08)</td>
<td>-0.15 (-0.28)</td>
<td>0.53</td>
</tr>
<tr>
<td>1977-1997</td>
<td>-1.54</td>
<td>0.51 (1.21)</td>
<td>-0.11 (-0.26)</td>
<td>0.42</td>
</tr>
<tr>
<td>1978-1998</td>
<td>-1.07</td>
<td>0.47 (1.12)</td>
<td>-0.14 (-0.33)</td>
<td>0.42</td>
</tr>
<tr>
<td>1979-1999</td>
<td>-1.15</td>
<td>0.47 (1.15)</td>
<td>-0.13 (-0.32)</td>
<td>0.41</td>
</tr>
<tr>
<td>1980-2000</td>
<td>0.04</td>
<td>0.41 (0.98)</td>
<td>-0.26 (-0.62)</td>
<td>0.42</td>
</tr>
<tr>
<td>1981-2001</td>
<td>0.02</td>
<td>0.41 (0.98)</td>
<td>-0.27 (0.64)</td>
<td>0.42</td>
</tr>
<tr>
<td>1982-2002</td>
<td>0.90</td>
<td>0.36 (0.86)</td>
<td>-0.32 (-0.76)</td>
<td>0.42</td>
</tr>
<tr>
<td>1983-2003</td>
<td>0.27</td>
<td>0.30 (0.94)</td>
<td>-0.26 (-0.81)</td>
<td>0.32</td>
</tr>
</tbody>
</table>

Note: The figures in parentheses are long-run elasticities, calculated as the short-run elasticity divided by the estimated value of the adjustment coefficient.

### Table 6B: Rolling Regression Coefficients of Real Broad Money Balances

<table>
<thead>
<tr>
<th>Estimation Period</th>
<th>Intercept</th>
<th>Income Elasticity</th>
<th>Adjustment Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short</td>
<td>Short (Long)</td>
<td></td>
</tr>
<tr>
<td>1973-1992</td>
<td>-14.9</td>
<td>2.06 (2.16)</td>
<td>0.95</td>
</tr>
<tr>
<td>1974-1993</td>
<td>-14.7</td>
<td>2.05 (2.14)</td>
<td>0.96</td>
</tr>
<tr>
<td>1975-1994</td>
<td>-17.6</td>
<td>2.4 (2.22)</td>
<td>1.08</td>
</tr>
<tr>
<td>1976-1995</td>
<td>-9.7</td>
<td>1.44 (2.00)</td>
<td>0.72</td>
</tr>
<tr>
<td>1977-1996</td>
<td>-6.3</td>
<td>0.95 (1.94)</td>
<td>0.49</td>
</tr>
<tr>
<td>1978-1997</td>
<td>-5.0</td>
<td>0.74 (2.06)</td>
<td>0.36</td>
</tr>
<tr>
<td>1979-1998</td>
<td>-3.2</td>
<td>0.51 (0.75)</td>
<td>0.68</td>
</tr>
<tr>
<td>1980-1999</td>
<td>-2.8</td>
<td>0.48 (0.72)</td>
<td>0.67</td>
</tr>
<tr>
<td>1981-2000</td>
<td>-2.4</td>
<td>0.45 (0.67)</td>
<td>0.67</td>
</tr>
<tr>
<td>1982-2001</td>
<td>-3.5</td>
<td>0.66 (1.65)</td>
<td>0.40</td>
</tr>
<tr>
<td>1983-2002</td>
<td>-5.7</td>
<td>1.12 (1.58)</td>
<td>0.71</td>
</tr>
<tr>
<td>1984-2003</td>
<td>-5.1</td>
<td>1.00 (1.59)</td>
<td>0.63</td>
</tr>
</tbody>
</table>

Note: The figures in parentheses are long-run elasticities, calculated as the short-run elasticity divided by the estimated value of the adjustment coefficient.
Has the LM1-Curve Become Flatter?

The slope of the LM-curve is given by \( \frac{\partial i}{\partial y} = \left( \frac{\partial m}{\partial y} / \frac{\partial m}{\partial i} \right) \), provided that the money stock is interest inelastic. Since \( \left( \frac{\partial m}{\partial y} \right) \) is positive and \( \left( \frac{\partial m}{\partial i} \right) \) is negative, the slope of the LM-curve is positive and becomes steeper as \( \frac{\partial m}{\partial i} \searrow 0 \). Given that the slope of the LM-curve changes with any change in the income and interest elasticities, there are implications of financial reforms as they may bring structural change in the money demand function. For example, if the interest rate remains insignificant in the money demand function, this would indicate a vertical LM-curve. In such a situation, fiscal policy may not be effective, in the sense that an increase in government spending would raise the real interest rate in a deregulated environment and crowd out private investment (assuming that the latter remains sensitive to the real interest rate). Similarly, if the money demand becomes more and more interest sensitive, the LM-curve would become flatter and this would raise the effectiveness of fiscal policy vis-à-vis monetary policy, especially if there are capital controls under a fixed exchange rate regime.

There are further implications for any change in the income elasticity of demand for money. Given the interest elasticity, if there is a rise in the income elasticity of demand for money, the LM-curve would shift more for a given increase in income and to bring equilibrium in the money market, a large increase in the interest rate would be needed. For the design of monetary policy strategy, this would mean that the monetary authorities would need to raise the money growth rate at a higher level to maintain price stability. The opposite would be the case if there is declining trend in the value of income elasticity of the demand for money.

What happened to the interest and income elasticities of demand for money in Bangladesh over the years, therefore, should be a matter of interest to policy makers in this country? Historically, the LM1-curve for Bangladesh was more or less vertical, as the interest elasticity of demand for money was not significantly different from zero. This study shows that the LM1-curve has gradually become flatter as the interest rate coefficient in the narrow money demand function has become negative and significant. (As the real broad money demand function does not seem to be sensitive to the interest rate, the LM2 curve remains largely vertical.) A relatively larger value of the income elasticity of demand for money was another reason for a steeper LM1/LM2-curve. Lately, with the declining income elasticity of demand for narrow money, the LM1-curve appears to have become flatter. This indicates a rise in the effectiveness of fiscal policy vis-à-vis monetary policy, given that there are restrictions over capital mobility.
Another related question is whether financial reforms change the shape of the IS-curve. This issue has not been investigated in this paper. However, Gordon [2003] suggests that financial reforms usually make the IS-curve steeper. If this were the case, financial reforms would lower the effectiveness of monetary policy and raise the effectiveness of fiscal policy in output stabilization.20

![Figure 3  Slopes of IS and LM Curves: Before and After Financial Reforms](image)

**V. Concluding Remarks**

This paper has examined the money demand behavior in Bangladesh with annual data since the mid-1950s. The data for the 1950s and 1960s have been used for drawing inference on the long-term behavior of money demand. The focus of the study has been the post-independence period (1972-2003), especially the 1980s and 1990s. The main findings of the paper are as follows:

- There existed a relatively well-defined narrow money demand function in Bangladesh during the 1950s and 1960s. However the narrow money demand function for this period did not include the interest rate as an opportunity cost variable and has been found inadequate to explain the money demand behavior for the post independence period.

- There exists a stable money demand function for Bangladesh for the post-independence period, especially for the sample period beginning from the early 1980s. However the income and interest elasticities of demand for money have changed since the early 1990s.

20. This is the standard closed economy case. However, this conclusion does not necessarily remain valid in a floating exchange rate system and with capital mobility. Monetary policy regains its potency under a floating exchange rate system. Also, in an open economy, when the LM curve is steeper than the BP curve, the positive impact of a fiscal expansion on output may be partially neutralized by an appreciation of the exchange rate due to capital inflows in response to the rise in the interest rate [Hossain and Chowdhury 1998].
As indicated earlier, there are two basic requirements for monetary targeting as a strategy of monetary policy: (a) stability of the money demand function and (b) the causal linkage between money supply growth and inflation. This paper has shown that the first condition is satisfied for Bangladesh. As the second requirement: that there exists a causal relationship between money supply growth and inflation is also satisfied, monetary targeting seems the appropriate strategy of monetary policy for this country, at least as an interim measure. Adoption of monetary targeting, in place of a discretionary monetary policy strategy, would provide Bangladesh a nominal anchor for price stability. This would make monetary policy more credible and effective under the present floating exchange rate system.

Monetary targeting may become inappropriate over time when the money demand function becomes unstable and there are difficulties in controlling monetary aggregates in a deregulated environment. As a long-term strategy, the monetary authority should undertake necessary policy and institutional reforms so that they can opt for inflation targeting if it becomes necessary. Such a forward-looking strategy would make monetary policy credible and effective, in the sense that it would give a signal to the public that monetary authority remains committed to price stability. The possibility of inflation targeting itself may influence policymakers to undertake deeper financial and institutional reforms.
Akhtar Hossain: The Money Demand Behavior in Bangladesh

References


Impact of Fiscal Deficits on Economic Growth in Bangladesh: Some Policy Implications

Abdul Awal Sarker*

Introduction

Fiscal policy is a dominant policy instrument of governments in developing countries. Although the fiscal balance is a useful indicator of macroeconomic health, developing countries in general run persistent budget deficits as a matter of policy. However, fiscal policy in a country like Bangladesh must be designed to maintain or achieve the goals of high employment, a reasonable degree of price level stability, soundness of foreign accounts and an acceptable rate of economic growth. A higher rate of growth may call for a higher rate of capital formation, which calls for increased savings and investment. The relationship between fiscal deficits and macroeconomic variables (such as growth, interest rates, trade deficit, exchange rate, among others) represents one of the most widely debated topics among economists and policy makers in both developed and developing countries (Ali Salman Saleh, 2003).  

Recently, substantial attention has been made in macro theory, particularly in the area of growth effects of fiscal deficits. The size of budget deficit a country registers, how it leads to change in the growth rate of the economy, is a pertinent question to ask.

What is Budget Deficit?

In most cases, the central bank co-ordinates its monetary policy with fiscal policy and maintains policy consistency. When revenue fall short of recurrent and capital outlays, the government incurs a deficit, which requires financing from monetary and non-monetary sources.

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* Joint Director of Research, Bangladesh Bank, Head Office, Dhaka. The author would like to thank Dr. Habibullah Khan, Associate Professor, National University of Singapore for his helpful suggestion and comments on an earlier draft. The views expressed in this paper are the author’s alone and do not necessarily reflect the views of the Bangladesh Bank or of the government.
The government budget deficit can be defined and linked with changes in government net debt as follows:

\[ D_g - D_{g-1} = (C_g + I_g - T) + rD_{g-1} \] ....................................................(1)

Where:

\( D_g - D_{g-1} \) = Change in government net debt between the current and previous period.

\( C_g \) = Government consumption spending.

\( I_g \) = Government investment spending.

\( T \) = Taxes net of transfers and

\( r \) = Nominal interest rate.

The right hand side of equation measures the budget deficit and the equation shows that the change in government net debt is equal to the budget deficit.

**Deficit financing**

\[ D_g - D_{g-1} = (D_{gc} - D_{gc-1}) + (D_{gp} - D_{gp-1}) + E (FR_c - FR_{c-1}) \] .........................(2)

The effect of a budget deficit on the money supply can be shown from the following equation for changes in the monetary base (MB):

\[ MB - MB_{-1} = (D_{gc} - D_{gc-1}) + E (FR_c - FR_{c-1}) \] ................................................ (3)

Therefore,

\[ (D_g - D_{g-1}) = (MB - MB_{-1}) + (D_{gp} - D_{gp-1}) - E (FR_c - FR_{c-1}) \]........................(4)

There are three ways to finance government budget deficit, which is equal to the changes in the government’s net debt \( (D_g - D_{g-1}) \):

- by an increase in the monetary base, \( MB - MB_{-1} \);
- by an increase in the public’s holdings of treasury bills or bonds, \( D_{gp} - D_{gp-1} \); or
- by a loss of foreign reserves at the central bank, \( E (FR_c - FR_{c-1}) \).

The relationship between budget deficits and any indicator of macroeconomic imbalance is not straightforward but depends on how budget deficits are financed and for how long. In general, budget deficits can be financed from at least the
above noted three sources: by selling bonds to the public, by overseas borrowings, by printing money or by some mixture of these three. Over reliance on any of these sources of finance is likely to create macroeconomic imbalances. Over reliance on domestic borrowing, if practicable, may cause a rise in the real interest rate which may lower private investment. Over reliance on foreign borrowing can cause appreciating real exchange rates, widening current account deficits, unsustainable external indebtedness and dwindling foreign exchange reserves. Over reliance on money creation may cause high inflation. This is known as inflationary finance of budget deficits.

We have made an attempt here to find out the real effects of budget deficits on economic growth in Bangladesh as well as in other SAARC countries. We have also tried to pinpoint some implementable policy suggestions in light with the findings of the study under the present situation in Bangladesh.

**Objectives of the Study**

The objectives of the study are:

1. To examine whether the fiscal deficit causes the economic growth in Bangladesh and in other SAARC countries; and

2. To derive some policy suggestions according to the findings.

**Data and Methodology**

Data Period: **1973-2003** for Bangladesh and 1997-2004 for other SAARC countries. Classical **OLS estimation procedure** will be applied to assess the impact of fiscal deficits on economic growth of Bangladesh. The following equation will be used to estimate the relationship among the GDP growth, \( M_2 \) and fiscal deficits. **The general Growth Equation used in this study is:**

\[
\text{GDPG} = \hat{\alpha}_0 + \hat{\alpha}_1 \text{GDEF} + \hat{\alpha}_2 \text{M}_2 + \hat{i} \quad \text{.................................................................(5)}
\]

**Where:**

- \( \text{GDPG} \) = The GDP growth rate as dependent variable;
- \( \text{GDEF} \) = Government budget deficits
- \( \text{M}_2 \) = Broad Money Supply
- \( \hat{i} \) = Disturbance term
Organization of the Policy Paper

The study contains four sections. The first section is an introductory one. Importance, objectives and methodology of the study have been discussed in this chapter. Literature review has been done in the second section. The third section is devoted to review the impact of deficits on the economic growth in Bangladesh. An overview of fiscal performance of the SAARC countries has also been provided in this section. Finally, the fourth section provides a summary of the study and major policy implications on the basis of the findings for consideration of the concerned authorities.
Sections II

Literature Review: Impact of Fiscal Deficits on Economic Growth

Empirical Studies: Budget deficits have positive impact on economic growth

Devereux and Love (1995)\(^2\) in a study concluded that there is a positive relationship between lump sum financial government spending and growth rates. Kelly (1997)\(^3\) argues that public investment and social expenditures may promote economic expansion by reducing social conflict and, hence, creating a climate conducive for investment in human and physical capital. He also contends that social expenditures enhance growth by fostering welfare and productivity improvements. Kelly (1997) continues to argue that the complementarity of public and private action is likely to be important in developing nations where such factors as severe income disparity, asset concentration, the disparate nature of production in the agricultural and industrial sectors, and fragmented financial markets which characterize most developing countries, may warrant substantial public investment programs. In such instances, public investment is likely to be a central determinant of successful private sector activity and economic growth (e.g. infrastructure capital; social expenditures). The complementary hypothesis is crucial because it implies that public investment has direct and indirect influences on economic growth. These indirect effects may be channeled through private investment and national output. Public investment may directly raise growth by adding to the stock of total social capital. Public investment may indirectly enhance growth by improving the climate for private investment through public good provision. Furthermore, public investment may increase current national output, which in turn stimulates higher private investment and higher growth. Public investment is likely to be a central determinant of successful private sector activity and economic growth (e.g. infrastructure capital; social expenditures). Therefore, higher public investment may raise the marginal productivity of private capital and, thereby, “crowd-in” private investment (Aschauer, 1989)\(^4\).

Empirical Studies: Budget deficits have negative impact on economic growth

Easterly, William, Schmit-Hebbel, Klaus (1993)\(^5\) found that ‘fiscal deficits received much of the blame for the assorted economic ills that beset developing countries in the 1980s. Overindebtedness and the debt crisis, high inflation and poor investment performance and attempts to regain macroeconomic stability through fiscal adjustment achieved uneven success, raising questions about the macroeconomic consequences of public deficits and fiscal stabilization — or fiscal deterioration. IMF’s Fiscal Affairs Department (1995)\(^6\) concludes in a
study that ‘Indeed, it is likely that overly expansionary fiscal policies may lead to increased distortions in the economy and ultimately, a reduction in growth. Guess and Koford (1984) used the Granger causality test to find the causal relationship between budget deficits and inflation, GNP, and private investment using annual data for seventeen OECD countries for the period 1949 to 1981. They concluded that budget deficits do not cause changes in these variables. Furthermore, there are other studies that examine the relationship between government spending and economic growth using cross-country data in attempts to explain the observed differences in growth rates across countries. For example, Landau (1983) in a cross-sectional study of over 100 countries reported evidence of a negative relationship between the growth rate of real per capita GDP and the share of government expenditure in GDP. Kormendi and Meguire (1985) found no significant relationship between the growth rate of real GDP and the growth rate of government consumption spending on output. Using annual data for the US over the period 1953-1986, Aschauer (1989b) empirically examined the effect of public expenditure on private investment and the rate of return to private capital. He argues that an increase in public investment may be expected to reduce private investment nearly one-to-one as the private sector utilizes the public capital for its required purposes rather than expand private capacity. At a deeper level, a distinctive feature of public infrastructure capital is that it complements private capital in the production and distribution of private goods and services. Hence, public investment might be thought to raise private investment as the former raises the profitability of private capital stock. The empirical results indicate, “that while both channels appear to be operating, the latter comes to dominate, so the net effect of a rise in public investment had a positive effect on private investment” (Aschauer, 1989, p. 186). This means that government investment had a positive effect on private investment and caused “crowding-in” rather than “crowding-out”.

Barro (1991) examined 98 countries during the period 1960—1985 and reported a negative relationship between the output growth rate and the share of government consumption expenditures. When the share of public investment was considered; however, Barro (1991) found a positive but statistically insignificant relationship between public investment and the growth rate. Miller and Russek (1997) consider a sample of developed and developing countries from 1975 to 1984. They find that both the method of financing and the component of government expenditure can have different effects. Debt-financed increases in defence, health, and social security and welfare expenditures negatively affect the growth of real per capita GDP in developing countries, while debt-financed
increases in education expenditure positively affected growth in developed countries. Miller and Russek (1997) differ from prior studies in that they separate the effects of government expenditure based on the method of financing—tax or debt financing. Argimon et al. (1997) separates private from public investment. Using annual data for fourteen OECD countries for the period 1978 to 1989, they consider the effects, if any, of public consumption and public investment on private investment. They find that public consumption and public investment are negatively associated with private investment although only the public consumption effect is significant.

Kelly (1997) investigated the effects of public expenditure on economic growth among 73 nations (including developing and developed nations) over the period 1970-89. This study used OLS to estimate economic growth as a function of various public expenditures (such as social expenditure, educational expenditure and other expenditures) and certain variables, which have been prominent in the empirical growth literature such as private investment, and the trade openness variable. This study found that public investment, and particularly housing expenditure, registers a uniformly positive and frequently significant relationship with growth. Although the results do not support a robust relationship between public investment and growth, they nevertheless conflict with the crowding out thesis that dominates the theoretical literature. Social security expenditures are positively related to growth in each specification of the model and significantly so in several versions. The results are important because they suggest that nations may pursue social welfare and growth simultaneously. The results indicate that health expenditures are negatively and sometimes significantly related to growth, while those for education vary in sign and significance.

Ghali (1997) investigated the relationship between government spending and economic growth in Saudi Arabia using annual data over the period 1960-1996. It should be noted here that this study builds on Barro’s (1990) endogenous growth model, to untangle the nature of the relationship between these variables. The conclusion of this study “found no consistent evidence that changes in government spending have an impact on per capita real output growth” (Ghali, 1997, p. 171). Ghali and Al-shamsi (1997) utilized cointegration and Granger-causality to investigate the effects of fiscal policy on economic growth for the small oil producing economy of the United Arab Emirates over the period 1973:1-1995:4. They decomposed public spending into consumption and investment expenditures and show how multivariate cointegration techniques can be used to test for the long-run relationships and the intertemporal causal effects between
government spending and economic growth. This study provides evidence that government investment has a positive effect on economic growth, whereas the effect of government consumption is insignificant (Ghali and Al-Shamsi, 1997, pp. 530-31).

Monadjemi and Huh (1998) utilized the error correction model (ECM) to examine the relationship between private investment and government spending in Australia, UK, and the US over the period 1970:1-1991:4. Empirical results provide limited support for “crowding out” effects of government investment on private investment. The rate of interest and corporate profitability showed significant effects on private investment in two out of three cases (p. 102). Ghali (1998) used multivariate co-integration techniques to develop a vector error-correction model to investigate the long-run effects of public investment on private capital formation and economic growth. It is worth noting here that this study used a neoclassical production function where the private and public capital stocks are treated as separate inputs. They apply their methodology to data from Tunisia over the period 1963-93. This study found that in the long run, public investment is found to have a negative impact on growth and private investment. In the short-run, public investment had a negative impact on private investment and no effect on growth. Bahmani (1999) investigated the long-run relationship between U.S. federal real budget deficits and real fixed investment using quarterly data over the 1947:1-1992:2 period. The methodology in this study is based on the Johansen-Juselius cointegration technique. Their empirical results indicated that real budget deficits have crowded in real investment, supporting the Keynesians who argue for the expansionary effects of budget deficits, by raising the level of domestic economic activity, “crowd- in” private investment (Bahmani, 1999, p. 639). Ahmed and Miller (2000) examined the effects of disaggregated government expenditure on investment using OLS, fixed-effect, and random-effect methods. This study introduced a government budget constraint; it also distinguished between tax- and debt-financed expenditure. They used pooled time-series, cross-section data (39 countries: 23 developing countries and 16 developed ones) over the period 1975-1984. It is worth noting here that this study ran two sets of regressions. One set uses total government expenditure while the other uses disaggregated expenditure items. The different categories of government expenditure include defense expenditure to GDP, education expenditure to GDP, health expenditure to GDP, social security and welfare expenditure to GDP, economic affairs and service expenditure to GDP, transportation and communication expenditure to GDP, and other expenditure to GDP. This study also included a trade variable, defined as the import plus export
share of GDP, because they argue that trade variables (such as the import plus export share of GDP and other measures of openness) explain investment robustly. Their empirical results produce several conclusions. First, the openness variable has a significantly positive effect on investment only for developing countries. For developed countries, openness does not significantly affect investment. Second, expenditure on transportation and communication, crowds in investment for developing countries only. Third, tax financed government expenditure, in general, crowds out investment more frequently that debt-financed government expenditure. That finding may suggest the existence of liquidity constraints within the economy. Finally, expenditure on social security and welfare crowds out investment for both tax and debt-financed increases and in both developing and developed countries. This is the only category of government expenditure that had such a consistent (negative) effect across all specifications.

It can be concluded from the empirical studies presented in this section that there are some similarities and differences between these studies dealing with the impact of public investment on private investment and economic growth. The similarities are that some of them focus either on cross-section or static analysis, and used the same estimation technique. For example Barro (1991); Arora and Dua (1993); Nelson and Singh (1994); Kelly (1997); among others estimated their economic model by using the OLS method. Furthermore, many other studies resulted in a similar conclusion in both developed and developing countries and lent support to the existence of a significant crowding-in effect of private investment by public investment, through the positive impact of infrastructure on private investment productivity (e.g. Aschauer (1989b); Kelly (1997); Miller and Russek (1997); Argimon et al. (1997); Ghali and Al-shamsi (1997); Bahmani (1999); Ahmed and Miller (2000); among others).

In contrast other studies suggest different conclusions. Studies such as Landau (1983), Barro (1991), Ghali (1998), among others, found support for a negative relationship between public investment and economic growth. It is worth noting here that one of the important outcomes from these studies indicates that cross-section analysis cannot capture the country specific nature of the government spending and growth relationship. Moreover, time series analysis allows revealing the causal relationship between variables, while cross-section analysis can identify correlation but not causation between variables. It is worth noting as well that, in general, the key outcomes from the studies presented in this section showed that both the method of financing and the components of government expenditure could have different effects. Therefore, it is crucial to distinguish
between current and capital expenditure when evaluating the impact of fiscal policy on private investment and output growth. Thus, overall results from the empirical literature with respect to the impact of public investment on private investment and growth are ambiguous, but the bulk of the empirical literature finds a significantly negative effect of public consumption expenditure on growth while the effects of public investment expenditure are found to be positive although less robust.

Therefore, with the above divergent results of the studies conducted on the assessment of impact of fiscal deficit on the economic growth in view, the pertinent question is that whether the persistent fiscal deficits causes economic growth for the country like Bangladesh.

A summary of the results of the studies done in this field has been given in Table-1.
Table 1: Selected Empirical Studies of Budget Deficits and Growth of the Economy

<table>
<thead>
<tr>
<th>Study/Relationship tested</th>
<th>Estimation Period</th>
<th>Country</th>
<th>Methodology/Econometric Technique</th>
<th>Major finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aschauer (1989b)</td>
<td>1953-1986</td>
<td>US</td>
<td>Maximum likelihood</td>
<td>-The net effect of a rise in public investment had a positive effect on private investment.</td>
</tr>
<tr>
<td>Kelly (1997)</td>
<td>1970-1989</td>
<td>Cross-sectional (73)</td>
<td>OLS</td>
<td>-Public investment (particularly housing expenditure) registers a uniformly positive and frequently relationship with growth. Although the results do not support a robust relationship between public investment and growth.</td>
</tr>
<tr>
<td>Argimon et al. (1997)</td>
<td>1978-1989</td>
<td>OECD (14)</td>
<td>IV</td>
<td>-Evidence found that public consumption and public investment are negatively associated with private investment.</td>
</tr>
<tr>
<td>Ghali and Al-Shamsi (1997)</td>
<td>1973:1 - 1995:4</td>
<td>United Arab Emirates</td>
<td>Cointegration-Granger-</td>
<td>Causality -Evidence that government investment has a positive effect on economic growth, whereas the effect of government consumption is insignificant.</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Period</td>
<td>Country</td>
<td>Methodology</td>
<td>Findings</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------</td>
<td>------------------</td>
<td>------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Ghali (1997)</td>
<td>1960-1996</td>
<td>Saudi Arabia</td>
<td>VAR</td>
<td>-No consistent evidence found that changes in government spending have an impact on per capita real output growth.</td>
</tr>
<tr>
<td>Ghali (1998)</td>
<td>1963-93</td>
<td>Tunisia</td>
<td>Granger causality test, OLS</td>
<td>-Public investment is found to have a negative short-run impact on private investment and a negative long run impact on both private investment and economic growth.</td>
</tr>
<tr>
<td>Ahmed and Miller (2000)</td>
<td>1975-1984</td>
<td>Cross sectional (39)</td>
<td>OLS</td>
<td>-In general, tax-financed government expenditure crowds out more investment than debt-financed expenditure. Expenditure on social security and welfare reduces investment in all samples while expenditure on transport and communication induces private investment in developing countries.</td>
</tr>
<tr>
<td>Dwyer (1982)</td>
<td>1952-1978</td>
<td>US</td>
<td>VAR</td>
<td>-No evidence is found that larger government deficits increase prices, spending, interest rates, or the money stock.</td>
</tr>
<tr>
<td>kARRAS (1994)</td>
<td>1950-1980</td>
<td>Cross sectional[32]</td>
<td>OLS, GLS</td>
<td>-Deficits do not lead to inflation, deficits are negatively correlated with the rate of growth of real output and increased deficits appear to retard investment.</td>
</tr>
<tr>
<td>Al-Khedair (1996)</td>
<td>1964-1993</td>
<td>G-7</td>
<td>VAR</td>
<td>-Budget deficits led to higher short-term interest rates in the seven countries. The budget deficit did not manifest any impact on the long-term interest rates. The trade balance was worsened by the budget deficit and economic growth improved in all seven countries.</td>
</tr>
</tbody>
</table>

Note: In all cross-country studies the number of countries given in parenthesis; OLS=ordinary least squares; IV=instrumental variables; VAR=vector autoregressive model; 2SLS=two stage least squares; SUR=seemingly unrelated regressions; GLS=generalised least squares; ECM=error correction model.
Impact of fiscal deficits on the economic growth in Bangladesh:

An overview of Bangladesh economy

Bangladesh is essentially a dualistic economy with a rising industrial sector and a dominant subsistence agricultural sector. Agriculture is still dominating in terms of employment and export earnings. Within the relatively small industrial sector, medium and small-scale industries occupy an important place. They are basically family-oriented enterprises with low capital intensity and traditional technology. The early 1970s were a period of economic and political turbulence. This is reflected in the fall of real output by 9 percent per year during 1971-75. The war-ravaged economy that the country inherited was structurally weak and the wholesale nationalization of manufacturing industries and financial institutions during the early 1970s led to inefficiencies, shortages and economic decline. By the late 1970s the economy was stabilized and various market-oriented reform measures were introduced. However, it was only in the 1980s that the economy started to grow at a steady pace of about 4.5 percent per annum. Data for the past few years suggest that the economy has moved to a higher growth path of about 6 percent per annum. Thus the 1980s and 1990s represented a phase of high economic growth for the country. The steady economic growth since the mid-1980s has brought about significant change in the economy in favour of the non-agricultural sector. Agriculture, which was traditionally the dominant sector, presently contributes only 23.50 percent of GDP. With this transformation process, the services sector gained the most (49.40 percent in FY2002-03) while the shares of large and medium-scale manufacturing and construction sectors (11.20 percent and 8.60 percent respectively) increased steadily. The share of small-scale manufacturing did not increase much. An implication is that with the diminishing share of agriculture in output, floods and other supply shocks to agriculture will have a relatively less direct impact on GDP growth in the future.

Fiscal Policy Stance in Bangladesh

Bangladesh is at a difficult juncture in terms of its overall fiscal situation. There are enormous challenges to bring down the levels of poverty in the country, and the Government faces continued pressures to increase the involvement of the state in the economy (public sector employment, public services in education and health and the like). On the other hand, Bangladesh seems unable to mobilize the capacity to launch much-needed reforms across the economy, with the
consequence that it is unable to tap the domestic and foreign resources available to the country. As a result, the fiscal situation has deteriorated slowly but dangerously. After independence, fiscal policy stance in Bangladesh was expansionary due to reconstructing the war-damaged economy. During that period the government’s expenditure grew on average by 14.79 percent of GDP, whereas revenue earnings grew by only 7.19 percent and the level of fiscal deficit was 7.6 percent during 1970s. The major portion of this high fiscal deficit was financed mainly from the banking system. Such fiscal deficits were within a tolerable limit, as they did not create any major economic problem, except during the early 1970s. It appears that the better than expected fiscal performance in Bangladesh during that period was essentially due to binding constraints on the financing of fiscal deficits. Since Bangladesh is keen not to create any serious debt servicing problem by borrowing from foreign commercial banks, it adjusts development expenditures to match the inflows of foreign grants and subsidized loans.

Though the fiscal policy stance remained expansionary, the fiscal deficit was slightly moderated at 6.93 percent in 1980s. The government expenditure grew on average by 15.48 percent of GDP, whereas revenue earnings grew by 8.53 percent. During that period an important development in public spending is that the share of defense spending in total expenditure has been rising. It has increased from about 5 percent in 1970s to about 10 percent in 1980s. This rise was associated mainly with the two military regimes of Bangladesh. The rise in defense spending contrasts sharply with the falling share of spending on economic services and social overhead items, such as education, health and housing which may be viewed as an unhealthy fiscal development. Another fiscal development in 1980s has been the sharp decline in the share of subsidies in government’s expenditure. As a proportion of total expenditure, the level of subsidies was declined from 11 percent in 1970s to 1 percent in 1980s. Such a reduction in government’s subsidies is a healthy fiscal development but resources released have been used for financing increased defense spending.

The fiscal deficit was maintained below 5 percent of GDP until the late 1990s. But in the absence of a strong medium term strategy and institutional mechanisms the country has remained vulnerable to inappropriate policy decisions, as evidenced by the weakened fiscal stance in 1999-2000, when fiscal deficit reached at more than 6.1 percent of GDP. As a result of this fiscal deterioration domestic bank financing of the budget deficit has increased considerably, and the stock of public debt rose to 1.50 percent of GDP in 1999-2000 which was less than 1 percent in early 1990s. In this context the shedding of unnecessary expenditure burdens by
the government, such as budgetary support to the unproductive SOEs, assumes added significance. Thus, financial losses in the public enterprises have often been the root cause of consolidated fiscal deficits. The share of public sector enterprises in Bangladesh is still high, and in all the public sector enterprises, nationalized banks and autonomous bodies, there has been a persistent waste of resources and unscrupulous expenditure (Habibullah, 1991). The financial situation of the non-financial public sector enterprises has deteriorated massively during 1991-95, primarily because of unresponsive domestic pricing policies and poor internal governance. The increasing trend in the public credit ratio during 1999-2001 in Bangladesh leads to an identical reduction in bank credit available to the private sector and causes a major rise in the real lending rate. Consequently, the private investment ratio falls, and per capita GDP growth decline substantially. Therefore, an expansionary fiscal policy crowds out the private sector and leads to large negative long-term effects on private investment and aggregate growth in Bangladesh.

**Recent Developments in Fiscal Policy Stance**

The fiscal policy stance in recent years shows that, the central government deficit reduced from 5.1 percent of GDP in FY01 to 4.7 percent in FY02, on account of both revenue measures and expenditure discipline. In particular, Annual Development Program (ADP) spending was cut by 0.9 percentage points of GDP (8 percent in nominal term). The FY’03 budget targets a further reduction in the deficit to 4.2 percent, and the government is expected to keep budget deficit at this level. Budget deficits are projected to decline to 4 percent by 2007-2008. As the government is keen to increase pro-poor spending for the next few years, the additional revenues would be raised through improvement of the tax administration and some new taxes. Such an increased revenue effort is vital for the budget to adequately support human capital, physical infrastructure, and anti-poverty programs on a sustainable basis without threatening debt sustainability over the medium-term.

Insofar financing of deficits, the share of foreign financing has gradually fallen and the share of domestic financing has been rising. The government has taken steps to improve the deficit financing strategy and the management of contingent liabilities. For example, revenue measures announced in the budget included withdrawal of tax holidays for expansion of existing enterprise units, lowering the income tax threshold, abolition of zero duty rates and supplementary duties in many imports, lowering the top customs duty rate, withdrawal of some income tax exemptions, and extension of the VAT net. Moreover, budget management has
been improved, through monthly monitoring of fiscal performance based on a computerized budgeting and accounting system, and systematic monitoring of releases of ADP related funds.

Most recent budget is drawn up with specific reference to the National Strategy for Economic Growth, Poverty Reduction and Social Development and its Medium Term Macroeconomic Framework (MTMF). The budget sees itself in the role of creating an enabling environment for private sector investment to lead in driving growth and job creation, allocating resources to growth supporting infrastructure and to programs, which have an impact on human development, poverty reduction and employment generation. To improve the pro-poor focus on government expenditure, government has increased spending for human capital development, health and social safety nets. Such spending is targeted to increase by at least 1 percentage point of GDP in 2003-2004, primarily reflecting higher maintenance expense for the social sectors and targeted social protection programs. The government is trying all possibilities of cutting down other expenditures such as non-interest and non-wage recurrent expenditures and ensuring strict discipline on ADP spending. Within this fiscal year no new unapproved projects will be added to the ADP and projects to be included in the ADP will be closely scrutinized to ensure best use of available funds, as this could undermine the fiscal sustainability. Adequate funding will be ensured to cover the costs of reforming the SOEs and NCBs depending on recovery rates in the NCBs and assuming a curtailment of new NPLs (non-performing loans) and appropriate pricing in energy sector. The policy measures undertaken by the government suggest that it is keen to maintain fiscal discipline and is aware of its obligations under the ongoing IMF-PRGF program.

Earlier studies/comments on the fiscal deficits and economic growth in Bangladesh:

Hossain (1995)\textsuperscript{31} conducted an empirical study on the government revenue and expenditure in Bangladesh for the period 1974-85 and found that ‘in Bangladesh, the income elasticity of government revenue is not significantly different from unity, but the income elasticity of government recurrent expenditure is significantly greater than unity. An implication of these results is that Bangladesh has a tendency to experience income-induced fiscal deficits. The high-income elasticity of government expenditure relative to the income elasticity of government revenue is self-destabilizing in the sense that the budget deficit resulting out of it may be inflationary if financed by money creation.
Habibullah (1991) found that despite the denationalization of some industries during both Zia and Ershad regimes, the share of public sector enterprises in Bangladesh is still high, and in all the public sector enterprises, nationalized banks and autonomous bodies, there has been a persistent waste of resources and unscrupulous expenditure. As a result, the rate of return in public sector enterprises has been low. A World Bank study showed that ‘growth in the 1990s was driven by private investments, but private investment appears to have leveled off after 1998. Weak governance resulting from institutional inadequacies, infrastructure constraints, worsening performance of the financial sector and deterioration in macroeconomic management have all contributed to the loss of momentum. While delivering lecture before the FICCI meeting held in Dhaka on July 28, 2002 the World Bank country director for Bangladesh, Mr. Frederick T. Temple remarked that ‘progress on the expenditure side has been less encouraging. While the government was able to reduce planned ADP expenditures during the last fiscal years by not spending budgeted funds, the FY’03 budget includes a large ADP with too many projects, many with weak justification.

Findings of the Present Study

The estimated results of the OLS regression presented in Table-2 show that the monetary growth has positive impact on real output growth although the coefficient is not significant at desired level. This needs further investigation. If the M2 grows 1 percent then the GDP will grow by 1.03 percent. On the other, budget deficits show negative impact on GDP growth, which is significant at 10 percent level. If the budget deficit grows by 100 percent then the GDP will decline by 44 percent. However, the present estimated results need further investigation to eliminate auto-correlation among the residuals.

Impact of fiscal deficits on GDP in the SAARC countries

Fiscal deficits remained a common practice throughout the Asian region. Fiscal consolidation marked a slow progress in South Asia because of political uncertainties. Fiscal deficits were assumed to be persisting and financed by increased public borrowing that might add to the public debt burden, potentially jeopardizing fiscal sustainability and hindering economic performance. According to the Asian Development Outlook, 2003: ‘persistent fiscal deficits have been the norm in South Asia because of weak revenue collection and government’s inability (or reluctance) to cut expenditures.

An analysis of the impact of fiscal deficits on the other six SARRC countries GDP
growth indicates mixed trend. None of the variables (budget deficits and broad money) is significant to explain the GDP growth for Bhutan, India, Nepal and Pakistan. On the other, in case of Maldives, it is depicted that budget deficits has positive and significant impact on GDP growth, but M2 does not have any significant impact on GDP. But, in contrast, budget deficits showed a negative and significant impact on GDP growth for Sri Lanka while M2 does not show any significant impact on GDP. This result of budget deficits on economic growth of Sri Lanka seems to be close to Bangladesh.

Section IV

<table>
<thead>
<tr>
<th>Dependant Variable</th>
<th>Constant</th>
<th>Estimated on</th>
<th>Coefficients</th>
<th>Equation Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>C</td>
<td>M2 _gr</td>
<td>GDEF_gr</td>
<td>R2 D.W</td>
</tr>
<tr>
<td>GDP _gr</td>
<td>6.59</td>
<td>0.03</td>
<td>-0.44*</td>
<td>0.12 2.80</td>
</tr>
<tr>
<td></td>
<td>(4.86)</td>
<td>(0.55)</td>
<td>(-1.83)</td>
<td></td>
</tr>
</tbody>
</table>

1. Figures in the parenthesis are t-ratios.
2. *=Significant at 10% level
**Figure 1**: Bangladesh: Trends in the growth of GDP, Budget Deficits and Broad Money

**Figure 2**: Bangladesh: Government’s Major Fiscal Indicators
Concluding Remarks and Policy Implications

Concluding Remarks

The paper suggests that the fiscal deficits have no positive impact on the growth of the economy of Bangladesh. Then the question emerges on the effectiveness of the sectoral distribution of the government expenditures. During 1990s, an important development in public spending was that the share of defense spending in total expenditure rose substantially from about 5 percent in 1970s to about 10 percent in 1980s and again geared up in 1990s. This rise was associated mainly with the two military regimes of Bangladesh. The rise in defense spending contrasts sharply with the falling share of spending on economic services and social overhead items, such as education, health and housing which may be viewed as an unhealthy fiscal development. However, due to the greater magnitude in the non-development expenditure, the result showed negative impact on growth of the GDP. Therefore, paradigm shift in the nature of government expenditure may be an important area to be addressed by the policy makers. The government may opt for gradual shifting to the balanced budget approach or find some avenue for greater domestic resource mobilization to fill the gap.

The data for budget deficits show that they increased from 4 percent of GDP in 1998 to 5 percent of GDP in 2000. Since then they were brought down to 4 percent of GDP in 2003. The government is expected to keep budget deficits at this level. As the government is keen to increase pro-poor spending by about 2.5 percent of GDP for the next few years, the additional revenues would be raised through improvement of the tax administration and some new taxes. Such an increased revenue effort is vital for the budget to adequately support human capital, physical infrastructure, and anti-poverty programs on a sustainable basis without threatening debt sustainability over the medium term. The recent policy measures undertaken by the government suggest that it is keen to maintain fiscal discipline and is aware of its obligations under the ongoing IMF-PRGF program. However, the government is yet to adopt any specific fiscal rule either in case of government outlays or the mode of deficit financing. In particular, the loss-making public enterprises remain a drag on the economy. To consolidate the fiscal sector, lately the government has initiated a four-year program to phase-out the state-owned enterprises, starting with the closure/privatization of key loss-making units. In addition to the Adamjee Jute Mill, another 24 out of total 150 state-owned enterprises have been closed in 2003.

Policy Implications
1. The examination of the fiscal system of Bangladesh reveals the need for fiscal reforms so that the fiscal sector can perform a positive role in economic growth and development. Any fiscal reforms in Bangladesh are somewhat synonymous with tax reforms. Tax reform experiences in developing countries suggest that it is not easy to implement tax reform measures without any commitment on the part of the government. For a successful structural change in the fiscal system, the government needs to use some of its political capital. In fact, successful tax reform requires an equilibrium between political objectives, tax policy changes, and administrative development and all of these have to move together (Tanzi, 1991). Therefore, the revenue mobilization effort needs to be strengthened and steps should be taken to modernize the tax administration system. In addition, the government should adjust the administered prices of public utilities and prioritized expenditures, purring those which are unproductive.

2. Besides tax reforms, there is a need for government expenditure reforms for the creation of an efficient fiscal system. Financial losses in the public sector enterprises have often been the root cause of consolidated fiscal deficits. Despite the denationalization of some industries during both the Zia, Ershad and Khaleda Zia regimes, the share of public sector enterprises in Bangladesh is still high, and in all the public sector enterprises, nationalized banks and autonomous bodies, there has been a persistent waste of resources and unscrupulous expenditure, which should be checked.

3. Besides the revenue increasing initiatives, wide scope of expenditure rationalization measures should be sought for. The financing pattern of the Annual Development Program (ADP) projects of high priority and high poverty reduction impact may be reshaped creating enough scope for social fund’s participation. The rich people of the country may also participate in these projects by providing the necessary finance. Moreover, the budget making process may be started from the root level i.e., bottom-up approach may by followed to encourage the local resource participation.

4. To increase private investment for accelerated growth would require the efficient mobilization and allocation of savings by the banking system and the capital market. Moreover, private sector investment for the expected higher output growth rates in the future would require demand signals. With macroeconomic balances restored in the recent years, the challenge now is to move to a higher growth path, forefronted with private sector led growth.

5. The macroeconomics of budget deficits is inter-wined with the state of national
policies. The ruling government finds it optimal to issue debt because it can transfer easily the resources raised through borrowing (not through raising taxes) to its constituency because it does not have to bear the future cost of debt-servicing. The non-accountability of the politicians to the public for the consequences of policy decisions leads the economy into imbalances. To avoid such a situation, there is a need for development of both economic and political institutions that would improve macroeconomic policy making.

6. The credibility of government’s fiscal and monetary policy lies ultimately in the accountability and transparency of the budgetary process. An independent fiscal board (IFB) headed by a ‘Fiscal Ombudsman’ seems to be important to review government expenditure progress and all new initiatives and it can be made mandatory to take clearance from this board. The idea of an independent fiscal board is akin to an independent judiciary. Just as an independent judiciary system monitors political interference with institutions for greater political efficiency, an IFB will ensure that the budgetary process is not influenced by political considerations and will enhance efficiency in macroeconomic management.

### OLS Estimation results of the impact of budget deficits on the economic growth of the SAARC countries:

**Impact of budget deficits on the economic growth in Bangladesh**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDEF_GR</td>
<td>-0.435214</td>
<td>0.238399</td>
<td>-1.825569</td>
<td>0.0794</td>
</tr>
<tr>
<td>M2_GR</td>
<td>0.029082</td>
<td>0.053018</td>
<td>0.548519</td>
<td>0.5880</td>
</tr>
<tr>
<td>C</td>
<td>6.592332</td>
<td>1.355781</td>
<td>4.862388</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R-squared: 0.115474
Adjusted R-squared: 0.047434
S.E. of regression: 2.055006
Sum squared resid: -60.45391
Log likelihood: 2.804846
Durbin-Watson stat: 2.004846

Mean dependent var: 4.547586
S.D. dependent var: 2.105550
Akaike info criterion: 4.376132
Schwarz criterion: 4.517576
F-statistic: 1.697146
Prob(F-statistic): 0.202878
Impact of budget deficits on the economic growth in Bhutan

Dependent Variable: Y_BH
Method: Least Squares
Date: 07/15/04   Time: 14:50
Sample: 1997 2004
Included observations: 8

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEF_BH</td>
<td>0.091765</td>
<td>0.187292</td>
<td>0.489956</td>
<td>0.6449</td>
</tr>
<tr>
<td>M2_BH</td>
<td>-0.035539</td>
<td>0.066886</td>
<td>-0.531332</td>
<td>0.6179</td>
</tr>
<tr>
<td>C</td>
<td>7.995735</td>
<td>2.284393</td>
<td>3.500157</td>
<td>0.0173</td>
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</table>

R-squared: 0.053661
Mean dependent var: 6.800000
Adjusted R-squared: -0.324875
S.D. dependent var: 0.778276
S.E. of regression: 0.895821
Akaike info criterion: 2.897844
Sum squared resid: 4.012478
Schwarz criterion: 2.927635
Log likelihood: -8.591378
F-statistic: 0.141759
Durbin-Watson stat: 2.508949
Prob(F-statistic): 0.871198

Impact of budget deficits on the economic growth in India

Dependent Variable: Y_IN
Method: Least Squares
Date: 07/15/04   Time: 14:52
Sample: 1997 2004
Included observations: 8

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEF_IN</td>
<td>-0.533353</td>
<td>0.548814</td>
<td>-0.971829</td>
<td>0.3758</td>
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<tr>
<td>M2_IN</td>
<td>0.179005</td>
<td>0.263081</td>
<td>0.680420</td>
<td>0.5265</td>
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<tr>
<td>C</td>
<td>-2.325516</td>
<td>8.443985</td>
<td>-0.275405</td>
<td>0.7940</td>
</tr>
</tbody>
</table>

R-squared: 0.160121
Mean dependent var: 5.512500
Adjusted R-squared: -0.175831
S.D. dependent var: 0.859298
S.E. of regression: 0.931786
Akaike info criterion: 2.976569
Sum squared resid: 4.341124
Schwarz criterion: 3.006359
Log likelihood: -8.906276
F-statistic: 0.476619
Durbin-Watson stat: 2.304668
Prob(F-statistic): 0.646460
### Impact of budget deficits on the economic growth in Maldives

Dependent Variable: Y_MD  
Method: Least Squares  
Date: 07/15/04   Time: 14:53  
Sample: 1997 2004  
Included observations: 8

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEF_MD</td>
<td>1.151442</td>
<td>0.253782</td>
<td>4.537125</td>
<td>0.0062</td>
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<td>M2_MD</td>
<td>0.095527</td>
<td>0.067546</td>
<td>1.414250</td>
<td>0.2164</td>
</tr>
<tr>
<td>C</td>
<td>9.726144</td>
<td>1.718399</td>
<td>5.660004</td>
<td>0.0024</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.851028</td>
<td></td>
<td></td>
<td>5.875000</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.791439</td>
<td>S.D. dependent var</td>
<td>2.907503</td>
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<tr>
<td>S.E. of regression</td>
<td>1.327812</td>
<td>Schwarz criterion</td>
<td>3.684938</td>
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</tr>
<tr>
<td>Sum squared resid</td>
<td>8.815423</td>
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<td>3.714729</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-11.73975</td>
<td>F-statistic</td>
<td>14.28167</td>
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</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>2.419544</td>
<td>Prob(F-statistic)</td>
<td>0.008566</td>
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### Impact of budget deficits on the economic growth in Nepal

Dependent Variable: Y_NP  
Method: Least Squares  
Date: 07/15/04   Time: 14:57  
Sample: 1997 2004  
Included observations: 8

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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</thead>
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<td>DEF_NP</td>
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<td>0.025533</td>
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<td>M2_NP</td>
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<td>0.136302</td>
<td>1.848717</td>
<td>0.1238</td>
</tr>
<tr>
<td>C</td>
<td>-0.218975</td>
<td>5.206696</td>
<td>-0.042056</td>
<td>0.9681</td>
</tr>
<tr>
<td>R-squared</td>
<td></td>
<td></td>
<td></td>
<td>3.475000</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.234196</td>
<td>S.D. dependent var</td>
<td>2.135248</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>1.868560</td>
<td>Akaike info criterion</td>
<td>4.368210</td>
<td></td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>17.45759</td>
<td>Schwarz criterion</td>
<td>4.398001</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-14.47284</td>
<td>F-statistic</td>
<td>2.070362</td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>2.105317</td>
<td>Prob(F-statistic)</td>
<td>0.221296</td>
<td></td>
</tr>
</tbody>
</table>
### Impact of budget deficits on the economic growth in Pakistan

Dependent Variable: Y_PK  
Method: Least Squares  
Date: 07/15/04   Time: 14:58  
Sample: 1997 2004  
Included observations: 8  

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEF_PK</td>
<td>0.175289</td>
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<td>0.334577</td>
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<tr>
<td>M2_PK</td>
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<td>0.151960</td>
<td>-0.774416</td>
<td>0.4737</td>
</tr>
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<td>C</td>
<td>5.896250</td>
<td>3.103436</td>
<td>1.899910</td>
<td>0.1159</td>
</tr>
</tbody>
</table>

R-squared: 0.157694  
Mean dependent var: 3.612500  
Adjusted R-squared: -0.179228  
S.D. dependent var: 1.072297  
S.E. of regression: 1.164432  
Akaike info criterion: 3.422340  
Sum squared resid: 6.779508  
Schwarz criterion: 3.452131  
Log likelihood: -10.68936  
F-statistic: 0.468043  
Durbin-Watson stat: 1.713617  
Prob(F-statistic): 0.651140

### Impact of budget deficits on the economic growth in Sri Lanka

Dependent Variable: Y_SL  
Method: Least Squares  
Date: 07/15/04   Time: 14:59  
Sample: 1997 2004  
Included observations: 8  

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
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<tr>
<td>DEF_SL</td>
<td>-0.325745</td>
<td>0.060236</td>
<td>-5.407812</td>
<td>0.0029</td>
</tr>
<tr>
<td>M2_SL</td>
<td>0.497232</td>
<td>0.462477</td>
<td>1.075151</td>
<td>0.3314</td>
</tr>
<tr>
<td>C</td>
<td>-4.632690</td>
<td>6.312523</td>
<td>-0.733889</td>
<td>0.4960</td>
</tr>
</tbody>
</table>

R-squared: 0.855173  
Mean dependent var: 3.612500  
Adjusted R-squared: 0.797242  
S.D. dependent var: 2.479487  
S.E. of regression: 1.116479  
Akaike info criterion: 3.338233  
Sum squared resid: 6.232624  
Schwarz criterion: 3.368024  
Log likelihood: -10.35293  
F-statistic: 14.76199  
Durbin-Watson stat: 1.822103  
Prob(F-statistic): 0.007982
Bibliography


13 op.cit in 12.


15 op. cit. in 3.


18 op. cit. in 16


Information of this section has been heavily drawn from the Monetary Policy Review Paper, Research Department, Bangladesh Bank, June, 2004 (mimeographed).


Relative Effectiveness of Monetary and Fiscal Policies on Output Growth in Bangladesh: A VAR Approach

Md. Habibur Rahman*

Abstract

This paper investigates the relative importance of monetary and fiscal policies in altering real output of Bangladesh. An unrestricted vector autoregressions (VARs) framework, based on the St. Louis equation, is used to compute variance decompositions (VDCs) and impulse response functions (IRFs) through 1000 Monte Carlo simulations. A ‘Monetary—Fiscal Game’ under oligopolistic framework is also used to justify the co-ordination and co-operation between the monetary and fiscal authorities. The results derived from the VDCs and IRFs imply that monetary policy alone has a significantly positive impact on real output growth in Bangladesh. The impact of fiscal policy on real output growth remains completely insignificant. The outcome of this study, thus, supports the views of the proponents of St. Louis Model that asserts monetary policy is relatively more effective than fiscal policy in stimulating real economic activity. The results also confirm the presence of interactions between monetary and fiscal policies. The outcome of the ‘Monetary—Fiscal Game’ substantiates the necessity for cooperation between the monetary and fiscal authorities.

1.0 Introduction

Sustainable output growth with relatively stable inflation and exchange rates is one of the important components of any macroeconomic stabilization policy. In order to accomplish this policy objective, there are two main alternative policy

* The author of this paper is a Joint Director of the Research Department of Bangladesh Bank. The views expressed in this paper are the author’s own and do not necessarily reflect the views of the Bangladesh Bank. The author would like to thank Prof. Mark Wheeler of Western Michigan University, Prof. Akhtar Hossain of the University of Newcastle, Australia and Prof. Habibullah Khan of Singapore National University for their helpful suggestions and comments. However, any remaining error belongs to the author alone.
options — monetary and fiscal policy actions. The intention of this paper is to examine the relative effectiveness of these two policy actions in altering output using time series econometric technique based on St. Louis equation developed by the Federal Reserve Bank of St. Louis of the USA.

Economists are divided mainly into two groups regarding the effectiveness of macroeconomic stabilization policy. The group that believes in monetary actions argues that monetary policy is more powerful than fiscal policy in achieving various economic goals. In many cases, they (e.g., Milton Friedman and Meiselman, 1963; Anderson and Jordan, 1968; Carlson, 1978) use the St. Louis equation to provide empirical evidence in favor of their stand. The other group led by Keynes (1964) inclines to believe in fiscal actions.

Some economists, such as Stein (1980) and Ahmed et al. (1984), criticize the validity of using the St. Louis equation on various grounds. Stein (1980) and Ahmed et al. (1984) list some of the commonly used criticisms against the St. Louis equation. Among them the following are important: (i) the St. Louis equation is a reduced form equation. The policy variables (such as, money and government expenditure) included in this equation are not statistically exogenous; (ii) the St. Louis equation suffers from specification error because it omits some other relevant regressors (e.g., interest rate); and (iii) the St. Louis equation is based on constrained Almon lag procedure. They argue that because of the above limitations, the results obtained by the St. Louis equation could be biased and inconsistent.

The current study uses Sims’s (1980) vector autoregressions (VARs) approach to address the above criticisms. The VAR model addresses the problem of endogeneity because it assumes all the variables in the system are endogenous. Inclusion of interest rate addresses, to some extent, the problem of omitted variables. Besides, the VAR model takes care of constrained Almon lag problem in the sense that it allows selecting lag length optimally such that estimated residuals are White Noise.

2.0 Hypothesis

The objective of this study is to investigate the relative impact of monetary and fiscal policy actions on output growth in Bangladesh. The hypothesis of this paper, therefore, is monetary policy is relatively more effective than fiscal policy in altering real output of Bangladesh. Variance decompositions (VDCs) and impulse response functions (IRFs) derived from the unrestricted VARs are used to evaluate the hypothesis of the study.
3.0 Policy Stances: Monetary vs. Fiscal

As an integral part of the national macroeconomic stabilization policy, monetary and fiscal policies are designed to fine-tune the fluctuations of the economy—in particular, fluctuations in economic growth, inflation and unemployment rates. In line with the national macroeconomic policy framework, the monetary policy is conducted with a view to achieving multiple objectives, such as maintaining price stability with a low inflation rate and fostering higher economic growth. Monetary policy is seen as a central government policy with respect to the quantity of money, interest and exchange rates which has a dominant role on aggregate demand, inflation and output. This owes much to the rise of the doctrine of monetarism and to the defeat of the popular interpretation of Keynesian fiscal policy.

The fiscal policy deals with the revenue and expenditure of the government. The government is responsible for providing all the major public goods and services through its administrative, development and welfare oriented programs which is not feasible for private sector to supply. An excess of expenditure over revenue creates fiscal deficit while excess of revenue over expenditure creates fiscal surplus. The equality between expenditure and revenue produces a balanced budget situation. The income-expenditure management of the government is very crucial in that it has far reaching impact on various macroeconomic activities.

To achieve a certain policy objective, such as stable and low inflation or higher output growth, do we need to depend heavily on monetary policy or on fiscal policy or on a coordinated combination of both is a compelling question to ask. Answer to this question definitely requires an in-depth investigation on relative effectiveness of monetary and fiscal policies. This paper makes an attempt to answer this question by investigating the issue of relative effectiveness of monetary and fiscal policies on output growth in Bangladesh.

3.1 A Monetary-Fiscal Game: Prisoners’ Dilemma

The debate concerning the relationship between monetary and fiscal policies is centered on the inflationary consequences of deficit financing by the fiscal authority. In view of avoiding the inflationary consequences, the main policy recommendation has been to institute an independent monetary authority whose main mandate is the control of inflation. The harmful consequences of high inflation could also be addressed by the fiscal authority by rationalizing fiscal expenditure and by raising tax revenue (Bennett and Loayza, 2002).
The Bangladesh Bank Order, 1972 is the basis of the conduct of monetary policy in Bangladesh. It provides the Bangladesh Bank the responsibility of achieving both monetary stability with the special emphasis on domestic price stability and economic growth. Although in a broad sense these broad objectives are complementary, they could be in conflict if developmental objectives get priority over price stability. Lack of coordination between monetary and fiscal authorities is one of the very common cases that create a situation where other issues get priority over the price stability. For example, the program of monetary targeting of monetary authority could be jeopardized by fiscal dominance created by the fiscal authority with control of different policy instruments and objectives. The necessity for smooth coordination between monetary and fiscal authorities is, therefore, very crucial in achieving optimal real benefit from various policy actions. Following Bennett and Loayza (2002), a game theoretic approach after the well-known prisoners’ dilemma is used to justify coordination between monetary and fiscal authorities. It can be shown that co-ordination and cooperation between the monetary and fiscal authorities is required for broader national interest.

Assume that monetary and fiscal authorities are the two players in the market under duopoly framework. Both of them want to maximize their pay-offs in terms of low inflation and high output, given that they have different preferences for both inflation and output. The monetary authority places greater value on achieving low inflation than on achieving high output. The fiscal authority, on the other hand, puts more value on achieving high output than on achieving low

**Box-1**

*A Monetary—Fiscal Game: Prisoners’ Dilemma
Central Bank (CB)*

<table>
<thead>
<tr>
<th>Fiscal Authority (FA)</th>
<th>Cooperation</th>
<th>Non-cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Inflation</td>
<td>Low Inflation</td>
</tr>
<tr>
<td></td>
<td>High Output</td>
<td>Low Output</td>
</tr>
<tr>
<td></td>
<td>CB=50, FA=50</td>
<td>CB=60, FA=20</td>
</tr>
<tr>
<td></td>
<td>Total=100</td>
<td>Total=80</td>
</tr>
<tr>
<td></td>
<td>High Inflation</td>
<td>High Inflation</td>
</tr>
<tr>
<td></td>
<td>High Output</td>
<td>Low Output</td>
</tr>
<tr>
<td></td>
<td>CB=20, FA=60</td>
<td>CB=25, FA=25</td>
</tr>
<tr>
<td></td>
<td>Total=80</td>
<td>Total=50</td>
</tr>
</tbody>
</table>
inflation. Both of the authorities have two options: they can either cooperate with each other or may decide not to cooperate at all. The possible outcome and payoffs of their joint moves are given in Box-1.

Given the possible outcome and payoffs of the game (Box-1) between the monetary and fiscal authorities, the only Nash equilibrium is non-cooperation from both the sides with the outcome of high inflation and low output. All of the other alternatives provide opportunities for one of the players to benefit by unilaterally deviating from it. Note that the Nash equilibrium is the worst among all the alternatives in terms of the outcome and payoffs. The best outcome with low inflation and high output of this game, however, can only be achieved by cooperation from both players, which is obviously superior to Nash equilibrium. Therefore, co-ordination and co-operation between the monetary and fiscal authorities are required for low inflation and high output.

3.2 Monetary Policy Stance in Bangladesh

Monetary policy in Bangladesh aims at achieving a multitude of objectives, such as economic growth, price and exchange rate stability, equilibria in the balance of payments, and the development of money and capital markets. With ongoing economic reforms in Bangladesh since the early-1980s, monetary policy has gained some independence in achieving and maintaining price stability. The Bangladesh Bank conducts monetary policy by targeting the growth rate of the broad money supply (M2) and uses credit control and supports measures to contain the growth rate of the money supply within a predetermined target level.

The Bangladesh Bank is responsible for formulation and implementation of monetary policy. According to the Bangladesh Bank Order of 1972, the main functions of monetary policy in Bangladesh are: (1) to maintain reasonable price stability, (2) to ensure a stable balance of payment position and maintained an external competitiveness of the Bangladesh Taka, and (3) obtain sustained economic growth through increased production and employment. Recently, some changes have been brought about in the objectives of monetary policy through the Bangladesh Bank (Amendment) Act, 2003. The objectives as stated in the Act are, “— to manage the monetary and credit system of Bangladesh with a view to stabilizing domestic currency value and maintaining a competitive external par value of the Bangladesh Taka towards fostering growth and development of country’s productive resources in the best national interest.” It is noteworthy to mention that Bangladesh is presently under the IMF program of PRGF where
maintaining a zero or low-level inflation is required for macroeconomic stability. In view of establishing a dynamically evolving and well functioning financial system, the monetary authority of Bangladesh has recently taken a series of major policy actions.

The Bangladesh Bank has pursued a series of legal, policy and institutional reforms to improve the process of financial intermediation and ensure efficient allocation of financial resources and in the ultimate analysis improve the competitiveness of the private sector and thereby promote investment and growth in the real sector. The thrust of the reform program is to improve the environment for, and the ability of bank owners, bank management, bank regulators and the markets to, provide for better governance and regulation. The reform program focuses on: (i) greater autonomy to the Bangladesh Bank; (ii) strengthening of the Bangladesh Bank’s capabilities and technical skills to perform its enhanced responsibilities; (iii) strengthening prudential regulation and supervision; (iv) restructuring the management and internal processes of Nationalized Commercial Banks (NCBs) and ultimately privatization of selected NCBs and Development Financial Institutions (DFIs), (v) strengthening the legal and judicial processes, and (vi) improving the money and debt markets.

In line with the structural adjustment program, the financial sector underwent through a pragmatic reform program with view to developing a sound and well-functioning financial system. Since the inception of the Financial Sector Reforms Program (FSRP) in the early 1990s, Bangladesh has achieved a considerable success in several spheres of financial as well as real sector. The floating of exchange rate in May 2003, the introduction of Repo and reverse Repo in July 2002 and in April 2003, respectively, and the initiation of secondary market for government bonds/bills are some of them. Poverty reduction and the growth performance are also showing signs of improvement since then.

3.3 Fiscal Policy Stance in Bangladesh

In pursuance of reconstructing the war-ravaged economy, Bangladesh had been following an expansionary fiscal policy during the decade of 1970s producing a substantial amount of fiscal deficits since then. Besides, the centrally planned economic framework of the early 1970s also contributed significantly to large fiscal deficits overtime. Because of the centrally planned economic framework, Bangladesh economy started with a huge size of public sector where most of the enterprises were nationalized. Financial losses in these state-owned enterprises (SOEs) have since then been the root cause of consolidated fiscal deficits.
The structural adjustment program of the early 1980s was the first initiative in the direction of reducing the size of the public sector. It is well cited in the literature (Habibullah, 1991) that the share of public sector enterprises in Bangladesh is still high, and in all the public sector enterprises, nationalized banks and autonomous bodies, there has been a persistent waste of resources and unscrupulous expenditure.

In line with the objectives of the IMF Poverty Reduction and Growth Facility (PRGF) program, the Government of Bangladesh has recently undertaken substantial policy measures to maintain fiscal discipline. To consolidate the fiscal sector, the government has initiated a four-year program to phase out the loss making SOEs. In addition to the Adamjee Jute Mills, another 24 SOEs were closed in 2003 (Hossain, 2004). Table 1 reports the data for government revenue, expenditure and fiscal deficit during 1973-2003.

<table>
<thead>
<tr>
<th>Year (End June)</th>
<th>Revenue</th>
<th>Expenditure</th>
<th>Fiscal Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973-1980</td>
<td>7.2</td>
<td>14.8</td>
<td>-7.6</td>
</tr>
<tr>
<td>1981-1990</td>
<td>8.5</td>
<td>15.5</td>
<td>-6.9</td>
</tr>
<tr>
<td>1991-2000</td>
<td>9.1</td>
<td>13.7</td>
<td>-4.6</td>
</tr>
<tr>
<td>2001</td>
<td>9.6</td>
<td>14.8</td>
<td>-5.1</td>
</tr>
<tr>
<td>2002</td>
<td>10.2</td>
<td>14.9</td>
<td>-4.7</td>
</tr>
<tr>
<td>2003</td>
<td>10.3</td>
<td>14.5</td>
<td>-4.2</td>
</tr>
<tr>
<td>2001-2003</td>
<td>10.0</td>
<td>14.7</td>
<td>-4.7</td>
</tr>
</tbody>
</table>

Sources:
1. The data from 1973 to 1989 has been taken from Hossain (1996).
3. Bangladesh Bank, Annual Report (various issues) and author’s own calculation.

It is observed from Table-1 that the Government of Bangladesh witnessed a relatively high fiscal deficit of 7.6 percent of GDP during 1973-1980. During the period of 1981-1990, the practice of expansionary fiscal policy was still in place. Despite the expansionary fiscal policy stance, the fiscal deficit was slightly moderated at 6.9 percent of GDP during 1981-1990. The fiscal deficit was maintained well below 5.0 percent of GDP during the late 1990s. The amount of fiscal deficits as a percent of GDP stood at 4.6 during the period 1991-2000. From 5.1 percent of GDP in FY2001, the deficit came down further to 4.2 percent in FY2003.
4.0 Literature Review

The debate on the comparative effectiveness of monetary and fiscal policy actions as discretionary stabilization tools is very old and extensive. Right after the end of Great Depression, there was a widespread credence that fiscal policy was more effective. Keynes’s *General Theory* followed by some noteworthy works, such as Leeuw et al. (1969), Schmidt and Waud (1973), Blinder and Solow (1974) provide basic theoretical and practical ground for active fiscal policy. Starting from the late sixties, as noted by Gramlich (1971), the failure of 1968-surtax policy introduced a new ground for monetarist attack claiming that fiscal policy has very little effect on aggregate demand, and that monetary policy is more important than most people had thought it to be.

In respect of the relationship between money and output, the classic study by Milton Friedman and Schwartz (1963) is still very important and influential. Their study, as mentioned by Walsh (1998), indicates that variation in the rate of money growth causes variations in real economic activity. However, some economists e.g., Benjamin Friedman and Kuttner (1992), and Tobin (1970) have challenged the prediction of Milton Friedman and Schwartz (1963). They argue that the causation from money to output, as claimed by Milton Friedman and Schwartz, might not be the case.

Benjamin Friedman and Kuttner (1992) re-examines the postwar evidence of significant relationship between money and income using time-series approach on extended data through the 1980s for the U.S. economy. The empirical findings do not indicate a close or credible relationship between money and income. Their paper, however, has one strong finding that the spread between the commercial paper and Treasury bill rate has very significant information about the movements in real income. In the concluding section of their paper, they express their concern about the difficulty of using this spread as an intermediate policy target of the Federal Reserve System because of the continuously changing relationship between policy target and its outcome.

Gramlich (1971) summarizes some of the important papers on monetary-fiscal debate. He points out that a paper by Friedman and Meiselman (1963) predicts more stable and statistically significant relationship between output and money than that of output and autonomous spending. Anderson and Jordan (1968) uses various measures of monetary and fiscal policy actions and shows that monetary policy has greater, faster and more predictable impact on economic activity. Gramlich (1971) also reports the findings of some other papers from the opposite
side, such as, Ando and Modigliani (1965), DePrano and Mayer (1965) against the monetarist claim. His own study, however, indicates that both monetary and fiscal policy have impact on real economic activity with the indication that money matters greatly.

Benjamin Friedman (1977) uses the St. Louis equation in his paper and claims that the St. Louis equation now believes in fiscal policy. In response to Benjamin Friedman’s (1977) claim, Carlson (1978) re-estimates the St. Louis equation and argues that Benjamin Friedman’s equation was suffering from the heteroscedasticity problem. The evidence from new and corrected estimation does not support Benjamin Friedman’s claim that fiscal policy is more important than monetary policy. His findings suggest that only monetary policy has significant impact on economic activity, and fiscal policy does not have any impact on real output. As in developed countries, the empirical evidence for developing countries regarding the relative effectiveness of monetary and fiscal policies on economic activity is also mixed. Studies of Jayaraman (2002) for the South Pacific Island countries, Masood and Ahmed (1980) for Pakistan, Saqib and Yesmin (1987) for Pakistan, and Upadhyaya (1991) for developing countries support the monetarists’ view that monetary policy is important for economic activity. Some other studies on developing countries, such as Hussain (1982) for Pakistan, and Darrat (1984) for five Latin American countries find that fiscal policy is more effective than monetary policy in altering real output.

Using modified version of St. Louis equation, the study of Latif and Chowdhury (1998) for Bangladesh finds that fiscal policy is more effective over monetary policy in Bangladesh. This study is based on the OLS technique using the nominal data during 1974-1993 that suffers from all of the limitations indicated by Stein (1980) and Ahmed et al. (1984). They estimate six different equations of which 4 have only a single explanatory variable. One recent study on Bangladesh by Hasan (2001) based on the modified version of St. Louis equation predicts that both monetary as well as fiscal policies are important for economic growth. This study uses various econometric techniques based on nominal data during 1974-1996. The prediction of this paper, however, alters if real variable for income is used instead.

In contrast to other studies, the approach in the current paper is methodologically and significantly different from previous studies on Bangladesh economy. Firstly, the data used in this paper are more recent and cover a wider span of time producing more degrees of freedom and power that helps to get more efficient parameter estimates. Secondly, the data used in this paper are real, enabling us to
investigate the real effect of the policy actions. Thirdly, this paper uses sophisticated econometric techniques, such as cointegration and vector autoregressions with simulated standard errors and confidence bands that address most of the criticisms associated with the St. Louis equation.

5.0 Methodology and Cholesky Ordering

Structural macroeconomic models, such as Klein interwar model, the Brookings model, the BEA model, the St. Louis macroeconomic model and the Taylor model are based on hundreds of equations and variables. In addition to the estimation difficulties, the problems of identification and endogeneity are commonly associated with these giant structural macroeconomic models. Sims’s (1980) seminal work introduces unrestricted vector autoregressions (VARs) that allows feedback and dynamic interrelationship across all the variables in the system and appears to be highly competitive with the large-scale macroeconomic models in forecasting and policy analysis. The unrestricted VARs model assumes that each and every variable in the system is endogenous and does not impose any a priori restrictions.

The VARs approach solves the endogeneity problem associated with the St. Louis equation by assuming that all the variables in the system are endogenous. To address the problem of omitted variable, interest rate is added along with the three existing variables in the St. Louis equation, namely, real government expenditure as proxy for fiscal policy, real money supply (M2) as proxy for monetary policy, and real output. The vector of the VAR model, therefore, contains the following variables:

1. Real Government Expenditure (g),
2. Real Money (m),
3. Real Interest Rate (r) and
4. Real GDP (y).

Variance decompositions (VDCs) and impulse response functions (IRFs) derived from vector autoregressions (VARs) approach are used to examine the relative impact of monetary and fiscal policy on real output growth. The VDCs show the portion of the variance in the forecast error for each variable due to innovations to all variables in the system. The IRFs show the response of each variable in the system to shock from system variables. By analyzing respective orthogonalized variance decompositions (VDCs) and impulse response functions (IRFs) the relative strength of monetary and fiscal policies could easily be determined. For
example, if the response of real output growth due to monetary innovations is relatively higher and dissipate at a relatively slower rate than that of fiscal innovations, we could conclude that monetary policy is more effective than fiscal policy.

A Cholesky decomposition requires the variables to be ordered in a particular fashion, where variables placed higher in the ordering have contemporaneous impact on the variables which are lower in the ordering, but the variables lower in the ordering do not have contemporaneous impact on the variables those are higher in the ordering. As the objective of this study of to examine the relative impact of monetary and fiscal policies on output growth, this variable has been put in the last position. Since interest rate is influenced by the monetary and fiscal policy actions, the interest rate variable has been put in the third position in the ordering of the 4-variable VAR model. And finally, two policy variables have been put in the first two places. To check the robustness of the outcome, first two places are being interchanged between the two policy variables. Two models of VARs using log differenced as well as log levels are also attempted.

6.0 Data

Annual data for real government consumption, real money supply, real interest rate and real output during 1975-2003 are used in the investigation. All of the series are in growth form except the real interest rate. The sources of data are the World Bank 2003 CD-ROM and Annual Report (various issues) of Bangladesh Bank. The definitions of all of the variables are given below:

**Consumer Price Index (1995 = 100):** Consumer price index reflects changes in the cost to the average consumer of acquiring a fixed basket of goods and services that may be fixed or changed at specified intervals, such as yearly.

**Real Government Expenditure (g):** Real government expenditure is CPI adjusted general government final consumption expenditure that includes all government current expenditures for purchases of goods and services (including compensation of employees). It also includes most expenditure on national defense and security, but excludes government military expenditures that are part of government capital formation.

**Real Money (m):** Real money is CPI adjusted broad money that comprises the sum of currency outside banks, demand deposits other than those of the central government, and the time, savings, and foreign currency deposits of resident sectors other than the central government.
**Real Interest Rate** (r): Real interest rate is calculated from the average of lending and deposit rates minus expected inflation. Lending interest rate is the rate charged by banks on loans to prime customers. Deposit interest rate is the rate paid by commercial or similar banks for demand, time, or savings deposits. Expected inflation is proxied by lagged inflation.

**Real Output** (y): Real output is price (CPI based) adjusted GDP that includes gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.

### 7.0 Preliminary Data Analysis

Before using the data in the estimation of VAR, we need to know time series properties of all the variables. Accordingly, a series of unit root tests\(^2\) such as Augmented Dickey-Fuller (ADF, 1981), Phillips-Perron (PP, 1988), and Kwiatkowski-Phillips-Schmidt-Shin (KPSS, 1992) are used to determine the order of integration for each series. The results of unit root tests as reported in Table 2 indicate that only the real interest rate is stationary while the rest of the variables, i.e., natural log of real government consumption, real money and real output are non-stationary and contain unit-roots I(1).

#### Table 2: Results of Unit-Root Tests

<table>
<thead>
<tr>
<th>Variables (in log levels)</th>
<th>Without Trend ADF</th>
<th>With Trend ADF</th>
<th>Phillips-Perron PP</th>
<th>Phillips-Perron KPSS</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Interest Rate(^\circ) (r)</td>
<td>I(0) I(0) I(1)</td>
<td>I(0) I(0) I(0)</td>
<td>I(0) I(0) I(0)</td>
<td>I(0) I(0) I(0)</td>
<td>I(0) I(0)</td>
</tr>
<tr>
<td>Real Government Consumption (g)</td>
<td>I(1) I(1) I(1)</td>
<td>I(1) I(1) I(1)</td>
<td>I(1) I(1) I(1)</td>
<td>I(1) I(1) I(1)</td>
<td>I(1) I(1)</td>
</tr>
<tr>
<td>Real Money (m)</td>
<td>I(1) I(1) I(1)</td>
<td>I(1) I(1) I(1)</td>
<td>I(1) I(1) I(1)</td>
<td>I(1) I(1) I(1)</td>
<td>I(1) I(1)</td>
</tr>
<tr>
<td>Real Output (y)</td>
<td>I(1) I(1) I(1)</td>
<td>I(1) I(1) I(1)</td>
<td>I(1) I(1) I(1)</td>
<td>I(1) I(1) I(1)</td>
<td>I(1) I(1)</td>
</tr>
</tbody>
</table>

**Notes:**

1. Lag length for ADF tests are decided based on Akaike’s information criterion (AIC).
3. All the tests are performed on the basis of 5 percent significance level.
4. \(\circ\) = without log

\(\text{Note that ADF and PP tests are based on the null of unit roots while KPSS test assumes the null of stationarity.}\)
Engle and Granger (1987) point out that a VAR model would be misspecified if all the non-stationary variables of the model are cointegrated. Therefore, estimating a VAR model with I(1) series are not appropriate if they are cointegrated. Accordingly, Johansen’s (1988) cointegration test is used to identify the presence of cointegration among the integrated variables. The results indicate that natural log of real government consumption, real money supply and real output are not cointegrated. Therefore, a VAR model with variables in their growth form is appropriate. As a result, a VAR estimation technique is applied to the system of all variables in growth form except the real interest rate. The estimated results of VARs in terms of VDCs and IRFs are presented in the following section.

8.0 Empirical Results

To estimate VDCs and IRFs, orthogonalization of the residuals is required. A Cholesky decomposition is used to orthogonalize the residuals. To examine the relative impact of monetary and fiscal policies on output growth, the VDCs and IRFs are generated through 1000 Monte Carlo simulations from the orthogonalized residuals. Computed VDCs are reported in Tables 3-5 and IRFs are reported in Figures 1-3. Table 3 contains VDCs of output growth while Table 4 and 5 contain VDCs of money and government consumption growth, respectively. The IRFs of output growth due to policy shocks are reported at Figure 1. The IRFs of monetary policy due to fiscal policy shocks and the IRFs of fiscal policy due to monetary policy shocks are reported at Figures 2 and 3, respectively.

The variance decompositions of output growth, as reported in Table 3, indicate that most of the forecast error variance of output growth is explained by the monetary policy shocks. The growth rate in money supply alone explains more than 50 percent of the forecast error variances of output growth during all time horizons with the exception of year 4 where it explains about 49.0 percent of the forecast error variances of output growth. None of the other variables, such as fiscal policy and interest rate has any significant influence in predicting the movement in output growth. The output growth itself explains only about 28.0

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4 The standard errors of VDCs and the confidence bands of IRFs are generated through 1000 Monte Carlo simulations.

3 The results (not reported here but available from the author on request) are based on the assumptions of a constant and a linear trend in the data with optimal lag length 3. Akaike’s Information Criteria (AIC), and Likelihood Ratio (LR) test are used to decide the optimal lag length that makes all the residuals White Noise.
Table 3: Variance Decompositions of Output Growth

<table>
<thead>
<tr>
<th>Time Horizon (Years Ahead)</th>
<th>Explained by Shocks in the Growth of</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fiscal Policy</td>
<td>Monetary Policy</td>
<td>Interest Rate</td>
<td>Output</td>
</tr>
<tr>
<td>1</td>
<td>2.47</td>
<td>66.51**</td>
<td>3.29</td>
<td>27.73**</td>
</tr>
<tr>
<td></td>
<td>(8.78)</td>
<td>(12.50)</td>
<td>(4.86)</td>
<td>(9.60)</td>
</tr>
<tr>
<td>4</td>
<td>28.29</td>
<td>48.70**</td>
<td>3.83</td>
<td>19.18</td>
</tr>
<tr>
<td></td>
<td>(19.18)</td>
<td>(19.26)</td>
<td>(5.50)</td>
<td>(10.93)</td>
</tr>
<tr>
<td>8</td>
<td>20.22</td>
<td>56.08**</td>
<td>5.60</td>
<td>18.09</td>
</tr>
<tr>
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<td>(19.64)</td>
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<tr>
<td>12</td>
<td>17.11</td>
<td>51.00**</td>
<td>11.77</td>
<td>20.12</td>
</tr>
<tr>
<td></td>
<td>(20.40)</td>
<td>(22.48)</td>
<td>(7.99)</td>
<td>(12.20)</td>
</tr>
</tbody>
</table>

Notes:
1. First entry in each cell is the point estimates of the percentage of forecast error variance of variable $i$ as explained by shocks to variable $j$. Monte Carlo (1000) simulated standard errors are reported in the parenthesis.
2. ** Indicate point estimates are statistically significant at 5 percent level assuming that the estimates are asymptotically normally distributed.

percent of its own forecast error variance at the very first year. In the rest of the period it does not have any statistically significant explanatory power of dictating its own future path. Therefore, monetary policy alone is the most important factor for the prediction of future output growth of Bangladesh.

Table 4: Variance Decompositions of Money Growth

<table>
<thead>
<tr>
<th>Time Horizon (Years Ahead)</th>
<th>Explained by Shocks in the Growth of</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fiscal Policy</td>
<td>Monetary Policy</td>
</tr>
<tr>
<td>1</td>
<td>2.00</td>
<td>98.00**</td>
</tr>
<tr>
<td></td>
<td>(8.70)</td>
<td>(8.70)</td>
</tr>
<tr>
<td>4</td>
<td>29.74</td>
<td>58.59**</td>
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<tr>
<td></td>
<td>(17.54)</td>
<td>(19.13)</td>
</tr>
<tr>
<td>8</td>
<td>32.52</td>
<td>47.59**</td>
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<tr>
<td></td>
<td>(18.03)</td>
<td>(21.38)</td>
</tr>
<tr>
<td>12</td>
<td>23.92</td>
<td>30.36</td>
</tr>
<tr>
<td></td>
<td>(19.32)</td>
<td>(22.90)</td>
</tr>
</tbody>
</table>

Notes:
1. First entry in each cell is the point estimates of the percentage of forecast error variance of variable $i$ as explained by shocks to variable $j$. Monte Carlo (1000) simulated standard errors are reported in the parenthesis.
2. ** Indicate point estimates are statistically significant at 5 percent level assuming that the estimates are asymptotically normally distributed.
The VDCs of money growth as reported at Table 4 indicate that most of the variations in the money growth are explained by money growth itself indicating that money is growing independent and exogenously. The fiscal policy variable does not contain any information about money growth as the portions of forecast error variance of money growth at various time horizons explained by fiscal policy variable are not statistically significant. Likewise, the forecast error variances of money growth during 1-8 time horizons explained by real interest rate and output growth are not statistically significant. At time horizon 12, however, the real interest rate and output growth explain, respectively, 17.54 percent and 28.18 percent of the forecast error variance of money growth.

The VDCs of fiscal policy variable as reported at Table 5 indicate that at the very first time horizon, 100 percent of its own forecast error variance is explained by itself. The fiscal policy variable becomes totally irrelevant in explaining its own future path as the portions of forecast error variance of this variable explained by itself after the initial time horizons are not statistically significant. During the time horizons 2-12, the forecast error variances of the fiscal policy variable are mostly explained by money growth indicating that money growth is important in forecasting future path of fiscal policy variable. Movement in the real interest rate, however, does not contain any information about the movement of the fiscal policy variable as none of the portions explained by the real interest rate is

<table>
<thead>
<tr>
<th>Time Horizon (Years Ahead)</th>
<th>Explained by Shocks in the Growth of Fiscal Policy</th>
<th>Monetary Policy</th>
<th>Interest Rate</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>0.00</td>
<td>0.00</td>
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<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>4</td>
<td>23.75</td>
<td>50.03**</td>
<td>4.14</td>
<td>22.08**</td>
</tr>
<tr>
<td></td>
<td>(16.67)</td>
<td>(19.10)</td>
<td>(5.57)</td>
<td>(10.70)</td>
</tr>
<tr>
<td>8</td>
<td>9.67</td>
<td>64.86**</td>
<td>9.63</td>
<td>15.84</td>
</tr>
<tr>
<td></td>
<td>(18.50)</td>
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<td></td>
<td>(19.93)</td>
<td>(22.44)</td>
<td>(8.38)</td>
<td>(11.90)</td>
</tr>
</tbody>
</table>

Notes:
1. First entry in each cell is the point estimates of the percentage of forecast error variance of variable $i$ as explained by shocks to variable $j$. Monte Carlo (1000) simulated standard errors are reported in the parenthesis.
2. ** Indicate point estimates are statistically significant at 5 percent level assuming that the estimates are asymptotically normally distributed.
statistically significant at any time horizon. The output growth, on the hand, significantly explains 22.08 percent and 24.18 percent of forecast error variance of the fiscal policy variable at time horizons 4 and 12, respectively.

The estimated IRFs along with 95 percent confidence interval of output growth due to fiscal as well as monetary policy shocks are reported in Figure-1\(^5\): The top part of this figure represents the IRFs of output growth to fiscal policy shocks and the bottom part represents the response of output growth due to monetary shocks. Figure-1 indicates that only monetary policy shocks have significant and positive impact on output growth, which is very much in line with outcome of VDCs. Real output growth responds positively to the monetary policy shocks at the initial period and becomes insignificant for rest of the period indicating a short-run positive impact of monetary policy on real output growth. The response of output growth to the fiscal policy shocks, however, is always insignificant indicating no real impact of fiscal policy on real output growth.

*Figure 1 Impulse Response of Output Growth to Fiscal and Monetary Policy Shocks*

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\(^5\) A response is considered as significant if it does not contain the zero line within its confidence bands. Confidence bands (+ 2 S.D.) are generated through 1000 Monte Carlo simulations.
The IRFs of monetary policy due to fiscal policy shocks as shown at Figure 2 indicate that money growth does not respond to any fiscal policy shocks but real interest rate responds positively at the initial period. That is, an increase in government expenditure will lead to an increase in the real interest rate. The IRFs as depicted at Figures 3 indicate that government expenditure, the proxy for fiscal policy, does not respond at all to any positive shock to money growth or real interest rate.

Concerning the inter-relationship between monetary and fiscal policy actions, the findings of this paper imply that there is some degree of relationship between them. Therefore, coordinated policy actions are required to extract expected outcome in terms of low inflation and high output growth from the long-run macroeconomic policy in Bangladesh.

The absence of cointegration among the natural log of real government consumption, real money supply and real output supports the finding that none of the policy variables has long run impact on real output and there is no long-run
equilibrium relationship among them. In order to check the robustness of this finding, a VAR model is estimated by interchanging the ordering of two policy variables and another VAR model is estimated in natural log levels of all variables. The outcome regarding the relative impact of fiscal and monetary policies on real output growth remains the same regardless of the ordering of the two policy variables and a VAR model in log levels.

9.0 Summary and Concluding Remarks

This study investigates whether the monetary policy action or fiscal policy action has a greater impact on real output growth using unrestricted VARs based on St. Louis equation. The result from the VDCs implies that monetary policy variable explains most of the forecast error variance of real output growth where fiscal policy remains completely insignificant in explaining the forecast error variance of output growth. In line with the prediction of VDCs, the outcome of IRFs also suggests that monetary policy alone has significant impact on real output growth in Bangladesh. The result of cointegration test, however, does not provide any evidence of long-run equilibrium relationship among the two policy variables and real output. A ‘Monetary—Fiscal Game’ under oligopolistic framework is used to justify the co-ordination and co-operation between the monetary and fiscal

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6 The results are not reported here but available from the author on request.
authorities. The prediction of the duopoly game warrants proper co-ordination and co-operation between the monetary and fiscal authorities.

The results as evident from Tables 4-5 and Figures 2-3 indicate that there is some degree of inter-relationship between the two policy actions that support the prediction of the duopoly game shown in Box-1. The outcome of VDCs (Tables 4-5) indicates that money growth is an important variable for the prediction of future government spending. The outcome of IRFs (Figures 2-3), on the other hand, implies that an increase in the government expenditure will lead to an immediate increase in the real interest rate that could be detrimental for the private investment and hence for economic growth. In order to achieve long-run macroeconomic policy objectives, therefore, some sort of co-operation between monetary and fiscal authorities is required.

The prediction of this study in terms of the relative impact of monetary and fiscal policies on real output growth is in sharp contrast with the findings of Latif and Chowdhury (1998). Their study finds that fiscal policy is more effective over monetary policy in Bangladesh. This is mainly because their study is based on the OLS technique, which suffers from the problems of endogeneity and omitted variables associated with the St. Louis equation as indicated by Stein (1980) and Ahmed et al. (1984). They estimate six different equations of which 4 have only a single explanatory variable. Their study uses nominal variables during 1974-1993 that are mostly limited to the pre-reform era. Some or all of these limitations associated with their study may be responsible for the contrasting results. The current study, on the other hand, uses sophisticated econometric technique based on real variables with extended data during 1975-2003 that include a substantial time period since the initiation of financial sector reform program in the early 1990s.

The outcome of the current study is very much in line with the predictions of the classic study by Milton Friedman and Schwartz (1963) and other advocates of the St. Louis equation where variation in the rate of money growth causes variation in real economic activity. The findings of this paper, thus, suggest that only monetary policy is effective in altering real output of Bangladesh where fiscal policy remains totally ineffective. In order to achieve higher output growth, we should rely heavily on monetary policy rather than fiscal policy. An independent monetary authority and continuous effort to bring discipline in the financial as well as public sector is recommended. Any policy recommendation based on the outcome of a single study, however, may not be appropriate. Further studies on this issue are, therefore, required for making any appropriate policy recommendation.
References


*Bangladesh Bank, Annual Report* (Various Issues).


World Development Indicator (WDI): World Bank 2003 CD-ROM.
The paper examines empirically the impact of monetary policy on exchange market pressure (EMP) in Bangladesh. EMP is measured as the sum of percentage change of international reserves and percentage change of nominal exchange rate. The sum of domestic credit to the private sector and the government sector is used as the measure of monetary policy. Domestic credit is considered the variable directly controlled by policy makers. This paper also examines the impact of changes in real income, the money multiplier, and foreign inflation rate on the EMP. Because Bangladesh is a small open economy, Taka/Dollar and Taka/Rupee nominal exchange rates are used to estimate separate EMP models. Quarterly data from 1976:2 to 2003:1 are used to examine Girton and Roper’s (1977) monetary model of the EMP based on Engle and Granger’s (1987) two-step single-equation error correction model (ECM). Impulse response functions (IRFs) and variance decompositions (VDCs), derived from a vector error correction model (VECM), are also used to examine the robustness of the impact of monetary policy, foreign inflation (U.S. and India), domestic real income, and money multiplier on EMP. The estimated coefficient of domestic credit derived from the ECM shows that domestic credit has a significant and negative impact on EMP. The IRFs and VDCs derived from the VECM also indicate that monetary policy, measured by the domestic credit, has a significant impact on EMP. The response of EMP due to shock to domestic credit is significant and negative as expected. This implies that the monetary authority in Bangladesh reduces exchange market pressure by either reducing foreign reserves or depreciating domestic currency.

1 The views expressed in this paper are those of the author and do not in any way represent those of the Bangladesh Bank

* Deputy Director, Research Department, Bangladesh Bank, Head Office, Dhaka.
I. Introduction

Effective management of foreign exchange is very important to achieve tolerable inflation and a desired level of economic growth for a country. The intention of this paper is to examine the impact of monetary policy on exchange market pressure (EMP), and determine how the central bank of Bangladesh deals with EMP by depreciating the exchange rate, by losing foreign exchange, or by using a combination of the two.

The monetary approach to the balance of payments is based on the assumption of fixed exchange rate, while the monetary approach to exchange rate determination is based on perfectly flexible exchange rate. In practice, many countries have neither a fixed exchange rate nor a perfectly flexible exchange rate. In order to overcome the limitations of the traditional monetary approach to the balance of payments and exchange rate determination, Girton and Roper (1977) developed the concept of exchange market pressure, which can be used in a fixed exchange rate regime, a flexible exchange rate regime and a managed float exchange rate regime. In the fixed exchange rate regime, the change of the exchange rate will be zero, while in flexible exchange rate regime, the change of international reserves will be zero, and in the managed float, the exchange market pressure is absorbed by either currency depreciation, or reserves losses, or a combination of the two. Girton and Roper (1977) defined EMP as the sum of the percentage change in the nominal exchange rate appreciation and percentage change in international reserves.

This study uses Girton and Roper’s (1977) exchange market pressure (EMP) model rather than monetary approach to balance of payments or the monetary approach to exchange rate determination model to examine the exchange market pressure in Bangladesh. This is the first study that uses Girton and Roper’s (1977) EMP model in Bangladesh to examine the exchange market pressure measured by the sum of the percentage change in exchange rate appreciation and the percentage change in the international reserves scaled by the monetary base. The traditional monetary approach uses either the exchange rate or international reserves as a dependent variable. This study uses sophisticated econometric techniques, such as Engle and Granger’s (1987) single-equation error correction model (ECM) and a vector error correction model (VECM) to estimate the exchange market pressure. These techniques allow us to capture the non-stationarity properties in individual series. The existing literature on exchange market pressure does not use these techniques.
An analysis of exchange market pressure (EMP) model is appropriate for Bangladesh because it had experienced managed, pegged but adjustable flexible exchange rate regimes since the country’s inception in 1971 until May 31, 2003. On May 31, 2003 the government of Bangladesh introduced a floating (managed) exchange rate system.

Following independence, Bangladesh’s currency, the Taka, was pegged to U.K.’s pound sterling, which was at that time the intervention currency. In order to control capital flight, the Government of Bangladesh imposed restrictions on foreign exchange. In the controlled exchange regime, a secondary market developed to satisfy the excess demand for foreign currency. In the secondary market, the foreign currency price was much higher than the official exchange rate. In May 1975, a major step toward effective exchange management took place with a massive devaluation (by 37%) of the Taka. Since then, the central bank of Bangladesh pursued a policy of depreciating the Taka to improve the balance of payment deficits. It is worthwhile to mention here that in order to reduce balance of payment deficits Bangladesh devalued her currency about 130 times over a thirty-year period.

In 1985, the intervention currency was changed to U.S. dollar. This change was made because most of the official trade in Bangladesh was performed with the U.S. dollar rather than the pound sterling. In order to determine the strength of Taka against foreign currency, the index of real effective exchange rate (REER) index was introduced in 1985. Since then, the nominal exchange rate of Taka in relation to the U.S. dollar was determined daily by monitoring REER index, the U.S. dollar being the intervention currency. Under the ‘structural adjustment program’ and the ‘financial sector reform program’ ‘Taka’ was declared convertible on the current account beginning March 24, 1994. Finally, the Bangladesh government introduced a floating exchange rate system on May 31, 2003.

In order to examine how the monetary authority in Bangladesh handles exchange market pressure, this study estimates two-exchange market pressure models. One model uses the Taka/Dollar nominal exchange rate and the other uses Taka/Rupee nominal exchange rate to construct EMP. The U.S. and India are the major trading partners of Bangladesh. At the same time, India is a significant competitor of Bangladesh. It is generally believed that in the developing countries currency devaluation is not a very popular policy tool to reduce exchange market pressure due to the possibility of higher debt burden and its impact on the domestic price level. It is a crucial issue to investigate empirically whether the monetary authority in Bangladesh reduces EMP by depreciating the domestic currency or losing international reserves or a combination of the two.
II. Theoretical Background

Exchange market pressure arises due to a disequilibrium between the growth rates of domestic supply of, and demand for, money. An excess supply of money creates an excess domestic demand for goods and services, which in turn increases demand for foreign goods and services, and results in reserves flowing out of the domestic money market. Girton and Roper (1977) argue that an excess supply of money relative to demand will result in some combination of currency depreciation and an outflow of foreign reserves. Following the models by Kim (1985), and Shiva and Bahmani-Oskooee (1998), a variant of the Girton-Roper model is outlined below:

Equation (1) represents the demand for nominal balances where P stands for the domestic price level and Y is real income, k is a fraction of nominal income that people want to hold as cash. Equation (2) is a nominal money supply equation. The money supply is the sum of the net foreign assets (R), the foreign component of the monetary base, and the domestic assets (D), the domestic component of the monetary base, multiplied by the money multiplier (A=M2/Monetary Base). Equation (3) represents a purchasing power parity condition where E is the nominal exchange rate, which is defined as the domestic currency per unit of foreign currency, P* is the foreign price level.

Equation (4) represents a money market equilibrium identity where money demand equals money supply.

Substituting (1) and (2) into (4) we get

\[ M^d = kPY \]  \hspace{1cm} (1)

\[ M^s = A(R + D) \]  \hspace{1cm} (2)

\[ P = EP^* \]  \hspace{1cm} (3)

\[ M^d = M^s \]  \hspace{1cm} (4)

In terms of percentage change and rearranging terms, equation (6) can be rewritten as:

\[ r - e = -d + p^* + y - a \]  \hspace{1cm} (7)

An (*) asterisk indicates foreign variable;
Where, \( r \) = the percentage change in international reserves; 
\( e \) = the percentage change in the nominal exchange rate depreciation; 
\( d \) = the percentage change in domestic credit; 
\( p^* \) = the percentage change in the foreign price level; 
\( y \) = the percentage change in domestic real income; and 
\( a \) = the percentage change in the money multiplier;

The left-hand side of the equation (7) represents the exchange market pressure variable, while the right-hand side represents the variables that may have significant impact on exchange market pressure. Equation (7) states that an increase in the exchange market pressure due to an increase in the domestic credit decreases EMP either by losing reserves or by depreciating currency. However, an increase in domestic real income, or foreign price level, or money multiplier also increases exchange market pressure.

Girton and Roper (1977), Connolly and Silveira (1979), and Shiva and Bahmani-Oskooee (1998) propose to include a variable \( Q = \frac{e}{r} \) to see whether the monetary authority responds to absorb exchange market pressure either by the exchange rate depreciation or losing foreign reserve. A significant and positive coefficient of \( Q \) implies that the monetary authority absorbs more pressure by the exchange rate depreciation, while a significant and negative \( Q \) implies that more pressure is absorbed by reserve losses. An insignificant coefficient implies that the monetary authority is not sensitive to components of EMP. The coefficient of \( Q \) is important in the sense that it allows us to see whether a country follows a traditional monetary approach to balance of payments or exchange rate determination model or Girton and Roper’s (1977) exchange market pressure model where they use the sum of the growth rates of nominal exchange rate and the growth rate of the international reserves as an EMP variable.

III. Literature Review


Girton and Roper (1977) derive an EMP model for Canada. They use the sum of the growth rate of the nominal exchange rate and growth rate of international reserves scaled by the monetary base as a dependent variable. As an independent
variable, the growth rate of domestic credit scaled by the monetary base is used as a measure of domestic monetary policy. The growth rate of the U.S. monetary base is used to represent the foreign monetary variable. They also use growth rate of domestic income and foreign income as explanatory variables. The growth rate of the sum of a four-year distributed lag of GNP is used as an income variable. Girton and Roper (1977) assume that the purchasing power parity condition holds and the interest rate differential between Canada and the U.S. is zero. They estimate the model using annual data for the period 1952 to 1974. All the equations are estimated using Cochrane–Orcutt’s method to adjust for serial correlation. Girton and Roper (1977) use three measures of foreign monetary policy \( M_1, M_2 \) and the monetary base). They find all the variables statistically significant with the expected signs. To examine whether the monetary authority is sensitive to the components of exchange market pressure (i.e., EMP is more absorbed by the nominal exchange rate or international reserves), Girton and Roper (1977) construct a variable \( Q = (e/r) \). The estimated coefficient of \( Q \) turns out to be not-significant. This implies that the monetary authority is not sensitive to components of EMP, which supports the monetary approach to exchange market pressure.

Connolly and Silveira (1979) apply Girton and Roper’s (1977) EMP model to explain Brazilian data. Like Girton and Roper (1977), Connolly and Silveira (1979) assume purchasing power parity and construct the EMP variable as the sum of the growth rates of the nominal exchange rate and international reserves. The international reserves variable is scaled by the monetary base. Domestic credit scaled by the monetary base is used as the monetary policy variable, the U.S. wholesale price index is used as foreign inflation, and the three-year moving average of real GDP is used as an income variable. All variables are in the growth rates. Like Girton and Roper (1977), Connolly and Silveira (1979) estimate the model using a Cochrane-Orcutt iterative technique and annual data for the sample period 1955 to 1975 and 1962 to 1975. In the latter sample period, Brazil imposed fewer restrictions on its exchange rate. The estimated results from the latter sample period perform well, all the variables are statistically significant with the expected sign. In the sample period from 1955 to 1975, only the coefficient of domestic credit is significant. They also estimate a model using international reserves as a dependent variable for both sample periods. In the sample period 1955 to 1975, domestic credit and domestic income are statistically significant, while foreign inflation is not. In the sample period from 1962 to 1975 domestic income is the only significant variable. Finally, they include a variable \( Q = (e-1)/(r-1) \) to measure whether the monetary authority is sensitive to components of
EMP. The coefficient of Q turns out to be not-significant implying that the monetary authority is not sensitive to components of EMP.

Hodgson and Schneck (1981), using quarterly data, estimate Girton and Roper’s (1977) monetary model of the exchange market pressure for seven advanced economies (Canada, France, West Germany, Belgium, the Netherlands, Switzerland, and the United Kingdom). For the United Kingdom, the sample period covers 1964:2 to 1976:1 and for the rest of the countries from 1959:2 to 1976:1. The EMP model for each country includes domestic credit, domestic and world money multipliers, domestic and world inflation rates, the domestic forward exchange rate, and world international reserves as explanatory variables. Hodgson and Schneck (1981) use the spot exchange rate and domestic international reserves as the EMP variable. All variables are in growth rates. The weights for the world variables are calculated as the ratio of the individual money stocks to the world money stocks. The world is defined as the seven countries in the sample plus the United States, Japan and Italy.

The equation is estimated using two stage least squares (2SLS). The coefficient of the domestic rate of inflation is significant for Canada only, while the coefficients on domestic and world income are significant only for France. The coefficient of the growth rate of domestic money multiplier is significant for Germany, Belgium, the Netherlands and Switzerland. The coefficient of the growth rate of the world money multiplier is insignificant for all the countries. The coefficient on the growth rate of world reserves is significant for France and Belgium, and the coefficient of the growth rate of the world credit is significant only for the Netherlands. The coefficient of home domestic credit is significant for all countries except for France and Switzerland. The coefficient on the rate of change in the forward exchange rate is significant and positive for Belgium, the Netherlands and Switzerland. A structural stability test for each country shows that there is considerable instability between domestic credit and the EMP, which may be due to mis-specification in the monetary equation or shift in the structure due to institutional changes. They do not find a one-to-one negative relationship between domestic credit and EMP. Therefore, they conclude by saying that there may be factors other than the monetary variable that affect EMP.

Kim (1985) estimates Girton and Roper (1977) version of EMP model for Korea using monthly data from March 1980 to July 1983. Korea’s domestic credit is used as the monetary policy variable. The trade-weighted average of Korea’s major trading partners’ wholesale price index is used as the foreign price variable. Korea’s real wage income is used as a domestic income variable. The sum of net
foreign assets and the Korean Dollar/Won exchange rate is used as EMP variable. The estimated results, using OLS, show that all the coefficients are statistically significant with the expected sign except for the foreign rate of inflation. The results support the monetary model of EMP. To see whether monetary authority absorbed EMP by the exchange rate depreciation or the international reserves, a new variable \( Q = (e-1)/(r-1) \) is constructed and added in the model. However, the coefficient of \( Q \) turns out to be non-significant, implying that the monetary authority is not sensitive to components of EMP.

Wohar and Lee (1992) estimate a modified version of Girton and Roper’s (1977) EMP model for Japan using annual data for the period 1959 to 1991. The sum of the yearly change of net foreign reserves as a percent of high-powered money and the yearly growth rate of the market exchange rate of yen per U.S. dollar is used as an EMP variable. The yearly change of central bank net credit as a percent of high-powered money is used as a monetary policy variable. The yearly growth rate of domestic money multiplier is calculated as the quotient of the money supply and high–powered money. The yearly growth rate of the U.S. monetary base is used as a foreign money supply variable. The yearly growth rate of the Japanese permanent income is calculated from the three-year moving average of the Japanese GNP in 1985 prices. A three-year moving average of the U.S. GNP in 1985 prices is used as a foreign permanent income variable. The differential between the domestic inflation and foreign inflation rate adjusted by the exchange rate and the differential between the lending rate of Japan and the U.S. are used to see the channel through which foreign disturbances transmit to the domestic economy.

Unlike other studies (for example, Girton and Roper, 1977, Kim, 1985), Mah (1998) estimates a dynamic specification of the EMP model for Korea for the sample period 1980:1 to 1993:1. In the dynamic model, Mah (1998) includes lagged and current value of all independent variables, while the semi-dynamic model includes a lagged dependent variable as a regressor. Akaike’s final prediction error criterion is used to select the lag length of the independent variable in the dynamic model. A maximum lag length up to eight is checked and a lag order of three is chosen for the estimation. The sum of the trade-weighted effective exchange rate and percentage change in international reserves of the monetary base is used as EMP variable. As independent variables, Mah (1998) uses trade-weighted foreign wholesale price index, domestic real income and the money multiplier. The industrial production index of Korea is used as the

\[ 3 \quad \text{The weights are U.S.: 0.47, Japan: 0.38, Germany: 0.07, Canada: 0.04, and U.K. 0.04} \]
domestic real income variable. The money multiplier is calculated dividing M2 by the base money.

Mah (1998) examines the stationarity property of the individual series and finds that all the model variables are stationary. A Hildreth-Lu search method is used to estimate the dynamic and semi-dynamic model. The estimated results of the dynamic model perform better than the semi-dynamic model. In the dynamic model, all coefficients are statistically significant with the expected sign, while in the semi-dynamic model all coefficients are significant other than foreign inflation and domestic income.

Shiva and Bahmani-Oskooee (1998), using a modified version of the Girton and Roper (1977) EMP model, examine whether the central bank of Iran engages in black market activity. In 1979, a period of exchange control due to excess demand for foreign currency, a black market for foreign exchange developed in Iran. The exchange rate in the black market rose from 70 rials per dollar in 1979 to 1630 rials per dollar in 1993 (Shiva and Bahmani-Oskooee, 1998, p.97). Therefore, the central bank decided to unify the black market exchange rate with the official exchange rate in 1993. The rial depreciated substantially due to the removal of foreign exchange controls and reached 7000 rials per dollar in May 1995. This forced the central bank to implement exchange controls again at a fixed rate of 3000 rials per dollar. To check whether the central bank in Iran engaged in black market activity (buying foreign currency, while dumping domestic currency), Shiva and Bahmani-Oskooee (1998) estimate Girton-Roper EMP model using a black market exchange rate and the official exchange rate for the sample period 1959 to 1990.

First, using the black market rate, EMP is regressed on domestic credit, foreign inflation (U.S.), real domestic income, and the money multiplier. A $Q = (e-1)/(r-1)$ variable is included to examine whether the monetary authority absorb more pressure by the black market exchange rate or losses of international reserves. Shiva and Bahmani-Oskooee (1998) find all estimated coefficients are statistically significant with the expected signs except for the foreign inflation. The coefficient of Q is negative and statistically significant implying that the central bank in Iran is not engaged in black market activity because the EMP is mostly absorbed by losing reserves.

Second, using the official exchange rate, the EMP model is estimated using all the variables described earlier. They find a statistically significant and negative coefficient on the domestic credit and the money multiplier. However, the
coefficients of foreign inflation and real domestic income are not significant. Using the official exchange rate, they find a statistically significant and positive coefficient on Q. This implies that more of the pressure is absorbed by the official exchange rate.

Shiva and Bahmani-Oskooee (1998) also estimate an equation using international reserves as the dependent variable. The results are much better when international reserves are used as a dependent variable. This time, foreign inflation becomes significant together with domestic credit and the money multiplier. Therefore, they conclude that the traditional monetary approach to balance of payments performs better in case of Iran than Girton and Roper’s (1977) exchange market pressure model.

Mathur (1999) estimates a modified version of the Girton and Roper’s (1977) EMP model for India using monthly data 1980:1 to 1998:7. Mathur (1999) modified Girton and Roper’s (1977) EMP model by including a variable, the change in the expected rate of appreciation of the nominal exchange rate. Mathur (1999) uses the sum of the rate of change of the exchange rate and the rate of change of the international reserves as a proportion of money as an EMP variable. The growth rates of domestic credit, the foreign monetary base, domestic and foreign income and the change in the expected rate of appreciation are used as the explanatory variables for India’s EMP model. The nominal effective exchange rate (NEER) is used as an exchange rate variable. The NEER is a weighted average of the bilateral nominal exchange rate of the home country in terms of the foreign currencies. The NEER is calculated using bilateral total trade weights. The number of countries used to construct the NEER is 36. To generate the data on the expected rate of appreciation, Mathur (1999) uses three forecasting methods: the random walk model, Box-Jenkins methodology, and a vector autoregression (VAR). The OECD group of countries is used as a rest of the world. A ‘total OECD’ and ‘OECD major seven’ are used as world variables. The narrow money (M1) index of the ‘OECD total’ and the ‘OECD seven’ are used as a world money variable. In order to calculate the index of M1, weights are derived from the averages of the monthly M1 figures from 1990 for each country converted to dollars using the 1990 purchasing power parity. The weights for the world’s income variable are constructed using GDP from industry and GDP from purchasing power parity.

A set of diagnostic tests shows the absence of multicollinearity, autocorrelation and homoscedasticity. Therefore, OLS is used to estimate the models. Mathur (1999) first estimates the original Girton and Roper (1977) model for the two sets
of world variables. The estimated results are not impressive. None of the coefficients are significant except for domestic income. Mathur (1999) also tries to estimate the model by dividing the sample period into two-sub periods. The results do not improve. In the sub-sample periods, domestic real income remains only significant variable.

Mathur (1999) also uses six modified versions of the Girton and Roper (1977) model including the forecasting results from the three methods of forecasting. The estimated results from OLS show improvement over Girton and Roper’s (1977) original model. The coefficients of domestic credit and domestic income appear to be statistically significant with the expected negative and positive signs respectively for all the six variants of the modified Girton and Roper (1977) model. The coefficient of the expected rate of appreciation also appears to be significant for all the equations except one.

Tanner (2001) estimates an exchange market pressure (EMP) model using monthly data from 1990 to 1998. A vector autoregression (VAR) approach is used to estimate the EMP model for Brazil, Chile, Mexico, Indonesia, Korea, and Thailand.

Unlike other studies Tanner (2001) constructs EMP variable in the following way:

\[ \text{EMPe}_t - r_t = \delta_t - m_t, \]
\[ \delta_t = D_t / M_{t-1}, \]
\[ m_t = M_t / M_{t-1} - \pi_t, \]

Where, \( e_t \) represents the rate of growth of the nominal exchange rate, \( r_t = R_t / M_{t-1} \), \( M_t \) is nominal money at time \( t \), \( R_t \) is international reserves, \( \pi_t \) is the rate of inflation, \( D_t \) is domestic credit, \( r_t \) is the rate of growth of the international reserves scaled by monetary base, and \( m_t \) is the rate of growth of the domestic credit scaled by monetary base.

The growth rates of domestic credit and the interest rate differential between domestic and U.S. interest rates are used to examine the impact of the monetary policy on the exchange market pressure. The response of the EMP is positive and significant as expected due to shock to domestic credit for all countries except for Korea. The response of EMP Korea is statistically significant and negative. The response of the EMP due to shock to the interest rate differential is weaker than that of the shock to domestic credit. The response of EMP due to a shock to the interest rate differential is statistically significant and negative for Indonesia, Thailand, Brazil and Mexico.
From the above review of literature, the monetary model of exchange market pressure seems to be appropriate for both developed and developing countries. The present study uses the same model for Bangladesh, a developing country, to examine the impact of monetary policy on the Girton and Roper’s version of EMP. This study also investigates the factor sensitivity of the EMP with respect to reserves and nominal exchange rate by introducing a new variable $Q (=e/r)$.

IV. Model Variables

Quarterly data from 1976:2 to 2003:1 are employed to estimate Engle and Granger’s (1987) two-step single equation error correction model (ECM) and a vector error correction model (VECM) containing the following variables:

- $d =$ percentage change of domestic credit scaled by the monetary base;
- $e =$ percentage change of nominal exchange rate (Taka-Dollar or Taka-Rupee);\(^4\)
- $r =$ percentage change of international reserves scaled by the monetary base;
- $p_i^* =$ percentage change of foreign consumer price index (India and the U.S.);
- $y =$ percentage change of industrial production;
- $mm =$ percentage change of the money multiplier;
- $Q_i = (e/r)$ = $Q_i$ is included to examine whether monetary authority is sensitive to components of EMP.

Seasonally adjusted data are used for all the variables except for the exchange rate. All the variables are in log-differenced form. A description of the variables is given in detail in the data appendix.

V. Econometric Methodology

Before estimating the model, the statistical properties of each variable are analyzed. A series of Dickey-Fuller (1981) unit root tests are used to examine each series up to two unit roots. Log level data are used to run the test for the presence of one unit root, while first differenced data are used to run the test for the

\(^4\) The U.S. and India’s exchange rate are included because the USA and India are the two major trading partners of Bangladesh. $i=1$(USA) and 2(India).
presence of a second unit root, given that the first unit root is present. Two sets of the unit root tests are performed using the Taka/Dollar and the Taka/Rupee exchange rates. The augmented Dickey-Fuller (ADF) unit root tests suggest that the log of the domestic credit scaled by the monetary base, the log of the foreign (the U.S. or India) price level, the log of real output, and the log of money multiplier contain one unit root and therefore need to be differenced once to attain stationarity. The composite value of EMP in level also fails to reject the null hypothesis of unit root for both Taka/Dollar and Taka/Rupee exchange rate.

According to Engle and Granger (1987), an equation estimated with differenced data will be mis-specified if the variables are cointegrated and cointegration is ignored. Therefore, cointegration among the I(1) variables is tested using the techniques developed by Johansen (1988) and Johansen and Juselius (1990).

This paper uses a two-step procedure suggested by Engle and Granger (1987) to estimate the model. In this approach, first, a long-run equilibrium EMP model in log levels is estimated by ordinary least square (OLS). Then the lagged value of the calculated residuals from step one is used in an error correction model. This lagged value of the residual specifies the short-run dynamics of the second model; the coefficient on the lagged residual is the speed of adjustment. The significance of the coefficient of the lagged residual implies that the variables are cointegrated. The larger the coefficient is, the greater the responses of the variables to fill the gap of the deviation from long-run equilibrium (Enders 1995).

**Error Correction Model (ECM)**

Two sets of equations are estimated in this paper. First, two U.S. variables and four domestic variables are used to estimate the model (growth rate of Taka/Dollar exchange rate and growth rate of domestic international reserves are used to construct EMP) and three domestic variables (domestic credit, real income, money multiplier) and a foreign variable (U.S. inflation) are used to estimate the long-run equilibrium model and a short-run dynamic model. Engle and Granger’s (1987) two-step procedure is used to estimate the model. In the first step, a long-run equilibrium model is estimated with OLS using log levels of the variables. In the second step, the lag value of the residual derived from the first step is used in the second equation to estimate the short-run dynamic model. The same procedure is repeated with the second set of equations containing growth rate of Taka/Rupee exchange rate.

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5 Variables are cointegrated if each variable is I(d), but a linear combination of the variables is I(d-b), b>0.
exchange rate and domestic international reserves to construct EMP. India’s inflation, and same three domestic variables are used as independent variable.

Following Girton and Roper (1977) a new variable \(Qi = e/r\) is also included in the model to examine whether the monetary authority in Bangladesh is sensitive to the components of EMP.

A significant positive coefficient of \(Qi\) will imply that the monetary authority in Bangladesh responds to EMP by depreciating currency. A significant and negative coefficient of \(Qi\) will imply that the monetary authority in Bangladesh responds to exchange market pressure by reserve losses. In that case, the central bank sells foreign currency instead of currency depreciation. The insignificance of the \(Qi\) will imply that the EMP is not sensitive to its components. The results from the short-run dynamic models are reported in Tables 1 and 2.

Table-1 shows the estimated results from Engle and Granger’s (1987) two-step single equation model containing U.S. variables. The coefficient of the growth rate of the domestic credit is significant at 1% level. The coefficient of domestic credit (-0.96) implies that a 10% increase in the domestic credit causes the exchange rate to depreciate by \(e = -0.96 \times 10 = -9.6\%\), or a loss of reserves by \(r = -0.96 \times 10 = -9.6\%\), or a combination of the two.

The coefficient of the lagged value of the error term also appears to be significant. A significant error correction term implies that the variables are cointegrated. However, the coefficients on U.S. inflation and real income and money multiplier are not significant, which implies that U.S.’s inflation and domestic real income and money multiplier do not have an impact on EMP in Bangladesh. The results remain the same when estimating the model adding a new variable Q1. Q1 is added to see whether EMP is sensitive to its components. The coefficient of Q1 turns out to be insignificant, implying that the monetary authority is not sensitive to the components of EMP. They adjust both, international reserves and the exchange rate to reduce EMP.

This paper estimates the model using the Taka/dollar nominal exchange rates as a dependent variable. The estimated coefficients are all insignificant when Taka/dollar exchange rate is used as a dependent variable. This paper also estimates the model using international reserves as a dependent variable. In that case, the coefficient of domestic credit is statistically significant and negative at 1% level.

Table-2 shows the estimated single equation results using India’s variables. The coefficient of domestic credit is negative and significant at 1% level. India’s
inflation and error correction terms are also significant at 5% and 1% levels, respectively, with the expected signs. A significant and positive coefficient of India’s inflation implies that an increase in the India’s inflation increases foreign exchange market pressure in Bangladesh and a significant error correction term implies that the variables are cointegrated. However, the money multiplier and real income are not statistically significant. The results do not change when the Q2 variable is added to the model. The coefficient of Q2 turns out to be insignificant.

This paper also estimates the model using Taka/Rupee exchange rate and the international reserves as dependent variables. The estimated coefficients from using Taka/Rupee exchange rate are all non-significant, while the estimated coefficients from international reserves as a dependent variable have two significant coefficients. Domestic credit is statistically significant and negative at 1% level, while India’s inflation is statistically significant and positive at 5% level. 

**Vector Error Correction Model (VECM)**

In order to see the robustness of the results from the ECM, this paper derives impulse response function (IRFs) and variance decomposition (VDCs) from vector error correction models (VECM) using both exchange rates: Taka/Dollar and Taka/Rupee. The VDCs show the portion of the variance in the forecast error for each variable explained by innovations to all variables in the system. This study is mostly interested in the portion of the forecast error variance of exchange market pressure that is explained by shocks to the domestic credit (d), foreign price levels ($p_i^*$), domestic real income ($y$), and the money multiplier (mm). If these factors explain a significant portion of the forecast error variance in the EMP then we can say these factors have significant impact on EMP.

The IRFs show the dynamic response of each variable in the system to shocks from each variable in the system. If the response of the exchange market pressure is significant and negative due to shocks to domestic credit and money multiplier then we can say that domestic credit and money multiplier have a significant impact on EMP. On the other hand, we expect a significant and positive impact of

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6 This paper also estimates the model with OLS using growth rates (excluding error correction terms) of U.S. and India’s variables with and without the Q$_t$ variable. This time only the domestic credit variable appears to be significant at 5% level with the expected sign in the U.S. equations. In the India’s equations, domestic credit and India’s inflation appear to be significant at the 5% level with the expected negative and positive signs respectively.
domestic real income and foreign inflation on the EMP. If the response of EMP is significant and positive we can say that an increase in the domestic real income and the foreign inflation would increase EMP.

Hafer and Sheehan (1991) argue that VAR results can be very sensitive to the choice of lag length. Therefore, Akaike’s Information Criterion (AIC) and Schwartz’s Information Criteria (SIC) are used to select the lag length for the VECM model. Lag orders of one through eight are tested. A lag order of four produces the minimum AIC and SIC in each case. Q-statistics are used to see if VECM residuals in each equation are white noise at this minimum AIC and SIC. The Q-statistics show white noise residuals for each equation at lag order four. Therefore, a lag of four is used to derive VDCs and IRFs from the VECM. To see the robustness of the results, a lag of eight is also used to estimate the model. This paper reports the estimated results using optimal lag 4 in upper portions of Tables 3 and 4 and estimated results using lag 8 in the lower portions of Tables 3 and 4.

To estimate VDCs and IRFs, orthogonalization of the VECM residuals is required. Cholesky decomposition is used to orthogonalise the residuals. The Cholesky decomposition requires the variables to be ordered in a particular way such that variables placed higher in the ordering have a contemporaneous impact on all variables lower in the ordering, but the variables lower in the ordering do not have a contemporaneous impact on the variable higher in the ordering. Therefore, it is important to decide a proper ordering of the variables. The Cholesky ordering of the variables for this study is: p₁*, mm, d, y, and EMP. The foreign inflation variable is placed first in the ordering according to small country assumption; foreign inflation is exogenous. Placing foreign inflation higher in the ordering implies that foreign inflation has a contemporaneous impact on money multiplier, domestic credit, domestic real income, and EMP, while these variables have no contemporaneous impact on foreign inflation. EMP is placed last in the order allowing all other system variables to have a contemporaneous impact on EMP. This assumption is consistent with previous single-equation studies that treat EMP as an endogenous variable, while treating all other system variables as exogenous.

The money multiplier is assumed to remain constant within a given quarter. Hence, the money multiplier is placed above other domestic variables. This assumption allows the money multiplier to have a contemporaneous impact on

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7 A maximum lag length of eight is used to preserve degrees of freedom.

8 This paper also estimates VECM models adding the Q₁ variable, but the IRFs and VDCs of EMP due to shocks to Q₁ are never significant.
other domestic variables, but domestic variables have no contemporaneous impact on the money multiplier. As a policy variable, domestic credit is placed above real income in the ordering. This allows monetary policy to have a contemporaneous impact on real income. However, policy decisions respond with a lag to changes in real income.⁹

**Variance Decomposition (VDCs) of Exchange Market Pressure (EMP) using Taka/U.S. Dollar Nominal Exchange Rate**

In order to know the impacts of a shock, VDCs for time horizons of 4, 6, 12, 16 and 20 are computed. The estimates of the forecast error variance are considered significant if the point estimate is at least two times as large as the standard error. Twenty-five hundred Monte Carlo simulations are used to calculate the standard errors. Because this study is most concerned with the forecast error variance in the exchange market pressure (EMP) explained by the foreign (U.S. and India) price level, money multiplier, domestic credit, and real income, VDCs of EMP derived from using the VECM model are reported in Tables 3 and 4. Table-3 shows the VDCs derived from estimating VECM model using Taka/U.S. dollar nominal exchange rate, and Table-4 shows the VDCs derived from estimating VECM model using Taka/India’s Rupee nominal exchange rate.

Table-3 indicates that domestic credit can explain a significant portion of the forecast error variance in EMP at time horizons 4, 8, and 12, while estimating at lag length 4 using Taka/Dollar exchange rate. The forecast error variance explained by the domestic credit at time horizon 12 is 30.56%. None of the other variables are significant. The results change if we change the lag length. At lag 8, the forecast error variance explained by domestic credit is significant at time horizons 4, 8, 12, 16, and 20. Domestic credit is the only significant variable regardless of the lag length.

**Variance Decomposition (VDCs) of Exchange Market Pressure (EMP) using Taka/India’s Rupee Nominal Exchange Rate**

Table 4 shows the variance decomposition of EMP due to shock to foreign inflation, money multiplier, domestic credit, and real income estimated for VECMs at lags 4 and 8. The Taka/Rupee exchange rate is used to construct EMP.

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⁹ This study also estimates VECM by switching the order between domestic real income and money multiplier and domestic credit and money multiplier. Major policy conclusions do not change due to switching the ordering between real income and money multiplier and switching the ordering between domestic credit and money multiplier.
In order to know the magnitude of the shock, variance decompositions at time horizons 4, 8, 12, 16, and 20 are reported. The upper portion of Table-4 shows that domestic credit can explain a significant portion of the forecast error variance in EMP at time horizons 4 and 8, when estimating the VECM at lag 4. The forecast error variance explained by domestic credit at time horizon 8 is 34.42%. None of the other variables explain a significant portion of the forecast error variance in the EMP. These results hold if we change the lag length to 8. At lag 8, domestic credit can explain a significant portion of the forecast error variance of EMP at all time horizons.

**Impulse Response Function (IRFs) of the Exchange Market Pressure (EMP) using Taka/Dollar Nominal Exchange Rate**

The IRFs show the dynamic response of each variable in the system to shock from each variable in the system. The Cholesky ordering of the variables for this study is: \( \pi^* \), \( mm \), \( d \), \( y \) and EMP.\(^{10}\) A two-standard-deviation confidence interval is reported for each IRF. A confidence interval containing zero indicates lack of significance. The confidence interval for each IRF is computed from twenty-five hundred Monte Carlo simulations. The IRFs of EMP due to shocks to foreign price level, money multiplier, domestic credit, and real income are shown in Figures 1 to 4. In Figures 1 and 3 the optimal lag length of four is used to derive the IRFs estimating the VECM using Taka/Dollar and Taka/Rupee exchange rates. To see the robustness of the results, the IRFs derived from VECM using lag length 8 are also estimated and reported in Figures 2 and 4.

In Figures 1 and 2, the Taka/Dollar exchange rate is used to construct the EMP variable. Figure-1 shows the IRFs of EMP due to shocks to domestic credit, U.S. inflation, real income and the money multiplier.\(^{11}\) In Figure-1, the response of EMP due to shock to domestic credit is significant and negative initially, remaining significant up to time horizon 13, and becomes insignificant thereafter. The IRFs of EMP due to shocks to U.S. inflation is insignificant initially, becomes significant and negative at time horizon 7, and remains significant thereafter. The impulse response function of EMP due to shock to the U.S. inflation appears with the wrong sign. None of the other variables are significant in Figure-1. As Figure-2 shown, the results remain the same when the lag length is increased to 8.\(^{12}\)

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\(^{10}\) \( i=1(USA) \) and 2(India).

\(^{11}\) VECMs with Q1 and/or Q2, included also estimated. The IRFs of EMP due to shocks to Q1 and Q2 were never significant.

\(^{12}\) At lag 8, the response of the EMP due to shock to income becomes significant only for the 5\(^{th}\) quarter and the response of EMP to a shock to U.S. inflation is significant for time horizons 6 to 9.
Impulse Response Function (IRFs) of Exchange Market Pressure (EMP) using Taka/India’s Rupee Nominal Exchange Rate

Figures 3 and 4 show the IRFs of EMP due to a shock to the domestic credit, foreign inflation, real income and money multiplier when Taka/Rupee exchange rate is used. Figure-3 shows the response of EMP due to shocks to domestic credit, foreign inflation, and the money multiplier estimated at lag 4 using Taka/Rupee nominal exchange rate. In Figure-3, the response of EMP declines sharply due to shock to domestic credit and remains negative and significant for the rest of the periods. The response of the EMP due to innovation to India’s inflation is significant and positive for the first two quarters, which becomes insignificant thereafter. None of the other variables appears to be significant in Figure-3. As Figure 4 shows, the results remain the same when the lag length of 8 is used.

Analysis of the results from ECM and VECM:

The results derived from VECM are better than single equation ECM because VECM takes into account endogeneity of the variables where a single-equation ECM considers each right-hand side variable as exogenous. This potentially creates a simultaneity bias in the coefficients. The results from VECM are more reliable because it takes into account the simultaneity problem.

The significance of the coefficient of domestic credit in terms of ‘t’ ratio from ECM and IRFs and VDCs from VECM show that domestic credit has a significant impact on EMP for both exchange rates. However, domestic real income is never significant for any case.13

The estimated coefficient of foreign inflation (India) from ECM and IRFs estimated at lag 4 show significant and positive impacts on EMP. The response of EMP due to shock to the U.S. inflation is significant and negative. However, the coefficient of the U.S. inflation from ECM and VDCs of EMP due to shock to U.S. inflation is not significant. The estimated coefficient of the money multiplier is never significant either using Taka/Dollar or Taka/ Rupee exchange rate.

VI. Conclusion

This paper provides evidence supporting the claim that domestic credit has a significant and negative impact on exchange market pressure using either the

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13 At lag 8, the response of EMP due to shock to income becomes significant only for the 5th quarter.
Taka/U.S. Dollar or the Taka/India’s Rupee exchange rate. Domestic credit has a significant impact on EMP in each model estimated. We do not find evidence of the impact of domestic real income on EMP for either of the two cases. The impact of the money multiplier on EMP is not significant in any of the cases. However, the IRFs estimated in this paper show a significant and positive response of EMP due to a shock to India’s inflation and significant and negative impact due to shock to the U.S. inflation. The ECM also supports the significant and positive coefficient of India’s inflation. However, the coefficient of EMP from ECM and VDCs of EMP due to shock to the U.S. inflation does not support the significant impact of the U.S. inflation on EMP. The coefficient of $Q_1$ is never significant in the VDCs or IRFs. This implies that the monetary authority in Bangladesh responds to EMP by depreciating currency and losing international reserves. This is true for both exchange rates (Taka/U.S. Dollar or Taka/India’s Rupee). Therefore, as a policy prescription, we can say that the monetary model of exchange market pressure can be used to determine the level of intervention needed to achieve an exchange rate target for Bangladesh.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>r-e</th>
<th>r-e</th>
<th>r-e</th>
</tr>
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<tr>
<td>Constant</td>
<td>-9.38</td>
<td>-9.35</td>
<td>-4.85</td>
</tr>
<tr>
<td></td>
<td>(-1.57)</td>
<td>(-1.56)</td>
<td>(-0.79)</td>
</tr>
<tr>
<td>d</td>
<td>-0.96***</td>
<td>-0.96***</td>
<td>-0.94***</td>
</tr>
<tr>
<td></td>
<td>(-6.53)</td>
<td>(-6.52)</td>
<td>(-6.22)</td>
</tr>
<tr>
<td>$p_1^*$</td>
<td>0.0008</td>
<td>-0.03</td>
<td>-0.07</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(-0.03)</td>
<td>(-0.06)</td>
</tr>
<tr>
<td>y</td>
<td>-0.10</td>
<td>-0.12</td>
<td>-0.07</td>
</tr>
<tr>
<td></td>
<td>(-0.48)</td>
<td>(-0.57)</td>
<td>(-0.30)</td>
</tr>
<tr>
<td>mm</td>
<td>0.47</td>
<td>0.48</td>
<td>0.48</td>
</tr>
<tr>
<td></td>
<td>(1.51)</td>
<td>(1.54)</td>
<td>(1.51)</td>
</tr>
<tr>
<td>$Q_1$</td>
<td>-1.45</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(-0.43)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lagged e-hat</td>
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<td>-61.63***</td>
</tr>
<tr>
<td></td>
<td>(-3.18)</td>
<td>(-3.19)</td>
<td>(-2.96)</td>
</tr>
<tr>
<td>adj-R²</td>
<td>0.34</td>
<td>0.33</td>
<td>0.31</td>
</tr>
</tbody>
</table>

(***) Implies significant at 1% level, while (**) implies significant at 5% level.
Table 2: Dependent Variable: EMP (Taka, vis-a-vis India’s Rupee)

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>r-e</th>
<th>r-e</th>
<th>r</th>
<th>e</th>
</tr>
</thead>
<tbody>
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<td>-25.92***</td>
<td>-25.62***</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(-2.81)</td>
<td>(-2.81)</td>
<td>(-2.89)</td>
<td>(0.44)</td>
</tr>
<tr>
<td>d</td>
<td>-1.06***</td>
<td>-1.05***</td>
<td>-1.06***</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>(-7.05)</td>
<td>(-6.97)</td>
<td>(-7.21)</td>
<td>(0.07)</td>
</tr>
<tr>
<td>p2*</td>
<td>2.79**</td>
<td>2.80***</td>
<td>2.66**</td>
<td>-0.12</td>
</tr>
<tr>
<td></td>
<td>(2.78)</td>
<td>(2.78)</td>
<td>(2.72)</td>
<td>(-0.41)</td>
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<tr>
<td>y</td>
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<td>-0.008</td>
<td>-0.04</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(-0.06)</td>
<td>(-1.51)</td>
<td>(-0.19)</td>
<td>(-0.42)</td>
</tr>
<tr>
<td>mm</td>
<td>0.53</td>
<td>0.54</td>
<td>0.44</td>
<td>-0.09</td>
</tr>
<tr>
<td></td>
<td>(1.67)</td>
<td>(1.68)</td>
<td>(1.42)</td>
<td>(-0.90)</td>
</tr>
<tr>
<td>Q2</td>
<td>-</td>
<td>0.53</td>
<td>-</td>
<td>(0.26)</td>
</tr>
<tr>
<td>Lagged e-hat</td>
<td>-47.75***</td>
<td>-47.64***</td>
<td>-54.54***</td>
<td>-6.79</td>
</tr>
<tr>
<td></td>
<td>(-2.42)</td>
<td>(-2.40)</td>
<td>(-2.83)</td>
<td>(-1.10)</td>
</tr>
<tr>
<td>Adj-R2</td>
<td>0.34</td>
<td>0.33</td>
<td>0.35</td>
<td>0.07</td>
</tr>
</tbody>
</table>

(*** ) Implies significant at 1% level, while (**) implies significant at 5% level.

Table 3: Variance Decomposition of Exchange Market Pressure using Taka/Dollar nominal exchange rate and Cholesky ordering as: p1*, mm, d, y and EMP.

<table>
<thead>
<tr>
<th>VECM LagTime Horizon</th>
<th>p1*</th>
<th>mm</th>
<th>d</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1.24</td>
<td>4.04</td>
<td>41.33**</td>
<td>2.02</td>
</tr>
<tr>
<td></td>
<td>(4.19)</td>
<td>(6.54)</td>
<td>(11.75)</td>
<td>(4.06)</td>
</tr>
<tr>
<td>8</td>
<td>10.21</td>
<td>3.29</td>
<td>36.71**</td>
<td>4.24</td>
</tr>
<tr>
<td></td>
<td>(12.03)</td>
<td>(8.20)</td>
<td>(13.32)</td>
<td>(5.61)</td>
</tr>
<tr>
<td>12</td>
<td>21.42</td>
<td>2.86</td>
<td>30.56**</td>
<td>5.84</td>
</tr>
<tr>
<td></td>
<td>(17.14)</td>
<td>(8.52)</td>
<td>(13.51)</td>
<td>(6.13)</td>
</tr>
<tr>
<td>16</td>
<td>29.48</td>
<td>2.16</td>
<td>25.53</td>
<td>6.58</td>
</tr>
<tr>
<td></td>
<td>(19.16)</td>
<td>(8.08)</td>
<td>(13.39)</td>
<td>(6.37)</td>
</tr>
<tr>
<td>20</td>
<td>33.83</td>
<td>1.63</td>
<td>22.13</td>
<td>6.75</td>
</tr>
<tr>
<td></td>
<td>(19.98)</td>
<td>(7.66)</td>
<td>(13.30)</td>
<td>(6.52)</td>
</tr>
<tr>
<td>8</td>
<td>2.44</td>
<td>1.92</td>
<td>33.88**</td>
<td>3.62</td>
</tr>
<tr>
<td></td>
<td>(5.18)</td>
<td>(5.85)</td>
<td>(12.17)</td>
<td>(5.75)</td>
</tr>
<tr>
<td>8</td>
<td>13.66</td>
<td>1.41</td>
<td>34.34**</td>
<td>10.89</td>
</tr>
<tr>
<td></td>
<td>(11.66)</td>
<td>(6.39)</td>
<td>(13.35)</td>
<td>(10.17)</td>
</tr>
<tr>
<td>12</td>
<td>16.63</td>
<td>5.24</td>
<td>34.81**</td>
<td>11.49</td>
</tr>
<tr>
<td></td>
<td>(13.35)</td>
<td>(9.17)</td>
<td>(13.72)</td>
<td>(10.81)</td>
</tr>
<tr>
<td>16</td>
<td>17.44</td>
<td>6.47</td>
<td>32.69**</td>
<td>12.99</td>
</tr>
<tr>
<td></td>
<td>(14.37)</td>
<td>(9.94)</td>
<td>(13.42)</td>
<td>(11.46)</td>
</tr>
<tr>
<td>20</td>
<td>16.96</td>
<td>6.04</td>
<td>32.18**</td>
<td>12.68</td>
</tr>
<tr>
<td></td>
<td>(14.79)</td>
<td>(9.75)</td>
<td>(13.47)</td>
<td>(11.59)</td>
</tr>
</tbody>
</table>

Notes: Figures in the parenthesis are Monte Carlo simulated standard errors. The point estimates are considered significant if the point estimates are at least twice as large as their standard errors.
Table 4: Variance Decomposition of Exchange Market Pressure using Taka/Rupee nominal exchange rate and Cholesky ordering: \( p_1 \), mm, d, y and EMP.

<table>
<thead>
<tr>
<th>VECM LAG</th>
<th>HORIZON</th>
<th>( p_1 )</th>
<th>MM</th>
<th>D</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4.11</td>
<td>0.45</td>
<td>38.59**</td>
<td>1.65</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>6.13</td>
<td>1.80</td>
<td>34.42**</td>
<td>2.73</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>7.44</td>
<td>2.40</td>
<td>32.31</td>
<td>2.99</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>8.20</td>
<td>2.72</td>
<td>31.15</td>
<td>3.11</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>8.67</td>
<td>2.91</td>
<td>30.47</td>
<td>3.17</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>4.60</td>
<td>0.27</td>
<td>43.60**</td>
<td>1.20</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>4.79</td>
<td>2.67</td>
<td>45.70**</td>
<td>5.53</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>6.39</td>
<td>1.97</td>
<td>42.88**</td>
<td>7.15</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>9.87</td>
<td>1.69</td>
<td>39.22**</td>
<td>7.91</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>12.62</td>
<td>1.44</td>
<td>37.49**</td>
<td>7.98</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Figures in the parenthesis are Monte Carlo simulated standard errors. The point estimates are considered significant if the point estimates are at least twice as large as their standard errors.
Figure 1: Responses of EMP due to shocks to $d$, $mm$, $p_1^*$, and $y$ estimated at lag 4 using Taka/Dollar exchange rate and Cholesky ordering: $p_1^*$, $mm$, $d$, $y$ and EMP.
Figure 2: Responses of EMP due to shocks to $d$, $mm$, $p_1^*$, and $y$ estimated at lag 8 using Taka/Dollar exchange rate and Cholesky ordering: $p_1^*$, $mm$, $d$, $y$ and EMP.
Figure 3: Responses of EMP due to shocks to d, mm, $p_2^*$, and y estimated at lag 4 using Taka/India’s Rupee exchange rate and Cholesky ordering: $p_2^*$, mm, d, y and EMP.
Figure 4: Responses of EMP due to shocks to $d$, $mm$, $p^*_2$, and $y$ estimated at lag 8 using Taka/India’s Rupee exchange rate and Cholesky ordering: $p^*_2$, $mm$, $d$, $y$ and EMP.
Variable List

The data period for this paper is from 1976:2 to 2003:4. All data are adjusted from IMF, International Financial Statistics (ITS) CD-ROM. The seasonally unadjusted data are seasonally adjusted using the XII Procedure in SAS. Variables used in paper are described in the following:

Foreign Inflation (pi*) (1995=100) = the percentage change of foreign (India and the U.S.) consumer price index. The percentage change of CPI is used as a foreign inflation variable.

Real Income (y) (1995=100) = the percentage change of real income is used as the real income (y) variable.

International Reserves (r) (in Million Taka) = the percentage change of foreign assets (r) of the monetary authorities are used as an international reserves variable.

Domestic Credit (d) (in Million Taka) = the percentage change of central bank domestic credit to the government and the private sector is used as a monetary policy variable.

Exchange rate (e) = the percentage change of the nominal exchange rate (Taka/Dollar and Taka/Rupee). Here, Taka/Rupee rate is the cross rate derived from dividing Taka/Dollar by Rupee/Dollar nominal exchange rate.

Money Multiplier (mm) = the percentage change of the money multiplier (mm); the money multiplier is calculated dividing M2 by the monetary base.

Q=(e/r) = Q is calculated dividing the percentage change of the exchange rate by the percentage change of the international reserves.
References


Money Growth and Inflation: A Case Study of Bangladesh

Md. Habibur Rahman*

Abstract
This study investigates the causal factors of inflation with a special focus in identifying the time lag of price responses to changes in the money stock in Bangladesh. Engle and Granger’s (1987) two-step single equation error correction model (ECM), Granger Causality test and cointegration technique are employed based on quarterly data during 1974Q1-2003Q4 for Bangladesh.

Estimated results of the ECM model indicate that the growth of money supply, the growth of real income and real interest rate are important factors in explaining inflation in Bangladesh. The long-run response of inflation to changes in the money stock is, however, far less than the monetarists’ predicted value of unity implying non-neutrality of money. The outcome regarding the time lag of price responses to changes in the money stock indicate that the response of inflation to changes in the money stock shows up after 4 quarters. Therefore, an increase in the money growth today will generate inflation after one year. The results from the Granger Causality tests indicate that the causality between money growth and inflation or real income growth and inflation runs only from money growth to inflation or real income growth to inflation indicating money and real income growth are important factors in predicting future inflation but inflation is not helpful in predicting money or income growth. The results of Johansen’s cointegration tests suggest cointegration among the price level, real income, and money establishing long-run equilibrium relationship among them. Long-run data plot for M1 and M2 multiplier indicate that M1 multiplier is declining whereas M2 multiplier is increasing with a strong contribution from time deposits.

* Joint Director, Research Department, Bangladesh Bank, Head Office, Dhaka.

Notes: This paper is prepared as a partial requirement of a training course on ‘Monetary Policy’ organized by the World Bank Institute (WBI) and Bangladesh Bank Training Academy (BBTA). The author would like to thank Dr. Akhtar Hossain for his wonderful teaching throughout the whole training course and his insightful comments in writing this policy note. All remaining errors, however, are solely the author’s own responsibility. The views expressed in this paper are of the author alone and do not necessarily reflect the views of the Bangladesh Bank.
1. Introduction

Although inflation is generally thought of as an inordinate increase in the general price level, throughout the history of economics the causes of inflation and the definition of inflation itself remained as an unresolved issue. There is a general agreement that, in the long-run, inflation is a monetary phenomenon. In short-run, however, many other factors could cause inflation that instigates unsettled debate on the causes of inflation. Every school of economists tries to define inflation and explain the causes of inflation in their own way. The heterogeneity of views on inflation does not only exist among various group of economists but it is strong enough also among economists of the same group. The disagreement among the Keynesians is obvious from the writings of Sidney Weintraub (1961, P. 26). He writes, “... ... ..., the inflation issue, their views have split them into separate camps of ‘demand-pull’ and ‘cost-push’, or some uneasy amalgam of the two, as with varying intensity they have examined the always partial and inclusive empirical evidence.”

However, the so-called ‘inflationary gap’ or ‘excess demand’ is considered to be the main cause of inflation in the mainstream Keynesian economics. On the other hand, Professor Frederic S. Mishkin writes that as long as inflation is appropriately defined to be a sustained inflation, macroeconomic analysis, whether of the monetarist or Keynesian persuasion, leads to agreement with Milton Friedman’s famous dictum, “Inflation is always and everywhere a monetary phenomenon.”

With a view to identifying the most important sources of inflation in emerging countries, Lougani and Swagel (2001) examines the experience of 53 developing countries during 1964-1998 using a six variable vector autoregressions (VARs) approach. Their findings suggest that either money growth or exchange rate movement accounts for two-thirds of the variance of inflation at both short and long horizons. The authors also show that inflation expectation plays an important role in inflation determination in emerging economies. Kibritciouglu surveys a large number of literature to identify possible causes of inflation in Turkey and finds that inflation can be interpreted as a net result of sophisticated and continuous interaction of demand side (or monetary), supply side (or real) shocks, price adjustments (or inertial), and political process (or institutional) factors.

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The objective of this study is to conduct an empirical investigation regarding the causes of inflation in Bangladesh with a special focus on identifying the time lag of price responses to changes in the money stock using Engle and Granger’s (1987) two-step single equation error correction model (ECM), Granger Causality and cointegration technique. Following Ali Darrat (1986), this is an attempt to explain inflation from the monetarist point of view using quarterly data during 1974Q1-2003Q4.

2. Theoretical Background

This study considers the issue of inflation as a purely monetary phenomenon. The simple version of monetarists’ approach can be explained as the result of excessive growth rate of nominal money supply over that of real money demand. Given a reasonably stable real money demand function, high inflation would then be the outcome of high money supply growth. Therefore, inflation can be defined\(^2\) as:

\[
\dot{P} = M^* - \left( \frac{M}{P} \right)^d
\]

(1)

Where, \(\dot{P}\) = rate of inflation;
\(M^*\) = rate of change in nominal money supply; and
\(\left( \frac{M}{P} \right)^d\) = real money demand = \(f(X^e, \dot{P}^e, r^e)\)

(2)

Here, \(X^e\) = expected real income;
\(\dot{P}^e\) = expected rate of inflation to measure the yield foregone on real assets; and
\(r^e\) = expected rate of interest to measure the yield foregone on financial assets.

Replacing expected real income by current real income, expected rate of inflation by lagged inflation and expected rate of interest by current real rate of interest, we get the following reduced-form function from equation 1 and 2:

\[
\dot{P}_t = f \left( \dot{M}^*, \dot{X}, \dot{P}_{t-1}^*, r \right)
\]

(3)

In the context of open economy macroeconomics, the domestic price can be written as a summation of the prices of tradable and non-tradable goods. Under the Purchasing Power Parity (PPP) condition, it can be shown that there is a one-to-one relationship between the price of tradables and the exchange rate. Therefore, the rate of domestic currency depreciation is considered an important element of the domestic price movement (See Hossain, 2000, pp.139-142 for more details).

The monetarist approach to inflation predicts the following signs:

\[ \frac{\partial f}{\partial M^s} > 0; \quad \frac{\partial f}{\partial X} < 0; \quad \frac{\partial f}{\partial \bar{P}_{t-1}} > 0; \quad \text{and} \quad \frac{\partial f}{\partial r} > 0. \]

Based on the above-mentioned theoretical background of the monetarist approach to inflation and utilizing the common adaptive-expectation scheme to approximate the expectational variables, we could specify a simple model of inflation as follows

\[ \dot{P}_t = \beta_0 + \sum_{i=0}^L \beta_i \cdot \dot{M}_{t-i} + \sum_{i=0}^L \beta_{2i} \cdot \dot{X}_{t-i} + \sum_{i=0}^L \beta_{3i} \cdot \dot{P}_{t-i} + \sum_{i=0}^L \beta_{4i} \cdot r_{t-i} + \varepsilon_t \quad \text{(4)} \]

In the context of open economy macroeconomics, equation (4) could be rewritten as:

\[ \dot{P}_t = \beta_0 + \sum_{i=0}^L \beta_i \cdot \dot{M}_{t-i} + \sum_{i=0}^L \beta_{2i} \cdot \dot{X}_{t-i} + \sum_{i=0}^L \beta_{3i} \cdot \dot{P}_{t-i} + \sum_{i=0}^L \beta_{4i} \cdot r_{t-i} + \sum_{i=0}^L \beta_{5i} \cdot d_{t-i} + \varepsilon \quad \text{(5)} \]

Where, \( \dot{P} \) denotes inflation, \( \dot{M} \) denotes growth rate in nominal money supply, \( \dot{X} \) denotes growth rate in real income, \( r \) denotes the real interest rates, \( d \) denotes the rate of depreciation, and \( \varepsilon \) is the error term. Expected signs for the cumulative coefficients are:

\[ \sum_{i=0}^L \beta_i = 1 \quad , \quad \sum_{i=0}^L \beta_{2i} < 0 \quad , \quad \sum_{i=0}^L \beta_{3i} > 0 \quad , \quad \sum_{i=0}^L \beta_{4i} > 0 \quad , \quad \text{and} \quad \sum_{i=0}^L \beta_{5i} > 0 \]

An increase in money supply will breed an upward pressure in the price level. According to the monetarists’ policy ineffective proposition, there would be one-to-one relationship between money and price. In the long-run, money and price will grow at the same rate setting the coefficient of money supply to one. As real output increases, the aggregate supply curve shifts to the right, results in a decline in the aggregate price level and hence lower inflation. An inflationary expectation leads to higher future inflation implying a positive coefficient on the lagged inflation. The real rate of interest is nothing but the real cost of borrowing. As the real rate of interest falls, the cost of borrowing goes down leading to higher investment, employment and output, which will lower inflation. Given the

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3 In the context of open economy macroeconomics, the domestic price can be written as a summation of the prices of tradable and non-tradable goods. Under the Purchasing Power Parity (PPP) condition, it can be shown that there is a one-to-one relationship between the price of tradables and the exchange rate. Therefore, the rate of domestic currency depreciation is considered an important element of the domestic price movement (See Hossain, 2000, pp.139-142 for more details).
Purchasing Power Parity (PPP) condition and fixed foreign price, depreciation in the exchange rate translates into an increase in the price of tradables and thus leads to an increase in the domestic price level (Hossain, 2000, pp.139-142). Therefore, the sign of the coefficient on the rate of depreciation is also expected to be positive.

3. Data
Quarterly data on Consumer Price Index (CPI), Industrial Production Index (IPI) as a proxy for real GDP, Narrow Money (M1), Broad Money (M2), Reserve Money (RM), and real interest rate are taken from the International Financial Statistics (IFS) CD-ROM of the IMF during 1974Q1—2003Q4. Seasonality in CPI, IPI, M1, M2, and in RM are removed through X-12 quarterly seasonal adjustment method developed by U. S. Department of Commerce and U. S. Census Bureau of the United States.

4. Preliminary Data Analysis
The intention of this study is to conduct an empirical investigation regarding the causes of inflation in Bangladesh with a special focus on identifying the time lag of price responses to changes in the money stock based on Engle and Granger’s (1987) two-step single equation error correction model (ECM), Granger Causality and cointegration technique. We know that an OLS equation would produce a spurious relationship among the variables when there is a common trend in the data. Furthermore, the equation will be misspecified, in terms of wrong error, if the integrated variables (non-stationary) of the model are cointegrated (Engle-Granger, 1987). Therefore, before attempting to estimate the model, we need to check the presence of unit root in each variable and the presence of co-integration among the same integrated variables. If all of the integrated variables are co-integrated, we need to correct the error term of the OLS model by incorporating an error correction term in the model known as Engle, and Granger’s (1987) two-step single equation error correction model (ECM).

Accordingly, a series of unit root tests, such as Dickey-Fuller (DF, 1981), Phillips-Perron (PP, 1988), and Kwiatkowski-Phillips-Schmidt-Shin (KPSS, 1992) are used to determine the order of integration for each series. Johansen’s (1988) cointegration test is applied to identify the presence of cointegration among the integrated variables. The results of unit root tests are reported in Table 1

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4 Calculated by subtracting expected inflation from bank rate.
Table 1: Results of Unit-Root Tests

<table>
<thead>
<tr>
<th>Variables (in log levels)</th>
<th>Without Trend</th>
<th></th>
<th>With Trend</th>
<th></th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DF</td>
<td>PP</td>
<td>KPSS</td>
<td>DF</td>
<td>PP</td>
</tr>
<tr>
<td>Consumer Price Index (CPI)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
</tr>
<tr>
<td>Industrial Production Index (IPI)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
</tr>
<tr>
<td>Broad Money (M2)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
</tr>
<tr>
<td>Narrow Money (M1)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
</tr>
<tr>
<td>Real Interest Rate ( (r) )</td>
<td>I(0)</td>
<td>I(0)</td>
<td>I(0)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Depreciation Rate ( (d) )</td>
<td>I(0)</td>
<td>I(0)</td>
<td>I(0)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Money (M2) Multiplier ( \text{MM2}=\text{M2}/\text{RM} )</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(0)</td>
<td>I(0)</td>
</tr>
<tr>
<td>Money (M1) Multiplier ( \text{MM1}=\text{M1}/\text{RM} )</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
</tr>
<tr>
<td>Quasi-Money ( \text{QM}=\text{M2}-\text{M1} ) Multiplier ( \text{MMQM}=\text{QM}/\text{RM} )</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(1)</td>
<td>I(0)</td>
<td>I(0)</td>
</tr>
</tbody>
</table>

Notes: 1. Lag length for Augmented Dickey-Fuller (ADF) tests are decided based on Schwartz Information Criterion (SIC). 2. Maximum Bandwidth for PP and KPSS test are decided based on Newey-West (1994). 3. All the tests are performed based on 5% significance level. 4. = without log

The results of unit root tests indicate that Consumer Price Index (CPI), Industrial Production Index (IPI), and Money (M2 or M1) are non-stationary variables and they all have unit root \( I(1) \). The rest of the two variables of the model, i.e., the real interest rate and the depreciation rate are stationary and are said to be \( I(0) \) variables. The results\(^5\) of the Johansen’s cointegration test indicate that all of the \( I(1) \) variables are cointegrated. Accordingly, an error correction term\(^6\) (EC(-1)) is incorporated in the model.

5. Cointegration Test

The finding that many macro time series may contain a unit root has spurred the development of the theory of non-stationary time series analysis. Engle and Granger (1987) pointed out that a linear combination of two or more non-stationary series may be stationary. If such a stationary linear combination exists,

\(^5\) The results are based on the assumption of a constant and a linear trend in the data. Schwartz Information Criterion (SIC) is used to decide the optimal lag length that makes all the residuals White Noise.

\(^6\) Usually, a lagged residual generated from the cointegrated variables.
the non-stationary time series are said to be cointegrated. The stationary linear combination is called the cointegrating equation and may be interpreted as a long-run equilibrium relationship among the variables. It has been shown (Table 1) that the log of price level (CPI), real income (IPI), and money (M1 or M2) are non-stationary or I(1) series.

Johansen’s (1988) cointegration test is used in the log-level forms of the price level, real income, and money. The results of the Johansen’s cointegration test, as reported in Table 2, show that the log of price level, real income, and money (M2

### Table 2: Results of Cointegration Test

**Part-I: [Series: Price, Money (M2) and Real Income]**

<table>
<thead>
<tr>
<th>Sample (adjusted): 1976:2 2003:2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included observations: 109 after adjusting endpoints</td>
</tr>
<tr>
<td>Trend assumption: Linear deterministic trend</td>
</tr>
<tr>
<td>Lags interval (in first differences): 1 to 4</td>
</tr>
</tbody>
</table>

Unrestricted Cointegration Rank Test

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigenvalue</th>
<th>Trace Statistic</th>
<th>5 Percent Critical Value</th>
<th>1 Percent Critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.169462</td>
<td>29.76251</td>
<td>29.68</td>
<td>35.65</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.080106</td>
<td>9.523211</td>
<td>15.41</td>
<td>20.04</td>
</tr>
<tr>
<td>At most 2</td>
<td>0.003865</td>
<td>0.422061</td>
<td>3.76</td>
<td>6.65</td>
</tr>
</tbody>
</table>

Trace test indicates 1 cointegrating equation at the 5% level
1 Cointegrating Equation(s):
   Log likelihood 690.2068

Normalized cointegrating coefficients (standard errors in parentheses)

<table>
<thead>
<tr>
<th>Price</th>
<th>M2</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.000000</td>
<td>-0.139696</td>
<td>-0.228215</td>
</tr>
<tr>
<td>(0.12735)</td>
<td>(0.43000)</td>
<td></td>
</tr>
</tbody>
</table>

**Part-II: [Series: Price, Money (M1) and Real Income]**

Unrestricted Cointegration Rank Test

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigenvalue</th>
<th>Trace Statistic</th>
<th>5 Percent Critical Value</th>
<th>1 Percent Critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>None **</td>
<td>0.203359</td>
<td>36.06639</td>
<td>29.68</td>
<td>35.65</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.086032</td>
<td>11.28505</td>
<td>15.41</td>
<td>20.04</td>
</tr>
<tr>
<td>At most 2</td>
<td>0.013481</td>
<td>1.479478</td>
<td>3.76</td>
<td>6.65</td>
</tr>
</tbody>
</table>

Trace test indicates 1 cointegrating equation at both 5% and 1% levels
1 Cointegrating Equation(s):
   Log likelihood 625.9730

Normalized cointegrating coefficients (standard errors in parentheses)

<table>
<thead>
<tr>
<th>Price</th>
<th>M1</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.000000</td>
<td>1.367655</td>
<td>-2.197190</td>
</tr>
<tr>
<td>(0.60218)</td>
<td>(1.64765)</td>
<td></td>
</tr>
</tbody>
</table>
or M1) are cointegrated with a unique cointegrating relation at 5% level indicating long-run equilibrium relationship among price, money and income.

6. Empirical Results

Estimated results of the ECM model are given in Table 3. Part-I of this table reports the cumulative coefficients of the explanatory variables and Part-II contains the estimated coefficients on the individual lag of money. The regression results as displayed in Part-I indicate that the sum of estimated coefficients on all of the explanatory variables appears with expected signs with the exception of the coefficient on the rate of depreciation. The coefficients on the rate of depreciation and lagged inflation are not statistically significant when money is denoted by M2. The coefficient on growth rate of nominal money supply and real GDP growth rate are statistically significant at least at 10% level regardless of the definition of money.

The positive sign on the coefficient of money, as expected from the monetarist model of inflation, implies that an increase in the money supply or an expansionary monetary policy will generate inflation. The monetarists’ policy ineffectiveness or neutrality of money proposition requires that the cumulative coefficient on money would be equal to one. A t-test on the cumulative coefficient of money suggests that the null hypothesis of unitary value is rejected at 1% level for both the definitions of money.

The calculated t-ratios are -4.18 and -7.40 for M2 and M1 respectively.

Therefore, the monetary model of inflation does not adequately explain the behavior of prices in Bangladesh where money is not completely neutral. This is because of the fact that the Bangladesh economy may have excess capacity where an expansionary monetary policy will increase employment and output with a moderate inflation.

In order to identify the lag structure of price responses to changes in the money stock, we need to examine the coefficient of money at individual lag. The results as reported in the second part of Table 3 indicate that the response of inflation to changes in the money stock at lag-4 is positive and statistically significant at 1% level for both measures of money. Therefore, an expansionary monetary policy at a point in time will generate inflation right after one year (4 quarters). The estimated value of Q-statistic shows that the residual of the model is White Noise indicating no serial correlation. As we are dealing with the time series data, the problem of heteroscedasticity is not an issue of concern. The White Heteroscedasticity test indicates that there is no heteroscedasticity in the model as
### Table 3: The Regression Results of ECM Model

\[ P_t = \beta_0 + \sum_{i=0}^{l_1} \beta_{m_{t-i}} + \sum_{i=0}^{l_x} \beta_{x_{t-i}} + \sum_{i=0}^{l_p} \beta_{p_{t-i}} + \sum_{i=0}^{l_r} \beta_{r_{t-i}} + \sum_{i=0}^{l_d} \beta_{d_{t-i}} + \beta_e EC(-1) + \epsilon_i \]

<table>
<thead>
<tr>
<th>Equation</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money is</td>
<td>Estimates of Cumulative Coefficient on</td>
</tr>
<tr>
<td>Money is</td>
<td>Equation</td>
</tr>
<tr>
<td>Money is</td>
<td>Statistics</td>
</tr>
</tbody>
</table>

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M2</td>
<td>-0.02*</td>
<td>0.29*</td>
<td>-0.05*</td>
<td>0.22</td>
<td>0.003***</td>
<td>-0.13</td>
<td>-0.20***</td>
</tr>
<tr>
<td></td>
<td>(-1.70)</td>
<td>(1.70)</td>
<td>(-1.84)</td>
<td>(1.52)</td>
<td>(2.38)</td>
<td>(-1.43)</td>
<td>(-3.62)</td>
</tr>
<tr>
<td>M1</td>
<td>-0.02**</td>
<td>0.26***</td>
<td>-0.04*</td>
<td>0.34***</td>
<td>0.004***</td>
<td>-0.22***</td>
<td>-0.07***</td>
</tr>
<tr>
<td></td>
<td>(-2.20)</td>
<td>(2.54)</td>
<td>(-1.66)</td>
<td>(2.78)</td>
<td>(3.65)</td>
<td>(-2.65)</td>
<td>(-2.59)</td>
</tr>
</tbody>
</table>

**Part-II: Estimates of Coefficients at Individual Lag of Money**

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Money is</td>
<td>Coefficients on Money at</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Money is</td>
<td>Equation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Money is</td>
<td>Statistics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>No lag</th>
<th>Lag 1</th>
<th>Lag 2</th>
<th>Lag 3</th>
<th>Lag 4</th>
<th>( R^2 )</th>
<th>DW</th>
</tr>
</thead>
<tbody>
<tr>
<td>M2</td>
<td>-0.05</td>
<td>0.02</td>
<td>0.03</td>
<td>0.08</td>
<td>0.21***</td>
<td>0.31</td>
<td>1.93</td>
</tr>
<tr>
<td></td>
<td>(-0.68)</td>
<td>(0.27)</td>
<td>(0.44)</td>
<td>(1.05)</td>
<td>(2.75)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1</td>
<td>-0.02</td>
<td>0.01</td>
<td>0.03</td>
<td>0.050.19***</td>
<td>0.30</td>
<td>2.03</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-0.41)</td>
<td>(0.16)</td>
<td>(0.59)</td>
<td>(1.16)</td>
<td>(4.25)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. *, **, and *** imply significant at 10%, 5% and 1% level respectively.
2. Figures in the parentheses are t-values.
3. DW and Q-statistic show that the residual of the model is White Noise indicating no autocorrelation.
4. In estimating ECM model, the maximum number of lag is set at 8 for each variable and it is reduced by one until the last lag become significant.

The adjusted R-square for both equations is around 30%, which is quite reasonable especially when we are using variables in their growth form. The CUSUM test is applied to check stability of the estimated equations. The output of the CUSUM test is reported in Figure 1 showing a reasonable stability in both of the equations as the plots of CUSUM lie within the two critical lines over the all time horizon.

---

8 The CUSUM test is based on the cumulative sum of the recursive residuals. The test finds parameter instability if the cumulative sum goes outside the area between the two critical lines.
7. Granger Causality Test

The concept of Granger Causality is introduced by Granger (1969) to see how much of the current value of ‘y’ can be explained by the past values of ‘y’ itself and the past values of other variable, say ‘x’. Consider the following equation:

$$y_t = \alpha_0 + \sum_{i=1}^{l} \alpha_i y_{t-i} + \sum_{i=1}^{l} \beta_i x_{t-i}$$  \hspace{1cm} (6)
If the coefficients on the lagged $x$'s (i.e., 's) are statistically significant then $y$ is said to be Granger Caused\(^9\) by $x$. In that case, $x$ helps in the prediction of $y$. In addition to the pair-wise Granger Causality test expressed by equation (6), a vector autoregressions (VARs) based Granger Causality test has also been performed. In this case, we test causality between $x$ and $y$ in presence of other variables. Results of pair-wise Granger Causality tests and the VARs based Granger Causality tests are reported in Table 3 and 4 respectively.

**Table 4: Pair-wise Granger Causality Tests**

**Part-I: Pair-wise Granger Causality Tests when Money is M2**

<table>
<thead>
<tr>
<th>Null Hypothesis:</th>
<th>Obs</th>
<th>F-Statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>INF does not Granger Cause GRM2</td>
<td>109</td>
<td>1.05</td>
<td>0.39</td>
</tr>
<tr>
<td>GRM2 does not Granger Cause INF</td>
<td>6.35</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>INF does not Granger Cause GRY</td>
<td>109</td>
<td>0.97</td>
<td>0.43</td>
</tr>
<tr>
<td>GRY does not Granger Cause INF</td>
<td>2.47</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>R does not Granger Cause INF</td>
<td>108</td>
<td>2.31</td>
<td>0.06</td>
</tr>
<tr>
<td>INF does not Granger Cause R</td>
<td>1322.25</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>DEP does not Granger Cause INF</td>
<td>109</td>
<td>1.24</td>
<td>0.30</td>
</tr>
<tr>
<td>INF does not Granger Cause DEP</td>
<td>0.63</td>
<td>0.64</td>
<td></td>
</tr>
</tbody>
</table>

**Part-II: Pair-wise Granger Causality Tests when Money is M1**

<table>
<thead>
<tr>
<th>Null Hypothesis:</th>
<th>Obs</th>
<th>F-Statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>INF does not Granger Cause GRY</td>
<td>109</td>
<td>0.97</td>
<td>0.43</td>
</tr>
<tr>
<td>GRY does not Granger Cause INF</td>
<td>2.47</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>R does not Granger Cause INF</td>
<td>108</td>
<td>2.31</td>
<td>0.06</td>
</tr>
<tr>
<td>INF does not Granger Cause R</td>
<td>1322.25</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>DEP does not Granger Cause INF</td>
<td>109</td>
<td>1.24</td>
<td>0.30</td>
</tr>
<tr>
<td>INF does not Granger Cause DEP</td>
<td>0.63</td>
<td>0.64</td>
<td></td>
</tr>
<tr>
<td>GRM1 does not Granger Cause INF</td>
<td>109</td>
<td>4.76</td>
<td>0.00</td>
</tr>
<tr>
<td>INF does not Granger Cause GRM1</td>
<td>1.27</td>
<td>0.29</td>
<td></td>
</tr>
</tbody>
</table>

\(^9\) It is important to note that the statement “$x$ Granger causes $y$” does not imply that $y$ is the effect or the result of $x$. Granger causality measures precedence and information content but does not by itself indicate causality in the more common use of the term.
### Table 5: VAR Based Granger Causality/Block Exogeneity Wald Tests

#### Part-I:
VAR Pair-wise Granger Causality/Block Exogeneity Wald Tests when Money is M2
Sample: 1974:1 2003:4  
Included observations: 110  
Dependent variable: INF

<table>
<thead>
<tr>
<th>Exclude</th>
<th>Chi-sq</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRM2</td>
<td>8.56</td>
<td>2</td>
<td>0.01</td>
</tr>
<tr>
<td>GRY</td>
<td>15.79</td>
<td>2</td>
<td>0.00</td>
</tr>
<tr>
<td>R</td>
<td>3.72</td>
<td>2</td>
<td>0.16</td>
</tr>
<tr>
<td>DEP</td>
<td>4.09</td>
<td>2</td>
<td>0.13</td>
</tr>
<tr>
<td>All</td>
<td>27.82</td>
<td>8</td>
<td>0.00</td>
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</tbody>
</table>

Dependent variable: GRM2

<table>
<thead>
<tr>
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<th>Chi-sq</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>INF</td>
<td>5.80</td>
<td>2</td>
<td>0.06</td>
</tr>
<tr>
<td>GRY</td>
<td>13.08</td>
<td>2</td>
<td>0.00</td>
</tr>
<tr>
<td>R</td>
<td>4.10</td>
<td>2</td>
<td>0.13</td>
</tr>
<tr>
<td>DEP</td>
<td>11.24</td>
<td>2</td>
<td>0.00</td>
</tr>
<tr>
<td>All</td>
<td>42.45</td>
<td>8</td>
<td>0.00</td>
</tr>
</tbody>
</table>

#### Part-II:
VAR Pairwise Granger Causality/Block Exogeneity Wald Tests when Money is M1
Sample: 1974:1 2003:4  
Included observations: 108  
Dependent variable: INF

<table>
<thead>
<tr>
<th>Exclude</th>
<th>Chi-sq</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRM1</td>
<td>15.40</td>
<td>4</td>
<td>0.00</td>
</tr>
<tr>
<td>GRY</td>
<td>5.52</td>
<td>4</td>
<td>0.24</td>
</tr>
<tr>
<td>R</td>
<td>10.19</td>
<td>4</td>
<td>0.04</td>
</tr>
<tr>
<td>DEP</td>
<td>2.01</td>
<td>16</td>
<td>0.73</td>
</tr>
<tr>
<td>All</td>
<td>41.93</td>
<td>0.24</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Dependent variable: GRM1

<table>
<thead>
<tr>
<th>Exclude</th>
<th>Chi-sq</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>INF</td>
<td>1.90</td>
<td>4</td>
<td>0.75</td>
</tr>
<tr>
<td>GRY</td>
<td>2.42</td>
<td>4</td>
<td>0.66</td>
</tr>
<tr>
<td>R</td>
<td>2.65</td>
<td>4</td>
<td>0.62</td>
</tr>
<tr>
<td>DEP</td>
<td>1.31</td>
<td>4</td>
<td>0.86</td>
</tr>
<tr>
<td>All</td>
<td>10.46</td>
<td>16</td>
<td>0.84</td>
</tr>
</tbody>
</table>
The results as depicted in Table 4 indicate that the null hypothesis of money growth (M2 or M1) does not Granger Cause inflation is rejected at 1% level where the null of inflation does not Granger Cause money growth can not be rejected. This means the causality between money growth and inflation runs from money to inflation not the other way round implying that money growth is an important factor in predicting future inflation where inflation is not helpful in the prediction of money growth.

The causality between real income growth and inflation also runs from income growth to inflation (one-way causality). VAR based Granger Causality (Table 5) tests also produce similar results regarding the causality between money growth and inflation or real income growth and inflation. The results of the Granger Causality tests, however, confirm that there is a two-way causality between inflation and real interest rates. Therefore, money and real income growth and real interest rate are important in predicting future inflation in Bangladesh.

8. Behavior of Money Multiplier

Money multiplier plays a very important role in establishing monetary authority’s precise control over money supply. Because monetary authority has precise control over monetary base, currency in circulation plus total reserves in the banking system, and money supply is a multiple (multiplier) of monetary base. Various factors could affect the magnitude of money multiplier. An increase in any of these ratios will reduce the magnitude of money multiplier. Some other factors, such as market interest rates and expected deposit outflows could affect money multiplier indirectly. An increase in the market interest rate will reduce excess reserve deposit ratio and hence increase money multiplier. On the other hand, an increase in the expected outflow of deposit will increase excess reserve deposit ratio and hence reduce money multiplier. The behavior of money multiplier in Bangladesh could be well understood from the graphical representation of both M1 and M2 multiplier as demonstrated in Figures 2, 3, and 4.

Figure-2 contains historical data plot of both M1 and M2 multipliers during 1974Q1-2003Q4 indicating an upward trend in M2 multiplier and an opposite, i.e., downward trend in M1 multiplier. This is because of an explosive growth in

---

10 Directly, such as changes in the required reserve ratio, changes in the currency deposit ratio, and the changes in the excess reserve deposit ratio.
quasi-money\textsuperscript{11} or time deposits, the difference between M2 and M1, as depicted in Figure-3 where the quasi-money as a ratio of reserve money is showing a strong long-run upward trend with some short-run fluctuations. Unit-root tests, as reported in Table-1, indicate that both M2 and quasi-money multiplier are trend stationary whereas M1 multiplier is a difference stationary or unit-root process.

\textbf{Figure 2: Data Plot of Money Multiplier}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure2.png}
\caption{Data Plot of Money Multiplier}
\end{figure}

\textbf{Figure 3: Quasi-Money as a Ratio of Reserve Money}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure3.png}
\caption{Quasi-Money as a Ratio of Reserve Money}
\end{figure}

\textsuperscript{11} For Bangladesh, major component of quasi-money is time deposits.
Some summary statistics on M1 and M2 multipliers during 1974Q1-2003Q4 are presented in Figure-4 with mean and standard deviation of 3.76 and 0.50 respectively for M2 multiplier and 1.36 and 0.28 respectively for M1 multiplier. Normality test, as shown by Jarque-Bera test statistic, indicates that M2 multiplier is relatively well behaved and normally distributed while the null of normal distribution for M1 multiplier is strongly rejected.

**Figure 4: Histogram and Other Descriptive Statistics of Money Multiplier**

- **M2 Multiplier**
  - Mean: 3.76
  - Median: 3.75
  - Maximum: 4.84
  - Minimum: 2.66
  - Std. Dev.: 0.50
  - Skewness: 0.06
  - Kurtosis: 2.12
  - Jarque-Bera: 3.92
  - Probability: 0.14

- **M1 Multiplier**
  - Mean: 1.36
  - Median: 1.25
  - Maximum: 1.86
  - Minimum: 0.96
  - Std. Dev.: 0.28
  - Skewness: 0.21
  - Kurtosis: 1.49
  - Jarque-Bera: 12.00
  - Probability: 0.002
9. **Summary and Conclusion**

The study empirically investigates the causes of inflation in Bangladesh with a special focus in identifying the time lag of price responses to changes in the money stock and analyzing the behavior of money multiplier. In order to detect factors affecting inflation and to determine the time lag of price responses to changes in the money stock in Bangladesh, this study attempts to explain inflation from the monetarist point of view.

Estimated results of the ECM model indicate that the growth of money supply and real income are two important factors in explaining inflation. The positive and statistically significant response of inflation to changes in the money stocks shows up after 4 quarters. This is in line with the monetarists’ approach to inflation. The cumulative response of inflation over 4-quarters to changes in the money stock is positive and significantly different from zero. However, the cumulative response of inflation to changes in the money stocks is far less than one i.e., 0.29 and 0.26 for M2 and M1 growth respectively indicating non-neutrality of money in Bangladesh. This has very interesting implication for Bangladesh economy implying presence of excess capacity where expansionary monetary policy will generate higher employment and output with moderate inflation. The results also confirm that real income growth and real interest are two other important factors in explaining inflation in Bangladesh.

The Granger Causality tests indicate that the causality between money growth and inflation runs only from money to inflation. The causality between real income growth and inflation also runs from income to inflation. These findings imply that money and income growth are important factors in predicting future inflation but inflation is not helpful in predicting money or income growth. The results of the Johansen’s cointegration tests show that price level, real income, and money are cointegrated with a single cointegrating relation indicating long-run equilibrium relationship among them. Long-run data plot for M1 and M2 multiplier indicates that M1 multiplier is declining where M2 multiplier is increasing with a strong contribution from time deposits.
Bibliography


সূচনা
বাংলাদেশ কৃষি প্রধান দেশ। এখনও ২৩ ভাগ জিডিপি কৃষি হতে আসে। দেশের মোট শ্রমজীবি শতকরা ৬২.৩ ভাগ কৃষি খাদে নিয়োজিত (বিবিএস লেফার ফোরস সার্ভিস, ১৯৯৯-২০০০)। দেশের মোট রপ্তানীতে কৃষি জাত পানের (কৌচারা, পাতলার প্ল্যান্ট) অবদান ৫.১০ ভাগ। খাদ্য শস্য উৎপাদন ব্যবস্থায় গত কয়েক বছর ধরে একটি উর্ধ্বমুখী ধারা বিলম্বিত রয়েছে। পরপর কয়েক বছর ফসলের ব্যবস্থার ফলন হওয়ায় খাদ্য শস্য উৎপাদন একটি মৌসুমী মাত্রায় পৌঁছেছে। অথচ এই কৃষি খাদে এখনও ভূজি যোগানের অভাব রয়েছে। বাংলাদেশের ব্যাংকিং ব্যবস্থা দেশী বিদেশী ৪৯টি ব্যাংক কাজ করলেও কৃষির নায়া বুকপূর্ণ খাদে মাত্র ৫টি ব্যাংক (বিকেবি, রাকাব, সোনালী, জনতা ও অগ্রী) অর্থায়ন করে। এর মধ্যে বিকেবি ও রাকাবই মোট অর্থায়নের ৬০-৭০% (বছরের ভেতরে তারতম্য হতে পারে) করে থাকে। বাংলাবাংলা ৩০-৪০% সোনালী, জনতা ও অগ্রী ব্যাংক করে থাকে। সেদিকে তে জাতীয় অর্থনীতিতে বাংলাদেশ কৃষি ব্যাংকের ভূমিকা অন্যতম। অথচ এ নিয়ে খুব বেশি একটি মূল্যায়নপত্তা প্রকাশিত হয়েছে বলে জানা নেই। তাই প্রয়োজন অবশ্যই হলো বাংলাদেশ কৃষি ব্যাংকের কার্যক্রম নিয়ন্ত্রণ আলোচনার। বিশেষতঃ ১৯৯৮ সালে দেশের ভূয়বহ বন্যার পর কৃষি পুনর্বাসন কর্মসূচীতে কৃষির ব্যাংক ব্যাঙ্কক কৃষি খাদ কার্যক্রম গ্রহণ করেছিল। সাংসদ দশ মাসের জাতীয় প্রাকৃতিক বিপর্যয় তথ্য ভূয়বহ বন্যার পর কৃষি পুনর্বাসন কর্মসূচীতে কৃষি ব্যাঙ্কের কৃষি খাদ কার্যক্রম গ্রহণ করেছে। এদিকে তে জাতীয় অর্থনীতিতে বাংলাদেশ কৃষি ব্যাংকের ভূমিকা বিশেষ্যিত হওয়ার প্রয়োজন।

সামাজিক অর্থনীতিক গতিবিদ্যা
প্রবৃত্তি ৩ বাংলাদেশ পরিসংখ্যান ব্যবস্থার সামাজিক প্রাকলন অনুমানী ২০০৩-২০০৪ অর্ধ বছরে জিডিপি প্রবৃত্তি দীর্ঘায়ে ৫.৫২ শতাংশ। উল্লেখ্য, মধ্যমায়ান্ত্র সামাজিক অর্থনীতিক কাঠামোতে আলোচনা অর্থ নিয়োজন করা যেতে পারে।

* উপ-মহাবাণিজ্য, বাংলাদেশ কৃষি ব্যাংক
বছরে প্রকৃত জিজিপির ব্রুদ্ধির হার প্রত্যেক সালে হয়ে থাকে ৫.৫ শতাংশ এই কাঠামোর প্রকেপন অনুসারী বর্তমান ২০০৪-০৫ অর্থ বছরে জিজিপির ব্রুদ্ধির হার ৬.২ শতাংশ এবং ২০০৫-০৬ অর্থ বছরে ৬.৫ শতাংশ উন্নীত হবে বলে আশা করা হয়েছে। জিজিপির উচ্চতর ব্রুদ্ধির অর্জন দেশে বিনিয়োগ প্রদানের উপর বললাহু নির্ভরশীল। এ কারণে মধ্যমাঙ্কী সামাজিক অর্থনীতিক কাঠামোতে ২০০৫-০৬ অর্থ বছরের জন্য প্রকৃতি জিজিপির ব্রুদ্ধি অর্জন করতে হলে জিজিপির শতকরা হারে ২৬ শতাংশ বিনিয়োগ প্রাপ্ত হবে মোটে প্রকেপন করা হয়েছে।

২০০১-২০০২ অর্থ বছরের অর্ধম শুরুর পর্যন্ত কাঠামো ২০০২-০৩ অর্থ বছরে স্থির মূল্যাঙ্কন জিজিপির ব্রুদ্ধির হার দারুণ হয় ৫.২৬ শতাংশ এবং জাতীয় সংসদ ও বিনিয়োগ হার দারুণ যথাক্রমে জিজিপির ২৪.৪৫ শতাংশ এবং ২৩.৪১ শতাংশ। রাজনৈতিক অস্থিরতার নানা বিষয়ে অভিযোজন প্রতিকূলতা সত্বেও এই হার অর্থনীতি লোকসংখ্যার পরিবর্তন হারে উৎপাদন বৃদ্ধি পাওয়া যায় ২০০৩-০৪ অর্থ বছরে জিজিপির ব্রুদ্ধির হার ৫.৫২ শতাংশ এবং জাতীয় সংসদ ও বিনিয়োগ হার যথাক্রমে জিজিপির ২৪.৪৯ শতাংশ ও ২৩.৫৮ শতাংশ দারুণ হবে প্রাপ্ত হয়েছে।

লেখিকা-০১ ও সার্ধ-০১ থেকে প্রচণ্ড বে, দেশে মাধাপিচু জিজিপি ও জাতীয় আয় তম শতাংশে বৃদ্ধি পাচ্ছে। ২০০৩-০৪ অর্থ বছরে বিশিষ্ট ভারীতে মূল্যাঙ্কন মাধাপিচু জাতীয় আয় বাড়ানো হয়েছে ২৫,৯৪৪ টাকা যা ২০০২-০৩ অর্থ বছরের মাধাপিচু জাতীয় আয় হতে ৯.১৩ শতাংশ বেশী। মাধাপিচু জিজিপি এ সাময়িক বৃদ্ধি পেয়েছে ৯.১৮ শতাংশ। এই প্রথম মাধাপিচু জিজিপি ও জাতীয় আয় যোগম চরমত মার্কিন ডলার ছাড়িয়ে পেয়েছে। উল্লেখ্য, মার্কিন ডলারের হিসেবে ২০০৩-০৪ অর্থ বছরে মাধাপিচু জাতীয় আয় ৪৪৪ মার্কিন ডলার। ১৯৯৯-২০০০ থেকে ২০০২-০৩ অর্থ বছর পর্যন্ত বিশিষ্ট ভারীতে মূল্যাঙ্কন মূল মাধাপিচু জিজিপি মূল জাতীয় আয় (জিজিপিআই) টাকায় ও মার্কিন ডলারে সার্ধ-০১ এ দেখানো হয়েছে।

লেখিকা-১৫ ভালবাস ভারীতে মূল্যাঙ্কন জিজিপি, জিজিপিআই, মাধাপিচু জিজিপি ও মাধাপিচু জিজিপিআই

![Bar Chart Image]

দেখুন: বাংলাদেশ পরিবর্তন ক্রমে।
দেশের সম্প্রতিক চাষএর কারণে তেলুঁতুলের বায়ুমণ্ডলীয় পরিবর্তন অর্থনীতিতে বাংলাদেশ কৃষি ব্যাংকের ভূমিকা

সংক্ষেপ

১৯৯৫-৯৬ অর্থ বছরের দেশজ সংখ্যা ও জাতীয় সংখ্যা ছিল যথাক্রমে ১৪.৯০ শতাংশ ও ২০.১৭ শতাংশ। ২০০২-০৩ অর্থ বছর পর্যন্ত দেশজ সংখ্যা ও জাতীয় সংখ্যা ক্রমশঃ বৃদ্ধি পেয়ে দাঁড়ায় যথাক্রমে জিজিপির ১৮.২১ শতাংশ ও ২৪.৪৫ শতাংশ। সামরিক প্রাক্কলনের হিসাবে দেখা যায় যে, ২০০৩-০৪ অর্থ বছরে দেশজ সংখ্যা ও জাতীয় সংখ্যার হার যথাক্রমে জিজিপির ১৮.২৭ শতাংশ ও ২৪.৯৯ শতাংশ দাঁড়ায়।

লেখচিত্র ২: জিজিপি সংখ্যার শতকরা হার

উৎস: বাংলাদেশ পরিসংখ্যান বুঝা।

বিবিবিয়োগ

১৯৯৫-৯৬ অর্থ বছরের মোট বিবিয়োগের হার ছিল জিজিপির ১৯.১৯ শতাংশ। এর মধ্যে সরকারি ও বেসরকারী খাতের বিবিয়োগের হার ছিল যথাক্রমে ৬.৪২ শতাংশ ও ১৩.৫৮ শতাংশ। ১৯৯৫-৯৬ অর্থ বছর হতে জাতীয় বিবিয়োগ হার ক্রমশঃ বৃদ্ধি পেয়ে ২০০২-০৩ অর্থ বছরে জিজিপির ২৩.৪১ শতাংশ উন্নীত হয়। এরমধ্যে সরকারি ও বেসরকারী খাতের অবদান ছিল যথাক্রমে ৬.২০ শতাংশ ও ১৭.২১ শতাংশ। জাতীয় অর্থনীতিতে বেসরকারীমূলী সংস্থার পরিচালিত হওয়ায় বৈদেশিক প্রত্যেক বিবিয়োগ সহ স্থানীয় অধ্যায়ন বৃদ্ধি পেয়েছে এবং বেসরকারী খাতে বিবিয়োগ ক্রমশঃ বৃদ্ধি পাচ্ছে। সামরিক প্রাক্কলন অনুযায়ী ২০০৩-২০০৪ অর্থ বছরে জাতীয় বিবিয়োগ হার ক্রমশঃ বৃদ্ধি পেয়ে এ মাসকলার সর্বোচ্চ হারে ২৩.৫৮ শতাংশ উন্নীত হয়েছে এবং এতে সরকারী ও বেসরকারী খাতের অবদান যথাক্রমে ৬.১২ শতাংশ ও ১৭.৪৭ শতাংশ হবে অনুমিত হচ্ছে।

গবেষণার বিবিয়োগ হল দেশজ উৎপাদনের শতকরা হারে সামান্য হারে পৌছালে নির্মূলটি সরকারী ব্যাংক বিদ্যমান। অনুরূপভাবে বাণিজ্যিক মানুষে ক্রমাগত বিবিয়োগ বেড়ে চলছে। নক্সেই এর দশকের শুরুতে মোট বিবিয়োগ বৃদ্ধিকেত
অবদান ছিল প্রায় ৬০ শতাংশ যা ২০০৩-০৪ অর্থ বছরে দাঁড়িয়েছে ৭৪ শতাংশ। ১৯৯৫-৯৬ থেকে ২০০৩-২০০৪ অর্থ বছর পর্যন্ত জিডিপির বিনিয়োগের শতকরা হার সার্যনী-০৩ ও লেখচিত্র ০৩ এ প্রদর্শিত হয়েছে।

মূল দেশজ উৎপাদ সঞ্চয় ও বিনিয়োগের গুরুত্ব অপরিসীম। উল্লেখ্য, জিডিপির প্রবৃদ্ধি অনেকাংশ নির্ভর করে পুর্বরের নির্বিশুদ্ধ ও পুর্বর ব্যবসায়িক দক্ষতার উপর। এ কারণে জিডিপির শতকরা হার সঞ্চয় ও বিনিয়োগ গুরুত্বপূর্ণ নির্দেশক।

আর্থিক বাজার ব্যবসায়ন

আর্থিক বাজারের মূলত ব্যাংক ও অন্যান্য আর্থিক প্রতিষ্ঠান এবং পুরো বাজারের নিয়ে গঠিত। বাংলাদেশের আর্থিক বাজারের একটি সংক্ষিপ্ত চিত্র নিয়ে (সার্যনী-৪) দেয়া হলো।

ব্যাংক ও অন্যান্য আর্থিক প্রতিষ্ঠান সমূহ

ব্যাংক ও আর্থিক প্রতিষ্ঠানসমূহ অর্থনীতিতে গতি সহায়কের মাধ্যমে তাকে স্থল রাখে। ব্যাংকগুলো সংগঠিত আর্থনীতিক উৎপাদনমূল্য বিনিয়োগের রূপান্তর করে আর্থ-সামাজিক উন্নয়নে গুরুত্বপূর্ণ ভূমিকা পালন করে আসছে। বাজার অর্থনীতি ও বিনিয়োগের প্রেক্ষাপটে সুষ্ঠু ও সংহতভাবে অতি দ্রুতগতি আর্থিক মধ্যস্থতায়নের (Intermediation) জন্য ব্যাংক ও আর্থিক প্রতিষ্ঠান সমূহ উদ্দেশ্যোনিতে সম্মুখীন হচ্ছে।
ব্যাংকিং থাক

বাংলাদেশের ব্যাংকিং থাকের চার ধরনের তফসিলী ব্যাংকে অন্তর্ভুক্ত রয়েছে। এগুলির ২০০৩-২০০৪ পর্যন্ত প্রায় ৩০৬ ধরনের অন্যান্য বাংলাদেশে মোট ৪৯টি তফসিল ব্যাংক ৬২৩টি শাখার মাধ্যমে তাদের কর্মকাণ্ড পরিচালনা করছে। এসব ব্যাংকের মধ্যে রাষ্ট্রদায়ে থাকে ৪টি বাণিজ্যিক ব্যাংক ও ৫টি বিশেষায়িত ব্যাংক, ৩০টি স্থানীয় বেসরকারী বাণিজ্যিক ব্যাংক এবং ১০টি বিদেশী বাণিজ্যিক ব্যাংকে অন্তর্ভুক্ত আছে। দেশে স্থানীয় বেসরকারী বাণিজ্যিক ব্যাংকের মধ্যে ৫টি এবং বিদেশী ব্যাংকের মধ্যে ১টিতে মোট ৬টি ইসলামী ব্যাংক রয়েছে। বাংলাদেশ পরিচালিত তফসিলী ব্যাংকে সমুদ্রের ৩৬৯৯টি শাখা (মোট ব্যাংক শাখার ৫৪.৩৭% মফশুম এবং প্রাণাঙ্ক অবস্থিত। মোট ব্যাংক শাখার মধ্যে রাষ্ট্রদায়ে বাণিজ্যিক ব্যাংকের শাখা ৩৩৯টি, বেসরকারী ব্যাংকের শাখা ১৪৮টি, বিদেশী ব্যাংকের শাখা ৩৪টি এবং বিশেষায়িত ব্যাংকের শাখা ১২১টি। এছাড়াও বাংলাদেশ ১টি জাতীয় সমবায় ব্যাংক, ১টি আন্সার ভিত্তিক ব্যাংক, ১টি কর্মসংস্থান ব্যাংক এবং ১টি গ্রামীণ ব্যাংক রয়েছে। ২০০৩ সালের শেষে বাংলাদেশের ব্যাংকের ব্যবস্থার অবকাঠামো ব্যাংকের ধরণ অনুসারে নিন (সারণী-০৫) এ উপস্থাপন করা হলো।

পোষণ ৫ ৫ ২০০৩ এর শেষে বাংলাদেশের ব্যাংক ব্যবস্থার অবকাঠামো

[চিত্র]

শাখার বিস্তার

মূলধন পর্যালোচনা, সম্ভবত জনগত মান, আয়-বায় অনুপাত প্রকৃতি বিভাগে বেসরকারী ব্যাংকে সমুহ ও বিদেশী ব্যাংকসমূহ তুলনামূলকভাবে ভাল অবস্থানে থাকলেও শাখার বিস্তার পর্যবেক্ষনে দেখা যায় যে, রাষ্ট্রদায়ে ও বিশেষায়িত ব্যাংকসমূহে সাধারণ জনগণের অধিকান্তর গ্রেপ্তাব্যমতা (access) রয়েছে। বিদেশী ব্যাংকে সমুদ্র লেন শাখা মফশুম এবং প্রাণাঙ্কে নেই। বেসরকারী ব্যাংকে সমুদ্রের মোট শাখার মধ্যে মোট ২৬ লক্ষ মফশুম/প্রাণাঙ্ক অবস্থিত। পর্যবেক্ষনে সরকারী ব্যাংকে সমুদ্রের মোট শাখার প্রায় ৬৩ শতাংশ এবং বিশেষায়িত ব্যাংক সমুদ্রের মোট শাখার ৮৯ শতাংশ মফশুম/প্রাণাঙ্কে অবস্থিত।
আমান্ত ও খানের পরিমাণ

জুলাই ২০০৩ হতে ফেব্রুয়ারী ২০০৪ পর্যন্ত আমান্ত ও খানের পরিমাণ পূর্বাভ্যাসের অর্থ বছরের একই সময়ের তুলনায় বৃদ্ধি পেয়েছে। এ সময়ে ব্যাংকসমূহের মোট আমান্ত পূর্বাভ্যাসের বছরের তুলনায় ৫৬.১১ বিলিয়ন টাকা (৫.৬২ শতাংশ) বৃদ্ধি পেয়ে ১১২৫.৫৮ বিলিয়ন টাকা দাড়িয়েছে। একই সময়ে ব্যাংকসমূহের মোট খানের বৃদ্ধিতেও পূর্বাভ্যাসের বছরের তুলনায় ৬৯.৭১ বিলিয়ন টাকা (৮.৩১ শতাংশ) বৃদ্ধি পেয়ে ৩০১৮৩ বিলিয়ন টাকা উঠেছে।

বাংলাদেশ কৃষি ব্যাঙ্কের কার্যক্রম

জনু ইতিহাস

১৯৫২ সালে তদনামিত পাকিস্তান সরকার কর্তৃক এফ্রিকালারাল ডেভেলপমেন্ট ফাইন্ডস কর্পোরেশন নামে একটি আর্থিক সংস্থা প্রতিষ্ঠিত হয়। এই সংস্থা কাজ শুরু করে। ১৯৫৭ সালে তদানিত সরকার এফ্রিকালারাল ব্যাংকের অব পাকিস্তান নামে আর একটি সংস্থা গড়ে দেয়।

পরবর্তীতে ১৯৫৮ সালেই এই দুই রাষ্ট্রীয় কৃষি সংস্থাকে একত্রিত করে এফ্রিকালারাল ডেভেলপমেন্ট ব্যাংকের অব পাকিস্তান নামে অভিহিত করা হয়। পরবর্তীতে ১৯৫৩ সালে রাষ্ট্রপতির ২৭ নং আদেশ বলে এই ব্যাংকের নামকরণ করা হয় বাংলাদেশ কৃষি ব্যাংক।

ব্যাংকের শাখার সংখ্যা

বাংলাদেশ কৃষি ব্যাংকের মোট শাখার সংখ্যা ৯৩১টি (১০ জুলাই'০৬ পর্যন্ত)। তথ্যমূলক শাখার শাখা ১৩০টি (১৪%) এবং গ্রামীণ শাখা ৮০১টি (৮৬%)। এ শাখাগুলোর ৪৮টি (৪%) জেলা সদরদপ্তর অবস্থিত, ৩০৩টি (৩৩%) উপজেলা সদরদপ্তর অবস্থিত এবং ৫৩৪টি (৬০%) ইউনিয়ন শাখা হিসাবে অবস্থিত। মাত্রগুলো ১৬টি (২%) সিটি কর্পোরেশন ও গৃহত্তুপূর্ণ শাখার অবস্থিত। উল্লেখ্য বাংলাদেশ কৃষি ব্যাংকে ৫টি কেন্দ্রীয় শাখা ও ১৪টি এডি (অথরা'মেলাফিলার ২ ফেব্রুয়ারি'৩১) শাখা রয়েছে।

ব্যাংকের ব্যবসায়িক কার্যক্রম

বাংলাদেশ কৃষি ব্যাংকের প্রধান ডিভিশন মজুদুর করণের মাধ্যমে একে লাভজনক প্রতিষ্ঠান পরিনত করার লক্ষ্য বিশেষ ও বর্তমানের বিভিন্ন কর্মকাণ্ডের পরিপূর্ণতার অর্জনের সাথে সাথে উপযুক্ত অবস্থায় আদিকালগুলি প্রসারিত করা হয়। ফলস্বরূপে ব্যাংকের সমস্ত কর্মকাণ্ডের গুনগত অর্জনের বৃদ্ধি পায়।

বাংলাদেশ কৃষি ব্যাঙ্কের বিষয় ও বর্তমানের কর্মকাণ্ডের মাধ্যমে ০৭ এ দেখানো হয়েছে।

ঔষধ বিতরণ কার্যক্রম

সামগ্রিক অর্থ বহনের ব্যাংক ঔষধ বিতরনের ক্ষেত্রে গুনগতমান নিশ্চিত করার লক্ষ্যে কর্মশীল ঔষধ বিতরন নীতিমালা অনুসরণ করা হয়।

* কৃষির প্রতিটি খাদ্যের সৃষ্টি উদ্যোগ ও বিকাশ নিয়ন্ত্রকের লক্ষ্যে ব্যাংক ঔষধ বিতরণ কর্মকাণ্ড গুরুত্বপূর্ণ করে ফেলতে সাহায্য করে সূচনা না রেখে কৃষি ও আমাদের সংস্থার সকল খাদ্য উৎপাদনের ঔষধ প্রস্তুতি নিয়ন্ত্রকের প্রদানে।
কৃষি বর্ধনকারী, আধুনিকতায়, বাণিজ্যিকতায় এবং গ্রামীণ জনগোষ্ঠীর জীবন যাতায় মনোনয়নার নক্ষত্র সজ্জাবদ্ধ ও গ্রামনিবিষ্ট বিবেচনায় ঋণ বিতরণের ক্ষেত্রে ৭টি খাতেকে অগ্রাধিকার প্রদান করা হয়েছে। খাত ৭টি হলো:

০১. শিক্ষা
০২. মোট
০৩. পশু সম্পদ
০৪. সেচ ও কৃষি ব্যবসায়িক শিল্প
০৫. চলমান ঋণ
০৬. দাতব্য বিমোচন ও ক্রিয়া ঋণ কমপ্লেট।

* বাংলাদেশ কৃষি ব্যাংকের খাত নির্দিষ্ট ঋণ বিতরনের চিত্র মার্গীঃ ০৮ এ দেখানো হলো।

শিক্ষা ঋণ

শিক্ষা ঋণ বাংলাদেশ কৃষি ব্যাংকের ঋণ বিতরনের অন্যতম অগ্রাধিকার গ্রাহী খাত। মোট ঋণ বিতরণ কমপ্লেটের ৬০% এ খাতের জন্য বরাদ রাখা হয়। ২০০৩-০৪ অর্থ বছরে এ খাতে ১০২৪.১৭ কোটি টাকা বিতরণ করা হয়েছে।

দানাদার ফসল ৪ খান, পাচ, কুটী, আলু, সরিয়া, তিল, সয়াবিন, সূর্যমূল, বিভিন্ন ডাল ইত্যাদি।

অর্থকরী ফসল ৪ চাঁ, পাট, কাঁচ, পানিবিন, সুপারী চাষ, কলা চাষ, নারিকেল বাগান, তুলা চাষ, ফুল চাষ ইত্যাদি।

শীতকালীন ফসল ৪ ফুলকপি, বাংলাকপি, সীম, মটরগো, বিভিন্ন শাক, বেজন, টমেটা, গাজর, মূল, তোরা, কুমড়া ইত্যাদি।

শির্কালীন ফসল ৪ শিশু, ছোটদেশ, কললা, পটল ইত্যাদি।

হটিকালচার ৪ নার্সারি বস্তান (ফলজাত, উপকারী রুকফুক, ফুল ও বাহরী গাছপালা, মসলা, সজ্জিত চারা ইত্যাদি উৎপাদন ও বাজারজাতকরণ)।

ফলচাষ (আম, কাঁঠাল, লিচু, পেঁপে, কলা, পৌঁছারা, আনারস, তমরুজ, লেবু ইত্যাদি উৎপাদন)।

মাশরম চাষ ও বাজারজাতকরণ।

রসুনী বাজার সমগ্র বাংলাদেশ বুটাস, ক্যাপসিকাম, ক্রুকলি, ফেজুলবুন ও অন্যান্য সজ্জি উৎপাদন ও বাজারজাতকরণ।

মসলা জাতীয় ফসল, পেঁঁচায়া, রসুন, আদা, হলুদ উৎপাদন ও বাজারজাতকরণ।

আমাদানী বিক্রম ফল, কললা, আংশ ইত্যাদি উৎপাদন।

চাঁ চাঁ বাংলাদেশের অন্যতম রসুনীয়মূলীয় কৃষি পশু। বাংলাদেশ কৃষি ব্যাংকে চাঁ খাতে অর্থনীতিকরী একক অর্থসাহিত্য প্রতিষ্ঠান। দেশের সর্বমোট ১৬০টি চাঁ বাগানের মধ্যে বাংলাদেশ কৃষি ব্যাংক একাই
১৩৫টি চা বাগানে অর্ধেক করে আসে। এ প্রথম নিবিড় শিল্পের সঙ্গে বর্তমানে পোষাক প্রায় ৭ লক্ষ জনগোষ্ঠী প্রতিষ্ঠ ও পরেক্ষেপ্তার নির্ভরশীল। বাংলাদেশ কৃষি ব্যাংক চা পাতা উৎপাদন কার্যক্রম চালু রাখার জন্য উদ্যোগ আরো এবং চা বাগানের সম্প্রসারণ, রক্ষনাবেক্ষণ, করাখানার আধুনিকীকরণের যাবতীয় উদ্যোগমূলক কাজের জন্য উদ্যোগ আরো প্রদান করে থাকে।

রাবার শাখার আমদানী বিকল্প পানি হিসাবে রাবার চাষে বাংলাদেশ কৃষি ব্যাংক প্রধান অর্ধেকনার ব্যাংক। বেসরকারী খাতে প্রতিষ্ঠিত রাবার বাগানসমূহ বাংলাদেশ কৃষি ব্যাংক এককভাবে অর্ধেক করে আসছে। বাংলাদেশ কৃষি ব্যাংক নিম্নবর্ধিত উপাদানে অর্থ প্রদান করে রাবার চাষে সহায়তা করে।

রাবার বাগান উদ্যোগ, রাবার উৎপাদন ও বিপণন।

রাবার প্রতিযোজন প্রবাদি তৈরী ও বাজারজাতকরণ প্রকল্প অর্থায়ন।

মতস্য এ বাংলাদেশের অর্থনৈতিক উন্নয়নে মতস্য একটি সম্ভাবিত খাত। আমরা চাহিদা পুরন, রহনীর মাধ্যমে বৈদেশিক মূল্য অর্জন ও দলিল জনগোষ্ঠী ব্যাংক কম্বিনেশনের সূচনা সৃষ্টি পর্যন্ত দারিদ্র বিমোচনের মাধ্যমে তাদের অর্থনৈতিক অবস্থার উন্নয়নে মতস্য খাতের অবদান উন্নয়ন।

এ খাতের সাথে সার্বকল্পনাকে প্রায় ১০ লক্ষ এবং খুনকালীন ১ কোটি ২০ লক্ষ মায়ে সম্পুর্ণ থেকে তাদের জীবিকা বিভাগ করে। আমাদের বৈদেশিক খাতের প্রায় ৬০ শতাংশ আসে মাছ থেকে। মাছের উৎপাদন বৃদ্ধির লক্ষ্য বিকেরি জনপ্রিয় থেকেই ঋণ বিতরণ করে আসছে। বাংলাদেশ কৃষি ব্যাংক ২০৩৩-৩৪ অর্থ বছর মতস্য চাষ খাতে ৭০.৮০ কোটি টাকা ঋণ বিতরণ করেছে। এ ঋণ প্রদানের উপাদান সমূহ নিম্নরূপঃ

মিঠা পানির মাছ

* বিদ্যমান পুকুরে মতস্য চাষ।
* মাছামাছি পুকুর পুনরঃ খনন করে মতস্য চাষ।
* নতুন পুকুর খনন করে মতস্য চাষ।

চিংড়ি চাষ

* সনাতন পন্থাতের চিংড়ি চাষ।
* উল্লাস পন্থাতে চিংড়ি চাষ।
* আধুনিকিতে পন্থাতে চিংড়ি চাষ।
* মিঠা পানিতে গলায় চিংড়ি চাষ।

হাঁড়িরি

* মিঠা পানির মতস্য পুলানি উৎপাদন।
* বাণিজ্যিকভাবে লাভজনক প্রযুক্তির চিংড়ি পুলানি উৎপাদন।

এছাড়া বাংলাদেশ কৃষি ব্যাংক মতস্য আহরণ, প্রতিযোজন করণ, সংরক্ষণ ও রহনীর জন্য প্রযোজনরীনী ঋণ প্রদান করে।

পট সম্পদ ৪ বাংলাদেশ কৃষি ভিত্তিক অর্থনৈতিক দলিলীকরণ কর্মসংস্থান এবং দলিল বিমোচনে পট সম্পদ খাত বর্তমানে অন্যতম উৎসই মাধ্যম হিসেবে বিবেচিত। সেপ্টেম্বর প্রায় ২৫ ভাগ
জনগণী সরাসরি এবং শতকরা প্রায় ৫০ ভাগ আংশিকভাবে প্রথম সমুদায়ের উপর নির্ভরশীল। সৈনিক ন্যায় অর্জনে প্রতিটি দ্বারা সম্প্রদায়ের নির্দেশিকায় উল্লেখযোগ্য।

সেচ ও কৃষি জীবনীতি পূর্বের পানি ও কূটপৃষ্ঠ উপকরণ হিসাবে বিবেচিত। কৃষি সেচ ব্যবস্থার সম্প্রসারণ তথা অন্যান্য সম্প্রদায়ের আশার যুক্ত ইতিমধ্যে উৎপাদন ব্যবস্থা পরিলক্ষিত হয়েছে। কৃষি উৎপাদনের জন্য অপরিবর্তনীয় এ মূলরূপ উপকরণটি কার্যকর এবং অর্থায়ন করা গেলে আরও অর্থনীতি সুলভ হয়। সেচ ব্যবস্থার সম্প্রসারণ বিকেন্দ্রিত পানি, গাছির নলকুপ, অগ্নিতের নলকুপ, হরতালিত নলকুপ, পদচালিত নলকুপ, রয়ের পানি ইত্যাদি সেচ যথাযথ এবং স্বাপনে কৃষি পরিযোজনা সহযোগী প্রদান করে থাকে।

কৃষি জীবনীতি নিয়ে কৃষি প্রধান দেশ হিসাবে বাংলাদেশ বিভিন্ন প্রকার ফলশীল এবং ফলমূল উল্লেখযোগ্য পরিমানে মনে। সমাজতান্ত্রিক হীমুগ্রীর খামার, দুধশীল ও মতস্থা খামারের ব্যবস্থার সম্প্রসারণ ঘটেছে। প্রক্রিয়াজাতকরণ করে মূলন সংযোগক পূর্বের এগুলো রূপান্তরের মধ্যে সূচনা রয়েছে। কৃষি ভিত্তিক শিক্ষাদাতা মধ্যে হীমুগ্রীর খামার, দুধ খামার, খামার প্রক্রিয়াজাতকরণ শিল্প, মতস্থা হিমায়তকরণ/প্রক্রিয়াজাতকরণ শিল্পে বাংলাদেশ কৃষি ব্যাংক অর্থায়ন করে থাকে।

হীমুগ্রীর খামার

* হীমুগ্রীর ঢাকা খামার।
* হীমুগ্রীর নয়ারিয়া খামার।
* হীমুগ্রীর ভারতী।
* হীমুগ্রীর খামার সংশ্লিষ্ট/নির্ভরশীল যে কোন প্রকল্প।

দুধ খামার

গাছি পানিরর মাধ্যমে দুধ উৎপাদন, দুধ সংগ্রহ দুধ প্রক্রিয়াজাতকরণ করে থাকে, মাখন, পান্টাইজড দুধ ইত্যাদি উৎপাদন ও বিপণন।

খামার প্রক্রিয়াজাতকরণ প্রকল্প

* ফসলজাত খাদ্য প্রস্তুত, প্রক্রিয়াজাতকরণ, সংরক্ষণ ও বাজারজাতকরণ প্রকল্প।
* ময়লা, পাপড়ি ও বিকৃতি, সেমাই, নুডলস, চিপস, চানাচুর, কন্ফেকশন, পেটেন্ট ফ্রেক্স, ফ্রেক্সাই, পশমকর ইত্যাদি জুস, জেলী, টমেটো-কেচুপ, সস, আচার ইত্যাদি।
* মসলা প্রক্রিয়াজাতকরণ।
* বিভিন্ন প্রকার ভেল মিল, ডাল মিল।
* ডিইইডিউডফল ক্যান্সিং, পার্কেজিং, সংরক্ষণ ও বাজারজাতকরণ।

চলমান

বাংলাদেশ কৃষি ব্যাংক বিভিন্ন কৃষিজাত পদ্ধ উৎপাদন, প্রক্রিয়াকরণ, সংরক্ষণ, বাজারজাতকরণ, রূপান্তরকরণ (পাকিস্তান-ইয়েরাসিস) তার সামগ্রিক ব্যবসা পরিচালনার জন্য যদি মেয়াদে সিসি/ওয়ার্কি ক্যাপিটাল হিসেবে চলমান যোগ প্রদান করে থাকে। কৃষি জাত পদ্ধ প্রক্রিয়াকরণ ও বাজারজাতকরণের
দারিদ্র্য বিমোচন ও ক্ষুদ্র ধন কম্পিউটা

বাংলাদেশে দারিদ্র্য পরিলক্ষিত যদিও কম্পিউটান্তরিত এখনও তা ব্যস্ত ও বিস্তৃত। জনসংখ্যার বিশাল অংশ জীবন ধ্বংসকে দারিদ্র্য সীমার মুখে জীবনধারণ করে এবং তাদের অধিকাংশই ধ্বংস বাস করে। দারিদ্র্য জ্ঞানীর জীবন ধ্বংসকে দারিদ্র্য সীমার উপরে উন্নীত করতে ক্ষুদ্র ধন কম্পিউটাত্মকভাবে দুষ্কর্মিকা পালন করে। "ক্ষুদ্র ধন" উক্তি সমদৃত পরিচিত হলেও এর সার্বজনীন কোন সংজ্ঞা এখনও নির্দিষ্ট হয়নি। সাধারণভাবে লক্ষ এবং পাঁচরা দারিদ্র্যের কোন প্রকার সহায়ক জানান্টে ছড়া ধন প্রদানকে ক্ষুদ্র ধন হিসাবে অভিহিত করা হয়। দারিদ্র্য বিমোচনে সরকারের বিভিন্ন কম্পিউটারার সহযোগ হিসাবে অবদান রাখার লক্ষ্যে সামনে রেখে বিকেবির ক্ষুদ্র ধন কম্পিউটাসমূহ গৃহীত হয়ে থাকে। কম্পিউটার সমূহ, আয় আয় যায় যা বলান তথা দারিদ্র্য বিমোচনের মাধ্যমে অর্থ-সামাজিক আর্থনীতি ক্ষুদ্র ধনের অবদান বিবেচনা করে বিকেবি নিজের কম্পিউটার সীমার পাশাপাশি স্থানীয় এবং অন্তর্জাতিক সংহিতার সাহায্যে দৌখ উদ্দেশ্যে অনেক ক্ষুদ্র ধন কম্পিউটার বানানো করে। দারিদ্র্য বিমোচন সরকারের বিভিন্ন কম্পিউটার সহযোগ হিসাবে অবদান রাখার লক্ষ্যে সামনে রেখে বিকেবির ক্ষুদ্র ধন কম্পিউটার সীমার গৃহীত হয়ে থাকে। দোষ ও অব্যবস্থান দারিদ্র্য জনগণের সকল অংশ বেয়ে ক্ষুদ্র ও প্রাক্কাজাতি, ক্ষুদ্রহীন প্রমিক, বক্তাটি মূর্ত কোষাত্তনায় বিক্ষিয়ের ক্ষুদ্র ধন কম্পিউটাতে অন্তর্বর্ত করার ব্যবস্থা রেখে বিকেবির ক্ষুদ্র ধন কম্পিউটার গৃহীত হয়। বিক্ষিক্ষা যায় প্রতিক্ষেত্রে ক্ষুদ্র সহযোগ নন তো ক্ষুদ্র ধন প্রাক্কাজাতি আয় উক্ত কমুকে নির্দিষ্ট হয়ে পরিবর্তনে অব্যবস্থান সহযোগীতার প্রদানের সুযোগ পাচ্ছে। ২০০৩-২০০৪ অর্থ বছরে বিকেবি এ খাতে ৬৮.১৬ কোটি টাকা বিনতন করেছে। বর্তমানে বিকেবির উদ্দেশ্যে ক্ষুদ্র ধন FY কম্পিউটাসমূহ হচ্ছে:

* ছাত্রন বিকাশ কম্পিউটার (জাতীয় কম্পিউটার)।
* পেশাদার আমন্ত্রণ কম্পিউটার।
* ক্ষুদ্রহীন ও প্রাক্কাজাতির ক্ষুদ্রহীন কম্পিউটার।
* শুধুমাত্র নিয়ন্ত্রণ বিকাশ কম্পিউটার।
* ক্ষুদ্রহীন শিক্ষা কম্পিউটার।
* ক্ষুদ্রহীন বিকাশ কম্পিউটার।
* ক্ষুদ্রহীন জীবন কম্পিউটার।
* ক্ষুদ্রহীন অর্থনীতি কম্পিউটার।
* ক্ষুদ্রহীন ও প্রাক্কাজাতির কম্পিউটার।
* ক্ষুদ্রহীন অর্থনীতি কম্পিউটার।

প্রস্তাবিত উদ্দেশ্যে যে, ক্ষুদ্র উদ্দেশ্য অধিকাংশ পরিচালিত বিভিন্ন কৃষিভিত্তিক খাদ্য প্রক্রিয়া দুক্ষিত মূলকের মধ্যে আরও সম্পাদনীয় অর্থজনিত উদ্দেশ্য তোলার প্রচারণা নিতীকাতের গুরুত্ব প্রাপ্ত রাখার জন্য বিকেবি ও ক্ষুদ্র উদ্দেশ্য অধিকাংশের মধ্যে সমূদ্রতা স্রাক সম্পাদন।
খণ্ড আদায়

খণ্ড আদায়ের ক্ষেত্রে গুরুত্বপূর্ণ পরিবর্তন এবং কর্মকর্তা-কর্মচারীদের মধ্যে প্রশংসনা সৃষ্টির লক্ষ্যে ব্যাংক কর্তৃপক্ষ ২০০১-০২ অর্থ বছরের এভিল মাসে (Miracle) কর্মসূচী ঘোষণা করে। “Miracle” এর অর্থ হচ্ছে “Maximum Incentive for Recovery of a Classified Loan Entirely。” এই কর্মসূচীর আওতায় শ্রেণীবদ্ধ খণ্ড সম্পূর্ণ আদায় হলে সংশ্লিষ্ট শাখার Bci-ul pV-1 সংশ্লিষ্ট কর্মচারী এর খণ্ডের বিপরীতে আদায়কৃত সুদের ১০% নগদে ইনসেন্টিভ পায়। এই ১০% এর ৭% পায় সংশ্লিষ্ট আদায়কৃত মাত্রকমিয়া। ব্যাংককৃতি ৩% শাখার অন্যান্য কর্মী অর্থাৎ পিপান হতে ব্যবস্থাপনা phjC পায়।

আরও স্পষ্ট করার জন্য একটি উদাহরণ দেয়া যেতে পারে। ধরা যাক, একজন শ্রেণীবদ্ধ ১০,০০০/- টাকা খণ্ড নিয়েছিলন। খণ্ডটি মেনে করার নীতিকে আদায় না হয় শ্রেণীবদ্ধ (সিএলএল) হয়ে পড়েছে। বাংলাদেশ ব্যাংকের সর্বশেষ সার্কুলার অনুমানী তিন লাখ পর্যন্ত খণ্ড কোন অবস্থায়ই সুদপ্রাপ্ত শীর্ষাতে থেকে পায় না। সে দিকের খণ্ডটির উপর ১০,০০০/- টাকা সুদরোপ হয় ২০,০০০/- টাকা হয়েছে। অর্থাৎ, আসল ১০,০০০/- টাকা এবং সুদ ১০,০০০/- টাকা।

এই খণ্ড সম্পূর্ণ আদায় হলে শাখার সংশ্লিষ্ট কর্মচারী ১০,০০০/- টাকা সুদের ১০% অর্থাৎ ১,০০০/- টাকা পান। এই ১,০০০/- টাকার ৭% অর্থাৎ ৭০০/- টাকা পাবন সংশ্লিষ্ট খণ্ড আদায়কৃত আর ব্যাংককৃতি ৩০০/- টাকা পাবন শাখার অন্যান্য সকল সহকর্মী। ব্যবস্থাপনা কর্তৃক এই নীতিমালা অর্থ মক্তাবাদের অনুমোদনক্রমে প্রণয়নের ফলে ব্যাংকের নীতিকেন্দ্রের আকারে পড়া শ্রেণীবদ্ধ খণ্ড (Classified loan) আদায়ের ব্যাপক সাধা পড়ে। ব্যাংকের সংশ্লিষ্ট মাত্রকমিয়া সেনাদের অতিরিক্ত সং পর্যন্ত উপার্জনের একটি বিরল সুযোগ লাভ করে। অনেক শাখার মাত্রকমিয়া এক লক্ষ টাকা হতে দেড় লক্ষ টাকা পর্যন্ত বাড়তি উপার্জন করে। এ হাতে যে শাখা সংশ্লিষ্ট অর্থ বছরে খণ্ডের ৫% শ্রেণীবদ্ধ খণ্ড হোস করতে পারে — এ শাখার ব্যবস্থাপক শাখার মোট ইনসেন্টিভ এর ০.৫০% ইনসেন্টিভ পায়।

যুগপূর্বকালীন এ নীতি প্রণয়নের ফলে ব্যাংকের বুদ্ধিমত্ত কর্মকর্তা-কর্মচারী খণ্ড আদায়ের সর্বপর্যন্ত প্রশংসা করে। ব্যাংকের সার্বিক শীর্ষ বৃদ্ধি পায়। কর্মকর্তা-কর্মচারীরা নিজ উদ্যোগে কাজ করতে থাকে।

এতে ব্যাংকের পরিস্থিতিগত কর্মক্ষেত্রে বজ্ঞাতা বহিলংশে বৃদ্ধি পেয়েছে। তাছাড়াও অর্থ শের শীর্ষ পরিচালনার কর্মক্ষেত্রে মূল্যায়ন করে প্রতি বিষয়কের ১ জন শ্রেষ্ঠ অধ্যাদেখান, প্রতি অধ্যাদেখার ৩ জন শ্রেষ্ঠ ব্যবস্থাপক এবং ৩ জন মাত্রকমিয়া সার্টিফিকেট প্রদানের মাধ্যমে শীর্ষকৃত দেখায় বিভিন্ন লাগো প্রবর্তন করা হয়েছে।

খণ্ড আদায়ের ক্ষেত্রে গুরুত্বপূর্ণ পরিবর্তনের মাধ্যমে শ্রেণীবদ্ধ খণ্ডের পরিমাণ হ্রাস এবং নতুন করে শ্রেণীকরণ রোপকার ২০০৩-০৪ অর্থ বছরে নির্বাচিত কেন্দ্রশাখাবান অমুষ্ট হয়।

* একটির শাখার শ্রেণীবদ্ধ খণ্ডের পরিমাণ খামসহ কমিয়ে সহনীয় পরিমাণে নিয়ে আসা। এ লক্ষে গ্রহিত হিসাবে একটির শাখার শ্রেণীবদ্ধ খণ্ডের ন্যূনতম ষোড়শাক্ত বছরের শ্রেণীবদ্ধ খণ্ডের স্থিরতা তুলনায় নূনতম ৫% হ্রাসকরণ।

* যে সমস্ত খণ্ড হিসাব আদায় না হলে অর্থ বছরে শেষে নতুন করে শ্রেণীকৃত খণ্ডের পরিনত হবে যে সমস্ত খণ্ড হিসাব সমূহকে শ্রেণীবদ্ধ খণ্ড হিসাবে (Would-be-Classified) চিহ্নিতকরে তা...
আমাদের সর্বকাল প্রচেষ্টা এই টিকার মধ্যে শ্রেণীকৃত ঋণের পরিমাণ বৃদ্ধি রোধ করা। শ্রেণীযোগ্য ঋণ ধরানা প্রবর্তন ও আমাদের অগ্রাধিকার প্রদানের ফলে ২০০৩-০৪ অর্থবছরে শ্রেণীকৃত ঋণের পরিমাণ ও হার উভয়ই ছাড়া পায়।

* অর্থবছরের শুরুতেই অর্থাংশ জুলাই মাসের প্রথমেই শ্রেণীকৃত ও শ্রেণীযোগ্য সকল ঋণ এই ধরনের তালিকা প্রকাশকরণ ও একদমই সকল প্রক্রিয়া মূলক কাজ সম্পন্ন করা।

* শ্রেণীকৃত ঋণ ও শ্রেণীযোগ্য ঋণ আদায়ের লক্ষ্যে আর্থিক জাতীয় জন্য অর্থবহুল প্রচেষ্টা এই পদক্ষেপের মধ্যে রয়েছে-তথ্য হালকাটা, মধুমোহন, নবাব মোহন, মধুকাম ইত্যাদি অন্তর্নিহিত পাড়াল। একটি দুর্বল শাখা গুলিকে সহায়তা প্রদান করার জন্য প্রধান কর্মচারী থেকে শতাধিক কর্মকর্তাকে এই সকল শাখায় সামাজিক নিয়োগ দান, উৎপন্ন নির্বাহীদের নিয়ে টাস্কফোর্স গঠন করে মাঠ পর্যায়ে প্রেরণ, প্রধান কর্মচারী থেকে শক্তিশালী মনিটরিং ব্যবস্থা প্রবর্তন, প্রধান নির্বাহী কর্তৃক প্রতাপ ও দূর্বল অঞ্চল সমূহের শাখা ব্যবস্থাপনা ও মাঠকৃত্তের সাথে অনুোপাদনমূলক (Motivational) মাধ্যমিক মাধ্যম, ১৬ দফা কর্মসূচী জাতীয় ইত্যাদি উন্মুক্ত। ২০০৩-২০০৪ অর্থ বছর সহ বিপর্য ও বছরের শাখা আদায়ের চাই সার্বী ১০ এ দেখানো হলো।

বর্তমান কৌশলবহুল অবলম্বনের ফলে ঋণ আদায়ের ক্ষেত্রে ওপরকার মান অর্জিত হয় এবং ব্যাক শ্রেণীকৃত ঋণের পরিমাণ হ্রাস ও অশ্রেণীকৃত ঋণের পরিমাণ পূর্ববর্তী বছরের তুলনায় উন্মুক্ত হারে বৃদ্ধি করতে সক্ষম হয় যা সার্বী ১১ এ দেখানো হলো।

- উপরোক্ত তথ্য বিশ্লেষণে দেখা যায় অশ্রেণীকৃত ঋণ বিষয়ে (Performing Asset) বিপর্য ৫ বছরে ৪৫% হার বৃদ্ধি পেয়ে ৫৯% এ উপনীত হয়েছে।

- অপরদিকে শ্রেণীকৃত ঋণ বিষয়ে (Non-Performing Asset) বিপর্য ৫ বছরে ৫৪% হার হ্রাস প্রাপ্ত হয়ে ৪১% এ উপনীত হয়েছে।

আমানত

ব্যাংকের নিজের তহবিল ভিত্তিক শক্তিশালী করণের লক্ষ্যে আমানত সংগঠনের উপর বিশেষ গুরুত্ব আরোপ করায় উজ্জ্বল বিপুল আমানত ছেড়ে দেওয়ার পরও আলোচ্য অর্থ বছরে ব্যাংকের আমানতের বিষয়ে সর্বশেষ অর্থ বছরের তুলনায় ৪৯৪.৭০ কোটি টাকা বৃদ্ধি পায়। নিম্ন বিপর্য ৫৫ বছরের আমানতের চির সার্বী ১২ এ দেখানো হলো।

- উপরোক্ত তথ্য প্রাঙ্গণায় দেখা যায় যে, ২০০৩-২০০৪ অর্থ বছরে ৪৯৪.৭০ কোটি টাকা আমানত অর্জিত হওয়া সত্ত্বেও আমানতের সুদ স্বর্গীয় পূর্ববর্তী বছরের তুলনায় ১৩.৬৮ কোটি টাকা হ্রাস প্রাপ্ত হয়েছে।

- কল অব ডিপোজিট পূর্ববর্তী বছরের ৬.৫০% থেকে আলোচ্য অর্থ বছরে হ্রাস প্রাপ্ত হয়ে ৫.৭০% এ উপনীত হয়েছে।
২০০৩-২০০৪ অর্থ বছর সহ বিগত ৫ বছরের আয় ও বায়ের চিত্ত সারণী ১৪ তে দেখানো হলো।

২০০৩-২০০৪ অর্থ বছরে অর্জিত আয় পরিবর্তন চিত্র যেখানে, মেট আয় বিগত বছরের তুলনায় ১০.০৩ কেটি টাকা-এব্রাস প্রাঙ্গণ হয়। উল্লেখ্য যে, ব্যাংকের আয়ের সিন্ধমাণী আইস ক্ষেত্রের উপর সুদ আয় হতে। কিন্তু সরকারী নির্দেশনায় ক্ষেত্রের উপর সুদ হার প্রথম দফায় ১২% হতে ১০% এবং দ্বিতীয় দফায় ১০% হতে ৮% এ বিষ্ণুী ক্ষেত্রে তা ক্ষেত্রের সুদ আয়ের উপর ঘনাধ্যক্ষ প্রাঙ্গণ ফেলেছে।

ফলাফলিত ক্ষেত্রের সুদ আয় বিগত বছরের তুলনায় ১৬.৯৭ কেটি টাকা-এব্রাস পায়। উল্লেখ্য যে, আলোচা অর্থ বছরে ক্ষেত্রের উপর সুদ আয় বায়ে ৪৩০.০০ কেটি টাকা প্রাঙ্গণ করা হয়েছিল। কিন্তু সুদের হার দুই দফায় এলাকা ক্ষেত্রে ক্রিয়া প্রাক্কলিত ক্ষেত্রের তুলনায় প্রকৃত সুদ আয় ৩৪৮.৩৫ কেটি টাকা হয়েছে অর্থ এক সুরের টাকা-এব্রাস প্রাঙ্গণ হয়েছে। ক্ষেত্রের সুদ হার অপরিবর্তিত খালেক ব্যাংকের লোকসানের পরিমাণ দুই অংশে আইন সন্দর্পের হয়েছে। ব্যাংকে তৈরিক কল্পনীয় ভূমি যুনাস্ত কর্মী যোগ্যতা প্রাঙ্গণের ফলে বিরাট অক্ষের non-performing asset কে performing asset এ পরিনত করা সম্ভব হয়েছে।

ব্যাংকের ক্রমাগত লোকসানকে খুঁড়াই ধারার বিধান করানো গেছে। কিন্তু লোকসানের পরিমাণ হাস করা সম্ভব হয়নি। খেলার নিয়মে সুদের হার হাস করে ৮% অর্জিত হয়। অর্থ ব্যাংকের কর্তা অর্থ খালেক ব্যাংকের কর্তা ৮%। বিশেষতঃ নিয়মের অন্তর্গত পাঁচ শ্রেণীকৃত ছত্র যেমন বিধিতে বাঙালিদের ব্যাংকের ধারা পরিশেধ করা হয়েছে। সেগুলো আসাম না হয়েছে ফলে কিছু অর্থ তৈরি করে।

ব্যাংকের পরিবর্তন হারের বায়ে (রেটিন, নিবন্ধন, নির্বাোত, বিনুিত, পানি খার ইত্যাদি) গড়ে পড়ে ৩% আইন। সুতরাং লোকসানের পরিমাণ কমানো অন্তর্ভুক্ত মূল্য হার পড়েছে। তথ্য থেকে মূল্য ব্যাংকের ৬০% এর বেশি ছুঁড়ব খাতে বিনিয়োগ করে যা বৃহস্পতিবৃহৎ খাত বলে বিচারিত। নানা প্রকৃতি দূর্ঘটনায় ফলে ক্রৃষিকরণের নিকটতা হতে সব সময় ছুঁড়ব আইনের সম্ভব হয় না। এরমানীক পথে সময়ে কার সময়ে ছুঁড়ব অন্য বিষয়ে মূল্য করে।

২০০৪-২০০৫ অর্থ বছরে বন্যার অবশেষ কিছু এরকার ক্ষেত্রে বান্ধব এরকার শুধুমাত্র এরকার তথ্য আইন এক বছর সময় অর্ধেক হয়েছে।

২০০৩-২০০৪ অর্থ বছরে ৪৪১.৭০ কেটি টাকা আমানত অর্জিত হওয়া সত্ত্বেও আমানতের সুবিধা পরিবর্তে বছরের তুলনায় ১৩.৬৮ কেটি টাকা-এব্রাস পেয়েছে।

২০০৩-২০০৪ অর্থ বছরে ৩০০.০০ কেটি টাকা রিফাইনার ছুঁড়ব করা সত্ত্বেও বাঙালিদের
ব্যাংক স্নার সুদ বায় ৭.৪২ কেটি চাকারাসে পেয়েছে।

উপরোক্ত কর্মকারের বিপরীতে অর্জনের ক্ষেত্রে ২০০৩-০৪ অর্থ বছরের লক্ষ্যীয় বৈশিষ্ট সমূহ নিম্নপদে উল্লিখিত:

- ব্যাংকের সকল পর্যায়ের কর্মকারা/ কর্মচারীগণের আত্মজ্ঞ ও স্বস্তীকৃত অশ্রাবণ।
- সম্পুর্ন মান সম্পদ ঋণ বিতরণ (মৎস্য চাষ ও পশু সম্পদ খাতে অশ্রাবকর প্রদর্শন)।
- শ্রেণীবদ্ধ ঋণ (Would be Classified Loan) চিহ্নিত করণ ও আদায়।
- শ্রেণীবদ্ধ ঋণের পরিমান ও হ্রাস কমিয়ে আনা।
- আমন্ত্রণ অর্জনের সফলতার ধারাবাহিকতা রক্ষা করা এবং আমন্ত্রণের সুদ বায়-হ্রাসকরণ।
- সর্বোচ্চ ব্যবস্থাপনা কর্তৃক তহবিলের হিসাব সরঞ্জাম ও ব্যবস্থাপনা।
- পূর্ততন ঋণ অবলোপন (Write Off)।
- শক্তিশালী মিনিটিং পদ্ধতি প্রচলন।

উপসংহার

সামাজিক দায়িত্ব পালনে বিভিন্ন সময় সরকারী নীতিমালা ব্যাংককে মনে চলার হয়েছে বিধায় বাণিজ্যের বিনিয়োগ চিহ্নিত করা সময়ে ব্যাংক পরিচালন করা সম্ভব হয়নি। সনগত মানমন্ত্র বিনিয়োগ রুপক্ষী অধিক সুদবহী ঋণ হীনতায় যৌথ দৃঢ়তাত্মকতা করা, কম সুদের আমন্ত্রণ সংগ্রহে, শ্রেণীবদ্ধ ঋণের হ্রাস কমিয়ে আনা, বৈদেশিক বাণিজ্যের বিনিয়োগ রুপক্ষী, সেবার মান রুপক্ষীতে সহায়ক অবকাঠামোগত সুবিধার সমগ্রসারণ, অর্থিক বাই ও আয়ের সম্পদসাত্ত্বিক বিধান এবং সর্বোচ্চ সমীক্ষামূলক মূল্যায়ন আমন্ত্রণের ব্যবস্থাপনা পুনর্ভাবনা কর্তৃক আরেক অপরিহার্য। উপরোক্ত কর্মকারে ব্যাংকের পরিচালনা পর্যন্ত সমন্ত নীতিমালা প্রদর্শন ও উহা স্বাভাবিক বাজারবায়ের জন্য ব্যাংকের সকল দন্ডের কর্মকারা/ কর্মচারীর অশ্রাবণ একাকী করা যা বিগত বৎসরের অন্যদলীয়ভাবে লক্ষ্য করা করা আরও পরীক্ষায় হবে বলে আশা করা যাচ্ছে।

সহায়ক এগ্রিপুঞ্জী

1. বাংলাদেশ অর্থনৈতিক সমীক্ষা ২০০৪।
2. বাংলাদেশ পরিসংখ্যান ব্যুরো।
3. বাংলাদেশ ব্যাংক।
4. বৈদেশিক প্রতিষ্ঠান ২০০১-২০০২ বাংলাদেশ কৃষি ব্যাংক।
5. শাখা নিয়ন্ত্রণ বিভাগ, বাংলাদেশ কৃষি ব্যাংক থেকে সংগঠিত তথ্য।
6. কর্তৃক্ষী হিসাব ও তহবিল ব্যবস্থাপনা বিভাগ-১, বাংলাদেশ কৃষি ব্যাংক-থেকে সংগঠিত তথ্য।
7. বিভিন্ন সময় জাতীয় পরিপ্রেক্ষ, বাংলাদেশ কৃষি ব্যাংক।
<table>
<thead>
<tr>
<th>বিষয়</th>
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<th>১৯৯৭-৯৮</th>
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<td>উৎস ৫: বাংলাদেশ পরিসংখ্যান বুঝা।</td>
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</table>

| উৎস ৪: বাংলাদেশ পরিসংখ্যান বুঝা। |

| উৎস ৪: বাংলাদেশ পরিসংখ্যান বুঝা। |

| উৎস ৪: বাংলাদেশ পরিসংখ্যান বুঝা। |

| উৎস ৪: বাংলাদেশ পরিসংখ্যান বুঝা। |

| উৎস ৪: বাংলাদেশ পরিসংখ্যান বুঝা। |

| উৎস ৪: বাংলাদেশ পরিসংখ্যান বুঝা। |

| উৎস ৪: বাংলাদেশ পরিসংখ্যান বুঝা। |

| উৎস ৪: বাংলাদেশ পরিসংখ্যান বুঝা। |

| উৎস ৪: বাংলাদেশ ব্যাক্স ও সিকিউরিটিস ও এক্সচেঞ্জ কমিশন (এপ্রিল ২০০৪ পর্যন্ত) |
বাংলাদেশ জাতীয় পোলিটিক্যাল ইকোনমি ভ্যাক্স

### তালিকা ৫

<table>
<thead>
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<th>ব্যক্তির ধরন</th>
<th>ব্যক্তির সংখ্যা</th>
<th>শাখার সংখ্যা</th>
<th>মোট সম্পদের পক্ষ অংশ</th>
<th>মোট আমানতের শতকরা অংশ</th>
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উৎস বাংলাদেশ ব্যাংক।

### তালিকা ৬

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<th>ব্যক্তির ধরন</th>
<th>ব্যক্তির সম্ভাব্য শাখার বিষয় (মাস-২০০৩)</th>
<th>শাখার সংখ্যা</th>
<th>মোট শাখার সংখ্যা শতাংশ</th>
<th>মোট শাখার শতাংশ শতাংশ</th>
</tr>
</thead>
<tbody>
<tr>
<td>বাংলাদেশ ব্যাংক</td>
<td>৪</td>
<td>১২৪৪</td>
<td>২৪৭</td>
<td>৩২৫১</td>
</tr>
<tr>
<td>বিশেষায়িত ব্যাংক</td>
<td>৫</td>
<td>১৫০</td>
<td>১১৬৩</td>
<td>১৩১৩</td>
</tr>
<tr>
<td>বেসরকারী ব্যাংক</td>
<td>৩০</td>
<td>১০৮১</td>
<td>৩৭৭</td>
<td>১৪৫৮</td>
</tr>
<tr>
<td>বিদেশী ব্যাংক</td>
<td>১০</td>
<td>৩৩</td>
<td>০</td>
<td>৩৩</td>
</tr>
<tr>
<td>মোট</td>
<td>৪৯</td>
<td>৬২২০</td>
<td>১০০.০০</td>
<td>১০০.০০</td>
</tr>
</tbody>
</table>

উৎস বাংলাদেশ ব্যাংক, নভেম্বর ২০০৩ এর হিসাব অনুসারে।

### তালিকা ৭

<table>
<thead>
<tr>
<th>বাংলাদেশ কৃষি ব্যাংকের বিষয় ৩ বছরের কর্মকাল</th>
<th>(কোটি টাকা)</th>
</tr>
</thead>
<tbody>
<tr>
<td>২০০৩-০৪ অর্থ বছর</td>
<td>২০০২-০৩ অর্থ</td>
</tr>
<tr>
<td>অর্জন</td>
<td>বছরের অর্জন</td>
</tr>
<tr>
<td>০১</td>
<td>ঝাগ বিতরণ</td>
</tr>
<tr>
<td>০২</td>
<td>ঝাগ আয়মার</td>
</tr>
<tr>
<td>০৩</td>
<td>আমানত সংগ্রহ</td>
</tr>
<tr>
<td>০৪</td>
<td>বাংলাদেশ ব্যাংক থেকে রিফাইনারি ইলেক্ট্রাল</td>
</tr>
<tr>
<td>০৫</td>
<td>বাংলাদেশ ব্যাংকের রিফাইনারি পরিষেবা</td>
</tr>
<tr>
<td>০৬</td>
<td>বাংলাদেশ ব্যাংক</td>
</tr>
<tr>
<td>০৭</td>
<td>রক্ষণায়িত ব্যাংক</td>
</tr>
<tr>
<td>০৮</td>
<td>নেতৃত্বকারী ব্যাঙ্ক</td>
</tr>
<tr>
<td>০৯</td>
<td>নির্মাণ ঝাগ মূল্যায়ন</td>
</tr>
<tr>
<td>১০</td>
<td>অগ্রণীকৃত ঝাগ মূল্যায়ন</td>
</tr>
<tr>
<td>১১</td>
<td>অন্যান্য ঝাগ মূল্যায়ন</td>
</tr>
<tr>
<td>১২</td>
<td>ব্যাঙ্ক</td>
</tr>
<tr>
<td>১৩</td>
<td>ব্যাঙ্ক</td>
</tr>
<tr>
<td>১৪</td>
<td>পাল/লোকসান</td>
</tr>
</tbody>
</table>

* প্রতিষ্ঠানে এখন চূড়ান্ত হয়নি।

উৎস বাংলাদেশ কৃষি ব্যাংক।
সরারী ৮

বিষয় ৫ বছরের ব্যাঙ্কের খাত ভিত্তিক খণ্ড বিতরণের চিহ্ন

<table>
<thead>
<tr>
<th>অর্থ বছর</th>
<th>শাখা খণ্ড</th>
<th>মোট</th>
<th>পরের খণ্ড বিতরণ</th>
<th>মোট ভিত্তিক চালান</th>
<th>অর্থ-অন্য ভিত্তিক</th>
<th>মোট ভিত্তিক</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

উৎস: বাংলাদেশ কৃষি ব্যাংক।

সরারী ৯

বাংলাদেশ কৃষি ব্যাংকের বিভিন্ন খণ্ডের উপর সুদের হার

কৃষি খণ্ড (বাংলাদেশ কৃষি ব্যাংকের খণ্ডের খাতসমূহ)

<table>
<thead>
<tr>
<th>উপায়</th>
<th>সুদের হার</th>
</tr>
</thead>
<tbody>
<tr>
<td>ক) শস্য, বিপন্ন সাধারণ জুড়ে চাষী চাষীর খণ্ড, লবণ উৎপাদন, মৎস্য চাষ, চিঠি চাষ, সুল চাষ, কলা চাষ, ভাঙ্গনী প্রস্তুতি ও মৎস্য আচরণ, সেফটি এলাকা চাষ, পানি উৎপাদন ও ক্ষার পালন</td>
<td>৩.০০%</td>
</tr>
<tr>
<td>প) ধান ভাঙ্গার খণ্ড</td>
<td>৯.০০%</td>
</tr>
</tbody>
</table>

চলাচলি মূলধন খণ্ড

<table>
<thead>
<tr>
<th>উপায়</th>
<th>সুদের হার</th>
</tr>
</thead>
<tbody>
<tr>
<td>ক) কৃষি পণ্য বিতরণের খণ্ড চলাচলি মূলধন খণ্ড (এলসিসি)</td>
<td>৯.০০%</td>
</tr>
<tr>
<td>প) হিমালয়ান অল্প সংরক্ষণ খণ্ড চলাচলি মূলধন খণ্ড</td>
<td>১০.০০%</td>
</tr>
</tbody>
</table>

উৎস: বাংলাদেশ কৃষি ব্যাংক।
### সারণী ১০
বাংলাদেশ কৃষি ব্যাংকের ঋণ আদায়ের চিত্র
(কোটি টাকায়)

<table>
<thead>
<tr>
<th>ঋণের বর্ষ ও সূত্র</th>
<th>১৯৯৯-২০০০</th>
<th>২০০০-২০০১</th>
<th>২০০১-২০০২</th>
<th>২০০২-২০০৩</th>
<th>২০০৩-২০০৪</th>
</tr>
</thead>
<tbody>
<tr>
<td>লক্ষমাত্রা</td>
<td>অর্জন</td>
<td>লক্ষমাত্রা</td>
<td>অর্জন</td>
<td>লক্ষমাত্রা</td>
<td>অর্জন</td>
</tr>
<tr>
<td>শ্রেণীকৃত</td>
<td>-</td>
<td>৩১৫.৬৩</td>
<td>-</td>
<td>৩৯১.১১</td>
<td>৯০০.০০</td>
</tr>
<tr>
<td>শ্রেণীযৌথ</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>অশ্রেণীকৃত</td>
<td>-</td>
<td>১২০৪.১১</td>
<td>-</td>
<td>১২৭০.৫০</td>
<td>৬০০.০০</td>
</tr>
<tr>
<td>সর্বমোট</td>
<td>-</td>
<td>১৩০০.০০</td>
<td>১৫১৯.৫৪</td>
<td>১৪০০.০০</td>
<td>১৬৮১.৬১</td>
</tr>
</tbody>
</table>

উৎসঃ বাংলাদেশ কৃষি ব্যাংক।
## সারণী ১১
### বাংলাদেশ কৃষি ব্যাংকের শীতকালীন ও শীতকালীন ঋণের বিভাজন

<table>
<thead>
<tr>
<th>ঋণের ধরন</th>
<th>৩০-০৬-২০০০</th>
<th>৩০-০৬-২০০১</th>
<th>৩০-০৬-২০০২</th>
<th>৩০-০৬-২০০৩</th>
<th>৩০-০৬-২০০৪</th>
<th>পরিবর্তন ( প্রকৃষ্ট ঋণের তুলনায় )</th>
</tr>
</thead>
<tbody>
<tr>
<td>শীতকালীন</td>
<td>২১৩৪.২২</td>
<td>২২৯৫.২৮</td>
<td>২৫০৮.৫৩</td>
<td>২৭৫৫.৭৯</td>
<td>৩২৮৩.২২</td>
<td>(+) ৫২৯.৪৩ (৫৬%)</td>
</tr>
<tr>
<td>শীতকালীন</td>
<td>২৫৭৭.২০</td>
<td>২৮৪২.৮৫</td>
<td>২৭০২.১৯</td>
<td>২৪৫৩.৮৮</td>
<td>২৩০০.০০</td>
<td>(-) ২৫৩.৮৮ (৫৫%)</td>
</tr>
</tbody>
</table>

উৎস: বাংলাদেশ কৃষি ব্যাংক।

## সারণী ১২
### বাংলাদেশ কৃষি ব্যাংকের আমনত পরিষ্ঠিতি

<table>
<thead>
<tr>
<th>বছর</th>
<th>সংগৃহীত আমনতের পরিমাণ</th>
<th>কর্তৃ অর্থ ডিপোজিট (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>১৯৯৯-২০০০</td>
<td>৩১৪৩.৮১</td>
<td>৭৫০.৩৯</td>
</tr>
<tr>
<td>২০০০-২০০১</td>
<td>৩৮৭০.০৬</td>
<td>৭২৬.২৫</td>
</tr>
<tr>
<td>২০০১-২০০২</td>
<td>৪০২৫.২৯</td>
<td>১৫৪.২৩</td>
</tr>
<tr>
<td>২০০২-২০০৩</td>
<td>৪৮৪৫.২২</td>
<td>৪২০.৯৩</td>
</tr>
<tr>
<td>২০০৩-২০০৪</td>
<td>৪৯৫৫.৮০</td>
<td>৪৯৪.৭০</td>
</tr>
</tbody>
</table>

উৎস: বাংলাদেশ কৃষি ব্যাংক।

## সারণী ১৩
### বাংলাদেশ কৃষি ব্যাংকের বৈদেশিক বিনিয়োগ ব্যবসায় চিহ্ন

<table>
<thead>
<tr>
<th>ব্যবসায় ধরন</th>
<th>১৯৯৯-২০০০</th>
<th>২০০০-২০০১</th>
<th>২০০১-২০০২</th>
<th>২০০২-২০০৩</th>
<th>২০০৩-২০০৪</th>
</tr>
</thead>
<tbody>
<tr>
<td>আমনতনী</td>
<td>১৭৯.৪১</td>
<td>৪৩২.৫৪</td>
<td>৪১৪.১৩</td>
<td>৬৬৯.০২</td>
<td>৫৫৭.২৭</td>
</tr>
<tr>
<td>আমনত</td>
<td>২৬৪.০৫</td>
<td>৬৫০.৫০</td>
<td>২৮৯.৫৩</td>
<td>৩২৭.৫৩</td>
<td>৪১৬.২২</td>
</tr>
<tr>
<td>বৈদেশিক রেমিট্যাঙ্গ</td>
<td>৯২.৪৮</td>
<td>৭৭.০৩</td>
<td>১১৫.৭৪</td>
<td>১৩৫.৫১</td>
<td>১৫৭.২২</td>
</tr>
<tr>
<td>আয়</td>
<td>০.৫৩</td>
<td>১৮.৪৪</td>
<td>২৬.৬৬</td>
<td>২২.২৮</td>
<td>২৭.০৯</td>
</tr>
</tbody>
</table>

উৎস: বাংলাদেশ কৃষি ব্যাংক।
### সারফরী ১৪

*(কোটি টাকায়)*

<table>
<thead>
<tr>
<th>বছর</th>
<th>আয়</th>
<th>বছর</th>
<th>আয়</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>কার্যর উপর অন্যান্য আয় মোট আয়</td>
<td>অমন্তকারীদের বাংলাদেশ রাজস্ব ও মোট বায়</td>
<td>কে প্রস্ত</td>
</tr>
<tr>
<td></td>
<td>সুন আয়</td>
<td></td>
<td>মোট বায়</td>
</tr>
<tr>
<td>১৯৯৯-২০০০</td>
<td>২৬৮.৯৬ ২২.৩৩ ২৯৩.৯৯</td>
<td>২২৭.০২ ২২৩.৯২ ২০৪.০৫ ৫৫৫.০৫</td>
<td></td>
</tr>
<tr>
<td>২০০০-২০০১</td>
<td>৪৬৮.২৮ ১১১.২১ ১৫৭.৬৬</td>
<td>২৭৬.৫৬ ৯৫.৬৪ ২০৫.৫৬ ৫৫৭.০৫</td>
<td></td>
</tr>
<tr>
<td>২০০১-২০০২</td>
<td>৩৩৬.৩২ ৪২.৪৫ ৩৭৮.৭৭</td>
<td>২৯৪.৩৭ ২১১.৬৪ ১৬৪.৮৩ ৫৭০.৮৪</td>
<td></td>
</tr>
<tr>
<td>২০০২-২০০৩</td>
<td>৩৬৫.৩২ ৬৩.৭৩ ৪২৯.০৫</td>
<td>২৬২.৫৭ ২২২.২৪ ১৭৭.৫২ ৫৫২.৩৩</td>
<td></td>
</tr>
<tr>
<td>২০০৩-২০০৪</td>
<td>৩৪৮.৩৫ ৭০.৩৩ ৪১৮.৭৪*</td>
<td>২৪৮.৮৯ ১১৪.৮২ ১৯৪.৩৯ ৫৫৫.৩০*</td>
<td></td>
</tr>
</tbody>
</table>

* প্রতিশতান্তর, এখনও সাবান চূড়ান্ত হয়নি।

উৎস: বাংলাদেশ কৃষি ব্যাংক।
Globalization and Matrix of Economic Transformation in Peripheral Economy: Bangladesh Experience

Anu Muhammad*

The term ‘Globalization’ has many facets. While it has the ability to indicate certain recent phenomena it also hides certain relations and conflicts within World economic/political system/s. It appears that the all embracing term has replaced, especially in the recent years, many of the earlier economic and political discourses. It is fair to say that the ideas, programs, initiatives, planning and monitoring under the current phase of Globalization have usurped most of the earlier development thinking in policy-making, both within the State and Multilateral global agencies.

There are two major interpretations of the term Globalization, which appear to conflict with, and even oppose, one another. The first, and the mainstream view, takes globalization as a rational outcome of global economic ‘progress’. This view describes it as a process of (i) ‘expansion of free trade’ (ii) ‘deeper integration of all economies of the world’ (iii) ‘more communication amongst different regions’ (iv) ‘faster diffusion of knowledge’ (v) ‘increasing mobility of capital and labor’ (vi) ‘increasing competition’ and (vii) ‘emergence of global economy--global market’. It believes there is no alternative (TINA) to it.

The second, and the dissenting view, gives more emphasis to the power and ownership aspects of the globalization process. It looks at the process as being increasingly dominated by Multinational Corporations (MNC) and Global Institutions (GI) like the World Bank (WB), International Monetary Fund (IMF), and World Trade Organization (WTO). According to this view, the present globalization process is the manifestation of the monopolization of power by large corporate entities, which are mainly centered in the North. Is also argues that the worldwide expansion of the capitalist drive for profit has the endangered the environment, people’s lives, local authority, biodiversity as well as the diversity of culture. It also insists that an alternative to the present globalization process is

* Professor, Department of Economics, Jahangirnagar University.
there-- a real and peoples’ globalization is only possible by coming out of global power.

This paper argues that the globalization process, embraces elements of both views. It is essentially capitalism, which is advancing on a world scale and is integrating peripheral economies into a single global system. In the last decade, when the globalization got the coin, world trade expanded, all economies got more integrated into one global economy, information and communication system developed at a faster rate because of rapid development of information technology, opportunity for greater diffusion of knowledge emerged, and capital became much more mobile. These facts support the mainstream version of globalization. But at the same time, one must not ignore the fact that the mobility of labor could not take place alongwith that of capital, and that competition, in most of the cases, is increasingly being replaced by monopoly or a near monopoly situation. Global economy has become more a place of big corporate bodies of G-7 countries. Institutions like the World Bank, International Monetary Fund and the World Trade Organization have gained unprecedented authority over most of the nation states. All the processes of integration of peripheral economies into global economy have not been taking place through an invisible hand, i.e., free market process. Moreover, the fact is increasingly coming into surface that the present globalization process, directed by corporate bodies and motivated by profit, has endangered environment, people's lives, common property, local authority, biodiversity as well as the diversity of culture.

In this paper, an attempt has been made to understand the integration process of Bangladesh economy, a peripheral one in the global capitalist system, with the global economy. Along with historical overview of the country, quantitative and qualitative changes in different sectors of the country are analyzed in the paper to identify the main trends of the economy as well as the society.

Legacy of Bangladesh Economy and Polity

Bangladesh earned its status as an independent country through an armed struggle in 1971. The road map to Bangladesh’s emergence as a Nation State began with the partitioning of British India into India and Pakistan in 1947. At that time, Pakistan consisted of two geographically separate territories. The Eastern section which later became Bangladesh, had been experiencing regional and ethnic discrimination in different forms. Pakistan soon after independence came under military autocracy, that had been all along ruled by big propertied oligarchy centered in West Pakistan.
Pakistan from the very beginning had been highly dependent on military-civil bureaucracy. Instability in civil governments and perpetual military rule was a reflection of that. It had also consistent patron-client relationship with political and economic centers of global capitalist system. During the mid 20th century, Pakistan became a test laboratory for the western development theories that emerged during the period of swift decolonisation. Its client position was defined by the Pakistan-US military pact and by a long and decisive involvement of US consultants in shaping Pakistan’s planning, development and institutions.

Although formal military rule started in Pakistan in 1958, the military had exerted power from the country’s beginning because of its fragile civil rule and institutions. Martial law, therefore, “was brought about by men who were already participants in the existing political system and who had institutional bases of power within that system. Long before the coup, the military had been working as a silent partner in the civil-military bureaucratic coalition that held the key decision-making power in the country.” (Jahan, 1972, 52)

This concentration of political power was well suited with the concentration of economic power. By 1968, distribution of resources showed a highly skewed picture. According to the then chief economist of Pakistan Planning Commission, “66% of all industrial profits, 97% of the insurance funds, and 80% of the banks in the country were controlled by some twenty families.” And all these twenty families were from West Pakistan.

Economic disparities and regional and ethnic discrimination had given birth to long democratic struggle in the then East Pakistan. That struggles turned into a nine month long decisive armed struggle in 1971 when Pakistan military junta started barbaric military operation including genocide, rape, and loot against people here. The junta took this path to stop the possibility of transferring power to the newly elected parliament, majority of which was from the eastern part, now Bangladesh.

Integration with the Global Economy: Factors and Actors

After independence, despite continuous promise and rhetoric, Bangladesh failed to alter the power matrix in social and economic fields that had prevailed in the Pakistan period. The structures and hierarchies of civil and military institutions, which had been created during the British rule, were kept intact in Bangladesh; similarly, the legal and judicial systems remained untouched; and the land

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1 Mahbub ul Haq, Chief Economist, Pakistan Planning Commission, quoted in Jahan (1972), p. 60.
administration, despite land reform measures taken in 1972 and 1984, remained unchanged until today.

During the last three decades, Bangladesh has experienced different forms of governments: civil and military, parliamentary and presidential. Emergency was declared twice (1974 and 1997), Martial Law was promulgated twice (1975 and 1982). During the period two Presidents were killed. Since 1991, elected governments have been ruling the country. A form of non-party caretaker government was introduced in 1991 to make the elections acceptable to all.

Despite the changes in political power and governance and the bloody conflicts among groups wishing to govern, the economic front experienced a continuity of policy and ideology. One of the major factors behind this continuity could be the increasing authority of the Global Institutions (GI) that have been operating in Bangladesh and their decisive involvement in formulating policies and monitoring implementation of these policies. These institutions include the World Bank (WB), International Monetary Fund (IMF), Asian Development Bank (ADB), United Nations Development Program (UNDP), and the United States Agency for International Aid (USAID).

*Initial stage*

The process of integrating into global capitalism cannot be called an absolutely recent phenomenon in Bangladesh. Bangladesh economy, like other peripheral economies, has been in the process of integration with the world economy for long. During the last few decades, specially since mid fifties the integration process got momentum with the introduction of ‘foreign aid’ based development projects and huge intervention in agriculture and water resource management under the banner of ‘green revolution’ in the sixties (see Table 1 for a summary of historical records).

After becoming an independent State, Bangladesh experienced a massive increase in ‘foreign aid’ inflow and related projects. Soon after independence, ‘Bangladesh aid consortium’ was formed with the World Bank as its head ‘on the same lines as the Pakistan consortium’(Sobhan, 1982). From a review of thirty years of the Bank’s assessment of government’s policies, its suggestions, and its policy recommendations to the government, it is clear that the Bank has been been consistent in its policy prescription and ideological framework. But it is interesting to note that the Bank always has worked to sell its agenda by keeping government in good humour, always supporting the government’s political agenda, no matter what the political philosophies of successive governments were
(Muhammad, 2003). Such diplomacy proved to be an effective sales management technique for global institutions.

**World Bank’s support and agenda**

A review of some documents of the World Bank should be instructive in this regard. In Bangladesh’s First Five Year Plan (1973-78) document, which was explicitly biased towards public sector growth, Bank’s comment was very appreciative! For instance, it termed the ‘socialist’ Plan ‘a remarkable document’ and ‘analytically sophisticated’ (WB, 1974). In May 1975, after the establishment of one party presidential rule, the Bank seemed to be ‘happy’. It argued favourably for the political change. It asserted that “recent political changes have strengthened the hand of the Government in its attempts to put down lawlessness, smuggling, hoarding, and blackmarketeering.” They were satisfied because “slum clearance in Dacca has gone on apace”. At the same time, they had issued ‘mild threats’. The Bank did not hesitate to say that “this report indicates a number of economic reforms which Bangladesh must consider urgently”. They reminded the government that “.... Bangladesh would need about US$ 1.2 billion of disbursements of external aid in 1975/76. The willingness of donors to continue providing aid in generous amounts to Bangladesh will no doubt depend on its ability to demonstrate, by the implementation of satisfactory economic policies and measures...”(WB, 1975).

Within three months of publishing the above report a bloody political changeover took place. The President was killed and Bangladesh was placed under martial law. Again, the Bank seemed appreciative of the new government. The reasons given were the same as those given as supporting statements for the ousted government. It included “serious efforts” for law and order situation. It also stated that, “on the industrial side, capacity utilization has improved in a number of sectors, as a result of a more liberal import policy and an enhanced supply of raw material and spares...There has been some movement in the direction of a more market oriented economy”. It also expressed optimism about the continuity of “reform program begun in May 1975, with the devaluation of the Taka and the agreement with the IMF”. And finally it supported the new government by including assurances that, “the new government confirmed that it intended to introduce such further economic reforms as subsidy reduction, agricultural taxation, and import liberalization” (WB, 1976). The process continued and accordingly different policies were born as national policies to echo the global formulation of the global institutions.
Therefore it is not surprising that although the Structural Adjustment Program (SAP) sponsored by the World Bank (WB) and the International Monetary Fund (IMF) appeared in the 1980s, the programs it covered were being prescribed by these institutions much earlier. The Structural Adjustment Programme, in fact, has brought all of their earlier ‘reform’ programs in a single fold.

*From Krug to PRSP*

Since the early 70s international bodies including the World Bank has been emphasizing poverty related programs. Women related programs got attention from UN bodies since mid 70s. Funding in these areas started flowing which in many ways influenced or guided government programs, as did the emergence and quick growth of NGOs. Perhaps, GATT agreement in 1995 was the single most important document that created a global foundation of integrating all economies.

*Table 1: Programs initiated in Bangladesh by global institutions in different periods*

<table>
<thead>
<tr>
<th>Period</th>
<th>programs initiated</th>
<th>significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960s</td>
<td>Green Revolution</td>
<td>Mono crop and increasing Market orientation of agriculture</td>
</tr>
<tr>
<td>1970s</td>
<td>Poverty Alleviation Programs, NGOs.</td>
<td>New institutions and civil society compatible with the philosophy of GIs.</td>
</tr>
<tr>
<td>1980s</td>
<td>Structural Adjustment Program (SAP)</td>
<td>De-industrialization, privatization, trade liberalization and expansion of service sector.</td>
</tr>
<tr>
<td>1990s</td>
<td>GATT Agreement</td>
<td>Opening up common properties to the profit making activities.</td>
</tr>
<tr>
<td>2001 and after</td>
<td>Poverty Reduction Strateg paped (PRSP)</td>
<td>Sugar coated Structural Adjustment Program</td>
</tr>
</tbody>
</table>

As a whole, the programs sponsored by global institutions like the World Bank, IMF etc that have played a key role in accelerating the process of integrating peripheral economies including Bangladesh with the centre economies include:(i) the ‘Green’ Revolution (ii) Structural Adjustment Program (iii) ‘Poverty Alleviation’ Programs (iv) GATT agreement (v) Foreign ‘aid’ supported trade,
technical assistance, reform, consultancy, training and education. The current Poverty Reduction Strategy Paper (PRSP) is the latest in the series\(^2\). These programmes also have played crucial role in determining the shape and direction of the economy and creating a strong support base amongst ruling classes.

The direction of the Economy: polarization, decomposition and new formation During the last three decades, the political economy of Bangladesh has had fundamental continuities while experiencing several changes. Both the changes and the continuities are important to the understanding of the internal dynamics and external effects influencing Bangladesh. As these also show the shaping of the national economy, some selected areas are briefly discussed below.

Transition from an Agricultural to Service Economy

Until immediately after independence, Bangladesh’s economy was characterized as an agrarian based one. Agriculture accounted for the largest share of both the labour force and of GDP. However, by the end of the century, Bangladesh ceased to have an agricurtually based economy. Agriculture’s share GDP came down from nearly 60% to 25% during this period (GOB, 2004). But on the other pole manufacturing has not captured the dominant position either. Service sector, as a whole, has emerged as the single largest sector within GDP, about 50 per cent. The movement of an economy from agriculture to service bypassing or degenerating manufacturing may not go with the text book notion of development but this is very significant on study of a peripheral economy like Bangladesh.

Manufacturing: Upward and Downward

There had been a traditional existence of a large number of cottage and small industries in Bangladesh. But the manufacturing sector was dominated, in terms of output proportion, by large manufacturing enterprises and public sector since 1972. This public sector emerged out of large and medium enterprises abandoned by the Pakistani big business houses after independence of Bangladesh. During the last three decades, dominated by the actions of structural adjustment programme (SAP), the proportionate share of manufacturing in GDP has marked little change. According to the old estimates of GDP manufacturing was 7.90 percent in 1972-73, it increased to 8.47 percent in 2003, less than 1 per cent increase in thirty years. With the new estimates, figures go upward but the trend remains the same. According to the new estimates, the share of manufacturing in

\(^2\) For detailed analysis of these programmes and the roles of global institutions in Bangladesh see (Muhammad, 2003).
GDP was 15.43 percent about in 1995/96, it decreased to 14.68 percent in 2000 and again slightly increased to 15.97 in 2003 (GOB, 2001 and 2004). If we compare share of manufacturing from the early 80s with the figure in 2003, then it would show a clear de-industrialization (Muhammad et al, 2003). Figures in 2004 show little change.

Table 2 reveals different trends of growth for different types of industries. A positive growth is seen for export-oriented ones and construction while a negative growth is there for old and heavy industries. Since the early 80s, many of old enterprises, public and private, were closed or downsized and gradually replaced by the export oriented ones.3 Due to closure of many large-scale factories and sickness of medium and small enterprises, the number of industrial workforce shrank despite new entry in export oriented garments and EPZs.

Expansion of Trade

Bangladesh’s external trade has increased manifold. While total trade was 20.65% of GDP in 1973 it increased to 30.77% of GDP in 2001(GOB, 2004). Both import and export have expanded, although the trade gap remains high as the volume of imports has increased faster than that of exports. The increase in imports took place consistently with reform measures to liberalize imports, i.e., lowering import duty and removing tariff and non-tariff barriers. While in 1992/93 the

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3 Governments have consistently been expanding incentives for export-oriented industries and foreign investment since 1978. For export oriented industries, incentives include: duty free import of capital machinery by 100 percent export oriented industries outside the EPZs, creation of an export promotion fund (EPF) for product development and market promotion of new items, exemption from payment of 50 percent of income tax on income derived from export, exemption from payment of import license fees by exporters who import raw materials exclusively for export production, exporters allowed to retain up to 10 percent of earnings for general business purposes, rising to 15-20 percent soon (see details on Manufacturing sector in Muhammad et al, 2003)
highest import duty was 300%, it has since been reduced to 30% in 2004. The average import duty came down to 15.65% (GOB, 2004).

While Jute and jute goods dominated the export trade in early 70s, ready-made garments have dominated since the late 80s, captured more than 60%. Although major export items shifted from agricultural goods to processed goods, the current export items (e.g., ready-made garments) now are highly import dependent (RMG) has only 25% value added components.

Women in Labour Market

Women participation in market oriented and income-generating activities were very low in the early 70s. Women in Bangladesh traditionally were active in both cost saving and income generating activities, i.e., in agri-processing, handicrafts, gardening, poultry and cattle care, management of household, preparing goods for marketing by male members etc. However the activities of NGOs including microcredit, during the last two decades have actually added inputs to the traditional activities of women and small scale businesses of men.

The participation of women in economic activities outside household has been expanding since early 80s. Both push and pull factors contributed in this. On the one hand, family level income has often faced severe crisis due to decline in real wage and stagnation in the demand for male labour. Such crises have pushed female members of the family to work outside the family domain. Moreover, there are many instances when a female member is forced to work outside household after the male head left facing economic crisis. On the other hand, export-oriented industries (e.g., garments sector, shrimp farming) and other export oriented activities, informal sector and growing urban demand for different types of cottage goods and jobs constituted a demand for women labourers (Muhammad, 1998, 2004).

Rural Non-Farm Activity

Landless labourers constitute a vast majority of the population in rural Bangladesh. Landlessness increased from 33% in 1972 to nearly 60% in 2000 (BBS, 2002). Given this supply agricultural employment is not capable of accommodating all, or even a majority, of the people. There are months when demand for agricultural labour approaches zero. Non-farm activity has always been a part of rural life, but population involved in such activities was very small in number. Moreover, non-farm activity remained a family based traditional job. Since 1980, non-farm employment has grown very fast. The jobs include: petty trade, small shop, transports like rickshaw and van, and wage labor outside agriculture.
Increase in Market Orientation

Although rural works program in the sixties contributed to add road connection from countryside to urban areas that paved the way to expand market and market oriented activities, market oriented activities remained modest until late seventies. Since then these activities, i.e., production and processing for market and profit, grew fast. This happened not only in crop production, but spread to other areas as a result of institutional, financial and other supports. Commercial production has increased significantly in Poultry, Dairy and Fisheries since early 80s. Export oriented production of Shrimp expanded. NGO microcredit contributed significantly to market oriented activities of low income rural people.\(^4\)

From Multicrop to Monocrop

Bangladesh had a rich diversity of crops. For example, there were hundreds of varieties of rice grown. This too has changed. In the process of ‘green revolution’ IRRI became the maincrop and effectively became monocrop in agricultural landscape. Expansion of the use of monocrop has also been linked to the increasing market orientation for crop production, fertilizer-irrigation equipment marketing, and expansion of the credit market.

Urban Informal Sector

In the early 70s, the service sector consisted of a small, informal sector that was insignificant in size and employment. Urbanization was low. But urban migration from the countryside has grown since the early 80s. The influx of people could not be absorbed in the manufacturing sector, since it was in the process of shrinking employment opportunities. So, they in an attempt to find the way out found their livelihood in self-employment and informal sector.

Communication

Although rail and water transport, traditional modes of transport in this country, remain neglected and stagnant till today, road transport developed rapidly since the mid 80s. Telecommunication also had a breakthrough in early 90s by linking all thanas. By late 90s a good portion of rural areas was brought under mobile phone and satellite TV network. The expansion of this communication network helped fuel demands for many other consumer items. In the rural areas, many imported consumer items are now readily available.

\(^4\) Main focus of NGO activities has been summarized by one official of BRAC, leading NGO in Bangladesh: ‘We link the poor to the market’. (roundtable, 1997)
Foreign Direct Investment

In Bangladesh Foreign Direct Investment (FDI) had been very small and limited in some selected areas till early 90s. Governments have consistently been expanding incentives for foreign investment. These include: removing the ceiling on foreign equity participation; allowing the repatriation of invested capital, profit, and dividends; allowing foreign investors to obtain working capital from local banks; removing the obligation to sell shares through public issue irrespective of the amount of paid-up capital; providing tax-exemption to royalties, technical know-how and technical assistance fees; and providing tax exemption on the interest on foreign loans and on capital gains from the transfer of shares.

However, since 1993, foreign direct investment has been increasing. It got a boost with establishing Karnaphuli Fertilizer Company (KAFCO). Since early 90s interests of Multinational Corporations (MNCs) for investment in gas, electricity, port, hybrid, telecommunication became visible, and new contracts were being signed in gas, telecommunication and electricity sectors. The fields of these investments were long prepared by major global institutions. Foreign Direct Investment (FDI) in these cases is proving to be burdensome on the economy.5

NGO: New corporate Body

The growth of Non-Government Organizations (NGOs) in Bangladesh has been spectacular. NGO model of development in Bangladesh, which has included group formation, the target group approach, participatory development, and microcredit, has added a new dimension to development thinking. The model is treated by global institutions as a safety net for the people who are the victims of other development measures prescribed by the same institutions. In Bangladesh, “NGOs” means not merely a non-governmental organization. The term means a type of development agency that is funded by foreign agencies. Horizontal expansion as well as qualitative changes in its composition characterized the last fifteen years of their activities. Initially, NGOs appeared with a promise to: work on social issues, struggle against exploitation and discrimination, work outside the domain or influence of local or national power structure.6 Since early 80s microcredit operations started getting priority among some NGOs and by early 90s it became the main focus of most of the sectors.

5 See analysis of FDI in gas sector, Muhammad (2004) and for the assessment of the World Bank on this (WB 1999)

6 See discussion on the NGO model working in Bangladesh and its shifts overtime: (Muhammad, 2000)
In the process NGOs became polarized between the few very big NGOs and many small ones where the small NGOs have been reduced to subcontractors of the big. The big NGOs have become corporate bodies. Significant number of NGOs led by big ones like BRAC, PROSHIKA are now involved in several business projects. Big NGOs are also in the process of forming alliances with multinational corporations. To give a few examples: BRAC works with UNOCAL and Monsanto; the Grameen Bank, which initially intended to work with Monsanto but failed due to resistance, is now intensely working with multinational telecommunication companies and is involved also with shrimp cultivation. It should be noted that the involvement of NGOs in business activities became a matter of discussion years before.

_Criminal Economy_

The share of ‘black’ economic activities in the economy is yet to be accurately estimated. However, there are some rough approximations. United Nations Development Programme (UNDP) finds it to be around 30 per cent of the country’s GDP. But a top leader of the business community found it to be more than 50 per cent of GDP. This particular economy encompasses bribery, crime, the arms trade, production of arms, the employment of professional criminals, corruption and grabbing, illegal commissions, leakage from different government projects, specially ‘foreign aided’ ones. Governments of Bangladesh have displayed very lenient attitude towards both this stolen money or _chora taka_ and

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7 World Bank’s recommendations are noteworthy here. It said, “Integrate NGOs with commercial finance markets by: a) developing an appropriate regulatory framework for the financial operations of the NGO sector; (b) encouraging large NGOs to establish themselves as banks; (c) encouraging ‘wholesaling’ of credit to established NGOs; and (d) using smaller NGOs as brokers to mobilize self-help savings groups.” (WB, 1996)

8 Grameen Bank is not a registered NGO but it can be bracketed with NGOs since it works in NGO model.

9 Chairman of NBR stated in 1997 that the NGOs that establish factories and run businesses have to be taxed, otherwise they would gain an unfair advantage over other firms in the same industry. The chairman of a business group said that, in industries owned by NGOs, the cost of loans is zero as opposed to the private sector who pay around 25 per cent to the banks. (roundtable, 1997)

10 Traditionally ‘Black’ economy is generally used to denote illegal, criminal and hidden economic activity. The use of black to denote bad reflects a racist attitude, Therefore, this usage should be changed.

11 This was stated by the President of Federation of Bangladesh Chamber of Commerce and Industry (FBCCI), TV interview, Ekushey, June 5, 2002
the Mafia lords of the illegal economy who, in fact, now also dominate the political arena. The rise of the super rich and Mafia lords and their domination over policy makers make the task easy for the global institutions to sell their agenda without any resistance from the ruling elite.

*From Poverty to Poverty and more inequality*

Although Poverty alleviation has always been the ‘top objective’ of successive governments and global institutions, and although foreign aided ‘poverty alleviation’ projects are in abundance, the poverty scenario has hardly changed. The number of people living under income poverty line increased from 50 million in 1972 to 68 million in 2003. From 1990/91, budgetary allocation reduction for poverty increased more than 700 per cent and GDP increased by nearly 50 percent but poverty ratio in this period increased from 47.5 per cent to 49.8 per cent (GOB, 2004). On the other hand, inequality has also increased during this period. In 1983/84, lowest 5 per cent of the population held 1.17 per cent of national income, it came down to 0.67 per cent in 2000. On the other hand the share for the highest 5 percent, increased from 18.30 percent, to 30.66 percent of national income during the same period. (GOB, 2004).

*Class Composition*

At the time of independence, Bangladesh’s society, both rural and urban, was mostly composed of small owners: petty traders, low and middle-income professionals, small and medium farmers and, small entrepreneurs. Except large farmers and jotedars, big propertied class based on industry or on trade was almost non-existent. That societal composition has radically changed during the last three decades. Big propertied multimillionaires have grown in number to thousands in this period. New occupations related to service sector emerged. However, the super rich class has either little or negative relations with the growth of manufacturing (Siddiqui, 1995).

In rural areas, business, not land have become the determinant of one’s the economic position. The big propertied classes in the rural area, therefore, are those who alongwith landownership involved with business of different kind.

In rural areas landless people have grown in number and proportion. As a class, they emerged as a group of single majority of the population. A large segment of

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12 The last figure 50 percent in 2002 is found from Prime Minieter’s statement, May 2002.
this, however, has been delinked from farm work. Migration to urban areas happened mostly from this group.

While industrial labour pool shrank in size, new workers changed its gender composition. In addition to that, the growth of the informal sector gave rise to the floating labourer who received a lower wage than did the industrial workers.\(^{13}\)

**Overall direction**

Therefore, after its first three decades, we find Bangladesh is more marketized, more globalized, and more urbanized; and, it has a good number of super rich and increased number of uprooted poor people. We also smell the increasing role of international agencies in governance of the state, see the increasing presence of funding organizations, including NGOs. Role of the state in major policy formulation has been rather marginal. Bangladesh is now dominated by a power oligarchy. Criminal activity, including grabbing public resources, has become the main mode of capital accumulation. This has also gained strength in determining mainstream politics. This scenario has been told as ‘success’ of ‘development’ projects by the global institutions and successive governments. Table-3 summarizes the scenario.

**Conclusion**

In the last thirty years Bangladesh had plenty of ‘development’ projects and accumulated a huge international debt for attaining this ‘development’. During this process, a number of consultancy firms, think tanks and hundreds of NGOs emerged, and many experts in different fields were born. Different projects have provided opportunities for bureaucrats, consultants to travel to other parts of the world to have training from or consultation with experts in the centers. We now have plenty of experts, consultants and researchers in different fields who have become a part of international community hungry for the projects and blessings of the global institutions. Poverty alleviation projects gave enough affluence to

\(^{13}\) See an analysis based on the study of changing class composition (Muhammad, 2001) The study findings include emergence of new occupations that are mostly service oriented and highly vulnerable in nature. Low income and unsecured jobs have become inevitable destiny of large numbers of uprooted rural people. High income occupations were found linked with International agencies, foreign banks, NGOs, consultancy firms and big business houses. The decline of the productive sectors and the rise of a ‘super market’ and service oriented economy, linked with the mobility of international capital, has been shaping and reshaping the faces of the people in both poles, i.e., rich and poor.
Table 3: Rise and fall scenario in Bangladesh with the "Globalization" and "Modernization" process

<table>
<thead>
<tr>
<th>ON THE INCREASE</th>
<th>ON THE DECREASE or in CRISIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super Market</td>
<td>Manufacturing enterprises</td>
</tr>
<tr>
<td>Car Shop</td>
<td>Machine Factories</td>
</tr>
<tr>
<td>Hybrid seed, mechanization</td>
<td>Local variety, bio-diversity</td>
</tr>
<tr>
<td>Water resource projects</td>
<td>Safe water, water bodies</td>
</tr>
<tr>
<td>High rise building</td>
<td>General housing</td>
</tr>
<tr>
<td>NGOs and projects</td>
<td>Local/National initiative</td>
</tr>
<tr>
<td>Foreign investment in service sector, oil, gas</td>
<td>Foreign investment in viable manufacturing</td>
</tr>
<tr>
<td>Religious institutions</td>
<td>Library and science organizations</td>
</tr>
<tr>
<td>Private English medium educational institutions, including commercially expensive coaching centers and Madrasa</td>
<td>Public schools/colleges/universities</td>
</tr>
<tr>
<td>People under poverty line</td>
<td>Sustainable employment opportunity</td>
</tr>
<tr>
<td>Urban population</td>
<td>Real income/wage</td>
</tr>
<tr>
<td>Working women</td>
<td>Women’s income/wage/security</td>
</tr>
<tr>
<td>Private expensive clinics, diagnostic centers</td>
<td>General health opportunities</td>
</tr>
<tr>
<td>Degree holder people</td>
<td>Scientists, Social scientists, Physicians....</td>
</tr>
<tr>
<td>Crime</td>
<td>Security</td>
</tr>
<tr>
<td>Rural-urban and outward migration</td>
<td>Capacity utilization of human &amp; material resources</td>
</tr>
<tr>
<td>Communication technology</td>
<td>General scientific and technological foundation</td>
</tr>
<tr>
<td>Consumerism</td>
<td>Proportion of locally produced goods</td>
</tr>
<tr>
<td>Consultancy</td>
<td>Independent research on science, technology &amp; social science</td>
</tr>
<tr>
<td>Criminal and hidden ('black') economy</td>
<td>Productive and sustainable initiatives</td>
</tr>
<tr>
<td>source: revised table earlier</td>
<td>presented in Muhammad (2000)b</td>
</tr>
</tbody>
</table>

foreign-local consultants, bureaucrats, NGO owners, and researchers. Agriculture and Water development projects could ensure enough business to international and national construction firms, bureaucrats, consultants and agribusiness corporate bodies. Energy and power development projects ensured disastrous investments and quick high profits for the MNCs. Research and education
programs have succeeded in creating an ideological hegemony by giving birth to a lot of clone intellectuals and experts. Affluence and poverty grew parallel.

The fate of Bangladesh is now being determined by not any elected bodies, not from any initiative from within but by bureaucratic global institutions, which have authority here but do not bear any responsibility for their actions. The policies of different governments regarding industry, agriculture, education, health, trade, environment, poverty, women have only given legitimacy to the policies outlined much earlier by the bodies not accountable to the people of this land. And through these actions, jointly taken by the local governments and the global institutions, Bangladesh has been moving towards being more and more integrated into the global capitalist system. Since the local ruling class does have strong lumpen features and cannot be characterized as productive bourgeoisie, Bangladesh is moving as a blind mindless follower, therefore standing in a very vulnerable state. This is the face of peripheral capitalism of today, a ‘garbage’ of capitalist centre. The lumpen ruling class has been fattened and strengthened by the support of the global institutions. They have surrendered the ‘sovereignty of the state’ to those and in return are given security and affluence at the expense of the people and the environment.
References


Impact of Globalization on Bangladesh Economy

N N Tarun Chakravorty*

1.1 Introduction

Probably globalization is the most talked-about issue in the last few decades. Economists, social scientists, politicians and thinkers have been clearly divided into three distinct groups: One consists of those who are the blind proponents of globalization and find no negative sides of globalization. The second group are those who are vehemently anti-globalization and find it totally detrimental to the national economies of LDCs and developing countries. The third group is in the mid-way between globalization and anti-globalization, who believe that there are benefits of globalization but to ensure the benefits for the LDCs and the developing countries, on one hand, the developed countries must be liberal and give free access for the products of LDCs and the developing countries into their markets, and, at the same time, LDCs and the developing countries must be equipped with the necessary knowledge and bargaining power.

There are many examples of gaining benefits from globalization such as, in Asian context, the newly industrialized countries --Hong Kong, South Korea, Singapore, Taiwan, Thailand, Malaysia and Indonesia who have gained the benefits of rapid expansion in global trade, investment and income by dint of taking a strategy of export-led growth integrating with the world economy.

‘Opening up to international trade has helped many countries grow far more quickly than they would otherwise have done. People in the West may regard low-paid jobs at Nike as exploitation, but for many people in the developing world, working in a factory is a far better option than staying down on the farm and growing rice. Globalization has given many people in the developing countries access to knowledge well beyond the reach of even the wealthiest in any country a century ago. The anti-globalization protests themselves are a result of this connectedness. Links between activists in different parts of the world have been

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possible because of internet communication, which is a contribution of globalization. Well-orchestrated public pressure forced the international community to forgive the debts of some of the poorest countries. Opening up the Jamaican milk market to US imports in 1992 may have hurt local farmers but it also meant poor children could get milk more cheaply. On the other hand, a growing divide between the haves and have-nots has left increasing numbers in the Third World in dire poverty, living on less than a dollar a day. Despite repeated promises of poverty reduction made over the last decade, the actual number of people living in poverty has actually increased by almost 100 million. ————

The critics of globalization accuse Western countries of hypocrisy, and the critics are right. The Western countries have pushed poor countries to eliminate trade barriers, but kept up their own barriers, preventing developing countries from exporting their agricultural products and so depriving them of desperately needed export income. The United States was, of course, one of the prime culprits.’-Stiglitz.

1.2 Objectives of the paper

This paper, on the perspective of the widespread grumble against the marginalization of the LDCs and the subsequent worldwide anti-globalization protests, tries to examine the impact of the on-going globalization on Bangladesh economy. This paper is devoted, with an unbiased outlook, to discover the truth regarding how much it has benefited and how much it has lost out, to find the flaws in government policy so far, to mention what the country shouldn’t have done and what it should have done and then to put forward some suggestions for offsetting the effects of wrong policies and for making future policy.

1.3 Methodology

Primary data collected authentically in a scientific manner is essential for any research work in order to find the truth. Keeping it in mind, we had to rely on secondary data for this study and the traditional method of economic analysis has been used.

We will try to examine the impact of globalization on Bangladesh economy by investigating the trends in the changes in import and export volumes and prices, pattern of goods imported and exported, sector-wise changes in employment, changes in monetary and fiscal policy and status. We will examine the changes from the beginning of 90’s to 2002-2003 because early nineties is the period when our economy has been truly opened.
2.1 **Outward-looking policy**

Bangladesh had adopted an inward-looking policy after the independence of the country and continued to follow it during the whole of 70s. Government tried to develop import-substituting industries under this policy, which included high tariffs on imports, other protective measures for local industries like subsidies, strict foreign exchange control etc. These policies resulted in a sluggish export growth, huge balance of payments deficit, budget deficit and inevitably high inflation. Following a macroeconomic imbalance like this the country undertook economic reforms with supports from IMF under Structural Adjustment Facility (SAF) and Extended Structural Adjustment Facility (ESAF) and World Bank under Structural Adjustment Program. The then government announced an export-led strategy under the New Industrial Policy, 1982 which replaced the public sector dominated import-substitution strategy and tried to achieve export-led growth to be dominated by private sector. Accordingly reforms were taken in the areas of fiscal, monetary, trade, exchange-rate, industrial, foreign investment, and financial sector policies but failed to gain momentum until 1991. Reforms were accelerated in the early 90s.

2.2 **Monetary status**

During this period the previous easy money and inflationary policy has been replaced by a more logical monetary policy and thus consequently inflation has abated. Commercial banks have been given freedom to determine their lending and deposit rates. The bank rate is used as an instrument for credit control and is adjusted for inflation from time to time. But the reform efforts have not been successful. There has been a huge difference between the deposit rate and the lending rate. In a sound and logical monetary system this difference should not be more than 5%, but in Bangladesh this difference was approximately 8%. The inefficiency of national commercial banks involves a huge cost of fund. On repeated requests of the governor of Bangladesh Bank commercial banks reduced their lending rates slightly in 2003. Huge default of bank loans in Bangladesh has crippled the whole monetary system. Corruption of bankers and political power exercise are responsible for this.

2.3 **Exchange rate regime**

Devaluation was resorted to very frequently to keep exports competitive. But devaluations, as the table-1 shows, has failed to bring about depreciation of the real exchange rate. It is also very important to note that the effective exchange rate
for exports (EERx) has been considerably lower than the effective exchange rate for imports (EERm), thereby discouraging production for exports relative to production for the domestic market. Movements in the EERm/EERx ratio during the 90s show that, while the anti-export bias has been significantly reduced, some bias still persists. True, currency has to be devalued to keep exports competitive or sustain the level of exports, but frequent devaluation of a currency shows the inner weakness of an economy. Devaluation is merely a temporary measure for making exports competitive and there are other better effective measures to do the same. Reducing the cost of production is the best way of being competitive and for reducing cost productivity has to be increased.

**Table I: Bangladesh: Exchange Rate**

<table>
<thead>
<tr>
<th>Exchange Rate (Tk./US$)</th>
<th>FY90</th>
<th>FY91</th>
<th>FY92</th>
<th>FY93</th>
<th>FY94</th>
<th>FY95</th>
<th>FY96</th>
<th>FY97</th>
<th>FY98</th>
<th>FY99</th>
<th>FY00</th>
<th>FY01</th>
<th>FY02</th>
<th>FY03</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEER Index (base 1990=100)</td>
<td>100</td>
<td>98.2</td>
<td>92.2</td>
<td>91.7</td>
<td>91.2</td>
<td>92.4</td>
<td>92.1</td>
<td>96.7</td>
<td>104.1</td>
<td>103.3</td>
<td>101.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EERm (Tk./US$)</td>
<td>63.8</td>
<td>60.8</td>
<td>57.0</td>
<td>52.8</td>
<td>51.9</td>
<td>54.2</td>
<td>58.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EERx (Tk./US$)</td>
<td>38.5</td>
<td>39.7</td>
<td>40.5</td>
<td>40.5</td>
<td>41.2</td>
<td>43.2</td>
<td>46.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EERm/EERx</td>
<td>1.66</td>
<td>1.53</td>
<td>1.41</td>
<td>1.30</td>
<td>1.23</td>
<td>1.25</td>
<td>1.26</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Fiscal status

Outcomes of the fiscal reforms in 90s are presented in Table 2. The overall budget deficit GDP ratio started increasing after ’97 although it showed a declining trend from ’90 to ’97. The average ratio for the entire period of 90-99 was 4.8%, which demonstrates the need for an improvement in fiscal management. The average tax-GDP ratio for the same period was about 7%, which shows a very poor
performance in tax collection despite an upward trend during 90s. Government expenditures have increased slightly as a ratio of GDP while current expenditures kept rising around the end of the decade. Huge current expenditure of the government is a severe drawback in Bangladesh. Involving huge current expenditure in running the state machinery not only shows the inefficiency of the government but also the level of corruption. Forming a huge cabinet consisting of more than 60 ministers is an example of corruption, because it indicates that the head of the government regards the interest of the party more than that of the state. It has been seen in the investigation that the party chief has offered portfolio to too many party leaders in order to avoid conflicts in the party. Development spending is comparatively far less than the current expenditure, but the shocking part is that substantial portions of the allocated money has remain unused due to inefficiency every year. Moreover, there is a tendency to undertake ‘show projects’ to attract people and ensure votes in the next election.

PSBR also has been huge mainly in the second half of 90s. Consequently huge interest payments every year has to be made, which exerts a depressing effect on the economy.

### Table 2

<table>
<thead>
<tr>
<th>Budget</th>
<th>FY90</th>
<th>FY91</th>
<th>FY92</th>
<th>FY93</th>
<th>FY94</th>
<th>FY95</th>
<th>FY96</th>
<th>FY97</th>
<th>FY98</th>
<th>FY99</th>
<th>FY00</th>
<th>FY01</th>
<th>FY02</th>
<th>FY03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenue</td>
<td>6.9</td>
<td>7.3</td>
<td>8.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax revenue</td>
<td>9.1</td>
<td>9.3</td>
<td>9.4</td>
<td>9.1</td>
<td>9.5</td>
<td>9.6</td>
<td>9.0</td>
<td>8.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total expenditure</td>
<td>5.8</td>
<td>5.9</td>
<td>6.7</td>
<td>7.3</td>
<td>7.2</td>
<td>7.4</td>
<td>7.3</td>
<td>7.6</td>
<td>7.2</td>
<td>6.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current expenditure</td>
<td>12.8</td>
<td>12.8</td>
<td>12.8</td>
<td>13.4</td>
<td>13.9</td>
<td>14.7</td>
<td>13.5</td>
<td>13.0</td>
<td>12.7</td>
<td>13.3</td>
<td>14.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall budget deficit</td>
<td>6.5</td>
<td>6.6</td>
<td>6.4</td>
<td>6.8</td>
<td>6.8</td>
<td>6.9</td>
<td>7.1</td>
<td>7.4</td>
<td>7.6</td>
<td>7.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>% of GDP</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

### Figure 2

Overall budget deficit
Budget deficit had been around 5% during this period. In FY 97-98 it was the lowest (3.9%) and the highest (6.1%) in 2000. From 2001 it started falling. Tax collection in 2002 and 2003 has been satisfactory and contributed to reduce the deficit.

2.5 Export-Import

Trade policy reform was another integral part of globalization, which involved import liberalization and export promotion through various incentives. There was a huge reduction in the number of quantitative restrictions on imports (QRs). The number of QRs was brought down from 315 in FY90 to 124 in the Import Policy Order 1997-02. At present, only 28 H.S.4-digit codes are subject to QRs for trade reasons, the remaining QRs being imposed for non-trade reasons such as health, safety, and national security. The number of H.S.4-digit codes whose import is banned on trade grounds was phenomenally decreased from 135 in the Import Policy Order 1989-90 to only 5 in the Import Policy Order 1997-02. Table 3 shows that maximum tariff rate was reduced from 350% (91) to 37.5%(00). The number of tariff slabs has been reduced from 17 to only 4 in this period. Between FY91 and FY00 the average tariff rate declined from nearly 89% to about 17% approximately. The average nominal protection levels fell from 89%(FY91) to 25%(FY00). The average effective protection levels fell from 76%(FY93) to 25% (FY00) approximately. Government made the procedures also much easier to facilitate imports. Table-3,4&5 show the picture clearly.

Several export incentive schemes have been taken by the government in this decade. The Special bonded warehouse (SBW) facilities have been offered to exporters to import inputs on a duty-free basis under back-to-back L/C; this facility has currently been extended to all exporters. The duty drawback facility permits exporters to receive refunds of customs duties and other taxes paid on imported inputs. Cash compensation of 25% of the f.o.b value export is provided instead of duty drawback and the SBW facility. Export procedures have been made easier by allowing export without L/C, but on the basis of a purchase contract, agreement, purchase order, or advance payment.

In this period of liberalization both exports and imports have increased in absolute terms. Annual % growth in exports has increased very significantly from 14.86 in 1991-92 to 33.33% in 1994-95, but the country could not keep it up and fell tremendously to 3.79% in 1995-96, then increased to 15.58% in 1997-98. It became negative (~3.28%) in 1998-99. Export growth has moderately high (21.28%) in 2000-01, but became negative (~10.35) for the second time in 2001.
Table 3: Trends in average and dispersion of tariffs

<table>
<thead>
<tr>
<th></th>
<th>FY91</th>
<th>FY92</th>
<th>FY93</th>
<th>FY94</th>
<th>FY95</th>
<th>FY96</th>
<th>FY97</th>
<th>FY98</th>
<th>FY99</th>
<th>FY00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average CD</td>
<td>88.6</td>
<td>56.7</td>
<td>46.8</td>
<td>35.8</td>
<td>25.4</td>
<td>22.2</td>
<td>21.5</td>
<td>20.7</td>
<td>20.2</td>
<td>16.7</td>
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<tr>
<td>(unweighted)</td>
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<td></td>
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<tr>
<td>Dispersion</td>
<td>72.0</td>
<td>71.9</td>
<td>65.6</td>
<td>68.2</td>
<td>75.6</td>
<td>74.4</td>
<td>75.7</td>
<td>74.4</td>
<td>72.4</td>
<td>82.1</td>
</tr>
<tr>
<td>(co-efficient of variation)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of tariff slabs</td>
<td>17</td>
<td>17</td>
<td>14</td>
<td>11</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Average licence fee</td>
<td>1.2</td>
<td>1.4</td>
<td>1.5</td>
<td>1.5</td>
<td>1.2</td>
<td>1.3</td>
<td>1.3</td>
<td>1.0</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Top CD rate</td>
<td>350</td>
<td>350</td>
<td>300</td>
<td>300</td>
<td>60</td>
<td>50</td>
<td>45</td>
<td>42.5</td>
<td>40.0</td>
<td>37.5</td>
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</table>

Table 4: Trends in average nominal protection

<table>
<thead>
<tr>
<th></th>
<th>FY91</th>
<th>FY92</th>
<th>FY93</th>
<th>FY94</th>
<th>FY95</th>
<th>FY96</th>
<th>FY97</th>
<th>FY98</th>
<th>FY99</th>
<th>FY00</th>
</tr>
</thead>
<tbody>
<tr>
<td>All tradables</td>
<td>88.6</td>
<td>67.4</td>
<td>27.1</td>
<td>27.2</td>
<td>24.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(unweighted)</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All tradables</td>
<td>89.0</td>
<td>67.8</td>
<td>26.9</td>
<td>27.3</td>
<td>25.0</td>
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<tr>
<td>manufacturing sector</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All tradables</td>
<td>42.1</td>
<td>28.7</td>
<td>22.3</td>
<td>20.3</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>(weighted)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All tradables</td>
<td>51.8</td>
<td>27.3</td>
<td>24.1</td>
<td>23.8</td>
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<td></td>
<td></td>
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<tr>
<td>manufacturing sector</td>
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</tbody>
</table>

Table 5: Trends in average effective protection

<table>
<thead>
<tr>
<th></th>
<th>FY91</th>
<th>FY92</th>
<th>FY93</th>
<th>FY94</th>
<th>FY95</th>
<th>FY96</th>
<th>FY97</th>
<th>FY98</th>
<th>FY99</th>
<th>FY00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average ERP</td>
<td>75.7</td>
<td>56.7</td>
<td>40.6</td>
<td>33.0</td>
<td>32.4</td>
<td>28.6</td>
<td>26.8</td>
<td>24.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Exports increased slightly in 2002-03. This picture shows a very poor exports performance of Bangladesh. On the other hand, imports have increased at a greater pace. Annual growth rate in imports was 0.48 in 1991-92, it increased to its all time high 39.20% in 1994. It should be noted that in that year export growth was also the highest, which indicates a booming condition of the Bangladesh economy. A rise in imports indicates a rise in the real income of the people. But this situation changes abruptly and import growth fell to 16.04 in 1995-96 and had been low until 1990-00. It rose to 11.47% in 2000-01, became negative (-8.51%) in 2001-02 and rose significantly in 2002-03 to 12.99%. Trade deficit has remained huge throughout whole period and increased significantly. There are
two significant jumps in the trade deficits, one from FY93-94(1741.5) to FY94-95(2568.16) and then from FY94-95(2568.16) to FY95-96(3380.30). After FY95-96(3380.30) onward it continued to remain high and kept increasing except in 96-97 and 2001-02. The changes in trade deficit has been shown in both tables and graph.

To understand the impact of globalization, the pattern of exports can serve as a good indicator. The table-7 shows that the percentage annual change in manufactured exports has been greater than the percentage annual change in primary commodities exports in almost every year, which must be considered a positive sign.

**Table 6 : Bangladesh Exports, Imports and Trade Balance**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total merchandise exports</th>
<th>Annual growth in exports</th>
<th>Total merchandise imports</th>
<th>Annual growth in imports</th>
<th>Balance of trade</th>
<th>Annual % change in the balance of trade deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-91</td>
<td>1716.65</td>
<td>14.86</td>
<td>3509.25</td>
<td>0.48</td>
<td>-1792.6</td>
<td>-1554.31</td>
</tr>
<tr>
<td>1991-92</td>
<td>1971.69</td>
<td>14.05</td>
<td>3526.0</td>
<td>15.46</td>
<td>-1822.69</td>
<td>17.26683</td>
</tr>
<tr>
<td>1992-93</td>
<td>2248.34</td>
<td>8.97</td>
<td>4071.03</td>
<td>2.96</td>
<td>-1741.5</td>
<td>-4.5441</td>
</tr>
<tr>
<td>1993-94</td>
<td>2450.00</td>
<td>33.33</td>
<td>4191.51</td>
<td>39.20</td>
<td>-2568.16</td>
<td>47.46827</td>
</tr>
<tr>
<td>1994-95</td>
<td>3266.48</td>
<td>33.33</td>
<td>5834.58</td>
<td>16.04</td>
<td>-3380.30</td>
<td>31.62342</td>
</tr>
<tr>
<td>1995-96</td>
<td>3390.30</td>
<td>33.33</td>
<td>6770.6</td>
<td>16.04</td>
<td>-3215.20</td>
<td>4.88418</td>
</tr>
<tr>
<td>1996-97</td>
<td>3880.80</td>
<td>4.47</td>
<td>7096.0</td>
<td>4.8</td>
<td>-3043.32</td>
<td>-5.65278</td>
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<tr>
<td>1997-98</td>
<td>4485.48</td>
<td>15.58</td>
<td>7519.80</td>
<td>5.97</td>
<td>-3526.84</td>
<td>16.23164</td>
</tr>
<tr>
<td>1998-99</td>
<td>4338.54</td>
<td>-3.28</td>
<td>7865.38</td>
<td>4.6</td>
<td>-3420.39</td>
<td>-3.01828</td>
</tr>
<tr>
<td>1999-00</td>
<td>4953.89</td>
<td>14.18</td>
<td>8374.28</td>
<td>6.47</td>
<td>-3326.91</td>
<td>-2.73302</td>
</tr>
<tr>
<td>2000-01</td>
<td>6007.97</td>
<td>21.28</td>
<td>9334.88</td>
<td>11.47</td>
<td>-3154.28</td>
<td>-5.1889</td>
</tr>
<tr>
<td>2001-02</td>
<td>5386.38</td>
<td>-10.35</td>
<td>8540.66</td>
<td>-8.51</td>
<td>-3908.72</td>
<td>23.91798</td>
</tr>
</tbody>
</table>

**Figure 3**

Trends in exports and imports

**Figure 4**

Balance of trade (deficit)
Annual percentage increase in imports has increased irregularly but not significantly more than annual percentage increase in exports, which is something very notable against the grumble against globalization. But there is an anti-growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Value in million US dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-91</td>
<td>306.1</td>
</tr>
<tr>
<td>% Annual Change</td>
<td>-5.21</td>
</tr>
<tr>
<td>91-92</td>
<td>141.42</td>
</tr>
<tr>
<td>% Annual Change</td>
<td>+17.55</td>
</tr>
<tr>
<td>92-93</td>
<td>2533.90</td>
</tr>
<tr>
<td>% of annual change</td>
<td>12.72</td>
</tr>
</tbody>
</table>

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**Table 7: Commoditywise exports from Bangladesh during 1990-91 to 2002-03**

<table>
<thead>
<tr>
<th>Year</th>
<th>Value in million US dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-91</td>
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<tr>
<td>% of annual change</td>
<td>12.72</td>
</tr>
</tbody>
</table>
Table 9: Commoditywise imports into Bangladesh during 1990-91 to 2002-03

<table>
<thead>
<tr>
<th>Year</th>
<th>91-92</th>
<th>92-93</th>
<th>93-94</th>
<th>94-95</th>
<th>95-96</th>
<th>96-97</th>
<th>97-98</th>
<th>98-99</th>
<th>99-00</th>
<th>00-01</th>
<th>01-02</th>
<th>02-03</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. consumer goods</td>
<td>280.4</td>
<td>326.62</td>
<td>341.85</td>
<td>700.96</td>
<td>801.95</td>
<td>4360.94</td>
<td>628.77</td>
<td>1402.0</td>
<td>595.03</td>
<td>685.92</td>
<td>562.86</td>
<td>1025.32</td>
</tr>
<tr>
<td>% change</td>
<td>16.68%</td>
<td>4.66%</td>
<td>104.9%</td>
<td>14.51%</td>
<td>443.8%</td>
<td>-85.58%</td>
<td>123%</td>
<td>-57.55%</td>
<td>15.27%</td>
<td>18%</td>
<td>82%</td>
<td></td>
</tr>
<tr>
<td>B. Capital goods</td>
<td>1200.93</td>
<td>1692.27</td>
<td>1825.03</td>
<td>1894.85</td>
<td>2071.93</td>
<td>2132.97</td>
<td>2515.56</td>
<td>2617.09</td>
<td>2651.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% change</td>
<td>31%</td>
<td>7%</td>
<td>3%</td>
<td>9%</td>
<td>-5%</td>
<td>8%</td>
<td>17%</td>
<td>4%</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 6

Table 9: Commoditywise imports into Bangladesh during 1990-91 to 2002-03

Value in million US dollars

<table>
<thead>
<tr>
<th>Year</th>
<th>91-92</th>
<th>92-93</th>
<th>93-94</th>
<th>94-95</th>
<th>95-96</th>
<th>96-97</th>
<th>97-98</th>
<th>98-99</th>
<th>99-00</th>
<th>00-01</th>
<th>01-02</th>
<th>02-03</th>
</tr>
</thead>
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<td>280.4</td>
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<td>700.96</td>
<td>801.95</td>
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<td>1402.0</td>
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<td>685.92</td>
<td>562.86</td>
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</tr>
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<td>14.51%</td>
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<td>-85.58%</td>
<td>123%</td>
<td>-57.55%</td>
<td>15.27%</td>
<td>18%</td>
<td>82%</td>
<td></td>
</tr>
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<td>2515.56</td>
<td>2617.09</td>
<td>2651.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% change</td>
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<td>7%</td>
<td>3%</td>
<td>9%</td>
<td>-5%</td>
<td>8%</td>
<td>17%</td>
<td>4%</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 7
indicator that imports of consumer goods has kept on increasing at a much greater rate than capital goods (shown in Table-9 and Figure-7). Globalization has developed a consumerist culture, but has not ignited production activities in Bangladesh.

2.6 Employment situation

In the one and almost half decades growth in employment opportunities has been far below the growth in the labour force. The rate of unemployment has increased from 1.18(89) to 1.95 (90-91) to 2.5(95-96) to 3.7 (99-00) in this period. The reality of the unemployment scenario is quite different. Underemployment is the major problem in Bangladesh. Openly the number of the unemployed in informal sector is small because visibly most of the workers have jobs but many of them work a few hours a day or they have no work in many days or some months in a year. The huge level of underemployment indicates a huge under-utilization of human resources, which decelerates economic growth and puts a bar to any rise in the living standard.

Sectoral distribution of employment according to BBS gives an awful trend of the employment creation in manufacturing sector. On average, agriculture has

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>LFS</th>
<th>LFS</th>
<th>LFS</th>
<th>LFS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour force composition(million):</td>
<td>1989</td>
<td>90-91</td>
<td>95-96</td>
<td>99-00</td>
</tr>
<tr>
<td>Civilian labour force:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>29.7</td>
<td>31.1</td>
<td>34.7</td>
<td>37.5</td>
</tr>
<tr>
<td>Female</td>
<td>21</td>
<td>20.1</td>
<td>21.3</td>
<td>22.8</td>
</tr>
<tr>
<td>Total</td>
<td>50.7</td>
<td>51.2</td>
<td>56</td>
<td>60.3</td>
</tr>
<tr>
<td>Unemployed population(Million):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Male</td>
<td>0.4</td>
<td>0.6</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>(66.70%)</td>
<td>60%</td>
<td>(64.30%)</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>0.2</td>
<td>0.4</td>
<td>0.5</td>
<td>0.8</td>
</tr>
<tr>
<td>(33.30%)</td>
<td>40%</td>
<td>(35.70%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Unemployment rate(%):</td>
<td>0.6</td>
<td>1</td>
<td>1.4</td>
<td>2.2</td>
</tr>
<tr>
<td>Total</td>
<td>1.18</td>
<td>1.95</td>
<td>2.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Male</td>
<td>1.35</td>
<td>1.93</td>
<td>2.59</td>
<td>3.6</td>
</tr>
<tr>
<td>Female</td>
<td>0.95</td>
<td>1.99</td>
<td>2.35</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Note: The figures in parentheses refer to the percentage share of total
Source: BBS
provided 65% of the total jobs in the country. The average shares of industry and service sectors in the total employment have only 12.7% and 22.2%, respectively. Share of total employment provided by the manufacturing sector could not be increased at all in the period of accelerated free trade while contribution of the services sector has increased moderately well.

Unemployment is largely concentrated in the rural areas, and the incidence of unemployment among women has been increasing within the rural sector. Urban-rural breakdown of employment and unemployment provided by BBS says that about 30% of total unemployment occurred in urban areas and the remaining 70% occurred in the rural areas. Unemployment in rural areas has been rising, increasing from 0.4 million in 1989 to 0.9 million in 1995-96 and 1.6 million in 1999-00. Unemployment of women in the urban areas fell from 50% to 25% of total female workers. This decline in women unemployment may be explained by the increasing employment opportunities created by garments industries within and outside EPZs and by the construction industry as casual labour.

### 3 Challenges in front of Bangladesh

#### 3.1 Investment challenge

The proponents of globalization believe that it brings in high rate of economic growth to the countries which have been able to integrate with the global process of free trade and that growth would alleviate poverty. It has not happened in Bangladesh. It used to be believed that there has been improvement in poverty reduction, but in the recent years the recurrence of monga (famine) in some districts has changed the belief. Besides, increasing unemployment and gap between the poor and the rich, have created apathy for globalization. The growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Labour force</th>
<th>Unemployed and underemployed</th>
<th>Unemployed and underemployed as a % of the total labour force</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-2000</td>
<td>12.98 crore</td>
<td>6.02 crore</td>
<td>2.40 crore</td>
<td>39.87</td>
</tr>
<tr>
<td>2001-2002</td>
<td>13.16 crore</td>
<td>6.41 crore</td>
<td>2.56 crore</td>
<td>39.94</td>
</tr>
<tr>
<td>2002-2003</td>
<td>13.34 crore</td>
<td>6.62 crore</td>
<td>2.64 crore</td>
<td>39.88</td>
</tr>
<tr>
<td>2003-2004</td>
<td>13.81 crore</td>
<td>6.83 crore</td>
<td>2.72 crore</td>
<td>39.82</td>
</tr>
</tbody>
</table>

Source: BBS
is inadequate and revenue collection low to allocate money for poverty reduction and the cause of inadequate growth is a very low level of investment in both public and private sector. Three reasons for this low investment have been identified (Sobhan in 1997, Bhattacharya in 2000): Firstly, declining profitability of investment in manufacturing and increasing uncertainty caused by import liberalisation secondly, the decline in term loans to finance investment expenditures to widespread defaults and growing volume of classified loans, and thirdly, the high lending rate.

Despite the offer of the most attractive incentives to foreign investors FDI has not taken place significantly because of corrupt governance, deteriorating law and order situation, and political instability.

3.2 Export diversification

In the supply side, governments during 90s have appeared to be extremely inefficient in product and market development, in developing infrastructure, in arranging training for workers to improve their skill, whereas these supply side measures could help to diversify exports.

3.3 Future of the garments industry

Despite a phenomenal growth in the garments industry in Bangladesh, which covers 76% of its total exports earning and employing more than 1.5 million workers, 90% of which are women, the industry remained inefficient in terms of productivity mainly worker productivity. Productivity of Bangladeshi garment workers is far below those of its competitors namely South Korea, Sri Lanka, Hong Kong, China etc.(Rashid, Rahman, Reza,1998). Competitiveness of Bangladeshi garments in the world market has been possible only because of tremendously low labour cost. Behind the scene of the rise and growth of garments industry in Bangladesh there lies a story of labour exploitation and employment of child labour in inhuman conditions. The wages paid to the workers here are not even enough to keep their body and soul together. Their working condition, living condition, their health- everything is far below any standard. At the cost of the labour of the wretched workers, owners of garments industries have made phenomenal profits and government has not taken any measures to uphold the interest of workers. Probably because of the availability of this cheap labour neither the owners of the garments industries have tried to be competitive by increasing productivity nor has the government taken any supply side policy to improve the productivity in this sector. This negligence and the
above-mentioned labour exploitation will have to pay a heavy price now when quota facilities under Multi-Fibre Agreement from USA and Canada, and preferential tariff treatment under GSP scheme from EU are eliminated. Garments industry in Bangladesh, both woven garments and knit garments, is heavily dependent on the import of fabrics from abroad namely China, India and Thailand while these countries are also Bangladesh’s competitors in the international garments market. Around only 20% of the total required fabrics is supplied by the local firms. Now these fabric supplier countries will take the opportunity and increase their garment exports using their own fabric. As a result Bangladesh garments industries may face shortage of raw materials and buy raw materials at higher prices, which will pull them down far below the height of competitiveness reducing export and revenue. This uncertainty regarding source of fabric and competing in an unrestrained trading environment will definitely have an adverse effect on garment export from Bangladesh.

It is sheer folly that Bangladesh has not developed its own industry to supply fabric to the garments industry, which brings in 76% of its total export earning and employs 1.5 million workers. It has been estimated that 242 new spinning mills, 475 new weaving mills of 200 looms each, 475 new dyeing and finishing mills, and 1,000 new knitting units are needed to meet the demand for woven and knit fabrics by the exporting garment industries. These should have been set up from the beginning of the growth of this industry by which it could increase the value addition in the last one and half decades and could avoid falling in such uncertainty. This task should have been completed at least by the middle of 2005. This backward linkage industry in the textile sector, besides keeping up the level of garments exports, could create a lot more jobs inside the country. Given the inability or the weakness of the country’s own to perform the job, it could invite FDI offering attractive incentives in the textile sector producing fabrics.

To compete successfully in the quota-free arena, it is imperative that Bangladesh diversify the pattern and style of garments. Fashionable and high-priced garments will be high in demand. Therefore, Bangladesh must concentrate on manufacturing this type of garments. For the diversification of products and for increasing the productivity, Fashion Design Institutes need to be established and extensive training facilities need to be arranged for workers. Besides, Bangladesh must develop its bargaining power with adequate knowledge in relevant fields and strengthen diplomatic efforts to obtain preferential treatment for its garments exports to the USA.
3.4 Production relation

Employer-employee relation in Bangladesh is anti-productive. One of the main reasons of this is that employer-employee relation here is hostile. Activities of workers are suspected by the employers to be detrimental to the firm and decisions made by the employees are suspected by the employees to be something against their interests. A pro-productive and healthy production relation is extremely vital for enhancing productivity. A participatory decision making approach and a friendly relation in industries are at the height of importance. The owners or the people in management must make sure that each and every worker feel like an integral part of the organization. Besides, partnerships between workers and entrepreneurs should be developed by the initiative of the government. Government can hand over some SOEs to cooperatives consisting of workers and entrepreneurs and play a role in the flourish of a friendly employer-employee culture.

3.5 Market Access

Ensuring market access is as important as export promotion efforts, because exports can never be increased until Bangladesh can overcome restrictions on its way to exports. Some restrictions are mentioned below and comments are made regarding all these which might claim to be considered.

3.6 Labor standards and workers’ unions in EPZs

The US argument that labor regulation and international competitiveness are inter-linked is true. But instead of the inclusion of the social chapter in the WTO agreement and imposing trade sanction in case of non-compliance, the matter of labor regulation should be left with ILO.

Government may take a position between the US insistence on the introduction of trade unions and the threat posed by the investors’ countries (Japan, South Korea) of withdrawing investments from EPZs. Government can ensure workers’ right to the full extent without letting them form unions. Because, on one hand workers’ right has been extensively violated not only in garments industries and in EPZs but also in all industries both inside and outside EPZs, on the other hand, there is extremely bitter experiences of trade unions in Bangladesh. (Bitter experiences of trade unions in West Bengal of India is well known.) To reach a consensus, all the sides namely LDCs, developing countries, ILO and the OECDs, involved in this issue must sit together and Bangladesh must speak in a tone sympathetic to so far deprived workers.
3.7 Product standards

Instead of negotiating for the relaxation of product standards determined in the Uruguay Round Agreement under SPS and TBT, Bangladesh must comply with the international standard and endeavor to improve working environment and improve product quality. Bangladesh has incurred a heavy loss by a tremendous fall in exports of shrimps for the non-compliance with the importers’ hygienic regulations.

3.8 Anti-dumping and countervailing action

It is very regretful that Bangladesh has been the victim of anti-dumping and countervailing action imposed by the USA and its terry towel export has been stopped. Exporters have failed to convince the American counterparts that Bangladesh’s exports were neither dumped nor subsidized. Producers and exporters need to be better-equipped with the knowledge in the relevant fields.

3.9 Rules of origin

EU’s GSP scheme was the major factor of Bangladesh’s tremendous growth in garments exports but recently the rules of origin requirement imposed by the EU authority is likely to deprive Bangladesh of the zero-tariff access to EU markets. Here again instead of trying to convince the EU authority to withdraw or relax the regulation Bangladesh should immediately develop its backward linkage industries to fulfill the requirement of a two-stage conversion (yarn to fabric, fabric to garments) in the case of woven garments, and a three-stage transformation (cotton to yarn, yarn to fabric, fabric to garments) in the case of knit garments.

3.10 Privatization

Instructed by the World Bank and IMF, Bangladesh has taken a liberal privatization policy and so far privatized many SOEs and some have been closed, which have turned a lot of workers unemployed. The process of privatizing was faulty and biased and were sold at negligible prices to the people who are politically linked with the power structure. Besides the creation of huge unemployment, many workers have been turned into day laborers. Governments have never taken any effective measures to make the SOEs profitable, rather have blindly followed the instructions of World Bank and IMF in the name of globalization. Government wanted to get rid of financing the losing SOEs, but has ignored the cost of unemployment. The cost of unemployment and the loss of
GDP caused by unemployment may be much greater than the saving of money by getting rid of financing the losing SOEs. There are complaints that the retrenched workers were not paid their lump sum amounts and expansion of private investment in the privatized enterprises has not taken place.

True, SOEs can be made profitable, but given the corrupt bureaucracy and poor and dishonest governance, to cherish this hope would be impractical, that's why it may be suggested that government monitor the privatizing process properly and make sure that new owners do not cut jobs. Government should also establish training institutes and provide training to the workers free of charge.

3.11 Structural change

During the process of globalization no significant structural change has occurred in the industries of Bangladesh. Structural change should occur with changes in the demand pattern and market conditions abroad and retraining should be arranged for workers so that they adjust with the new requirements.

4. Conclusion

From the beginning of 90s till the present time, it has been seen that most of the fruits of globalization has been enjoyed by the developed countries because the principle of globalization is obviously biased to the countries where industries are more matured. A few of the LDCs have achieved higher rate of growth, but this growth rate does not truly reflect the average living standard of the people. Whether a country will benefit or lose out from globalization depends on two things. Firstly, the pace of the country’s integration with the global process and its preparation for it, secondly, the degree of access facility offered by developed countries for LDCs’ goods to their markets. For the second, all developing countries and LDCs need to be united and strengthen their negotiating position with the developed countries.

In Bangladesh growth rate during the whole of 90s and the foreign currency reserves in the last two years have increased, but unemployment, poverty and inequality have increased, which suggests that growth rate and foreign currency reserve are fake indicators of development.

Bangladesh alone cannot probably keep away from the process of globalization. What the country needs is a true democratic government which can offer good and efficient governance, has the honesty not to surrender to foreign agencies and the efficiency to determine the exact pace needed to be globally integrated and undertake wide and extensive preparation to read the benefits of globalization.
Reference


Joseph Stiglitz: *Globalization And Its Discontents*
Corporate Governance— The Underlying Concept and its Implications for The Twenty First Century Bangladesh

Mir Nazmul Karim*

1. Background

The world around us is rapidly changing and every day we are facing a great deluge of new terminology. Some of the terminology which are hitting the headline in electronic and print media are free market economy, deregulation, privatization, social and economic reform and globalization. The term corporate governance is a new addition to the long list of terms in recent days. These are undoubtedly new terms and have been coined mostly by the donor agencies and heads of international financial/trading organizations for the purpose of attaining some pre-determined goals. Each of these terms has its unique conceptual background and possess its meaning and significance. If we are really desirous of getting the best out of these terminologies, we have to make a vigorous effort to gain deeper insight into the concept itself and devise ways and means of extracting the beneficial results from the same.

It is quite interesting to note that some of our high-flying political leaders and ministers are increasingly becoming fond of using terms that are very popular with the leading global leaders. One such example is provided by the repeated use of the term Road Map by our leaders whenever they find an opportunity of addressing a public meeting or seminar/symposium. The stark reality is that both the ministers and the public have no knowledge about its meaning and significance. Some of the terms, which are very often uttered by our leaders are Milestone of Development, Politics of Development, Green Revolution, and Reduction of Poverty etc. As against these lofty promises by our leaders, we find that things have not materialized in the proper sense of the term. Some of the pressing problems that are traumatizing the entire country are rising prices of daily essentials, acute traffic congestion, poor law and order situation and deep-
rooted corruption at all strata of national life. The country has already earned the ill reputation of being the most corrupt country of the world for four consecutive years. In recent times the World Bank Country Director and the Administrator of United States Agency for International Development (USAID) have expressed their deep concern about poor law and order situation, lack of corporate governance and poor human rights record.

The erstwhile Planning and Finance Minister Saifur Rahman while addressing a seminar said that there was no corporate governance in the country except family governance. He was very critical of the role played by the bankers, bureaucrats and industrialists for not promoting corporate governance. Here it must be pointed out that it would not do us any good by just uttering the high-sounding terms. If we are at all serious in properly comprehending the significance of these terms, we have to ask some pragmatic questions to ourselves. First, do we know the exact meaning and significance of the term corporate governance and its objective and background? Secondly, what are the advantages of voluntarily adopting various regulatory measures that corporate governance calls for? Thirdly, what obstacles might be faced while implementing the idea in practice? Fourthly, what strategies should be adopted to maximize its potential benefits? It is hoped that a concerted and determined effort on our part would go a long way in enabling us in deriving the maximum possible benefit out of the term CORPORATE GOVERNANCE.

For the purpose of keeping the topic in sharp focus, the paper is divided in to several sections. In the first section, the background of the paper is explained in a clear and concise manner. In the second section, the underlying objectives of the paper are set forth. The third section deals exclusively with the conceptual background of the main theme of the paper. The fourth section examines the principles of corporate governance and its evolution in various countries of the world. Section five evaluates the progress achieved by various countries in the field of corporate governance. The sixth section attempts to examine the present state of affairs with respect to corporate governance in Bangladesh. The task of identifying the various issues that need to be tackled on an urgent basis is taken up in the seventh section. The concluding section sums up the study and puts forward some suggestions.

2. The Objective

The topic that constitutes the subject matter of this paper is relatively new and is still in its formative stage. Each country is trying to implement the underlying
ideas of corporate governance to consolidate its position in the local and international arena. To be successful in this endeavor; the underlying idea behind the concept of corporate governance must be properly understood. The present paper is a humble attempt in this regard. The various objectives of this paper are as follows:

(a) To examine the concept in all its details
(b) To throw light on the development of the concept and assess its present status.
(c) To explain the underlying principles of corporate governance
(d) To evaluate the achievement of other countries in this respect
(e) To take a stock of current issues in corporate governance.

3. The Concept of Corporate Governance

Over the past few years, much emphasis has been placed on the significance of corporate governance. Here the word ‘corporate refers to those business entities that are registered under the Joint Stock Companies Act. The origin of the word ‘governance’ can be attributed to some sort of government mechanism that takes care of its proper running. Corporate governance can be defined as the way the management of a firm is influenced by many stakeholders, including owners / shareholders, creditors, managers, employees, suppliers, customers, local residents and the government. Different economies have systems of corporate governance that differ in the relative strength of influence exercised by the stakeholders and how they influence the management.

Corporate governance is all about governing (running or managing) corporations (incorporated businesses). By their nature large incorporated businesses are usually owned by one group of people (the owners or shareholders) whilst being run by another group of people (the management or the directors). This separation of ownership from management creates an issue of trust. The management has to be trusted to run the company in the interest of the shareholders and other stakeholders. If information were available to all stakeholders in the same form at the same time, corporate governance would not become an issue at all. Armed with the same information as managers, shareholders and creditors would not worry about the former wasting their money on useless projects; suppliers would not worry about the customer not fulfilling its part of a supply agreement; and customers would not worry about a supplier firm not delivering the goods / services agreed. In the real world of imperfect information, each agent will use whatever informational advantage they may have.
Looking at conventional firms, management will usually have an informational advantage over other stakeholders and hence the need for corporate governance. Good corporate governance means governing the corporation in such a way that the interests of the shareholders are protected whilst ensuring that the other stakeholder’s requirements are fulfilled as far as possible. For example, it means that the directors will ensure that the company obeys the law of the land while still remaining in business.

In recent years, some high profile business frauds and questionable business practices in the United Kingdom, the United States and other countries have led to doubt being cast on the integrity of business managers. This has led to scrutiny of corporate governance and a desire for governments to tighten the regulation around corporate governance further.

When something goes wrong, governmental response the world over tends to be the setting up of an investigative committee. Such committees constituted in various countries of the world have tried to look at what needs to be done following corporate governance problems.

Many of the large corporations are multinational and/or transnational in nature. This means that these corporations impact on citizens of several countries across the globe. If things go wrong they will affect many countries, albeit some more severely than others. It is therefore necessary to look at the international scene and examine possible international solutions to corporate governance difficulties.

Company law is the foundation upon which governance is built. Company law provides the rules for boards of directors and their shareholders, the meaning of accountability for the exercise of corporate economic power and the remedies and punishments for negligent, irresponsible and fraudulent abuse of that power for it to be of any use to the dynamic world of corporate governance. Company Law has to be up-to-date. It would be fair to say that over time adding new rules and taking out outdated rules have changed Company Law without reexamining the fundamental principles. This has arisen largely from reaction to scandals and mischief arising from wide scope allowed by the first Companies Act of the Victorian times.

4. Principles of Corporate Governance

The degree to which corporations observe basic principles of good corporate governance is an increasingly important factor in investment decisions. Of particular relevance is the relationship between corporate governance practices
and the increasingly international character of investment. International capital markets enable corporations to access funds from a much larger pool of investors. Countries having high standards of corporate governance practices are more likely to attract international capital. Although there is no single model for good corporate governance, it is affected by the relationships among participants in the governance system. These participants include: management, creditors, employees and other stakeholders, and the government. The rule of each of these participants and their interactions vary widely from country to country. Broadly speaking, the relationships are subject to law and regulation, market forces and voluntary adaptations.

The OECD (Organization of Economic Cooperation and Development) has carried out work among member countries and identified some common elements, which underlie good corporate governance. The OECD Principles of Corporate Governance are built on these common elements. These Principles represent a common basis that OECD member countries consider essential for the development of good corporate governance practice. They are concise, understandable and accessible to the international community. Corporate governance is only part of the larger economic context in which firms operate.

A workable corporate governance framework which depends on the legal, regulatory, and institutional environment should be mindful of factors such as business ethics, environmental and societal interests. These factors can make a difference to the long-term success or failure of a corporation. Many governance problems result from the separation of ownership and control. Therefore a good corporate governance framework should principally address these problems. This separation of ownership and control creates an information mismatch due to the reality that the world does not experience perfect information.

The OECD Principles are evolutionary in nature and should be reviewed in light of significant changes in circumstances. To remain competitive in a changing world, corporations must innovate and adapt their corporate governance practices so that they can meet new demands and grasp opportunities. In the same vein, governments are responsible for creating an effective regulatory framework that provides sufficient flexibility to allow markets to function effectively and to respond to expectations of shareholders and other stakeholders.

The OECD expects governments and market participants to decide how to apply its Principles in developing their frameworks for corporate governance, taking into account the costs and benefits of regulation. A balance has to be struck to ensure that a cost-effective regulatory regime is put in place. This regime should
be mindful of an adequate definition of cost since what may be considered cost-effective with one set of costs may be cost-ineffective with another.

Within the OECD document, each section is headed by a single Principle, which appears in bold italics, followed by a number of supporting recommendations. A second part to the document supplements this with annotations that contain commentary on the Principles. These annotations are intended to help the reader understand the Principles’ rationale. Some contain descriptions of dominant trends and offer alternatives and examples that may be useful in making the Principles operational. The OECD Principles of Corporate Governance cover five sections:

A. The rights of shareholders
The corporate governance framework should protect shareholders’ rights.

B. The equitable treatment of shareholders
The corporate governance framework should ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress for violation of their rights.

C. The role of stakeholders
The corporate governance framework should recognize the rights of stakeholders as established by law and encourage active cooperation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financial sound enterprises.

D. Disclosure and transparency
The corporate governance framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the company.

E. The responsibility of the Board
The corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the Board, and the Board’s accountability to the company and the shareholders. These principles can be used by a nation state to design its own corporate governance rules. Auditors may use them to assess the adequacy of any corporate governance regime in the absence of more immediate standards.
5. Achievement of other countries in the field of corporate governance

The available information suggests that a lot of progress has been achieved in the U.K. regarding implementation of corporate governance in letter and spirit. The publication of a series of reports consolidated into the combined code on corporate governance (The Hempel Report) set up in 1998, has resulted in major changes in the area of corporate governance in the United Kingdom. The corporate governance committees of the last decade have analyzed the problems and crises besetting the corporate sector and the markets and have sought to provide guidelines for corporate management. Studying the subject matter of the corporate codes and the reports produced by various committees highlights the key practical issues and concerns driving the development of corporate governance over the last decade.

The main committees, known by the names of the individuals who chaired them, are:

The Cadbury Committee – set up in May 1991 to report on the financial aspects of corporate governance. Set up by the financial Reporting Council, the London Stock Exchange and various members of the accounting profession.

The Greenbury Committee -- set up in January 1995 to identify good practice by the CBI (Confederation of British Industry), to determine director remuneration and to prepare a code of such practice for use by UK pcls (Public limited companies).

The Hempel Committee--set up in November 1995 to promote high standards of corporate governance both to protect investors and preserve and enhance the standing of companies listed on the stock exchange.

The Turnbull Committee--set up by the ICAEW (Institute of Chartered Accountants in England and Wales) in 1999 to provide guidance to assist companies in implementing the requirements of the combined code relating to internal control.

All theses committees have produced reports. These are summarized in Table 1.

Two other documents, both produced by the APB (Auditing Practices Board), which may be relevant to the understanding of corporate governance in the UK, are the McFarlane Report (1992) and the Audit Agenda (1994). The McFarlane Report proposed a redefinition of the role and scope of the audit to incorporate a focus on the management of financial risks, more informative reporting by
auditors and reporting to a wide constituency of stakeholders. It discussed the need to enhance auditor’s independence. Two years later the Audit Agenda, which developed from the McFarlane Report, was produced. This document proposed that the scope of audit for listed companies be extended to include reporting on governance issues and made various audit recommendations relating to fraud and the responsibilities of audit committees. The main problems with corporate governance in the UK as seen by commentators at the beginning of the 1990s were:

1. Short-termism;
2. Creative accounting;
3. Business failures and scandals; and
4. Director’s pay.

The reports detailed in Table1 are the result of the regulators (accounting profession principally) reacting to the public’s perception. What has happened so far is that the UK profession has continued with self-regulation, instead of going for the statutory regulations. The arguments of one against the other continue. For how long self-regulation will continue? Not long if the commentators are to be believed. Politicians are already saying that the WorldCom scandal underscores the need to impose strict regulations on accountants. There is a feeling that the accountancy profession has been given sufficient time to develop self-regulation to a sufficient level, and the profession has failed to deliver and that it is time for statutory regulations to take over.

At the beginning of 21st century, we need to ask whether the effort of producing the various reports is worth it, so that we can identify what needs to be done to resolve any new corporate governance problems. We need to identify the current issues in corporate governance. These are many and varied and both Enron (Andersen’s) and WorldCom have given us few issues to think through. More importantly though, the many problems at the start of 1990s are still with us in some form or other. The role of internal and external audit in corporate governance still remains but they need to be adapted to the needs of the 21st century.

The Company Law Review (CLR) has been an attempt to reform the whole structure of company law in the United Kingdom. Full implementation of its recommendation will have a significant impact on corporate governance. The UK Steering Group has recommended changes in some areas and has noted areas that should be left unchanged.
In India, the various industrial organizations are also becoming increasingly conscious of the importance of corporate governance. One such company is ITC that has evolved over the years from a single-product company to a multi-business corporation. Its business is spread over a wide spectrum ranging from computers and tobacco to hotel, paper products, international commodities trading etc. Each of these businesses is vastly different from the others in type, the state of its evolution and the basic nature of the activity, and all of which influence the choice of the form of governance. The challenge of governance of ITC therefore lies in developing a model that addresses the uniqueness of its businesses and yet strengthens the unity of purpose of the company as a whole.

Since the commencement of the liberalization policy, India’s economic activity has begun to alter radically. Globalization will not only significantly heighten business risks but also compel Indian companies to adopt international norms of good governance and transparency. Equally in the resultant competitive context, freedom of executive management and its ability to respond to the dynamics of a fast changing business environment will be the new success factors. The governance policy recognizes the challenges of a new business reality in India.

The form of Corporate Governance initiative chosen by ITC is based on two core principles that may be enunciated as follows:

(a) Management must have the executive freedom to drive the enterprise forward without undue restraints; and

(b) The freedom of management should be exercised within a framework of effective accountability

ITC believes that any meaningful policy on Corporate Governance must provide empowerment to the executive management of the company and simultaneously create a mechanism of checks and balance. These checks and balance must ensure that the decision making power vested in the executive management is never misused and similarly used with care and responsibility to fulfill stakeholders’ aspirations and societal expectations.

From the above definition and core principles, emerges the cornerstone of Corporate Governance namely trusteeship, transparency, empowerment and accountability, control and ethical corporate citizenship. ITC believes that the practice of each of these leads to the creation of the right corporate culture in which the company is managed in a manner that fulfills the purpose of corporate governance.
In Thailand, the Thailand Development Research Institute is engaged in developing satiable model of corporate governance to be followed by the various business entities. One of the major reasons behind the outbreak of the East Asian Economic Crisis in 1997 is bad corporate governance that includes cracknel lending by commercial banks, bad investment by managers, shabby business deal and poor audit. While it would be somewhat far-fetched to attribute this crisis to bad corporate governance, weaknesses in governance certainly rendered the economy much more vulnerable to economic imbalances. Connected lending and transactions were commonplace. Having multiple financial accounts was the standard practice.

Picking itself up from the corporate ruins, Thailand has put great effort to develop a better corporate governance regime. A series of economic reforms have been made, including a new or improved bankruptcy law, foreclosure procedures, and money laundering law and anti-trust law. Several institutions have been set up such as Bankruptcy Court, Small Cases Court, the Fair Trade Commission and the Corporate Debt Restructuring Agency Committee (CDRAC). The country has attained recognizable progress in laying the legal and institutional support for promoting good corporate governance. However the task is far from over. There are many problems that are yet to be tackled. It must be emphasized here that corporate governance is moulded by the local culture, institutions, the environment, and legal framework that have been shaped over generations.

6. The Status of Corporate Governance in Bangladesh

The prevailing state of affairs regarding corporate governance in Bangladesh does not present a happy picture. The ADB has identified weaknesses in the financial sector, particularly in loan screening and supervision and lack of accountability of Bank Officials. The credibility of the banking system is at stake. A perennial problem of the country is loan default. Recently government undertook several measures to address the banking sector issue and strengthen the country’s financial system.

The ADB has given to understand that its future assistance to the country will be assistance to the contingent on developing “Institutional capabilities to enforce good corporate governance”. Bangladesh will need to develop the best practices of corporate governance in the financial sector. The country’s capital market is still at a nascent stage. Despite some progress, the stock exchange is yet to be made fully effective to improve capital market efficiency. Weaknesses of the corporate governance are evident in the lack of enforcement of the Companies Act, lack of
transparency, and inadequacies in the financial reporting by companies and deficiencies in the regulation and supervision of the capital market.

Corporate governance in businesses is the process of management and control of corporate assets so as to protect the investors' interest. The process gives shape to a company’s management board and lay down how the shareholders and other stakeholders interact in a cohesive way to achieve the company’s corporate objective. A corporate governance system is essential for creating an enabling environment for private sector enterprise development for sustainable economic growth. Accordingly corporate governance intervention programs in Bangladesh are often linked to other reform programs including enterprise reform, restructuring state-owned enterprises, financial governance reform, financial market reform and capital market development, he said.

7. Identifying the main issues in corporate governance

A company may be defined as a body corporate having a perpetual succession and a common seal. Law regards a company as an artificial person that can sue and hold property. Its existence is quite separate from its shareholders and the task of managing the affairs of the company is legally entrusted with the Board of Directors. From systems view-point, a company is an open system that tries to survive by adapting itself with external environment. Its ability to survive the turbulent external environment in turn is very much dependent on its own internal management capability. Any lapse in judging the impact of major external factors and inability or reluctance in guarding against internal management loopholes can be very fatal for a company. Here we can say that a company has failed due to its poor corporate governance mechanism.

A close scrutiny of the corporate governance problem reveals that the primary responsibility of smoothly running the affairs of a company is vested with the members of Board of Directors. To be able to discharge its vital function properly, the Board and its members must be furnished with authentic and up-to-date accounting data that is rightly called “the language of business.” So there must be a carefully formulated accounting information system that will continue to provide timely and accurate accounting and other related data to the top management of any given business entity at regular interval. The Board must utilize these data with definite intention of identifying its managerial weaknesses and undertake suitable remedial measures to tackle any crisis that may be looming in the horizon with sufficient time in advance. A culture has developed in our country where we do not pay due attention to solve a problem in its early stage and would prefer to adopt a wait and see policy. This is not conducive to the emergence of healthy corporate governance in Bangladesh.
Here it must be pointed out that good corporate governance would mainly depend upon the ability of a country’s government machinery to provide the necessary legal and administrative framework in which the business organizations are mostly likely to thrive. At the same time, the management of these organizations must strive hard to be profitable and protect the rights of everyone connected with the company. First and foremost, it must be transparent in its overall dealings and respect the law of the land with honesty and sincerity. It can achieve a lot by recasting its accounting information system in light of globally accepted principles and strategies in the field of accounting and narrow down the gap between local and international laws and norms. It must be willing to install a fool proof system of internal and external audit system and avoid all types of fraudulent practices. The habit of taking recourse to window-dressing or creative accounting should be given up at all cost.

8. Conclusion

Corporate Governance is complex in nature. To make it suitable for the circumstances prevailing in Bangladesh, a lot of work has to be done. It calls for suitable amendment of administrative, legal, financial measures aimed at meeting the requirements of the new millennium. The Companies Act 1994 has to be recast to facilitate the formation and trouble-free operation of the companies that may be functioning in the country. Here the principles developed by OECD have been cited as an example upon which Bangladesh can build up its own corporate governance rules. Details about corporate governance in the UK have been discussed as a prototype that can be of considerable help in formulating a sound corporate governance policy.

At the beginning of 21st century, we need to ask ourselves whether the effort of producing the various reports would be cost-effective. At the same time, we have to identify what needs to be done to resolve any new corporate governance problems. The need of the hour dictates that we select the current issues in corporate governance. These are many and varied and both Enron (Andersen’s) and WorldCom have provided us with a number of issues that needs to be carefully examined. Every country must make a determined effort to design a scheme of corporate governance system that meets both local and international requirement. Many of the problems encountered at the start of 1990s are still with us in some form or another. They need to be sorted out on an urgent basis. The role of internal and external audit in corporate governance still remains fuzzy and they need to be clarified keeping in view the needs of the 21st century.
We must bear in mind that only by encouraging corporate governance at every sphere of our economic activity the country can derive optimum benefit of globalization. This is a huge task and calls for close cooperation of all concerned namely government, employer, shareholder, financial institutions and trade bodies etc. The role of accountants, auditors, and financial analysts is very much essential for the installation of a corporate governance system since these are the people who will pinpoint the possible loopholes in the accounting information system. A sound corporate governance system can be evolved and maintained by following some specific suggestions. They are:

(a) Some of the vital organs of the state namely judiciary, civil administration, law enforcing, agencies, local government bodies etc have to be revitalized and restored to its old glorious past.

(b) Nothing can be achieved by bitter criticism of owners, entrepreneurs, employers, politicians and bureaucrats. All possible steps have to be taken to motivate them to work towards a common goal of establishing peace, harmony and tranquility in the society.

(c) The members of the society must remember that united we stand and divided we fall. A feeling of hatred and mistrust must be eliminated at all cost. There must be a consensus among all of us to promote common national agenda that seeks to safeguard the rights of the common man.

(d) In these days of globalization, no country can afford to remain isolated from the rest of the global community. Many of the countries have managed to improve their economic lot by embracing laws, rules, regulations relating to accounting, auditing, taxation etc through the process of harmonization and standardization. Similar programs may be launched in Bangladesh to win the confidence of foreign investors, trading partners and influential world bodies.

(e) Urgent measure should be taken at national level to create a congenial environment where only rule of law shall prevail and democratic norms would be followed and upheld by every member of the society.

(f) A National Committee comprising of representatives from the government, employer, owners, the various trade promotional and professional bodies may be constituted to facilitate the task of installing Corporate Governance in Bangladesh. It will examine the problem in all its details and identify the areas where improvisation or modification can be made and thus make it more compatible with the international norms and practices.
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<th>Report Title</th>
<th>Key Issues</th>
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<td><strong>Cadbury</strong></td>
<td>(Cadbury, 1992) • Aimed to improve information to shareholders, reinforce self-regulation and strengthen auditor independence. • Produced the Cadbury Code of Best Practice. • Recommended that: 1 The boards of directors should report on the effectiveness of company’s systems of internal control. 2 The directors’ service contracts should not exceed three years with cut approval by the shareholders. 3 Each listed company should establish an audit committee of at least three non-executive directors.</td>
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<td><strong>Greenbury</strong></td>
<td>(Greenbury, 1995) • Aimed to provide an answer to the general concerns about the accountability and level of directors’ pay. • Argued against statutory control and for determining director’s remuneration, the proper reporting to shareholders, and give transparency in the process. • Produced the Greenbury Code of Best Practice, which was divided into four sections 1 Remuneration Committee 2 Disclosure 3 Remuneration Policy 4 Service contracts and compensation • Recommended that UK plc’s should implement the Code as set out to the fullest extent practicable; that they should make annual compliance statements; and that investor institutions should use their power to ensure that best practice is followed.</td>
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<td><strong>Hampel</strong></td>
<td>(Hampel, 1998) • Developed the Cadbury Report. • Produced the Combined Code. • Recommended that: 1 The auditors should report on internal control privately to the directors 2 The directors maintain and review all (and not just financial controls 3 Companies that do not already have an internal audit function should from time to time review their need for one. • Introduced the Combined Code that consolidated the recommendations of extant corporate governance reports (Cadbury and Greenbury).</td>
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<td>Key Issues</td>
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<td>• Provided guidance to assist companies in implementing the requirements of the Combined Code relating to internal control.</td>
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<td>* Recommended that where companies do not have an internal audit function, the Board should consider the need for carrying out an internal audit annually.</td>
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<td>• Recommended that boards of directors confirm the existence of procedures for evaluating and managing key risks.</td>
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References


Does Media Freedom Curb Corruption?

Gour Gobinda Goswami*

Abstract

Earlier studies on corruption provide some evidence supporting the common view that freedom of press or media lowers corruption in a cross sectional and panel framework. This paper adds to the literature by examining the impact of the freedom of press or media on corruption for a larger and most recent dataset of a panel of 111 countries over the period 1994-2000. Using several panel specifications and controlling for per capita income, individual country heterogeneity, and error structure, it is found that freedom of press or media lowers corruption by 20% supporting the existing literature.

I. Introduction

Freedom of press or media (Henceforth FOP) plays considerable role in providing us with adequate information about society, politics, economics, and culture. Opposition parties attempting to capture power also form public opinion through press. It shapes public policy by providing information about the priority of a government. However, FOP has its negative impact on society in the form of ‘yellow journalism’. This so-called ‘yellow journalism’ may possibly misguide us by forming public opinion in wrong direction. Sometimes, it can also tarnish the image of respected persons by interfering on their personal life.  

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1 This phrase is used in the US to describe newspapers involved in the internecine warfare of the popular metropolitan press empires of the late 19th century; a battle which has continued to the present day with mass-circulation tabloids competing for readership with all sorts of exploitative offers, lurid revelations and blockbuster bingo (Watson and Hill, 1993, p.189).

2 In this paper, the words ‘press’ and ‘media’ are used interchangeably. So, ‘freedom of press’ also implies ‘media freedom’ in all electronic devices in this paper. Freedom House (2004) uses the same approach in rating countries based on press freedom.
In many countries, the activities of defense, bureaucracy, and other government machineries are not supposed to be examined by ordinary people or parties outside the power. The major hindrance to information comes in the form of so called Official Secrets Act.³

Hence, people have to depend on press or media where almost everybody has some sort of access at minimum cost. In a broader sense, FOP may come out in the form of newspaper, radio, and television.

Putting the negative elements aside, we can say that FOP reveals the untold stories of government in the form of publication of reports about what is happening in judiciary, executives, and legislative authorities. One additional aspect of FOP is that it also tells us about the corrupt practices of public officials. Sen (2000) postulated that countries with more press freedom can control famine, high population growth rate, and financial crisis more effectively. The media also provide information on political markets, exposing corrupt and unethical politicians (World Bank, 2002b, p. 181).⁴ Hence, sometimes the vested interest groups may consider the news of independent press as propaganda against the government as well as country.

It is the established fact that when the media are controlled by the state, they are more likely to be subject to political pressures (World Bank, 2002b, p. 109). In many developing countries, major source of income of newspapers is government advertisements (Staphenhurst, 2000). As a result, some newspapers always try to be loyal to the existing ruling party for financial reasons. As soon as party changes, the newspapers also change their position. This kind of scenario is not conducive to media freedom. The empirical research on FOP and its impact on society are mostly qualitative⁵ The quantitative research about cross country

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³ This act censors information-access to it, and expression of it-which might be of use to the nation’s enemies (Watson and Hill, 1993, p.124). However, now-a-days this act is misused by ruling parties to suppress information regarding corruption and other irregularities in the policy and decision making.

⁴ In Bangladesh the introduction of privately-owned TV channels has the role of exposing the corruption or unethical practice of the politicians by engaging the politicians and policy-makers in open debate. Among all the programs one conducted in Channel-I named *Tritiya Maatraa* is noteworthy. In a parliamentary democracy, government is required to form ‘parliamentary committees’ to oversee the activities of different bodies of government. Opposition parties have the right to expose corrupt practices by government officials in the meetings of ‘parliamentary committees’. But we come to know about the proceedings of the parliamentary committees through press.

⁵ To find a comprehensive summary of many case studies around the world regarding the role of media see Staphenhurst (2000).
analysis of the impact of FOP on public corruption is limited by two things: absence of long time series data on public corruption and the data on press or media freedom. In spite of limited data availability, there exists a few major works in the area on what determines corruption. The factors that are already identified are: the type of government (Shleifer and Vishny, 1993, Cai and Triesman, 2004); competition (Bliss and Tella, 1997, Ades and Tella, 1999); culture or religious differences (Paldam, 2001); maturity of democracy (Mohtadi and Rhee 2003); foreign aid (Tavares, 2003); wage differential between the private and the public sector (Rijckeghem and Weder, 2001); legal origin of countries (La Porta et al., 1998); ethno linguistic fractionalization (Mauro, 1995); fiscal decentralization (Fishman and Gatti, 2002); press freedom (Stapenhurst, 2000; Brunetti and Weder, 2003; Chowdhury, 2004); and political rights and civil liberties (Ades and Tella, 1999; Chowdhury, 2004). From the above review, it appears that the impact of press freedom on corruption is getting increased attention at policy level in recent years. This paper adds to the existing literature by exploring the impact of FOP on public corruption for 111 countries over the period 1994-2000 or for a total of 777 observations. The additional advantage of using panel data is that it allows more variability in data, less multicollinearity, and less omitted variables-bias (Baltagi, 1995). Section II provides a model of corruption by considering the FOP as an additional determinant. Section III provides an analysis on data and variables, Section IV presents the empirical results, and Section V concludes.

6 To get a comprehensive idea about all the determinants of corruption and their significance in a cross-section framework see Triesman (2000).
7 The list of countries include Albania, Algeria, Angola, Argentina, Australia, Austria, Bahamas, Bangladesh, Belgium, Bolivia, Botswana, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chile, China, Colombia, Costa Rica, Cyprus, Czechoslovakia, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Finland, France, Gabon, Gambia, Germany, Ghana, Greece, Guatemala, Guinea, Guinea Bissau, Guyana, Haiti, Honduras, Hungary, Iceland, India, Indonesia, Iran, Ireland, Israel, Italy, Ivory Coast, Jamaica, Japan, Jordan, Kenya, Kuwait, Lebanon, Luxembourg, Madagascar, Malawi, Malaysia, Mali, Malta, Mexico, Mongolia, Morocco, Mozambique, Namibia, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Saudi Arabia, Senegal, Sierra Leon, Singapore, South Africa, South Korea, Spain, Sri Lanka, Sudan, Suriname, Sweden, Switzerland, Syria, Tanzania, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, Uganda, U.K., Uruguay, U.S., Russia, Venezuela, Vietnam, Yemen, Zambia, and Zimbabwe.
8 This paper uses a larger and more recent dataset compared to Brunetti and Weder (2003) and Chowdhury (2004). The highest number of observations covered by Brunetti and Weder (2003) is 497 and for Chowdhury (2004) the corresponding figure is 403 while this paper covers 777 observations and also allows for serial and contemporaneous correlation of errors.
II. The Model

The model follows the standard version of the corruption model developed by Ades and Tella (1999), and also used by Brunetti and Weder (2003). The random-effects or the error-component form of the model in a panel framework can be written as follows:

\[ \text{CORP}_i = \beta_0 + \beta_1 \ln \text{PCI}_i + \beta_2 \text{MEDIA}_i + \epsilon_i \]

where \( i \) represents country and \( t \) represents year. \( \mu_i \) is treated as random and all the observations are assumed to be drawn from the same distribution. \( \mu_i \) captures country-specific-effects which are treated as random. To capture both the country and the time specific-effects the random error term \( \epsilon_{it} \) can be decomposed as \( \epsilon_{it} = \mu_i + \tau_t + \omega_{it} \) where \( \tau_t \) captures time-specific effects.

The expected sign of the per capita real GDP (henceforth PCI) coefficient (\( \beta_1 \)) is negative in the sense that higher per capita income lowers the intensity of corrupt practices in an economy in that higher per capita real GDP lowers the expected benefit of corruption. It is assumed that the marginal benefit curve is downward sloping against PCI. However, press freedom works as a limit to corrupt practices in the sense that it raises the expected cost of corrupt practices by public officials. Hence, the expected sign of \( \beta_2 \) is also negative. The additional advantage of using PCI is that it controls for the economic size of countries and we can include any country in our dataset irrespective of its level of development. It is to be mentioned that PCI is mostly found as significant in all earlier studies.

FOP helps reducing corruption through several channels. Stapenhurst (2000) has identified some tangible and intangible factors through which media can affect corruption. The tangible factors are i) investigating and exposing corrupt officials and office-holders; ii) prompt investigations by official bodies; iii) reinforcing the work and legitimacy of the state’s anti-corruption bodies; iv) strengthening anti-corruption bodies by exposing their flaws; v) pressure for changes to laws and regulations that create a climate favorable to corruption, and vi) anticipation of adverse media publicity prompts a preemptive response.

Brunetti and Weder (2003) argued that free media can help reducing both the ‘extortive corruption’ and the ‘collusive corruption’. Free media reduces ‘extortive corruption’-the type of corruption mostly takes the shape of bribe by raising the probability of being detected and punished by laws. Bureaucrats enjoy the discretion to refuse or delay in providing some services to the bribe payers in this situation. But in the ‘collusive corruption’ which is mostly observed in the form of ‘tax evasion’, tax-payers also collude with the bribe-takers. In this
situation, both the bribe payers and takers extract some unfair gains on mutual basis. Free media is most effective in curbing ‘collusive corruption’ of this kind.

The channels can be summarized as follows:

First, FOP helps us communicating well with each other and creates some sort of resistance against any irregularities. Second, it can help us in diverting resources to the sectors where they are mostly needed. Third, when we hear news or reports from many different sources freely it becomes easier for us to verify which one is right and which one is wrong and creates a sort of public awareness against corruption. Fourth, in a democratic country where the press is somewhat free the ruling party does not want to lose in next election just by ignoring the press report regarding corruption.

III. Data and Variables

Data for corruption index is taken from PRS group’s ICRG index of corruption in government. Nevertheless, we have collected the corruption index from the paper version of the same data compiled by IRIS, University of Maryland, College Park. The index ranges from 0 to 6 where 0 means most corrupt and 6 means least corrupt. However, the indexes are transformed in such a way that 0 means least corrupt and 6 means most corrupt simply by deducting the existing ICRG indexes from six. The data on per capita GDP (henceforth PCI) is taken from World Development Indicator CD-ROM (World Bank, 2002a). PCI is defined as per capita GDP at constant 1995 US$. The index of press freedom is taken from the Freedom House Index of Press Freedom (Freedom House, 2004) which ranges from 0 to 100 where 0 means the most freedom and 100 means the least freedom. However, we transform the index in such a way that 6 means the most freedom and 0 means the least freedom to make the index comparable to corruption index. To get an idea about the data we report the panel summary statistics of our data in Table 1.

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9 Lower scores indicate “high government officials are likely to demand special payments” and “illegal payments are generally expected throughout lower levels of government” in the form of “bribes connected with import and export licenses, exchange controls, tax assessment, policy protection, or loans” (Knack and Keefer, 1995, p. 225).

10 For example, after the transformation of data, the corruption index for Niger stands at 6 for three consecutive years starting from 1997 while it was 1 for the same years in Norway.

11 Freedom House (2004) prepares this index based on four criteria: laws and regulations that influence media content, political influence over media content, economic influence over media content, and repressive actions. This index covers both the print media and the broadcast media.
From the table, we can see that within-country variation is substantially lower than the between-country variation when the variation is measured by the standard deviation. For example, while the within-country standard deviation is 0.33, the between-country standard deviation is 1.31. This difference has important implications for model specification in panel estimation.

### IV. Empirical Results

The empirical estimations started with the pooled OLS (henceforth Case 1) where it is assumed that the intercepts and the slopes are the same across countries and over time. This estimation is considered as too restrictive in the sense that some countries may have some individual characteristics which are specific to that country and sometimes some years may be considered as special and the reasons for this difference may to some extent be random. To address this kind of country-specific and time-specific heterogeneity we estimate random-effects model (henceforth Case 2 and Case 3). Cases 2 and 3 are different in the sense that while Case 2 considers randomness of intercepts across countries Case 3 also allows randomness of intercepts over time. Cases 1, 2, and 3 do not allow any serial or contemporaneous correlation of errors.

Unexplained determinants of corruption of one country may also affect another country at the same time. For example, smuggling, money-laundering, capital-

---

**Table 1: Panel Summary Statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
<th>Obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORP</td>
<td>2.61</td>
<td>1.28</td>
<td>0</td>
<td>6</td>
<td>N=777</td>
</tr>
<tr>
<td></td>
<td>Between</td>
<td>1.15</td>
<td>0</td>
<td>5</td>
<td>n=111</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>0.57</td>
<td>0.32</td>
<td>5.18</td>
<td>T=7</td>
</tr>
<tr>
<td>lnPCI</td>
<td>7.75</td>
<td>1.68</td>
<td>4.60</td>
<td>10.94</td>
<td>N=777</td>
</tr>
<tr>
<td></td>
<td>Between</td>
<td>1.68</td>
<td>4.60</td>
<td>10.79</td>
<td>n=111</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>0.06</td>
<td>7.50</td>
<td>8.02</td>
<td>T=7</td>
</tr>
<tr>
<td>MEDIA</td>
<td>3.50</td>
<td>1.35</td>
<td>0.06</td>
<td>5.70</td>
<td>N=777</td>
</tr>
<tr>
<td></td>
<td>Between</td>
<td>1.31</td>
<td>0.57</td>
<td>5.63</td>
<td>n=111</td>
</tr>
<tr>
<td></td>
<td>Within</td>
<td>0.33</td>
<td>1.18</td>
<td>5.65</td>
<td>T=7</td>
</tr>
</tbody>
</table>

Note: This descriptive statistics is specially designed for panel data and prepared from STATA, Version 8.0.

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12 For example, after the transformation of the FOP index, the figures for Algeria stands at 0.06 for the years 1995, 1996, and 1997 while the figures for the same years in Denmark are 5.46.

13 To learn more about the data transformation method in random-effects estimation see Wooldridge (2003).
flight etc. are interlinked across borders. Sometimes, unexplained factors may be linked over time. For example, unexplained factors that make some countries corrupt this year may also keep it corrupt in the next or the following year through habit formation. This kind of situation can be captured by using Parks’ Method (Parks, 1967). Parks’ Method is denoted as Case 4. All the panel estimations results are now reported in Table 2.

**Table 2: Panel Estimates of Equation 1**

<table>
<thead>
<tr>
<th>Cases</th>
<th>Constant</th>
<th>ln PCI</th>
<th>MEDIA</th>
<th>Specification Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1</td>
<td>4.01 (14.55)</td>
<td>-0.29 (10.70)***</td>
<td>-0.34 (10.00)***</td>
<td>LM=730.49, p-value=0.00</td>
</tr>
<tr>
<td>Case 2</td>
<td>4.47 (8.73)</td>
<td>-0.30 (5.53)***</td>
<td>-0.20 (3.83)***</td>
<td>m=121.20, p-value=0.00</td>
</tr>
<tr>
<td>Case 3</td>
<td>4.75 (9.93)</td>
<td>-0.34 (6.69)***</td>
<td>-0.20 (4.15)***</td>
<td>m=30.47, p-value=0.00</td>
</tr>
<tr>
<td>Case 4</td>
<td>4.86 (68.05)</td>
<td>-0.36 (54.45)***</td>
<td>-0.20 (28.46)***</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Note: Figures in parentheses are absolute values of t-ratios while *** means that the coefficient is significant at 1% level.

From Table 2 it is clear that no matter which panel specification we use, freedom of press has significant impact in curbing corruption. Ignoring the results from the pooled OLS estimation, the extent of the impact of media freedom can be amounted to 20% on average given the economic size of countries. Hence, ensuring press freedom may lead to a substantial improvement in corruption situation of countries.

The specification test results guide us in selecting the appropriate panel estimation technique. The LM test statistic reported in the last column of Table 2 compares between the pooled-OLS and the random-effects model. The figure is 730.49 with a P-value of 0.00 rejecting the pooled-OLS for the random-effects estimation. Hence, Case 2 is preferred to Case 1. The Hausman test statistic (henceforth m) rejects the random-effects estimation and suggests us to prefer the fixed-effects estimation. But the nature of our data does not allow us to use the fixed-effects estimation in the sense that most of the variables are subjective indicators and are somewhat invariant over time. The fixed-effects data transformation cancels this kind of time invariant values out. Therefore, if we compare the pooled OLS, the fixed-effects, and the random-effects estimation we feel that the random-effects estimation (Case 2 and 3) is mostly preferred and the results still hold if we allow for serial and contemporaneous correlation in Case 4.
The dependent variable is an indicator variable that ranges from zero to six. Hence, we may cast doubt about the appropriateness of the OLS estimation. As an additional robustness check, we decoded our data on dependent variable to transform it into a binary variable where the corruption figure takes a value one if the indexes are greater than three and zero otherwise. Then we conduct logit and probit estimation of the same model in a panel framework and find that both the ‘lnPCI’ and ‘Media’ coefficients take correct sign and significance. Therefore, the result is robust in alternative estimation techniques. This kind of robustness check is necessary to verify if our results from the pooled OLS, random-effects, and Parks’ estimation are different due to the fact that the dependent variable is not continuous.

V. Conclusion

Controlling corruption is one of the policy objectives of many of the countries of the world. Sometimes in some countries the ruling authorities run the risk of losing power through election if they fail to control corruption in public office. The empirical literature on corruption is limited by unavailability of data on corruption for long time periods and the absence of a unified theoretical framework for modeling corruption. Among all the determinants of corruption, competition, types of government, foreign aid, wage differential, legal origin, ethno linguistic fractionalization, fiscal decentralization, culture or religious difference, political rights, civil rights, and press freedom are noteworthy. There are only few studies that deal with the role of press freedom in curbing corruption using only a limited number of observations.

This paper adds to the existing literature of media freedom and its impact on corruption by drawing recent data on corruption and media freedom for 7 years and 111 countries in a panel framework. Using an existing model of corruption augmented by media we find that freedom of press plays considerable role in controlling corruption irrespective of the level of economic development of a country. After controlling for the economic size of countries, it is found that freedom of press can lower corruption by approximately 20%. The results also hold well when we allow for different assumptions regarding intercepts and control for serial and contemporaneous correlation in errors or use logit and probit estimation of the same model. This paper suggests that government must ensure press freedom to eradicate corruption that grips our national life.
References


SAS Institute Inc. SAS Version 8, Cary, NC, USA.


STATA Corporation, STATA, Version 8.0.


Participation of Women in Rural Local Government - A Socio-Economic Analysis

Mizanur Rahman*
Mihir Kumar Roy**

Abstract
The study was undertaken to analyze the involvement of women members in Union Parishad, a local government unit. It reveals that the effective role of women members in Union Parishad passed through an evolutionary process. Even today they do not get their reasonable share in the decision-making process. Analyzing their socio-economic features, the study found that the majority of the women members belonged to the young age (26-35 years). Only one third of the total sampled women members completed their SSC to HSC level education and 21.79% studied up to class V. Majority of the women members were housewives and 16.67% was service holders. It is interesting that 11.54% of husband of the women members were illiterate and 60.26% of them belonged to single family. Only 24.14% of women members were involved in different local-judicial affairs in the localities. The average income of the women members in Chittagong Division was higher than in Dhaka and Sylhet Divisions. It was found that 35.89% of women members belonged to landless category compared to 6.41% in very large farmers category. The study showed that the problems of women members were multidimensional such as lack of sufficient legal provisions, suitable socio-cultural support, proper knowledge about rules and regulation and coordination from male members etc. The study suggests that the government should come forward to create a congenial atmosphere for the women members of Union Parishad for their effective functioning in the locality.

* The authors are respectively Assistant Director (Rural Administration) and Director (Research) of Bangladesh Academy for Rural Development (BARD), Comilla. The views expressed are the product of a study undertaken at the Academy.

** The authors express their deep sense of gratitude to the Director General, BARD for his constant inspiration in preparing the paper.
1. **Introduction**

Women play a pivotal role in the subsistence-based economy of Bangladesh. At present among the 135 million populations, more than 66 million are women of which around 45 percent live below the poverty line. It is also worth mentioning that the women folk are lagging behind men in every aspect of socio-economic and public life though the Constitution of Bangladesh has ensured equal rights as well as role of women in the overall development of the country. As part of the global movement for women development, Bangladesh government has undertaken massive affirmative policy measures and strategies for developing the socio-economic condition of women. Despite that women’s access into the public life especially into the political arena and decision-making in national affairs is still a far cry, which needs to be further strengthened.

Some of the government’s affirmative actions for women development such as food for education, free education up to S.S.C level, stipend programme up to H.S.C. level, provision of one-third seats reservation for women in the local government since 1997 are note-worthy. In the wake of the reservation system, a huge number of women have come to the leadership position, which have ushered enormous interest and enthusiasm into the minds of professionals, academicians and policy makers of the country. Keeping this view in mind, an attempt is made in this paper to identify the socio-economic, familial, demographic and political profiles of the women members *vis a vis* their problems and solution thereof in the context of rural society of Bangladesh.

2. **Objectives of the Study**

The general objective of the study is to ascertain the socio-economic profile of the elected women leaders in the rural local government *i.e.* Union Parishad.

In specific terms, the objectives of the study are:

i) to evaluate the policies and programmes of involving women in the local government;

ii) to analyze the socio-economic characteristics of the elected women members;

iii) to identify problems faced by the women members in performing their statutory activities and

iv) to suggest ways and means to solve those problems.
3. Materials and Methods

The study is based on both secondary and primary data. The secondary data were collected by consulting various documents such as research reports, periodicals, gazette notifications, journals and so on in rural local government system. Furthermore, some rare publications of the World Bank and different foreign universities were consulted for further clarification of the issue.

The data collected from primary sources were entirely based on interviews of seventy eight women representatives of Dhaka, Sylhet and Chittagong Divisions who undertook training at the Bangladesh Academy for Rural Development (BARD) during 2002-2003 financial years. The training course was organized under a research project on “Participation of Women in Local Government Institution”, funded by UNDP in which women members of Union Parishad all over the country participated. Due to time and fund constraints, only representatives of the three divisions were interviewed in the study. Among the 78 respondents, 35 were from Dhaka Division, 14 from Sylhed Division, and 29 from Chittagang Division. The Opinions of the respondents were obtained through a structured questionnaire and then processed and analyzed by using simple statistical tools in the light of the objectives of the study.

4. Results and Discussions

4.1 Policies and Programmes to Involve Women in Local Government

The international donor and aid agencies played a crucial role in the upliftment of the overall socio-economic condition of women through imposing some policies, legal measures, strategies and conditionalities favoring the cause of their development. With the prescription and persuasions from the donor agencies the national government are to take measures to increase participation of women in development activities through undertaking various development projects by national development organizations and institutions. The impact of global developmental strategy of women has created a platform for political movement for women development. In line with that political movement a socio-economic movement for women development started in the developing countries.\(^1\)

The issue of women’s political participation in Bangladesh has developed within the ambit of broader global perspective. The process started with the Universal

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\(^1\) For details please see Hossain (1999); Chowdhury, Nazma (1994a); Chowdhury, Nazma et al. (1994b); Chowdhury, Nazma (1994c) and Chowdhuru, Farah Deeba (1994).
Declaration of Human Rights of 1948. It was followed by the adoption of a UN Convention on the Political Rights of Women in 1952, which emphasized on women’s participation in all spheres of life. After that the first UN Conference on Women, held in Mexico City in 1975, declared the decade between 1975 and 1985 as the “International Women Decade”, and provided suggestions for the recruitment, nomination and promotion of women in various branches of the government, public bodies, trade unions, political parties and pressure groups. This was followed by the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) declared in 1979 that laid down the importance on equality of rights in every sphere of society. Again, the World Conference on Agrarian Reform and Rural Development (WCARRD) in 1979 gave strong support for the integration of women in agrarian reform and rural development. It viewed women not only as contributors but also as beneficiaries and active participants in development efforts.

Following the first one, all subsequent UN Women’s Conferences i.e. the second, third and fourth respectively held in Copenhagen in 1980, Nairobi in 1985, and Beijing in 1995 and several other international conferences such as the Women’s World Conference on Human Rights held in Vienna in 1993, the International Conference on Population and Development (ICPD) held in Cairo in 1994; the Economic and Social Commission For Asia and the Pacific (ESCAP) Conference held in 1995, and Women Conference held in New York in 2000 - have emphasized for women’s civil, socio-political and legal rights and empowerment. The documents and strategies of all the international conferences on women stressed for creating a strong platform for action and advocacy for women (The Hunger Project, India and Hossain, 1999: 178). Governments of third world countries have to devise suitable strategies to achieve the goals set by those international conferences, which in the long run helped to emerge WID Policy in their respective countries. Bangladesh Government has made formal commitments to women’s political participation through all those important international documents.

As a part of WID policy, women’s representation to local bodies was for the first time ensured by two Presidential Ordinances- the Local Government Ordinance of 1976 and Pourashava (Municipal) Ordinance of 1977, which made provision for nomination of two women members to Union Parishad. Afterwards Preseident Zia in his Swainvar Gram Sarker Programme in 1980, kept provision for nomination of two women in its composition. Following that some changes took place in the number as well as in the procedures of nomination of women members through
the promulgation of the Local Government (Upazila Parishad and Upazila Administration Reorganization) Ordinance 1982 and the Local Government (Union Parishad) Ordinance 1983. After that, nomination system was changed in 1997. A system of three reserved seats for women to be filled up through direct adult franchise in both Union Parishad and municipalities was enacted in the same year. Recently promulgated Gram Sarker Act (Law No. 6 of 27th February, 2003) has endorsed women members as advisers in the overall composition of Gram Sarker system\(^2\) at the ward level.

At national level favourable legislations and policy directives of governments have also buttressed the cause of women development. Government policy specially, policy measures for education have also influenced the emergence of women leadership in Bangladesh. Non-formal education, adult education, total literacy movement (TLM), food for education, free primary education and scholarship for girls’ students are some of such strategies through which women’s development issues were addressed by the governments.

To enhance women’s status and participation at national and sub-national level, another positive attempt was the establishment of the Ministry of Women and Children Affairs. Furthermore, creation of focal points for women in every Ministry, Divisions and Agencies and making WID as a strong component of the development projects are both salutary steps towards women’s development. At present, the Ministry of Women and Children Affairs is involved in implementing different projects related to the development of women. All these legal provisions contributed positively in bringing women members in the local government bodies.

4.2 Women Members in Union Parishad: A Chronology

Most of the Local Bodies in Bangladesh had their origin during the British days but there was lack of involvement of women members in the local bodies. The Calcutta Municipal Act, 1923 allowed women for the first time to exercise their franchise. But following independence in 1947 the Pakistan Government did not

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\(^2\) Gram Sarker means village government at ward level. Jurisdictionally there is Gram Sarker at every ward of Union Parishad. It is composed of One Chief, One Adviser and other 13 members including different occupational groups and organizations which are selected as per consensus derived in presence of one tenth voters of the respective ward under the Chairmanship and supervision of the directing authority, Upazila Nirbahi Officer. Male and female member of the ward will act as the chief and adviser of the Gram Sarker, respectively. It is not a formal unit of local government rather it is an auxiliary organization of Union Parishad. The main function of the Gram Sarker is to play a helpful role in the affairs of Union Parishad.
allow female voters to cast their votes in election to rural Local Bodies until 1956. Bangladesh inherited the local government structure from the Britishers through Pakistan regime.

Through two Presidential orders no. 7, 1972 and no. 22, 1973, Local Government system started functioning in Bangladesh. In the recent past, the statutory representation of women was for the first time provisioned in the lowest tiers of local government i.e. Union Parishad in 1976. At that time two women members were nominated by the Sub-divisional Officer in the Union Parishad. After that, Ziaur Rahman, the then President of Bangladesh, introduced Swanirvar Village Programme and Gram Sarker. According to the Government Order 1980: A Swanirvar Gram Sarkar shall consist of a Gram Pradhan i.e. Village Chief and eleven other members of which not less than two shall be women. Regarding women’s participation in Local Bodies important development took place during Ershad regime. Following the passage of the Local Government (Upazilla Parishad and Upazila Administration Reorganization) Ordinance 1982 and the Local Government (Union Parishad) Ordinance 1983, changes took place in the number as well as in the procedures of nomination of women members. In addition to elected male members and one Chairperson, in 1983, the number of nominated women members was raised from 2 to 3. Here one woman was nominated from each ward. Thereafter, government made a provision for raising the number of wards and instead of 3 wards, 9 wards were created in 1993³. The system of nomination of women members in Union Parishad was changed to indirect election. According to this system, three women members were elected by the 9 elected members and the elected Chairman. A major breakthrough regarding the process of representation of women members in Union Parishad was made as per suggestion of the Local Government Reform Commission in 1997. In this system, indirect election for women members was withdrawn. In each Union three seats are reserved for women dividing nine wards into three units. One third of the total membership was reserved for women members. One woman is elected from three wards through direct male and female adult franchise in Union Parishad.

In Union Parishad, representation of women members has been made in different standing committees. Now the number of standing committees in UP has been raised from 7 to 12 so that all three women members can be the chairman of at least one standing committee. The women members get one-third of the total Annual Development Programme (ADP) project in a financial year. Women members are playing role as chairman in some committees i.e. Committee on Selection of Women for Vulnerable Group Development (VGD) programme,
Committee for Distribution of Old Age Allowances, Primary Education Committee, Committee for Selection of Women in Rural Maintenance Programme (RMP), and Social Development Committee. Apart from this, women members will be made chairman of one third of the Project Committees for undertaking various development projects by the Ministry of Relief and Disaster Management. In five standing committees such as i) Women and Children Welfare; ii) Fisheries and Livestock; iii) Tree Plantation; iv) Union Works Activities; and v) Mass education, at least one woman member will have to be included.

Again at least one woman member is ensured in the committees like i) Food for Works Program; ii) VGF Program; iii) Test Relief Program; iv) Old Age Allowance Program; v) Committee for selection of place for setting up tube well at the Union Level; vi) Union Family Welfare Center Management Committee; vii) Union Population Control Committee; viii) Union Disaster Management Committee; ix) Union Committee for Checking of Oppression on Women; x) Union Tender Committee; xi) Union Hut-Bazar Management; xii) Upazila Development and Coordination Committee. A woman member is nominated by the Upazila Nirbahi Officer as member of that committee.

According to memo No/Prajai-3/Miscellaneous-14/2001/80/(5500), dated 10-9-02 (M/O. LGRD&C), the women members are advised to take necessary actions regarding women and children oppression and case against dowry and acid throwing, controlling of child marriage and ensure registration of marriage. They will act chairman of such committee and they will take necessary measures regarding the welfare of women and children (provision No. 13 of that circular - Paripatra). One third of the members of all the standing committees will be filled up by women members. One third of the total standing committees will be chaired by the women members. But the Chairman of Union Parishad will also act as the Chairman of the standing committee on finance and establishment (Provision no-14). Women members will act as Chairman of one third of the project committees of Union Parishad (Provision no- 15).

4.3 Socio-economic Characteristics of Women Members of Union Parishad

Socio-economic and political background of the women leaders of Union Parishad is an important factor, which helps them performing their leadership
role. The better socio-economic status may have positive impact on the performance of the Union Parishad. The socio-economic and political profile of women leadership such as age, education, income, marital status, land ownership and political affiliation etc. may be very useful in analyzing their status and role in UP. In the present study, some socio-economic characteristics of sampled members of Union Parishad are analysed to support changes occurred in relation to other studies over time.

4.3.1 Age Distribution

In all three Divisions, only 8.97% women members belonged to the age group of 21-25 years. Majority of the respondents (67.95%) belonged to the age group of 26-35 years. Very few women members (3.85%) belonged to the age group of 40 and above (Table-1). Findings of the age distribution of respondents revealed that the young age women members assumed the responsibilities of the Union Parishad in large number which correspond to earlier studies of Quadir and Islam (1987), WFP (1998) and Quuddus et. al. (2001:8). The young age women generally welcome challenging tasks, enthusiastic and had enterprising capacity to assume responsible duties in public life at the grassroots.

<table>
<thead>
<tr>
<th>Age Group (in years)</th>
<th>Name of the Division</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chittagong</td>
<td>Dhaka</td>
</tr>
<tr>
<td>21-25</td>
<td>2 6.90</td>
<td>3 8.57</td>
</tr>
<tr>
<td>26-30</td>
<td>17 58.62</td>
<td>11 31.43</td>
</tr>
<tr>
<td>31-35</td>
<td>4 13.79</td>
<td>12 34.29</td>
</tr>
<tr>
<td>36-40</td>
<td>5 17.24</td>
<td>7 20.00</td>
</tr>
<tr>
<td>40 &amp; above</td>
<td>1 3.45</td>
<td>2 5.71</td>
</tr>
<tr>
<td>Total</td>
<td>29 100.00</td>
<td>35 100.00</td>
</tr>
</tbody>
</table>

Source: Field Survey

4.3.2 Educational Status of the Women Members

Educational attainment of the women encourages them taking participation in various activities of the Union Parishad. In Table-2 educational status of the women member of the Dhaka, Chittagong and Sylhet district is explained. It was found that in all three Divisions, highest percentage (41.03%) of women members had education level of class VI-X, which is also followed by Dhaka and Sylhet.
Divisions. But in Chittagong Division, the highest number of women members had education up to SSC level. Very few women members had education more than SSC level. In total women members owning HSC and Graduate plus education was about 13%. In all the three Divisions 41% women members belonged to the educational qualification of class VI-X and 37.18% had education ranging from SSC to graduate and above level. The findings of the above data did not corroborate with the earlier study conducted by Quadir and Islam (1987), WFP (1998) and Quddus et al. (2001:8) which showed that more and more educated women got involved in the affairs of UP. This is an indication of the emerging role of education in general and for women in particular in local level development through Union Parishad.

### Table 2: Distribution of Education According to Division

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Chittagong</th>
<th>Dhaka</th>
<th>Sylhet</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>1. Cannot read &amp; write</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. Can read &amp; write only</td>
<td>2</td>
<td>6.90</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. Read up to class V</td>
<td>5</td>
<td>17.24</td>
<td>5</td>
<td>14.29</td>
</tr>
<tr>
<td>4. Class VI-X</td>
<td>8</td>
<td>27.58</td>
<td>18</td>
<td>51.42</td>
</tr>
<tr>
<td>5. S. S. C</td>
<td>10</td>
<td>34.48</td>
<td>6</td>
<td>17.14</td>
</tr>
<tr>
<td>6. H. S. C</td>
<td>2</td>
<td>6.90</td>
<td>5</td>
<td>14.29</td>
</tr>
<tr>
<td>7. Graduate &amp; above</td>
<td>2</td>
<td>6.90</td>
<td>1</td>
<td>2.86</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>100.00</td>
<td>35</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Field Survey

#### 4.3.3 Marital Status of the Respondent

Marital status of the respondents according to Division was shown in Table-3. From the above table it is evident that 83.33% of women members were married, followed by separated/widower (12.82%) and unmarried (3.85%). Among three Divisions, the percentage of married women was the highest (93.10%) in Chittagong Division. On the other hand, except Chittagong Division there were separated women members in Dhaka and Sylhet Divisions. This finding corroborated with the findings of the earlier studies conducted by Quadir and Islam (1987), WFP (1998), and Quddus et al. (2001:8) which indicated that women members in spite of their traditional role in family life came forward to serve the rural society through Union Parishad.
4.3.4 Occupation Status of the Respondents

Occupational status of the women members represents their economic as well as social status in the society. It is observed from the Table-4a that 70.51% women member’s main occupation is housewife, 16.67% women leader’s main occupation is service, which is followed by tailoring (5.13%), agriculture

<table>
<thead>
<tr>
<th>Table 3 : Marital Status of the Respondents According to Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital Status</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Married</td>
</tr>
<tr>
<td>Unmarried</td>
</tr>
<tr>
<td>Separated/ Widower</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Field Survey

<table>
<thead>
<tr>
<th>Table 4a : Occupational Status of the Respondents According to Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Status</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Tailoring</td>
</tr>
<tr>
<td>Housewife</td>
</tr>
<tr>
<td>Service</td>
</tr>
<tr>
<td>Agriculture</td>
</tr>
<tr>
<td>Student</td>
</tr>
<tr>
<td>Business</td>
</tr>
<tr>
<td>Midwifery</td>
</tr>
<tr>
<td>Livestock Rearing</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Field Survey; Figures in brackets indicate percentage.
(2.56%), student (2.56%) and livestock (2.57%). Except Sylhet district 37.50 percent women members in Chittagong and 33.33 percent in Dhaka division are involved in tailoring in addition to their main occupation. Very few women members, which ranges from 3 to 17 percent are involved in service, agriculture, business and livestock rearing respectively. This indicated that the mobility of women have increased as compared to before because of diversification of their occupation in addition to their role in the family.

4.3.5 Occupational Status of the Family

From Table-4b, it is evident that majority (38.46%) of the respondents family members’ main occupation was agriculture. Subsequently it was followed by business (28.21%), service (20.51%), Housewife’s (5.13%), Tailoring (2.57%)

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Name of the Division</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chittagong</td>
<td>Dhaka</td>
</tr>
<tr>
<td>Agriculture</td>
<td>13 (37.14)</td>
<td>2 (25.00)</td>
</tr>
<tr>
<td>Service</td>
<td>7 (20.00)</td>
<td>2 (25.00)</td>
</tr>
<tr>
<td>Business</td>
<td>9 (25.71)</td>
<td>1 (2.50)</td>
</tr>
<tr>
<td>Housewife</td>
<td>2 (5.71)</td>
<td>-</td>
</tr>
<tr>
<td>Carpenter</td>
<td>1 (2.86)</td>
<td>1 (12.50)</td>
</tr>
<tr>
<td>Electrician</td>
<td>1 (2.86)</td>
<td>-</td>
</tr>
<tr>
<td>Toutiony</td>
<td>1 (2.86)</td>
<td>-</td>
</tr>
<tr>
<td>Driver</td>
<td>1 (2.86)</td>
<td>-</td>
</tr>
<tr>
<td>Tailoring</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Livestock Rearing</td>
<td>-</td>
<td>2 (25.00)</td>
</tr>
</tbody>
</table>

| Total            | 35 (100.00) | 8 (100.00) | 29 (100.00) | 10 (100.00) | 14 (100.00) | 4 (100.00) | 78 (100.00) | 22 (100.00) |

Source: Field Survey Figures in brackets indicate percentage.
and very few family members were involved in carpentry, electrical technician, tuitiony, driving and livestock. In case of subsidiary occupation the percentage distribution of the family members showed that the majority (40.91%) belonged to service holder, which was followed by agriculture (22.73%), business (18.18%), livestock (13.64%) and carpentry (4.54%). The findings of the study indicate that the traditional bondage of family with agriculture as a livelihood strategy is now diversified to other livelihood outcomes for better income earning and economic solvency.

4.3.6 Husband's Education of the Women Leaders

Educational profile of the husband of the married and guardian of the women members is presented in Table-5. It was found that highest number (34.62%) of respondents fell in the category of SSC +HSC group which was followed by education level of VI-X class (25.64%), above graduate (15.38%) up to class five (12.82%) and illiterate (11.54%). Percentage distribution of above SSC educational level constituted the highest majority in Dhaka and Chittagong Divisions i.e. 34.29% and 37.93% respectively. The only exception was in Sylhet Division where majority respondents (35.72%) had education up to class VI-X. The findings of the earlier studies conducted by Quadir and Islam (1987), WFP (1998) and Quddus et. al. (2001:8) showed that education profile of the husbands of the women members were getting better trends which had a similar trends of educational status of women members of UP. It indicates that the better the education of the husband, the better the well being of the family as a whole.

### Table 5: Husbands’ Education of the Women Members According to Divisions

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Name of the Division</th>
<th>Dhaka</th>
<th>Chittagong</th>
<th>Sylhet</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>No. Education / Illiterate</td>
<td>2</td>
<td>5.71</td>
<td>6</td>
<td>20.69</td>
<td>1</td>
</tr>
<tr>
<td>I-V</td>
<td>4</td>
<td>11.43</td>
<td>3</td>
<td>10.35</td>
<td>3</td>
</tr>
<tr>
<td>VI-X</td>
<td>11</td>
<td>31.43</td>
<td>4</td>
<td>13.79</td>
<td>5</td>
</tr>
<tr>
<td>S. S. C + H. S. C</td>
<td>12</td>
<td>34.29</td>
<td>11</td>
<td>37.93</td>
<td>4</td>
</tr>
<tr>
<td>Graduate &amp; above</td>
<td>6</td>
<td>17.14</td>
<td>5</td>
<td>17.24</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>100.00</td>
<td>29</td>
<td>100.00</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: Field Survey; Figures in brackets indicate percentage.
4.3.7 Types of Family of the Women Members

Types of family of the women members are presented in Table-6. Out of total respondents single family constituted the highest majority (60.26%). The rest of the respondents (39.74%) belonged to joint family. In all, same trends were visible in three Divisions but in Chittagong Division percentage distribution of single as well as joint family was approximately equal where joint family still prevails in a significant percentage other than two Divisions under study. This indicates that the tradition of joint families are gradually transforming to nuclear or single families. This also indicates that with the changes in family structure, women’s role in family and outside is changing because women in single family are less likely needed to have permission for engaging herself in outside their family affairs. This might also mean less security for women because joint family system provided child care facilities in mother’s absence.

<table>
<thead>
<tr>
<th>Types of Family</th>
<th>Name of the Division</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dhaka</td>
<td>Chittagong</td>
</tr>
<tr>
<td>Single</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>22</td>
<td>15</td>
</tr>
<tr>
<td>%</td>
<td>62.86</td>
<td>51.72</td>
</tr>
<tr>
<td>Joint</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>No.</td>
<td>37.14</td>
<td>48.28</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>29</td>
</tr>
</tbody>
</table>

Source: Field Survey; Figures in brackets indicate percentage.

4.3.8 Engaged in Local Judicial Roles by the Family Members of the Women Members

Engagement in local judicial role by the family members of the women leader was presented in Table-7. Percentage distribution regarding the engagement in judicial

<table>
<thead>
<tr>
<th>Name of the Division</th>
<th>Engaged in Judicial Role</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Engaged</td>
<td>Not Engaged</td>
</tr>
<tr>
<td>Dhaka</td>
<td>14(45.16)</td>
<td>21(44.68)</td>
</tr>
<tr>
<td>Chittagong</td>
<td>13(41.94)</td>
<td>16(34.04)</td>
</tr>
<tr>
<td>Sylhet</td>
<td>4(12.90)</td>
<td>10(21.28)</td>
</tr>
<tr>
<td>Total</td>
<td>31(100.00)</td>
<td>47(100.00)</td>
</tr>
</tbody>
</table>

Source: Field Survey; Figures in brackets indicate percentage.
role by the family members of the respondents indicated that around 40% of the family members were involved in local judicial activities while the rest 60% were not doing the same thing. This implied that 40% the women members became the leader of the Union Parishad by using family heritage.

4.3.9 Types of Housing Status/Residence of the Respondents

Housing status of the respondent is given in Table-8 which shows that in total 87.18% respondents have had tin-shed house which is followed by building (10.26%) and thatch (2.56%) respectively. In Dhaka Division none have buildings and in Sylhet Division none have thatched house, which implies that respondents of Sylhet Division have better economic and housing condition.

<table>
<thead>
<tr>
<th>Types of Residence</th>
<th>Name of the Division</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dhaka</td>
<td>Chittagong</td>
</tr>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Tin shed</td>
<td>34</td>
<td>97.14</td>
</tr>
<tr>
<td>Building</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Thatch</td>
<td>1</td>
<td>2.86</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Field Survey; Figures in brackets indicate percentage.

4.3.10 Average Monthly and Annual Income of the Respondents

Income of the respondents was an important indicator for measuring economic and social status. Through economic status individual could exert influence in the

<table>
<thead>
<tr>
<th>Name of the Division</th>
<th>Annual Income</th>
<th>Non-Agricultural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average of Annual</td>
<td>Average of Monthly</td>
</tr>
<tr>
<td>Dhaka</td>
<td>33592.86</td>
<td>2799.40</td>
</tr>
<tr>
<td>Chittagong</td>
<td>34404.55</td>
<td>2867.05</td>
</tr>
<tr>
<td>Sylhet</td>
<td>17020.00</td>
<td>1418.33</td>
</tr>
</tbody>
</table>

Source: Field Survey;
society. In Table-9 income from agricultural and non-agricultural sources of the respondents is presented. It is found that average monthly income of women members of Chittagong Division was the highest, which accounted for Tk. 10,714.00. The average monthly incomes of the women leader of Sylhet and Dhaka Divisions were Tk. 6812.50 and Tk. 6349.41 respectively. In case of average annual income of the women leaders of Chittagong, Sylhet and Dhaka Divisions it was found Tk. 128572.70, Tk. 81783.64 and Tk. 76192.86 respectively which implied that most of the elected women members belonged to well off family.

### 4.3.11 Do you Support Any Political Party

Percentage distribution for supporting political parties by the respondents is shown in Table-10. It was found that except 57.14% respondent from Sylhet Division, 80% respondents from both Dhaka and Chittagong Divisions supported political party. In total at least eighty percent of the respondents had hidden support or affiliation to any political party.

<table>
<thead>
<tr>
<th>Name of the Division</th>
<th>Responses in Favour of Support</th>
<th>Do not support</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhaka</td>
<td>31(88.57)</td>
<td>4(11.43)</td>
<td>35(100.00)</td>
</tr>
<tr>
<td>Chittagong</td>
<td>23(79.31)</td>
<td>6(20.69)</td>
<td>29(100.00)</td>
</tr>
<tr>
<td>Sylhet</td>
<td>8(57.14)</td>
<td>6(42.86)</td>
<td>14(100.00)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>62(79.49)</strong></td>
<td><strong>16(20.51)</strong></td>
<td><strong>78(100.00)</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey; Figures in brackets indicate percentage.

### 4.3.12 Distribution of Respondents According to Political Party and Division

Table-11 reveals that about 71% respondents of Dhaka Division had affiliation to Awami League, which was followed by about 87% in Chittagong Division. All the respondents of Sylhet Division had supports for AL. About 29% and 13% women leaders of Dhaka and Chittagong Divisions respectively had supports for political parties other than AL.

### 4.3.13 Linkage of Women Members with Organizations Other than Union Parishad

In Table-12 it is found that women members had linkages with a number of organizations like Cooperatives, NGOs, Local Clubs, Relief Committees, VDP,
Table 11: Distribution of Respondents According to Political Party and Divisions

<table>
<thead>
<tr>
<th>Name of the Political Party</th>
<th>Dhaka</th>
<th>Chittagong</th>
<th>Sylhet</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>AI</td>
<td>22</td>
<td>70.97</td>
<td>20</td>
<td>86.96</td>
</tr>
<tr>
<td>BNP</td>
<td>5</td>
<td>16.13</td>
<td>3</td>
<td>13.04</td>
</tr>
<tr>
<td>Jamat</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>JP</td>
<td>4</td>
<td>12.90</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>100.00</td>
<td>23</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Field Survey; Figures in brackets indicate percentage.

School Committees and Insurance Companies. In all the Divisions most of the respondents had linkage with NGOs for more than 4.5 years on an average. In Dhaka and Chittagong Divisions some women members had also linkage with

Table 12: Linkages of Women Member with Organizations Other than UP

<table>
<thead>
<tr>
<th>Name of the Institution</th>
<th>Dhaka Division</th>
<th>Sylhet Division</th>
<th>Chittagong Division</th>
<th>Name of the Position Occupied by the Women Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women Involved</td>
<td>No. of Members Involved</td>
<td>Average Year of Involvement</td>
<td>No. of Members Involved</td>
<td>Average Year of Involvement</td>
</tr>
<tr>
<td>Co-operative</td>
<td>5</td>
<td>9.60</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NGO</td>
<td>14</td>
<td>4.50</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Local club</td>
<td>1</td>
<td>9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Relief Committee</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VDP</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>School committee</td>
<td>14</td>
<td>4.36</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Social welfare sangha</td>
<td>1</td>
<td>8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Insurance company</td>
<td>2</td>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Field Survey
cooperative organizations, local club and insurance company. In all three Divisions it was found that women member were also involved in VDP and school committees. The positions occupied by women members in the organizations were Member, Secretary, Manager. The findings of the study indicated that linkage and experience with different socio-economic organizations helped women to become members in Union Parishad.

4.3.14 Did Any Relatives of Your Family Serve as UP Leaders

In Table-13 information regarding having leadership tradition in UP in the family of women members is presented. It was found that about one third of the women leaders came to UP leadership by their hereditary line. The positions held by them were members and chairmen of UP. In some cases position occupied by the family members were more than once. Holding of leadership position in UP by the family members indicated that very few women in UP had come into leadership position through using their family heritage.

<table>
<thead>
<tr>
<th>Table 13 : Did Any Relatives of Your Family Serve as UP Leaders within Last 15 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did any relative of Your Family Serve in UP</td>
</tr>
<tr>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Dhaka</td>
</tr>
<tr>
<td>Chittagong</td>
</tr>
<tr>
<td>Sylhet</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Field Survey; Figures in brackets indicate percentage.

4.3.15 Position Previously Held by the Women Members Themselves

In response to a question asked whether women member occupied any position in the Union Parishad they informed that none of them held any positions in UP through direct election but 7, 2 and 3 women members from Dhaka, Sylhet and Chittagong Divisions previously became UP member through nomination process more than once, which are given in Table-14.
Land ownership is an important factor for socio-economic status. In rural society land is a source of power and influence. In Table-15 land ownership pattern of the women leaders is presented. Ownership of land have been classified in five categories *i.e.* landless having land area below .50 acres, small farmers having land of .50-1.50 acres, medium farmers having land area of 1.51-4.99 acres, large farmers having land of 5.00-7.49 acres and very large farmers having land above 7.50 acres. From the Table-18 it was found that more than one third women leaders of UP do not have any land. Whereas about forty percent women leader of Union Parishad belonged to the small farmers class with an average land size of .75 acres of land. About 13% women leaders owned average land of 2.9 acres who

<table>
<thead>
<tr>
<th>Did You Hold Any Position in UP</th>
<th>Yes Elected</th>
<th>No Nominated</th>
<th>In Which Capacity</th>
<th>How Many Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhaka</td>
<td>7</td>
<td>28</td>
<td>2</td>
<td>7 9 times</td>
</tr>
<tr>
<td>Sylhet</td>
<td>2</td>
<td>12</td>
<td>0</td>
<td>2 2 times</td>
</tr>
<tr>
<td>Chittagong</td>
<td>3</td>
<td>26</td>
<td>0</td>
<td>3 3 times</td>
</tr>
</tbody>
</table>

Source: Field Survey

### Table 14: Did You Hold Any Position in UP Before Yourself

<table>
<thead>
<tr>
<th>Did You Hold Any Position in UP</th>
<th>Yes Elected</th>
<th>No Nominated</th>
<th>In Which Capacity</th>
<th>How Many Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhaka</td>
<td>7</td>
<td>28</td>
<td>2</td>
<td>7 9 times</td>
</tr>
<tr>
<td>Sylhet</td>
<td>2</td>
<td>12</td>
<td>0</td>
<td>2 2 times</td>
</tr>
<tr>
<td>Chittagong</td>
<td>3</td>
<td>26</td>
<td>0</td>
<td>3 3 times</td>
</tr>
</tbody>
</table>

Source: Field Survey

### Table 15: Division-wise Ownership of Own and Operated Land of The Members

<table>
<thead>
<tr>
<th>Categories of Land</th>
<th>Division wise Land Ownership Pattern of the Members</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sylhet</td>
</tr>
<tr>
<td></td>
<td>No of Res.</td>
</tr>
<tr>
<td>Landless Farmers</td>
<td>&lt; .50 Acres</td>
</tr>
<tr>
<td>Small Farmers (.50-1.50 Acres)</td>
<td>3 3.17</td>
</tr>
<tr>
<td>Medium Farmers (1.51-4.99 Acres)</td>
<td>4 13.02</td>
</tr>
<tr>
<td>Large Farmers (5.00-7.49 Acres)</td>
<td>1 5.00</td>
</tr>
<tr>
<td>Very Large Farmers (7.50+ Acres)</td>
<td>2 28.74</td>
</tr>
<tr>
<td>Total</td>
<td>14 49.93</td>
</tr>
</tbody>
</table>

Source: Field Survey; Figures in brackets indicate percentage;
belonged to medium farmers group. Only 12% women leaders belonged to the large farmers group having average land size of 9.30 acres. In general most of the women leaders belonged to medium farmers group, which implied that women leader might have less influence in the overall affairs of the Union Parishad.

4.3.17 Division-wise Election Cost of the UP Members

In Table- 16 Division-wise breakup election cost of the women members is presented. The election cost is calculated using some overhead component of cost such as printing of posters, entertainment, conveyance, publicity and miscellaneous cost. It was observed from the details of election cost scenario that in all the divisions women member invested higher amount of money which included development cost given to mosque, madrasa and milad-mahphil and special banquet to the villagers etc. The table showed that the highest response of election cost belonged to Tk. 10,001-30,000 group, which was followed by Tk.50,001-1,00,000. The average election costs of Dhaka, Chittagong and Sylhet Division were Tk. 61,724/-, 41,210/- and 30,248/- respectively, among which women members spent the highest amount of money for winning the election of Union Parishad. It was also revealed that very few women members spent more than one lacks in the election.

### Table 16: Division-wise Election Expenditures of Women Members of Union Parishad

| Election Division-wise Expenditure | Sylhet Division | | | | Chittagong Division | | | | Dhaka Division | | | | Total | | |
| Below 10,000 | 2 | 11,850 | 1 | 5,000 | 3 | 9,500 | 6 | 26,350 | |
| 10001-30000 | 6 | 1,10,225 | 9 | 1,68,250 | 12 | 2,56,850 | 27 | 5,35,325 | |
| 30001-50000 | 4 | 1,72,700 | 9 | 3,82,100 | 5 | 2,12,450 | 18 | 7,67,250 | |
| 50001-100000 | 2 | 1,28,700 | 10 | 6,39,750 | 11 | 8,22,200 | 23 | 15,90,650 | |
| 100000-200000 | - | - | - | - | 2 | 2,65,500 | 2 | 2,65,500 | |
| 200000+ | - | - | - | - | 2 | 5,93,850 | 2 | 5,93,850 | |
| Total Cost: | 14 | 4,23,475 | 29 | 11,95,100 | 35 | 21,60,350 | 78 | 37,78,925 | |
| Average Cost: | - | 30,248 | - | 41,210 | - | 61,724 | - | 48,448 | |

Source: Field Survey
5. Problems Faced by the Women Members in Performing their Statutory Duties

In our society, the involvement of women in public activities is an emerging issue and they have to face many internal as well as external problems both from their families \textit{vis-a-vis} from the outsides. The details of the problems as recorded from the interviews of the women respondents are depicted as under:

5.1 Legal provision

Women leadership emerged at the grassroots through an incremental process. After being elected in 1997 for the first time women members faced legal problems, which ranked first in the hierarchy of the total problem. At that time job description, duties and responsibilities of women members were not very clear in the legal framework. They were utterly frustrated to get any remedy for their constant complains and grievances from any corner. Though in some cases women were vociferous enough to exert their due rights in the Parishad. In the beginning, these problems were much acute but most of the problems have already elapsed due to creation of a number of legal provisions for women members. Despite that some problems are still existent. There is inequality in the mode of representation between male and female members. Male members are being elected from one ward but women members are being elected from three words. Women members are representing three wards whereas male members are representing one ward. But both are getting same amount of allowance, which is not justified from the viewpoint of rationality.

5.2 Sex Discrimination

Women members in Union Parishad suffer much from massive sex discrimination which is found in the behaviour, attitudes and treatment of the UP functionaries \textit{i.e.} Chairmen, male members, secretaries and government officials. Chairmen and male members do not want to involve the women members in implementation of projects, judicial activities, distribution of VGD cards and VGF programmes, old age pensions schemes, formation of various committees. Chairmen and male members always try to avoid women members. The Chairman and male members do not want to involve women members in any project arguing that these are difficult tasks and they will have to face a lot of problems during project implementation.

Chairman and Secretary try to hide the Office Order, Circular etc. regarding the duties and rights of women members in UP. Chairman, in connivance with the
Male members and Secretaries, decides which male member should be given which project but they do not consider women members capable of implementing any development project. They forget that women members have come to Parishad through direct adult franchise. Sometimes Chairman gives project to that woman member who maintains a good contact and relationship with chairman and other woman members are thus being deprived by not having any responsibility of project implementation.

5.3 Knowledge and experience

Women members suffer from lack of sufficient knowledge of rules, regulations, circular and legal provisions of local government. Even they are not aware of their own legal rights in Union Parishad. Owing to their lesser involvement in the overall activities of the Union Parishad women members are deprived of acquiring required skill and experience as compared to their male counterpart.

5.4 Urban biasness

There are other limitations behind the underdevelopment of women leadership at the grassroots. Most of the efforts or movements for women development in the sphere of political, economic, social undertakings are basically urban biased and encircled in the urban areas. Urban-based women activists are not much aware about the problems of the women members of the Union Parishad. Such elitist and urban-based movement for the cause of women development has failed to contribute much for development has of women leadership at the grassroots.

5.5 Unity among women members

There is lack of unity among the women members in UP. They could enjoy their rights better if women members were united for their common cause. They could prevent many unusual activities of the Chairmen and Male members if women members could fight against them unitedly.

5.6 Enough official arrangement

In some Union Parishads, a complete Union Parshad Complex has been built. But in most of the Union Parishads, the female members do not have any separate sitting arrangements to work in the office. They do not have any place to say their prayer in the UP. There should be sufficient physical facilities so that women members do not have to face any problem in the Parishad.
5.7 Socio-cultural Problem

In the traditional society like Bangladesh, women have to face some basic socio-cultural problems, which emerge from lack of education, consciousness and cultural backwardness. These are causing problem for natural growth of women leadership at the grassroots level. Patriarchy and male domination are rampant in rural society. The women members disclosed that the Chairman and Male members tried to exert domination on women in every affair of the UP. Actually in a patriarchal society it is not so easy to accept women leadership by the male partners. They are but to accept male domination. As a matter of fact, in such a situation, effective women leadership is not possible. The total control is still in the hands of male leadership. In the macro-level where patriarchy prevails in the society, natural, real and automatic women leadership cannot grow easily.

5.8 Proxy problem

There is problem of proxy leadership in the sphere of Union Parishad too. Due to lack of education and experience, the women members play a titular role in Union Parishad. It is observed that sometimes women members send their husband or father or father-in-law to meet the need of the Union Parishad. Due to lack of enough knowledge, skill and experience, women are to play a proxy role in Union Parishad, which are harmful for the development of women leadership.

5.9 Lack of cooperation from the administration

In case any confusion or dispute arises with any legal implications, women members try to get remedy from the Upazila administration with a view to getting remedy for that. But it is noticed that they do not get enough cooperation and support from the local administration.

5.10 Avoidance of women members

Generally Chairmen and male members do not want to involve women members in any activity of the Parishad. It is observed that meeting of the Parishad is convened all on a sudden so that they can avoid women members. Sometimes meeting is called in a time, which is not convenient for women members to participate in it. Despite women members’ keen interest to take part in every activity and meeting, Chairmen and Male members thus bypass the women members, which is unethical and undesirable for democratic governance.
6. **Suggested Measures to Overcome the Problems**

In this section, an effort has been made to suggest some measures to overcome the problems faced by the women members of the Union Parishad.

6.1 **Stop discrimination:** The Constitution of Bangladesh grants women equal rights that the state shall not discriminate against citizen on grounds only of religion, race, sex etc. and some special laws exist to protect women from discrimination and violence but jurisdictional infringement of such legal provisions are rampant in our society. To overcome the problems of women leaders in Union Parishad, all types of sex discrimination should be eliminated. In order to ensure women’s rights in the Union Parishad affirmative actions and strategies should be taken from the government so that there should be no legal barrier between male and female members in any activities of Union Parishad.

6.2 **Training for awareness building:** After entering into the public life and being elected as women members in the Union Parishad, they should be well groomed and equipped about their jurisdictional rights and privileges in Union Parishad along with all relevant Rules, Regulations, Office Order, Gazette Notifications, Circulars, Ordinances and other legal provisions of Union Parishad. The training programme should be designed in a way so that women could clearly understand their rights, duties and responsibilities. Well planned capacity building and development programme through regular and frequent training program could help immensely to strengthen the roles and position of women members in Union Parishad. Proper training and exposure can also help women members to be empowered to work with various women’s issues and represent women’s needs and concerns in the most effective way.

6.3 **Reform in socio-cultural system:** It is emphasized that greater participation of women in politics is a pre-requisite for establishing women’s rights and development in the society. But participation of women in politics has remained by and large confined to a small group of women who come from well-to-do urban and educated background. In fact most of the problems faced by women for getting involved in politics are embedded in the socio-economic, religious and cultural system, which have given women a subordinate status in the family, the society and State. Reform in the socio-cultural system could help women to be active in politics, for which education and employment opportunities should be broadened to a great extent.

6.4 **Reservation of seats:** Nomination of women for the reserved seats cannot ensure empowerment of women. In the elementary stage out of twelve male members the provision of nomination of three women member could help
recognize their rights in the local government but it could not give them their equal rights. Gradually provision of reservation of one-third position in the general seats through direct election of women members was introduced to facilitate women’s effective participation at local levels. Still women members cannot ensure their due rights and share in the Union Parishad. To strengthen their role, it needs to enlarge the participation of women in the leadership position such as the Chairman. Therefore, efforts should be made to reserve one-third seats for women in the Chairmanship position too.

6.5 Consensus of all political parties on reservation of seats: All political parties must introduce affirmative action measures to enhance participation of women in politics and thus empower them. In addition to the reserved seats for women in the parliament, all political parties should give nomination of a certain percentage preferably at least 10%-15% seats to women candidates to run for the general seats in the parliament through direct adult franchise. In course of time, provision of direct election should be introduced for the reserved seats for women in the Parliaments.

6.6 Role of women’s organization: Women activists and women organizations should come forward to help the cause of women members at the grassroots level local government system. Urban based women activists and organizations should be aware of the problems of women members at the local level. On the basis of proper diagnosis of these problems, sustained efforts should be made to overcome these problems and lobby or create pressure on government for required policy changes. Local level women leaders should be integrated with the national network of women movement or development, which will facilitate local level women leaders to play their effective role in the Union Parishad.

6.7 Curtail proxy role: In the beginning some women members may play a proxy role but with understanding of their rights, roles and duties, achieving knowledge skill and experience of the same, women can play an effective role and do no more remain proxy leader. To get rid of the proxy problems, it is essential to change patriarchal social values and encourage women toward leadership roles and activities. In order to overcome this, it needs to build suitable as well as favorable values and cultural norms in the society, through spread of education via an effective role of media.

6.8 Administrative Cooperation: To strengthen the role of women in the Union Parishad, the Administration should extend their all out support and cooperation to them. The office bearers of the Union Parishad should also come forward to work hand in hand with women members for the development of the locality.
7. Conclusion

The study has analyzed the status of women’s participation in the functioning of Union Parishad. It observes that the variables like age, education, family background, land ownership pattern, income and political affiliation have a direct effect on the performance of women members in rural local government. It reveals that the women members face different problems in discharging their duties in the locality. The findings suggest that the society as a whole should come forward to help women members to work with other male members of the Union Parishad for a balanced development of the country in general and rural areas in particular.
References


Speeches at the Inaugural Session
Challenging Bangladesh’s Crisis of Governance:  
An Agenda for a Just Society

Rehman Sobhan*

Introduction
For a generation such as ours which lived in hope that an independent Bangladesh would lay the foundations of a democratic, secular, self reliant and egalitarian society based on justice, contemporary Bangladesh remains a far cry from the aspirations of its founding fathers. Our democratic system was held captive in the cantonment for many years. The restoration of a pluralist democracy since 1991 has not fulfilled the promise of accountable governance. Secularism was not only eliminated as a pillar of the constitution but we have since become more communal and intolerant of the rights of minorities in our society. Over the years our commitment to nationalism has been eroded not just by our external dependence for resources to underwrite our development but we have surrendered our autonomy over economic policymaking to our development partners. Above all we have become less egalitarian as a society to the point where two societies appears to co-exist in one country. This growth in inequality has little to do with efficiency or merit but originates in an unjust social order which rewards malfeasant behavior and provides insufficient incentives to the creative and hardworking elements in society.

In such an environment people have tended to trade their expectation of a better future for their country for the pursuit of private agendas where the self and household delimit our aspirations so that private gain prevails over societal progress. Inspite of this erosion of hope and the obsession with private gain enough people remain captivated with the vision of a better Bangladesh to ensure that the flame of hope lit by those who fought for our liberation, however dim it may appear today, remains unextinguished. This abdication of civic responsibility

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in sustaining the functioning of a democratic society has exposed Bangladesh to a crisis of governance which is eroding the foundations of our political order and compromising our opportunities to build a dynamic economy within a viable society.

Bangladesh, viewed from a global perspective, is a country which in its emergence as an independent state was possessed of a variety of positive assets which could have transformed it into a dynamic, democratic society. Over the years new areas of opportunity have opened up. In my address I intend to explore some of the contemporary developments and circumstances of Bangladesh which provide some grounds for hope as well as suggest areas of action which can arrest the deterioration in the state of governance and can serve to build a more livable society. I will structure the paper around three pivotal themes associated with such an agenda for sustaining hope in Bangladesh’s future – democracy, nationalism and social justice.

**Democracy**

*Bangladesh’s political assets*

Every major political event in the history of Bangladesh over the last 60 years originated in a process of democratic mobilisation. The liberation of Bangladesh and the overthrow of the Ershad autocracy were sustained by such a process. There was therefore every expectation that the Bangladesh polity would be grounded in a working democracy underwritten by the hunger for democracy of its citizens. Today few people would have reason to feel optimistic about the state of democratic governance in Bangladesh. After 13 years of democratic renewal, where three elected governments and two political alliances have held office our political institutions are becoming increasing dysfunctional. The very institutions of democracy, elections, parliament, political parties, show signs of degeneration in their practices. The culture of intolerance which permeates our polity holds the nation hostage to a confrontational style of politics which is making the democratic process unworkable.

Ironically this process of confrontational politics originates in what should have been the most positive asset for sustaining a democratic system in Bangladesh. Since 1991 Bangladesh has witnessed the consolidation of a viable two party system. This system is anchored by the Awami League elected to power in 1996 and the Bangladesh Nationalist Party (BNP) which was elected to office in 1991 and again in 2001. Each party operates with a national support base and retains a
credible prospect of capturing state power through the electoral process. The amendment to our constitution in 1996 has institutionalised the preconditions for holding such free and fair elections under a non-partisan, caretaker government which leaves the two parties with equal opportunities to solicit the support of the voters. Bangladesh’s two party system should have minimised the scope for political instability in contrast to India, Pakistan, Nepal, even some of our South East Asian neighbours. Most of our neighbours either have to cope with the uncertainties associated with a multiplicity of parties sharing state power or remain exposed to the authoritarianism associated with a single party dominated polity.

The crisis of democracy

Unless our principal political parties are willing to practise tolerance in their dealings with their opponents parliamentary democracy will become a constraint rather than a resource for stimulating good governance. A workable two-party democratic system demands tolerance for each other’s positions, respect for the democratic rights of the opposition and a regular process of consultation both in the functioning of the democratic system as well as in the design of national policy. A majority party or alliance, commanding less than 50% of the national vote has to constantly consult with the opposition parties who represent more than 40% of the voters, if the political system is to remain effective. The practise of ‘illiberal’ democracy based on a winner take all philosophy may be legally correct but remains politically unsustainable.

Already this practise of ‘illiberal’ democracy has contributed to the proliferation of a breed of politicians exclusively preoccupied with private gain where money and arms rather than democratic consent is seen as the route to power. This new breed of politicians are now evolving from the role of foot soldiers into field commanders, in the confrontational environment of contemporary politics, where corruption, violence, mendacity, slander and incendiary rhetoric pollute the vocabulary of politics. It is small wonder that parliament is no longer seen as an arena for intelligent, even coherent discussion of national problems and policies. Nor is there any evidence that our principal political parties are unduly preoccupied with finding solutions to the myriad problems which oppress the ordinary people in Bangladesh.

It is now recognised not just in Bangladesh’s but also by our so-called development partners that a transformation of Bangladesh’s developmental landscape would be unrealisable without a transformation in our political culture.
Current producers as well as prospective investors need social and political stability to sustain their entrepreneurship. A visibly malfunctioning democratic system which carries the threat of constantly imploding is not an ideal environment to optimise productivity or initiate long term investment.

Adversarial politics is also aggravating the misgovernance of the economy. Such politics has contributed to the politicization of the bureaucracy and a malfeasant system of law and order. These instruments of governance, operating without accountability or transparency, leads to the machinery of state being used as a political resource rather than an instrument of governance. The resort to arbitrary and often extra-judicial forms of law enforcement through such agencies as Operation Clean Heart and now the Rapid Action Battalion (RAB), may lead to a temporary abeyance of crime but their sustainability is questionable because these agencies operate outside the institutional structures of the state. Nor do they address the source of the problem which lies in the patronization of criminals in the service of party politics.

Transforming the political culture

Can anything be done about transforming our political culture and reforming our governance? We have to live with the reality of a two-party political system and should seek to draw upon its advantages rather than live with its liabilities. This recognition of the dominance of two major parties in the polity remains without prejudice to the need for at least some ideologically motivated parties since both our parties, whilst divided by their historical inheritance, remain parties of the political centre. Indeed, within the prevailing bipolar polity in Bangladesh democracy could be well-served by some ideologically inspired diversity.

Given the reality of our two-party dominated system major efforts at reform must be focussed on the two principal parties. The prospect of these two political parties reinventing themselves does not, however, appear to hold much promise. Pressure for political change in these parties must, therefore, in large measure originate from civil society. However, those in civil society who would seek genuine political change for better governance in Bangladesh will have to expose themselves to the inconvenience and hazards of political involvement in sufficient numbers to make a difference. Such people will have to join political parties and from within demand a reconstruction of its political culture, including the democratisation of the party. Such a commitment by civil society will not come easily because it involves, effort, risk and above all time, which are more difficult to come by than sitting in seminars, giving statements to the newspapers or even
participating in the occasional demonstration. Such an attempt to upgrade the quality of representation in our political parties will generate resistance from enhanced vested interests in the parties. But it is arguable that if such newcomers demonstrate patience, humility and dedication in their commitment to political work, there remain large numbers of uncompromised political workers and leaders who would be able to draw upon these newcomers as allies in building a modern political party.

Building a third party always remains an option. But in our political environment this remains a Herculean task demanding resources, commitment, full time political activism by a new generation of cadres and injection of considerable financial resources. It is to be seen whether such a constellation of political forces can at all be assembled or even be permitted to take root by the dominant political parties in Bangladesh.

Reforming political finances

A major source of the degeneration in our political culture originates in the need for mobilising private funds for financing party and electoral activities. This pursuit of private finance for underwriting party activity makes both parties and their leaders hostage to special interest groups. Much of the corruption and malfeasance in decision-making originates in the need to do favours to such political financiers. A peculiar symbiosis now binds politicians, businessmen and bureaucrats together in a collusive relationship which has infected the entire system of governance. Such a system of political financing by its nature, remains devoid of transparency.

Any effort to reform politics from within thus needs to reduce the dependence of the political process on private financiers. One way to break the hold of such financiers is to introduce public funding to underwrite democratic politics through allocations in the national budget. Since financing of political activity would originate from the public exchequer its utilisation by a party would demand transparency in the administration and accounting of the funds. This may involve audit of party finances and greater inner party democracy in the disposition of such funds.

The role of civil society

Upgrading the quality of political participation would need to move in tandem with pressures for political reform emanating from a more pro-active civil society.
Trade unions, peasant organisations, women’s groups, human rights and environmental activists, professional organisation as well as business associations have all become increasingly active in Bangladesh in recent years in seeking remedial action from the government or in pursuit of particularist agendas. Such efforts, whilst realising some gains, have tended to be episodic and have thereby failed to build up a critical mass to realise substantive change. Such organisations, acting both individually and collectively will, therefore, have to commit themselves to civic involvement and advocacy as a full time exercise.

Since the business community is also a part of civil society they must engage themselves not just in the pursuit of their sectoral agendas but concern themselves with the broader aspects of governance. This involves both responsibility to help the community where they do business as well as accountability and transparency in their practices. Thus, the business sector needs to remain more accountable to all its shareholders as well as its workers, to depositors who use private banking services, to local communities where they operate and to the public at large.

A pro-active civil society means that Bangladeshis will need to come out of their drawing rooms, seminars and coffee shops in increasing numbers to assert their rights as voters and citizens. Parents of children in government primary schools and users of primary health care centres must come forward to demand effective service. Citizens in every locality of Bangladesh must challenge the police to provide honest and effective law enforcement. Municipalities must be pressured to provide clean neighbourhoods. This exercise of civic power will need to be escalated to make ministers, parliamentarians and bureaucracy accountable for their every action or inaction so as to make them count the political costs of malgovernance. The idea of citizen’s groups preparing report cards on the functioning of Ministries, departments and the local administration, the performance of MPs and the background of prospective candidates for electoral office, is one such idea which merits active attention. If our citizens cannot make the effort to demand better governance as a matter of right, then we must be prepared to live in a misgoverned polity.

Nationalism

Coping with globalisation

In this day and age of globalisation an exclusively national agenda is no longer meaningful. Whether we like it or not Bangladesh will have to participate in the process of globalisation and will have to interact more closely with our neighbours in order to better equip ourselves to cope with this process.
Bangladesh, over the last two decades has already been exposed to a process of external dependence because of the dominant role of aid donors in underwriting our development finance and influencing our policy agendas. Donors are, today, much more assertive as a price for committing their aid to Bangladesh. Not only have donors sought to use aid conditionality so as to impose policy reforms on Bangladesh but they are now becoming more exigent in their demands for better governance. This tendency of the donors to intrude from the economic to the political domain in their attempt to influence Bangladesh’s policy agendas indicates that two decades of donor driven policy reform have yielded only modest returns.

In contrast to the increasing trend by donors to influence both policy and governance the share of aid as a resource for development has declined from around 10% of GDP in the early 1980s to 2 or 3% today. This decline in aid dependence in Bangladesh reflects both an improved capacity for domestic resource mobilisation as well as an expansion in our export earnings over the last decade. At the same time the 1990s witnessed an absolute stagnation and decline in the share of aid resources in total public expenditure. The tendency for donors to seek to influence our national policy agendas appears to have risen inversely to their contribution to our public finances, as a result their ability to exercise leverage over our public finances today compared to a decade ago has also weakened. The emerging policy vacuum in Bangladesh has not been readily filled by the government of Bangladesh who still look to our aid donors to set the policy agenda.

This decline in the importance of aid in Bangladesh is part of a changing global scenario where donors are limiting their aid commitments and countries such as Bangladesh are being propelled by their donors to seek foreign direct investment (FDI). Bangladesh, therefore, has to not only make itself receptive to donor advice but to make itself attractive to prospective private foreign investors. This involves not just sound macro-economic policies but a working infrastructure, effective as well as more honest governance and above all a stable political environment. In contrast to aid where access originates in the specific relationship of Bangladesh with its aid donors, to attract FDI Bangladesh has to compete with other developing countries throughout the world. Thus, today there is much less assurance available to Bangladesh that a sufficiency of external resources needed to support its development programmes will be realisable.

Today Bangladesh has graduated from an aid to a trade dependent economy. This is a much more positive development but exposes us to all the viscissitudes of the
globalization process beginning with the phasing out of the *Multifibre Arrangement* (MFA) from 1st January 2005. We will now have to face the risks of competing in global markets with China and India without the protection of quotas for our ready-made garments (RMG). In the post-MFA era access to the US and European Union (EU) Market has become much more crucial to our economic fortunes than their aid commitment to us. As an LDC the EU has give Bangladesh duty free access to its market under the *Everything But Arms* (EBA) policy enunciated in the LDC conference in Brussels in 2001. This gives us some advantage over such competitors in the RMG sector as India and China but still leaves us without the shelter of quotas. The US is less inclined to give us duty free access which has been provided to the African and Caribbean Basin countries as well as to Jordan, Egypt and Israel. The US is today using its large market as a strategic resource where free entry demands payment of a political rent which so far has not been demanded of Bangladesh.

At the same time, the immigration policies of Saudi Arabia, UAE, Malaysia, Pakistan or India are also no less important to our future than World Bank loans to finance economic reforms. Bangladesh thus needs to adjust its external economic relations to make the best use of trading opportunities on offer under the process of globalisation. However, as a beneficiary of such export opportunities Bangladesh has to compete for such markets with many other developing countries (DC) and less developed countries (LDC). Such a process of globalisation will, therefore tend to favour those countries who can equip themselves to compete in a harsh and unpredictable external environment. What Bangladesh needs to do is to put in place an agenda for coping with globalisation so that we can exercise some influence over the terms on which we participate in the process rather than remain as helpless victims of this process.

Whilst the process of globalisation is impacting on Bangladesh in a wide variety of areas we limit our attention in this address to those aspects which remain likely to impact on our external earning capacity. We will, therefore, need to carefully review Bangladesh’s role in the WTO. This review will demand that we analyse our options and improve our negotiating capacity in order to obtain the best terms which we can hope to extract from the global negotiations. We will need to study the agendas of our bilateral economic partners to identify where export opportunities may open up for Bangladesh. We should draw upon such assessments so as to enhance our diplomatic capacities to enable us to exploit opportunities on offer to us. At the same time we need to develop our supply side capacity to create and exploit new opportunities available to us in the markets of these countries both under the EBA and in other markets in North America, Japan
and with our neighbours in Asia. We have a large potential as an exporter of labour services. However, our service exports should not depend on the enterprise of our illegal emigrants but on our capacity to ensure that free export of labour services becomes a legitimate part of the process of globalisation.

Bangladesh will need to invest in equipping ourselves to participate in the globalisation of information both as users of knowledge as well as providers of information services. We already lag far behind our neighbour, India, which is moving rapidly to avail of global opportunities on offer in the software and outsourcing market as well as newer areas of information services. The growth in training schools for informatics and software in Bangladesh is an indication of the enterprise of our youth to participate in the information revolution. Such private initiatives should now be backed by the state as part of a major strategic effort. The principal goal of such public initiatives should be to reach the IT revolution into our villages and to use this to liberate the poor from their isolation and equip them to gain from the opportunities of globalization.

We will further need to diversify our production and export capacities. Bangladesh is in danger of being trapped into a highly concentrated export structure where RMG today accounts for 75% of our exports. We may begin this process by moving to add value to the RMG sector which has already carved out a market niche in the global trading system. Value addition to our RMG sector may be realised through greatly enhancing investment in backward linkages through domestic manufacture of yarn as well as fabrics and forward linkages in the area of design and marketing of the RMG. If we play our cards right Bangladesh has a capacity to significantly expand our aggregate export earnings from RMG in the next decade if we can enhance our competitiveness. We may or may not be able to realise these goals but it is important to recognise that such opportunities are open to us because we have already established that we can export RMG and labour services on competitive terms. Failure to remain competitive could lose as what gains we have thus far registered in the RMG sector. The same areas of comparative advantage enjoyed by Bangladesh in the RMG sector can be exploited in the area of leather products, consumer electronics, toys, or other labour intensive economic activities.

In recognising that our future lies in trade not aid Bangladesh should redefine its relations with our donors. Our diplomatic initiatives should move away from soliciting aid to securing and sustaining access to global markets as well to that of our immediate neighbours. Whatever aid is likely to be available to us should be focused on enhancing our capacity to participate in the global trading system.
This enhancement of our competitive capacities will demand investments in both basic education as well as skill upgradation and in development of our information linkages to the international system. This will also require investments in physical infrastructure where aid should be used to reduce our exclusive dependence on foreign private investors to meet this need.

**Recapaturing ownership over the development agenda**

Bangladesh’s need to cope with globalisation should not leave us exclusively preoccupied with enhancing our export capacity. Bangladesh is possessed of a population approaching 130 million who provide a large and growing demand for goods and services. Such a domestic market is an important resource of Bangladesh not available to countries with smaller populations. We need to gear our production systems to service this demand rather than surrender our local market to foreign suppliers in the name of globalisation. To this end we must refocus both policy and political attention to meeting local needs even if this means some challenge to the process of globalisation. Neither our neighbour India, or China or the US are so casual about surrendering their large domestic market. We therefore need to invest as much attention on ensuring more competitive local production of goods and services for the local market as we do to export promotion. Promoting local production capacity will be particularly beneficial to small scale and rural producers who cater largely to local needs. Stimulating demand for small industries has the further advantage of widening domestic development opportunities because of the greater use by this sector for intermediate inputs derived from local resources and skills. Since the small scale sector has always been neglected as regards both policy and resources a major thrust area for Bangladesh should therefore be towards promoting this sector by helping to upgrade their technology and improve their competitiveness.

Our diminished need for aid should also be used as an opportunity to resume ownership over our policy agendas. A move towards restoration of ownership coincides with the now universal recognition amongst donors that weak local ownership diminishes aid effectiveness and neutralises the impact of externally driven reforms. Such a resumption of ownership demands a credible effort within Bangladesh to develop our own vision, commitment and capacity to design as well as implement policy.

This demonstration of vision and commitments must largely originate from our political leadership. In this respect the capacity of the state to design policy has diminished as the machinery of state has lost confidence in its ability to design
policy. However, policy design and implementation is no longer the exclusive monopoly of the state. Civil society also needs to have its own vision and to demonstrate a commitment and capacity to realise this vision. In Bangladesh there is no shortage of professional resources to design and implement such a vision nor do we lack the skills to build a political consensus behind such agendas. The efforts of the caretaker government of President Shahabuddin Ahmad in 1991 to commission 255 of our best experts assembled in 29 Task Forces to advise the incoming elected government on policy options, demonstrated the worth of our local professionals. The Centre for Policy Dialogue again assembled over 150 of our most respected professionals at the time of the 2001 parliamentary elections to prepare policy briefs which could provide constructive inputs to the electoral debates. The incumbent Awami League and BNP governments have also drawn upon such indigenous skills to service a variety of National Commissions on policy reform. Such exercises have thrown up valuable policy advice but have not always been operationalised into legislation or policy. Nor has much effort been invested in building a broad political consensus behind the recommendations of these National Commissions. Thus, even where the government has moved to assume some ownership over policy design it has not made the best possible use of these initiatives.

In the light of experiences over the last 33 years of Bangladesh’s history nationalism for the 21st century implies a capacity to think as well as act for ourselves. Such an autonomous process of policy thinking, thus, needs to be backed by policy commitment as well as the development of operational capacity to realise our own vision. We will, therefore, need to build supportive political constituencies to sustain such a process of national self-assertion. Acquiring these skills will not enable us to resist globalisation but will better equip us to participate in the process. Rhetorical protestations about national sovereignty emanating from political practitioners who have over two decades abdicated sovereignty over all aspects of development policy remains neither politically credible or operationally meaningful. At the end of the day we have to demonstrate to our development partners that resumption of policy ownership is more than a slogan. We will have to demonstrate a capacity to mobilise local resources, use local skills as well as enhance local productivity and above all improve governance if the concept of ownership is to graduate from rhetoric to reality.
Social Justice

The emergence of two societies

Our goals of democracy, secularism and nationalism will all remain unsustainable if we cannot establish a more equitable society permeated by a spirit of social justice. Whilst the constitutional commitment to socialism meant different things to different people, this goal was premised on the commitment to democratised economic opportunities for the deprived majority of the population. Bangladesh did not attain its independence through the goodwill of its masters but through protracted struggle, sustained by the sacrifices of common people. A democratic Bangladesh was thus, honour bound to build a social order which gave common people a stake in the development process.

Unlike many countries, including some in South Asia, at the time of our liberation Bangladesh did not inherit an elite class of feudal lords or a super-rich bourgeoisie. The emergence of extreme social and economic disparities which characterises Bangladesh today was a post-liberation phenomena driven by the externally driven policy agendas which guided our economic policy. Such policy advise did little to accelerate development or eliminate poverty but it did contribute to a process of social polarization which has invested Bangladesh with a new elite, many of whom have earned their wealth more by political access and patronage than by their entrepreneurial skills. A society which maldistributes the rewards of development to a rentier elite will promote neither growth nor equity. Such a social order lacks popular legitimacy and thus remains inherently unstable. Much of the social anarchy which is permeating Bangladesh today derives from the feeling in all segments of society that the fruits of independence have been unjustly distributed.

Bangladesh’s unequal social structure is now perpetuating a process of undemocratic politics where the deprived majority have little chance of entering parliament and remain largely excluded from the tiers of local government. Politics is increasingly becoming a rich man’s game played with the objective of enhancing private wealth rather than to serve a public purpose. A political system which effectively disenfranchises two-thirds of the population remains fundamentally unstable because it denies a political stake to those very classes who remain the ultimate defenders of democratic institutions. No usurper could hope to seize state power if they know that half-a-million working people would occupy the streets of Dhaka and Chittagong to protect democratic institutions in which they have a direct stake.
To build a more just society we need to make our development agenda more inclusive so as to widen the opportunities for the deprived to participate in the development process and the market as both producers and consumers. Such an agenda will serve to eradicate the moral crime of poverty and stimulate as well as sustain growth because it will widen the domestic market for indigenous producers. To provide a flavour of some of the issues which demand address in a more inclusive development agenda we present below a selective rather than comprehensive agenda for social reform:

**Democratising human development**

The emergence of two societies built around unequal access to education and health care needs to be arrested. It is not enough to spend more public money on primary education and health care if a small elite monopolises access to superior private education or health care facilities. A dualistic education system institutionalises disparities in lifetime opportunities for upward mobility. Such a system ensures that those privileged to receive an expensive private education will perpetuate themselves as a ruling class whilst those who depend on public education will always remain an underclass.

The main thrust in the democratisation of education should be carried forward through an exponential improvement in the quality of public education and health care from the primary to the tertiary level. Such a public initiative will need to ensure that disparities in the quality of public and private education are minimised. Such a democratisation of education will not only demand more expenditure on public provision of education but an upgradation of its governance which remains a much more scare resource than money. The quest for better education will need to extend beyond the state and activate civil society to exercise their rights as parents and citizens to demand improved performance from the educational system.

In upgrading our education system we cannot afford to neglect university education. We must restore the opportunity for the children of poor families to at least have access to our public universities to enable them to compete for the best jobs on offer in society. Regretably Bangladesh’s universities, once the cradle of our professional and political elite, have been infected by all the maladies which have plagued the polity. Universities have been politicised and factionalised at the level of both teachers and students. Student politics which once provided the vanguard of every democratic struggle in Bangladesh for the last half century is tending to degenerate into a mercenary activity used to serve private political and
commercial agendas rather than to serve a public purposes. It is not surprising that
the quality of public university education in Bangladesh has deteriorated and
parents who can afford to do so are either sending their children abroad or into the
proliferating private universities. The crisis of our universities is thus part of our
crisis of governance and unless this is rectified this educationally driven process
of social disparity will be perpetuated into the future generation.

Upgrading technical skills
As the base of our public education expands and upgrades itself we should aim to
provide institutional facilities to enable youth graduating out of rural schools who
have limited opportunity to acquire marketable skills to broaden their
employment horizons. The Bangladesh government may intervene to consciously
promote upward mobility by setting up technical schools in every upazilla. These
technical schools should be well-equipped, staffed with the best available
professional skills and should calibrate their courses to the needs of both the
global and local market. This system should widen and diversify economic
opportunities for the poor, deprived by both class and gender, to enable them to
benefit from the globalisation process.

Today in the age of the information revolution not every villager needs to send
their offspring to Dhaka for a better education. Enhancement in the capacity of
distance learning can provide village students with the same knowledge base
available to students in Dhaka. But this will require a major investment in the
telecommunications infrastructure which can take the IT revolution to the village.
This will need to not only train teachers to use the resources of the information
age but a transformation in the system of management and motivation of public
education.

Upgrading health care
Bangladesh has registered some gains in health. Its immunisation programme has
registered promising results. Its family planning programme has raised the
contraceptive prevalence rate (CPR) from around 10% in the 1970s to over 50%
today which has helped to halve our fertility rate in 20 years from 6.4 to 3.2. The
absolute as well as relative share of public expenditure going to health care has
also increased in the last decade. However all such gains stand to be neutralised
by the degeneration in the quality of our curative health care due to its poor
governance. It is this poor quality of care which is opening up major social
disparities in access to health care.
As in the case of education, primary health care should, therefore, be provided at a level which is comparable to facilities on offer in the private sector. It is clear that the better-off sections of society have come to depend on private health care whilst the elite seek such care abroad in India, Thailand, Singapore and in the West. This means that public health care is exclusively used by those who cannot afford private care. However, the public system carries heavy private costs paid to functionaries within the public system. The public health system is poorly governed which encourages rent-seeking and perpetuates a system which is overloaded as well as poorly administered and maintained.

Bangladesh thus needs a system of quality care for the deprived which builds upon the comparative successes of the immunisation and family planning programme. Such a system needs to ensure the effective implementation of a new health care policy based on community participation, prioritisation of preventative care and improved governance of the system of curative care. This requires bigger investments in public health as well as effective management.

The test of the new system at the village level will be measured by whether the poor in rural Bangladesh are kept waiting long hours by the doctor, can expect to be treated with respect in the local primary health care centre, are not made to pay rents for realising health services and if admitted to a upazilla hospital should expect to sleep on clean sheets, eat decent food and use clean toilets.

A stake for the deprived

Human development is important in its own right because it enhances the capabilities of the deprived to both fulfil themselves and participate in the market. If opportunities for the poor are to be enhanced we would, however, need to move beyond enhancing their human development to enable them to realise the full benefits which could be derived from improved human capabilities. To this end we need to re-engineer our institutions to provide the deprived with a stake in the development of the economy. This involves taking the micro-credit revolution to its logical conclusion by ensuring that every person eligible for such credit has access to credit. This goal will demand not just the extension of lending by micro-credit institutions but that our commercial banks should also equip themselves to provide micro-credit to anyone who needs it. Micro-credit will thus need to be integrated into the formulation of monetary policy so that it can be served by the mainstream banking system. Redirection of the lending practises of our commercial banks should be backed by policy and institutional arrangements to relocate credit from large defaulters to the commercial banking system to the
more creditworthy micro-borrowers. Such a relocation of credit would be consistent with both market efficiency as well as the goals of national policy where credit to the deprived need not remain the exclusive concern of Grameen Bank or the NGOs. To redirect commercial bank credit to the deprived will, however, need more than a change in monetary policy and will have to address the crucial problem of misgovernance and weak regulation which has compromised the viability of our banking system.

Our financial system will also need to be reconstructed to mobilise the savings of the poor to finance investments both in the corporate sector and in corporatising the rural economy. Savings of these segments, mobilised by the micro-credit sector alone would be in the range of Tk. 15 billion. Part of these savings should be put to work, leveraged by commercial bank financing to be used to buy a corporate stake for the deprived in the modern production and export sector.

As the rural poor are integrated as stake holders, producers and consumers into the corporate sector, the rural economy needs to develop its own unique corporate bodies, designed to use local savings and attract outside capital. This will need corporate entities which link micro-producers using micro-credit with national and even global markets. This approach could both build corporate marketing entities for small producers as well as invest in value addition for primary producers.

Working people in the urban areas, particularly working women in the RMG sector, should also be given a stake in the enterprises where they work. A more just society would need to recognise the contribution of these rural women, drawn from deprived families, who through the value added by their labours, provide most of the net foreign exchange earnings accruing to Bangladesh’s export sector. This recognition of the contribution of working women should be provided by accepting them as partners in the development process through giving them an equity stake in the factories where they work. This stake could be funded by bank loans in the same way that commercial banks finance share purchases by the elite of Bangladesh. Such a move to broaden the ownership of corporate wealth need not limit itself to the RMG sector but should be extended to other sectors of the economy. In a society where public credit is a critical factor in facilitating participation in the market the state exercises responsibility to use its own resources to widen the ownership of wealth so as to substantially democratise opportunities for access to the market.

In the final analysis the quest for justice in Bangladesh should aspire to gradually erase the dividing line between labour and capital. A sustainable democratic
system demands a cohesive social order which does not divide a society into haves and have nots. If we aspire to build a more inclusive society in Bangladesh we need to give every household a stake in the development of the economy whether it is through title to land or permanence of tenancy rights or as partners in corporate enterprises. The fruits of growth need to be shared and incentives provided not just to a small class of property owners but to all segments of society. Such a system of incentives will help to tap the creativity and work potential of a much broader segment of the population, will widen their income earning opportunities and graduate them from recipients of public largesse into full partners in the development process. Within a more just framework of development which integrates issues of asset ownership with market access, production growth and poverty eradication, equity and economic growth can be made part of a holistic agenda for both sustainable development and sustainable democracy.

External relations

In building a sustainable domestic order our leaders will have to also build a workable pattern of relations with our neighbours through the framework of SAARC. Both geography and history have linked Bangladesh’s prosperity and security to the nature of its relations with its neighbours. Bangladesh’s future agricultural development, depends in considerable measure on the enhancement of water resources inputs and in its capacity to cope with floods. This degree of water security can, in the long run, only be realised through cooperation with India and Nepal from where our principal rivers originate. The river-linking policy which is being discussed in India should be challenged developing a creative programme for sub-regional cooperation to jointly develop the water resources of the Himalayas.

Our energy needs will also demand an integrated solution which links the energy production capacity of Bangladesh with its immediate neighbours and even beyond to the energy resources of West and Central Asia through a shared distribution network. Furthermore, Bangladesh’s transport system will need to be integrated not just with our South Asian neighbours but with South East Asia and China through the Asian Highway and Railway network. Bangladesh should aspire to use its unique location as the bridge between South, South East Asia and South West China, to position itself as the Singapore of the land routes in Asia. In order to enhance and develop Bangladesh’s production potential we will need to have access to the wider South Asian market particularly to India, through the
mechanism of the South Asian Free Trade Area (SAFTA). At the same time we will have to equip ourselves to cope with the gradual integration of our economy into a South Asian economic community by diversifying our production and export capacity.

Conclusion

Building upon our assets

My address is designed to demonstrate that Bangladesh does indeed command the potential to build a sustainable development process and democratic order. In identifying possibilities for breaking out of the political impasse facing the country today my approach was to focus on the art of the possible. Thus in each area of discussion I have attempted to anchor the opportunities for change on assets or initiatives already in place to which some value addition was deemed possible. The prospects for the consolidation of democratic and secular politics derive from the objective reality of a two-party system located in a relatively homogenous society. Scope for a reassertion of nationalism derives from our visible strengths in export growth and domestic resource mobilisation which have contributed to the decline in aid dependence. The new opportunities offered by the globalisation process, are likely to sustain our export growth. The quest for social justice is grounded in the positive gains registered in micro-credit, widening of educational opportunities, the successes of the immunisation as well as the family planning programmes but above all in the resilience, industry and enterprise of the common people of Bangladesh. The visible production potential as well as credit worthiness of the deprived, the contribution of rural women to the dynamism of the RMG sector and the emergence of a number of globally recognised institutions targeting the deprived demonstrates both institutional commitment as well as capacity to mobilise these constituencies of the underprivileged.

In seeking to build our future upon our revealed capacities and experience we need to take account of the possibility that such gains can also be undone mostly on account of Bangladesh’s dysfunctional political processes, persistent malgovernance and increasingly unjust social order. The prevailing political practises appear to emphasise private and party needs over the public interest. As a result, the machinery of state is becoming increasingly parochialised, anarchic and predatory. The progressive degeneration in the social commitment of the state has led to a configuration of social power which has elevated a small, affluent elite into positions of political influence which has empowered them to monopolise
resources and remain immune from both the laws of the land as well as of the market.

The dominance of the two party system in the Bangladesh polity insulates the two parties from electoral challenge so that their dysfunctional politics can perpetuate itself over successive regimes. At the same time the power of Bangladesh’s new elite has enabled them to use their resources to consolidate their dominance of our electoral institutions at the expense of excluding the more resource-deprived segments of society. This incestuous link between power and wealth is compromising the representative character of the democratic system in Bangladesh. At the same time, women remain underrepresented in Parliament even though they are now better represented at the local level. Successive parliaments have thus remained increasingly alienated from their constituents, including the deprived as well as women.

A role for civil society

Can a more enlightened and pro-active civil society help to reconstruct our political parties and contribute to empowering the deprived to challenge the social dominance of the elite? Those with both power and resources at their command have the capacity to deter, often by not very democratic means, any challenge to their authority. This means that the costs of such a civic mobilisation remain high whilst the returns are far from assured. Much will depend here on the sense of outrage which will serve to raise the threshold of risk and pain willing to be borne by the citizens of Bangladesh. Whilst civic activism has increased in recent years it is far from clear that the sense of outrage has reached a point where issue-focussed activists are willing to expose themselves to a more intensive involvement in advocacy by joining a major political party and challenging the authority of its power brokers.

Some civil society activists have indeed evolved from social activists to party political activists. But such persons tended to be in a minority so that their social motivation tends to be eroded by compromises forced on them by the realities of party politics. Their experience discourages more such persons from entering politics when in fact politics needs a larger proportion of such social activists who can generate enough critical mass to influence the culture of party politics.

Under the circumstances feasible politics suggests a strategy of incremental mobilisation. This may begin with issues of urgent public concern where the capacity for resistance is relatively weaker. Civil society mobilisation around such issues as improving the quality of primary education and health care services or
cleaner urban neighbourhoods could yield high returns because no strong social forces are likely to strongly resist these agendas. In other areas such as protecting the environment against environmental pollution, encroachment of the Buriganga by private developers, or shrimp cultivators damaging the environment for paddy farmers, where private financial interests are involved, the stakes will be higher and the capacity for resistance stronger. Such mobilisations would need to be more willing to take risks and accept some pain.

If we move upscale to challenge toll collectors and hoodlums the risk quotient increases largely because the challenged parties are often equipped with arms and better integrated to the mainstream political parties so that they can use such arms with relative immunity from the law enforcement agencies. However, as and when citizens have rallied to protest against weak law enforcement the government of the day has had to demonstrate some willingness to enforce the law. Unfortunately, such citizen's coalitions disperse after an initial mobilisation thereby relaxing pressure on the government enabling the criminals to resurface after a short period of hibernation. However, such mobilisations demand political skills to build and sustain a non-partisan coalition, demonstrate high risk taking capacity and above all perseverance to see the fight through to the finish.

A politics of the feasible

The nature of the problems indicated above suggest that particularist coalitions of citizens focussing on specific issues need to be assembled around people willing to invest time and to effort to see the mobilisation through to its eventual conclusion. In each such coalition a smaller number of people would need to commit themselves on a full time basis to sustain such struggles. Do we have such dedicated citizens who feel so strongly about particular issues to take leave of their vocations, even if necessary, of their families, to embark on such a risk prone enterprise? Thus far, there is little evidence of such persons willing to commit themselves to the finish though a much larger constituency is likely to be available to support episodic mobilisations demanding small doses of effort and involving moderate risk. If civil society is to take itself seriously it will have to demonstrate a capacity to produce even a small number of such coalitions committed to see a particular mobilisation through to its final outcome.

Whilst issue-based mobilisations remain a feasible option political activism by civil society remains much more problematic. The time and risk involved is infinitely higher if one aspires to join a mainstream political party and engage oneself in an endeavour to upgrade the quality of the party. To be effective any
such effort would demand that enough people join a party to exercise some weight in the party. Those entering politics should appreciate that they are not entering politics in a vacuum but have to interact with political workers who have been in the field a long time whilst such civil society members were comfortably engaged in their profession. If politics is to be seen as the art of the possible we will, thus, have to recognise the coexistence of the good and the bad elements in the politics of Bangladesh with such qualities often co-existing in the same person. The real task of political reconstruction in Bangladesh is to see that the good more often prevails over the bad in influencing the course of politics. Gresham’s Law, whereby bad people drive away good people from politics, may be at work in Bangladesh but its applicability originates in our abdication of responsibility and surrender of hope in the future.

Individual political enterprise will however not be enough. The point at issue is to impact on the culture of politics where entrenched forces at all levels remain strong, have a high political stake and material interests to defend. Here individuals who join political parties will need to draw upon the backing of a mobilised civil society who are willing to engage in the high risk task of influencing political action. These new political activists are needed to serve as a bridge between civil society and party politics where the concerns of the citizens can be brought to bear on the agenda and behavior of political activists. The problem with involving civil society in politics will, however, have to address the reality that civil society organisations of teachers, lawyers, doctors and engineers, themselves remain divided along the faultlines of Bangladesh’s bipolar political system. As a result few people command the credentials to reach across the political divide and assemble a consensual coalition of citizens committed to a public cause rather than a partisan agenda. In such a context if civil society is to command sufficient authority in the political political identities will periodically need to be subsumed in the service of a bigger cause and will need to build their own issue-based consensus in the same way that politicians are expected to do so.

*Building coalitions for a just society*

Whilst improving the quality of politics is important the more vital task remains to democratise politics as well as access to resources in a milieu where strong vested interests with much to lose occupy positions of power and influence at all levels. To challenge these forces in national or even local government elections is costly as well as fraught with risk. In contrast, assembling coalitions of the deprived, many of whom remain captive to vertical patron-client relations with the powerful, is time consuming and hazardous to the deprived who may lose
what crumbs are on offer by their patrons for demonstrating the temerity to challenge the existing social order. Thus, the agenda for hope for building a more just society needs to reach out to a much broader constituency built up through empowering the deprived, including women, who must be politically mobilised to struggle for their rights. In this task civil society can be the ally of the deprived but it cannot be their proxy. This coalition from civil society should also seek to broaden its base. It should reach out to draw in the productive elements of society such as the entrepreneurs who do not default on their loans, our competitive exporters, our productive farmers, our hardworking garment workers, our creative professionals, even those members of the administration who would prefer to serve the people honestly. There are also large numbers of political workers, whether in the dominant parties or from the electorally marginalized forces who would remain the natural allies of such coalitions within civil society. All these varied forces within civil society as well as politics have a shared interest in coming together to build a just society which rewards effort, expands opportunity and challenges the injustice and malgovernance which are eroding hope in Bangladesh today. To bring together such a coalition for change will provide the real challenge for building a just society.
People’s Freedoms and Development in Bangladesh: The Political Economy Perspectives*

Qazi Kholiquzzaman Ahmad

The Framework

In order to understand the political economy perspectives of the way in which the economy of Bangladesh is moving, one may profitably start with Amartya Sen’s definition of development as freedom (Sen 1999). He argues that freedom relates both to the substantive opportunities that people have and the processes that enable them to decide and act accordingly. He has identified five types of instrumental freedoms which are individually and collectively important for people to enjoy in order that they can improve their conditions of living by overcoming constraints and unfreedoms. These instrumental freedoms are political freedoms, economic facilities, social opportunities, transparency guarantees, and protective security, each involving an opportunity aspect and a process aspect. Simultaneous availability of different types of freedom is important because unfreedom in one respect (say economic) can foster unfreedoms in other respects (viz. social, political) in a reinforcing fashion.

Assuming that there exists a social environment which provides equitable opportunities for all, the people may benefit—the goal being to benefit equitably—by taking advantage of them if the processes available allow them to do so. It may just be the case that the socio-political-economic environment is one which offers very little opportunities, let alone favourable processes, to people at large. Again, the policy framework may offer opportunities but the ongoing processes may severely constrain the ability of many to take advantage of them. In fact, only if transparency guarantees are ensured such that there is openness in society in terms of access to information and participation in debates leading to decision-making—that is, if there is a basic trust permeating social

behaviour in relation to decision-making concerning the particular country’s political, social, and economic management—can there be appropriate opportunities for all segments of society. The various processes must include policies and programmes that improve the capability of the people to participate in them effectively, and must also be underpinned by ethics and morality to provide all segments of the population a fair playing field for them to take advantage of the opportunities.

If such freedoms (favourable opportunities and processes), as explained above, are indeed available to the people, it can be expected that they will effectively participate in various social transformation processes and benefit equitably. It is possible, however, that some people may still not be able to participate or benefit much from those generally favourable opportunities and processes because of destitution, physical problems, or sudden impact of natural hazards such as floods and cyclones. Those who may be left behind in this manner in a properly functioning society, where the various freedoms are available to all to take advantage of, should be a very small minority. For these people, it is necessary to ensure security in relation to access to food and other basic needs through transfer payments such as unemployment benefits, statutory income supplements and relief measures, and short-term employment opportunities, as necessary and appropriate.

Let us now examine how far the freedoms are enjoyed by the people of Bangladesh.

**The Economic Freedom**

Bangladesh has been vigorously implementing neo-liberal economic and other reforms since the early 1990s. The process was initiated and is being pursued under aid conditionalities. The resulting economic impact is not encouraging.

Since the mid-1990s, Bangladesh has achieved average annual GDP and per capita GDP growth rates of over 5 per cent and over 3 per cent respectively. Regarding the overall GDP growth rate, the achievement since the mid-1990s is not much higher than that (4.8 per cent) achieved during the period from independence to the mid-1990s. But, the recent per capita GDP growth rate is indeed encouraging. A major contributory factor to the latter is the significant

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1 Sources of data quoted in this and the following sections are (Bangladesh Bank 2004; MoF 1999 and 2004; UNDP 2003 and 2004).
reduction achieved in population growth rate. However, given the low base, the amount of per capita GDP remains very low, only about US$400. The country’s population size is very large, given that the geographical area of the country is 147,570 sq km, making the country the most densely populated in the world (except for the few city and tiny states) at 920 persons per sq km.

The stickiness of economic growth at just over 5 per cent per annum, on average, since the mid-1990s, is largely due to stickiness of investment, which has been around 23 per cent of the GDP for the past several years. There has been a moderately increasing trend in the private sector investment but that has almost been matched by a declining trend in the public sector investment. The domestic savings ratio has also remained virtually stagnant around 18 per cent of GDP over the past number of years. Significant increases in the remittances by Bangladeshis working abroad have ensured a modestly rising national savings ratio (which was 24.5 per cent of GDP in 2003/04, having risen from around 21 per cent in the mid-1990s). Foreign aid (grants and soft loans) actually received annually, on average, in recent years has been only around US$1.5 billion, less than 3 per cent of GDP.

The thrusts of these reforms are privatization and deregulation of production and distribution of goods of various types as well as of utilities and services such as education, health services, telecommunication, electricity, and water; and governance reforms including rolling back of the government. However, many of the reforms such as those relating to improving the efficiency of the fiscal and monetary measures, improving governance by removing corruption and establishing transparency and accountability, and improving coordination and effectiveness of the implementation of policies and programmes should be carried out even if there is no donor intervention. However, the donor-imposed reforms are often standard packages, which are applied to aid-dependent developing countries around the world, regardless of the differing realities faced by them. In many cases, hardships are imposed on the reforming countries as a result of reforms and adjustments undertaken, particularly on the weaker segments of their populations. Also, the pace, pattern, and sequencing of the reforms, determined as aid conditionalities, are often out of step with the prevailing realities. As a result, the reforms either cannot be undertaken or create undesirable distortions and impose avoidable hardships. For example, subsidies may be necessary to enable the farmers to access much needed inputs. But, giving of such subsidies is not allowed by the donors, thereby imposing hardships on the farmers and causing economic set-back for the countries concerned as the agricultural sector has the pre-eminent role in developing countries as sources of food, raw materials, and exportable commodities and of demand for the products of manufacturing and other non-agricultural sectors. Globally, in the wake of neo-liberal reforms, 54 countries are now poorer than in 1990; and in 21 countries more people are now hungry than in 1990 (UNDP 2003). The situation in Bangladesh has been analyzed in the text of this paper.

The total population is currently 135 million according to projection based on 2001 Population Census; but there are contentions that it can be significantly higher than that—may be as high as 145 million. However, population size-linked figures used in this paper are based on 2001 Population Census.
on gross basis and about 2 per cent of GDP on net basis (i.e. after debt servicing and other related expenditures).\footnote{In fact, foreign aid received is much lower in real terms, and has been declining over the years.}

The direct foreign investment (DFI) has remained very low. In 2003, the annual FDI inflow was the largest yet at US$432 million, which accounted for only about two-thirds of one per cent of GDP in that year.

Also, productivity in most sectors is low. Although agricultural production (crops, livestock, and fishery) has increased at an encouraging rate of about 3.5 per cent per annum, on average, since the mid-1990s, agricultural productivity still remains low compared to, for example, that in China.

Moreover, the overall and per capita GDP growth rates conceal the fact that income distribution is extremely skewed and that income disparity has in fact been accentuating. The national income share of the bottom 20 per cent of the population declined from 6.52 per cent in 1991/92 to 4.97 per cent in 2000, while that of the top 20 per cent increased from 44.87 per cent in 1991/92 to 55.02 per cent in 2000. The Gini coefficient increased from 0.388 in 1991/92 to 0.472 in 2000. About half the population of the country is absolutely poor and one-third extremely poor on the basis of basic needs calculation. The poverty ratio would be much higher than 50 per cent if a human dignity line (where freedom of choice and pursuit of chosen paths—social, economic, political—are guaranteed in addition to access to basic needs) is considered.

The large majority of the population consisting of the poor and those shakily above the poverty line suffers from extremely limited or complete lack of access to land and other assets and employment opportunities. Land is the main source of income and employment in rural Bangladesh, where over three-fourths of the country’s population lives. About 55 per cent of the rural households are absolutely or functionally landless, and another 31 per cent marginal to small farmers. The landless and land-poor categories, therefore, account for 86 per cent of the rural households.\footnote{Data on land distribution quoted here refer to 1995/96, the latest year for which soil data are available. If anything, the situation may have worsened since then.} Access to other assets is also extremely limited for the large majority of the country’s population because of low income, low savings, and limited access to credit and information. Micro credit programmes provide some succour to a significant number of deprived people in the country, but even micro credit is not available to the lowest 15 per cent or so of the population.
because they lack minimum economic ability (landownership) required to qualify to receive micro credit. Also, micro credit is a stop-gap survival strategy, which has not contributed to the initiation of a development process aimed at upgrading the living conditions of the poor and disadvantaged on a sustained basis.

Unemployment runs at such a disturbingly high level of about 40 per cent of the person-days available in the country, involving both educated and uneducated people. Furthermore, the return from self-employment in rural non-farm and urban informal sectors in which large numbers of people are engaged is very low. Also wages/salaries received by large numbers of people engaged in unskilled, semiskilled, and non-professional jobs in various sectors are very low.

Clearly, therefore, majority of the population of Bangladesh cannot participate effectively in the economic process and therefore remain disadvantaged, although it is claimed that market provides opportunities to all. The reality is that in the freely competitive dispensation that market economy entails, the rich and powerful dominate and take all or most of the benefits while the poor and disadvantaged cannot even begin to compete in an effective manner as they are not only income- and asset-poor but also capability-poor.

Social Freedoms

In the social arena, a number of significant successes have been achieved in Bangladesh. These include the already mentioned reduction in population growth rate; significant reduction in infant, child, and maternal mortality rates; substantial progress in education in general and female education in particular; and access to clean drinking water. Regarding access to clean drinking water, the very significant improvement achieved up to the mid-1990s through the spread of tubewell has since been jeopardized as a result of large-scale arsenic contamination of tubewell water, which in fact is a major health hazard in the country now. A major problem relates to access to sanitary facilities, about 70 per cent of the population remaining deprived in this regard.

The persistence of poverty at high levels has already been mentioned. Poverty reduction achieved during the 1990s was about one percentage point a year so that the poverty ratio declined to about 50 per cent by 2000 from about 60 per cent in 1991/92. The ratio may have further declined to 46 per cent by 2004 if the same rate of decline as that achieved during the 1990s has continued since 2000. But, with the population increasing (by about two million a year even now), the number of poor people on the basis of access to basic needs remains as high as around 65 million, a figure not much lower than the total population at the time of independence.
The rampant unemployment, as noted earlier, has been a major cause behind the widening and deepening anti-social activities in the country. Frustration caused by the persisting unemployment, particularly among the educated youth, not infrequently leads the concerned young people to take to drugs and get involved in crimes and violence. Such frustrated young people are often available for recruitment by political and other godfathers of crimes, corruption, and violence to front for them (godfathers) and undertake all kinds of anti-social and violent activities at their (godfathers’) behest.

Law and order situation in the country is precarious, and so is security of life and poverty as a consequence. Rule of law is talked about a lot including in government circles, but not established by taking appropriate steps. The consequent sufferers are the downtrodden, i.e. excluded majority. Judiciary is not yet separated from the executive, despite a Supreme Court directive to that effect issued years ago.

Social exclusion is large and sharp. Social capital is underdeveloped as the institutional base, coordination, norms, and practices remain grossly underdeveloped. *The Global Competitiveness Report, 2004-2005* of the World Economic Forum (WEF) puts Bangladesh at the lowest (i.e. 104th) position in terms of public institutions index, among 104 countries surveyed.

**Political Freedoms**

The political atmosphere in the country has remained confrontational. Indeed, the opposition is also part of the government, but there has never been a proper role played by the opposition in Bangladesh. The government has always followed a go-it-alone attitude. This has been so despite the fact that it is widely recognized in the country that a consensus across political parties, in government and outside, on major national issues is necessary to address the problems effectively.

Politics in the country has also become entrenched in money and muscle power. Given that politics is not employed in this country to serve the interest of the people but is pursued essentially by the politicians for the purpose of their own aggrandizement, the goal of politics has in fact been: to capture or retain power by hook or by crook. In this political atmosphere, people with ulterior motives such as those who have amassed wealth through corruption, black-marketeering, and other illegal means have joined politics and many have won elections becoming lawmakers. They spend a lot of money in getting elected but, then, collect much more during their tenure of office through corruption and siphoning-off of development resources through various illegal means such as capturing contracts and bestowing favours in exchange for grafts. The political process has in fact become criminalized.
In order to cover up for their failures in achieving good governance and socio-economic progress for all, the political leaders rhetorically harangue the people on how people-oriented their policies are, how much they are trying to promote people’s causes, and how much they are succeeding in their nation-building efforts in the interest of all citizens. Those in power also sharply castigate the opposition for disrupting their (i.e. of those who are in power) genuine efforts to ensure progress towards achieving the goals of poverty alleviation and socio-economic progress of all segments of society. But, the reality is: the people at large have seldom been the true focus of the government approach to development. Therefore, the country remains characterized by rampant poverty, deprivation, disparity, and exclusion, as indicated earlier. In fact, it is greed for power and wealth that guides politics more than anything else. It is also a greed mentality that drives a whole lot of people to become cronies of the power that be, seeking crumbs. Some of these cronies, regardless of their qualifications, are appointed to key government positions. When so appointed, they usually act in the manner that will please the masters. Ironically, the political leaders profess that the people are the source of all political power in the country; but in reality once in power secured by hook or by crook they (the political leaders) seek their own aggrandizement, leaving the ordinary people behind to languish in poverty, squalour, and without any real opportunities to improve their conditions.

Under the circumstances, the large majority of the people cannot meaningfully participate in the political process in the sense, for example, of freely exercising their right to vote, choosing who would govern them, determining the principles according to which they would be governed, and how development policies and programmes would be formulated. They cannot vote freely because of intimidation and threats to their lives and livelihoods perpetrated by the hoodlums engaged by power-hungry candidates and their parties. In the process, the so-called political leaders and parties contemptuously cast aside democratic values, norms, and practices.

Clearly, the ordinary people remain excluded from any meaningful participation in the political process.

**Protective Security**

As argued earlier, in a properly functioning democratic governance and economic management, those, who may not be able to participate in social transformation processes in a meaningful way because they are genuinely capability-deprived, would be a very small proportion of the population. But, in Bangladesh, a large proportion of the population (one-third of the country’s total population is extremely poor but many others join their ranks from time to time due to natural-
hazard-caused sudden poverty) is bypassed by both the opportunities and processes. Therefore, although there are such programmes as old age allowance, vulnerable group development, and food for work, a significant proportion of the population remains unprotected, languishing in extreme impoverishment.

**Transparency Guarantees**

Governance in Bangladesh remains extremely poor, characterized by pervasive corruption, wastefulness, bureaucratic procrastination, lack of coordination, favouratism, and politically motivated decisions. Lack of transparency is pervasive in relation to, for example, access of people to information, to institutions providing government services, and to appropriate mechanisms for influencing government decisions. Under the circumstances, naturally there is no accountability.

In the absence of transparency and accountability, the country is being run by a system which may be best described as ‘democratic autocracy’ or ‘autocratic democracy’. As long as political governance remains as such, which is also underpinned by pervasive corruption and criminalization, the economic and social management is bound to be power-that-be-centred, excluding the people at large. Indeed, this has been and is the reality in Bangladesh.

**Conclusion**

In this paper the point of departure has been Amartya Sen’s approach to development conceived in terms of enhancement of people’s substantive freedoms. Let me conclude by referring to the last sentence of his book *Development as Freedom* (Sen 1999): ‘Development is indeed a momentous engagement with freedom’s possibilities.” The possibilities of freedom are indeed immense and diverse—in fact, freedom has a thousand charms. But, the question remains: how to ensure that freedoms are actually enjoyed by the people of Bangladesh, whose unfreedoms and adversities are overwhelming, as explained in this paper. Although these people are not slaves—technically speaking, they do not experience, to any meaningful extent, any of the multitudes of charms that freedom engenders. This observation is in fact pertinent to developing countries in general.

Although it should be in their enlightened self-interest, it is unlikely that the power elites of Bangladesh and elsewhere in the developing world will create conditions (equitable opportunities and processes) for the people to enjoy the

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6 The eighteenth century poet William Cowper, quoted by Sen (Sen 1999, p. 298), puts it:

*Freedom has a thousand charms to show,*

*That slaves, howe'er contented, never know.*
contemporary world testifies that the ruling neo-liberal paradigm works only for the rich and powerful and not for the poor and disadvantaged, although it proclaims that market can do all the tricks for everybody while the government is assigned the role of a facilitator only. It seems clear enough from global experiences that, contrary to the expectation of Amartya Sen, the contemporary governments around the world would not generally create conditions for the people at large to enjoy substantive freedoms, because these governments are not people-centred; nor would the now flourishing unfettered free market generate conditions for the people at large to participate in the neo-liberal governance and socio-economic processes effectively, contrary to the claim of the Guru of neo-liberalism Milton Friedman that it would. In reality, hardships continue to be heaped on the poor and disadvantaged people in developing countries around the world. Similarly, at the international level, many developing countries have, as noted earlier (see footnote 2), experienced absolute declines in their fortunes and many others are suffering from glaring and increasing relative deprivation.

Horns of a dilemma, indeed. What can, then, be the way forward for the people at large within countries and for the deprived countries internationally? Challenges are emerging and spreading around the world against the injustices and hypocrisies of neo-liberalism; and, although still very few, important successes are being secured. Will the emergent challenges gather enough momentum to bring about a paradigm shift to participatory democracy and inclusive, equitable socio-economic-political opportunities and processes, ensuring substantive freedoms to people at large within nations and an internationalism of equals? To make a categorical prediction right now may be premature, but it can be argued that the tremendous hardships and large-scale deprivations and exclusion caused by neo-liberalism at both national and international levels constitute powerful and urgent enough concerns to give rise to such a paradigm shift.

An example of a recent historic success is that the people of Uruguay have, through a referendum held in November 2004, introduced a Constitutional amendment that water is a human right which must be provided by the State (i.e. by public agencies). This may be one step in the right direction in one country, but it is a giant step in so far it shows the way forward in relation to the people’s demand that the provision of utilities are essentially the State’s responsibility. (Prentis and Richards 2004).
References


বাংলাদেশ অর্থনীতি সমিতির  
পঞ্চদশ দ্বিবার্ষিক সম্মেলনের (২০০৪) উদ্বোধনী অধিবেশনে  
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সমালিত সভাপতি, ড. কাজল খানী মন্সুরী আহমদ, সভাপতি, বাংলাদেশ অর্থনীতি সমিতি,  
সম্মেলন উদ্বোধক, পরম প্রশ্নের অধ্যাপক মুশাররফ হোসেন,  
সম্মেলন অধিভাষক, আমাদের সকলের ব্রহ্মভাজন শিক্ষক অধ্যাপক রেহান সেবসহ,  
সম্মেলন প্রথম কমিটির সমালিত কবির আহমদক, এমএ সাহার মন্টল,  

সূর্যোদয়ের ছায়া এবং  
উপস্থিত সমালিত সূর্যীজন,  

০১। স্থানীয়-বিজ্ঞ-এর মাস ডিসেম্বরের এই সুন্দর সময়ে আমাদের প্রিয় বাংলাদেশ অর্থনীতি  
সমিতির পঞ্চদশ দ্বিবার্ষিক সম্মেলনের উদ্বেগী অধিবেশনে মূল্যবান সময় দিয়ে উপস্থিত থাকার  
জন্য আমাদের প্রতি আমরা কৃতজ্ঞ। একারের সম্মেলনের মূল প্রতিপাদ্য “একবিংশ শতকে  
বাংলাদেশ: রাজনৈতিক-অর্থনৈতিক প্রকৃতি” বিষয়ে সমালিত সম্মেলন উদ্বোধক ও  
অভিভাষকরাজের জানসমুদ্র এবং অপরাধিক দৃষ্টিকোন বিষয়ে সমস্যা নজর আপনাদের আত্মীক ধন্যবাদ।  

০২। এদেশে অর্থনীতিবিদদের সাফল্য-ব্যাপ্তিক এবং পেশাগত-সামাজিক দায়বদ্ধতা সম্পর্কিত  
এক  
গভীর মর্মবাক্য আসার উদ্বেপনী অভিভাষণ প্রদান করে—সমালিত সম্মেলন উদ্বোধক—  

* অধ্যাপক, অর্থনীতি বিভাগ, ঢাকা বিশ্ববিদ্যালয় এবং সাধারণ সম্পাদক, বাংলাদেশ অর্থনীতি সমিতি।  

আমাদের সকলেরই পরম শ্রেষ্ঠ শিক্ষার, অধ্যাপক মুশাররফ হোসেনের ওপু অন্তৰ্নিহিত নৈতিকতার নয়, সমগ্র জাতিকে তার কাছে চিরকৃতজ্ঞ করান।

সম্প্রদায়ের উদাহরণ, আমাদের পিতর্কুল অধ্যাপক মুশাররফ হোসেনের স্যার এদেশের উন্মুক্ত এবং অন্তর্নিহিত নৈতিকতার চিহ্ন-ভাবনার বিশেষ, ব্যবস্থা ও ভবিষ্যত কর্তব্যী সম্পর্কে গত অর্থনীতিক ইতিহাস-চিত্র উপস্থাপন করেন।

অধ্যাপক মুশাররফ হোসেনের অনাথদ্বারী অভিভাষণ বলেছেন ৬০-এর দশকে দুই-অন্তর্নিহিত তত্ত্ব বিন্যাসে এদেশের অন্তর্নিহিত নৈতিকতার সং-সাহসী-আন্তর্জাতিক ঐক্যকে কঠিন করতে পারে ইন্দিরা মুখীর কথা, অন্তর্নিহিত নৈতিকতার যে মুখী এদেশের মানুষকে শান্তিতে-মুক্তির দুর্বল কর্তৃত্ব করছিলো। পাশাপাশি অন্তর্নিহিত নৈতিকতার ব্যাপ্তির কথা বলতে হয়েছে যে ৬০-এর দশকের যখন আমাদের যশোর উন্মুক্ত থেকে থাকা ছিটিতের ক্রমালোকের হলাম, রত্নী উন্মুক্ত থেকে যখন আমাদানী উন্মুক্তের রূপালোকের হলাম সাথে সাথে সমগ্র অন্তর্নিহিত ভুয়ারু ও বিপ্লব (vulnerability) বৃদ্ধি পেলে- এসব নিমেক বিশ্লেষণ আমাদের জনসমক্ষে তুলে ধরতে পারিনি। আপনি বলেছেন এসবই আমাদের উদ্যোগের পরম্পরাপরিষ্কার করেছে- বাঁধে হইতে পারে শর্তাধীন বৈদেহিক সাহায্য (যোগানোনান) নির্ভরতা।

আপনি এও বলেছেন যে “বৈদেহিক যোগানোনানের স্বর্ণগুণ” উন্মুক্ত করেছেন, প্রবৃদ্ধি করেছে, বৈষম্য বেরেছে, সামাজিক সমৃদ্ধিকরণ বেরেছে, দারিদ্র দূর হয়নি- অর্থাৎ বৃদ্ধিকতা যে “নিজের উন্মুক্ত নিজেই করতে হবে।” আপনি এও বলেছেন যে- ক্রমবর্ধমান অন্তর্নিহিত-সামাজিক বিপ্লব ও ভুয়ারু বৃদ্ধির ফলে যখন থেকে কঠিন নিয়ে বৈদেহিক যোগানোনান নির্ভরতা বৃদ্ধি পেলো তিন তথ্যই কর অন্য হয়েছে উন্মুক্ত নীতি-কৌশলে দেখান আন্তর্নিহিত নৈতিকতার অনৈক্য, চিহ্ন কেয়ে অস্বীকার। অর্থাৎ ৬০-এর দশকের অন্তর্নিহিত নৈতিকতার ঐক্য-কর্ম ও ঐক্য-চিহ্নের দূরত্ব দেখিল।

আপনার মতে অন্তর্নিহিত ক্রমবর্ধমান এ বিপ্লবই দেখান আনে শুধু পরিব্যাপ্তির অবসরস্থ মূল্যধর্মী সৃষ্টি সামাজিক-রাজনীতিক সকল দৃশ্যের প্রত্য করতে।

আপনি বলেছেন ক্রমবর্ধমান ভুয়ারু ও বিপ্লবের মধ্যে “জুট লোক শিল্প আর প্রবৃদ্ধিতে প্রত্যক্ষ করারের অর্থ”- দিগের দেশ চাষের এটা দেশ চাষের কঠিনতা কেনসিই নিয়ম নয়।

সঠিক পথে একটি তা হলো আপনার ভাষায় “উৎপাদনশীল দেশের দৃষ্ট সম্প্রসারণ যাজ্ঞ আমাদের দেশে বিপ্লব-ভুয়ারু দূর করার ভবিষ্যত বিজ্ঞান নেই।” আর সর্বশেষে আপনি আমাদের জন্য রাগনিদ্রণা দিতে দিতে বলেছেন যে এসব বিষয় প্রথমে আমাদেরই বুঝতে হবে; একমত হতে হবে; এ বিষয়ে অন্তর্নিহিত নৈতিকতা “ঐক্য-কর্ম” থাকতে হবে যা ৬০-এর দশকে ছিল- আমার তাহারই অন্তর্নিহিত নৈতিকতার ভূমিকা দামোদর দায়-দারিয়ের সাথে সামাজিক নাইব্যাপ্ত পালন করতে সম্মত হবে অন্যায় নয়। এ এক চ্যালেঞ্জ, ঐতিহাসিক দায়িত্ব- যা অবশ্যই আমাদের প্লান করতে হবে।

এ দেশের সম্প্রদায়-অন্তর্নিহিত-রাষ্ট্রীয়তা নৈতিকতা নিয়ে আপনি আপনার মনো শ্রেষ্ঠ, গভীর শাস্ত্রীয় জ্ঞান, সুনীত অভিজ্ঞতা ও সুখ্য পর্যবেক্ষণ করিয়ে কিছু বললেন তা একক কে যেমন এদেশের অনুযায়ী করার উদ্দেশ্যে নুতন ভাবনাও উত্তরে সাহায্য করার তেমনি কৃত্য করা দেখার ছায়া হিসাবেই নয় এ দেশের একজন নাগরিক হিসাবেও দেশের প্রতি আমাদের
দায়িত্ব বাঁচায় দিলেন। দায়িত্ব পালনে আমরা চেষ্টা করবে না। তবে স্যার, আমরাও আপনাকে একটা দায়িত্ব দিতে চাই- তা হলো যা বললেন তা লিখিত আগামের আমাদের দিন।
আমরা সংঘটিত সবার কাছে আপনার এই ঐতিহাসিক দিক-নির্দেশনামূলক বর্ণনাটি পূর্ণ হেতু দিতে চাই।

৩৩। আমাদের সকলের পরম শ্রদ্ধায় পথ প্রাদর্শক শিক্ষক, অধ্যাপক রহমান সোহেন

“Challenging Bangladesh’s Crisis of Governance: An Agenda for a Just Society” (“বাংলাদেশের শাসন ব্যবস্থার সংকট-এর চালাঙ্গ: একটি নায়-দ্বিতীয় সমাজ প্রতিষ্ঠার এক্ষেত্রে”) শীঘ্র গভীর মর্মান্তিক ও চিন্তা উদ্ভিদকারী শাসন ব্যবস্থার গুরুত্ব সংকট
সমাজ উন্নতি পথ সংক্রান্ত সমূহে অভিজ্ঞ গ্রহণ করে সমূহের মূল প্রতিপাদ্য
“একবিশ্ব শারীরিক ব্যাখ্যাতা: রাজনৈতিক-বৈজ্ঞানিক প্রক্রিয়া” বিষয়কে শুরু পায় দাড়ি করান এবং দাড়ি করান।
স্যার, দেশের সামাজিক রাজনীতি, অর্থনীতি, উন্নয়ন এবং উন্নয়ন দিনে আমরা দুই কম বেশি হতাশ। এবং এ হতাশা ক্রমবর্ধমান।
তবে হতাশাগ্রস্ত- নিরাশ মানুষ মাটির মুক্তিতে।
এই মাঝে আপনি আমাদের সমূহের অভিজ্ঞতা এবং উন্নয়ন-বৈজ্ঞানিককারী বস্তু দিয়ে গভীর নিরীক্ষার মাঝে আলোচনারকে করেছেন- আশা যুগান্তেন; গভীর এক অন্যরা থেকে আলোর দিকে উন্নতির পথ নির্দেশনায় দিয়েছেন।
আপনার কথা নানাবাদ।

স্যার, আমাদের সমূহের অভিজ্ঞতায় এদেশে চলাচল আধুনিক-সামাজিক-রাজনীতিক ব্যবস্থায় যে গভীর সকল দুর্বল দিয়েছে আপনি তার প্রকৃতি উদ্ধার করেছেন।}

গভীর নির্দেশনায় নির্দিষ্ট করতে আপনি রাজনীতিক সংস্কৃতিতে রাঙামালের প্রয়োজনীয়তায় যুক্তি দিয়েছেন।
সেই সাথে বিশ্বকর্মাের আওয়াদ্য করেনীয় বিষয় এবং উন্নয়ন নীতি-কৌশল নিজে দেশ চিনিয় প্রাধান্য;
duc-অর্থনীতি আর দুই-সমাজে বিভক্ত আমাদের বিশ্বকর্মা মানুষ উন্নয়নের গতিপথে চাহিদা; চুনুন-ভক্তি মানুষের জীবন উন্নয়নে আমাদের কর্মসংস্থান;
বহিঃসংস্থার সাথে সম্পর্ক নির্ধারণ- পূর্ববর্তী পরিকল্পনার নিষেধ, নিজের সমস্ত দ্বিতীয় দেশের উন্নয়ন এবং সে কেন্দ্র নাগরিক
সমাজের ফলস্বরূপ ভূমিকা পালনের মাধ্যমে একটি নায়-দ্বিতীয় সমাজ প্রতিষ্ঠার লক্ষ্যে প্রকৃত
dেশানুগত গভীর তাংগন এই এক ভিত্তি সাদৃশ্য করা- এসব দিয়ে আপনি যা বললেন
তাতে আমারা নির্দেশ যে আপনি ৬০-এর দশকের মতো চলচ্চিৎ বছর পরে আবার একবারের
অর্থনীতি শাখার বাংলা মন্ত্রণালয়ে দেশ-পরিকল্পনার সতর্ক পথ-পথ নির্দেশ করে হতাশa-
মুক্তির পথ দেখান।
আপনার আজকের বক্তব্য-বিষয়টি আমাদের রাজনৈতিক-অর্থনীতি শাখা
এক সৃষ্টিশীল সংস্কৃতি হিসেবে বিবেচিত হবে।
“মানব উন্নয়ন দশকের গতিপথে নাগরিক
সমাজের ভূমিকায় মাধ্যমে নায়-দ্বিতীয় সমাজ প্রতিষ্ঠাও”- দেশের গভীর এক কৃতিত্বের
আমাদের আবির্ভাব এ পথ নির্দেশনার জন্য আপনাকে অবশু বাধ্য।
আপনার আজকের
অভিজ্ঞতাটি আমারা বলার অনুমতি নিয়ে তাদের সমক সদস্যের মাধ্যমে দেশের মন্ত্রকে
কাছে পৌছে দিতে চাই (স্যার, যদিও এ দায়িত্ব আমি আগেই নিয়েছিলাম- পালন ব্যবহার
হয়েছিল)।
অধ্যাপক মুনাফর হোসেন স্যার আপনার দেখা বয়সজীবন হেলাও আমরা কিন্তু
আমাদের ব্যাখ্যাটি চাই আপনাদের উভয়েরই দীর্ঘ, সুস্থ, পরমান্ত- কারণ আমরা পিপলের
থেকে বিভক্ত হতে নারাজ।
দ. কাজী খলীফুজ্জামান আহমেদ, সম্প্রতি-এর উদ্ধৃতি অনুসারে নাভিপতি- আপনাকে  
ধারাবাদ অন্বেষণ “People’s Freedoms and Development in Bangladesh: The  
Political Economy Perspectives” শীর্ষক একটি উক্তিমন্ত্র ব্যবহার ও ইংরেজী উভয়  
ভাষায় রচনা জনিত নয়; আপনি যেভাবে গত দু’বছর বাংলাদেশ অধিনি সমিতির সুবিধারা  
সমাধান হিসেবে সমিতিকে জনকল্যাঙ্ককারী পথে চালিয়েছেন এবং এবারের সম্মেলন সার্ধক  
করতে অনুপস্থিত করেন সে সময়ে।

আজকের এ উদ্ধৃতি অনুসারে পারে আগামী তিনটি বিষয় সেনান-এ মূল প্রবন্ধকে  
করতে সময় হয়েছে- জনার একটি সাইক রহমান (মানীমান অর্থ ও পরিকল্পনা মতী), জনার  
শাহ এমএস কিবরিয়া (প্রাক্তন অর্থমন্ত্রী), এবং অধ্যাপক মো: আরিফ রহমান-সমিতির পক্ষ  
থেকে আপনাদের আগাম ধারাবাদ। ধারাবাদ অধ্যাপক মোহাম্মদ আহমেদ ও অধ্যাপক  
আশারাজুদ্দিন তৌখুলী সারকে-এ জন্য যে 'হিন্দুনী জয়ত্ত শিক্ষার অবস্থা' সপুক্ত মাধ্যমের  
সমাধান এগুলির গঠন সাহিত্য কিশোরের রিপোর্ট প্রণয়ন তারা অনুষ্ঠান প্রতিষ্ঠা করেছেন এবং  
গবেষণাগত ফলক একটি পাদের সেনানে উপস্থাপন করেছেন। অনেকের যাত্রায় মতবাদ  
বিভিন্ন কর্ম অধিবেশনে সামাজিক তত্ত্ব করতে সম্মুখ দিয়েছে- এখানে আমরা যাত্রায় আগাম  
ধারাবাদ জানাতে চাই তাদের মধ্যে আছেন দ. কাজী খলীফুজ্জামান আহমেদ, অধ্যাপক  
সন্তি কৃষ্ণ সাহ, অধ্যাপক মোহাম্মদ আহমেদ, অধ্যাপক মোহাম্মদ মুনীর হোসেন  
এবং অধ্যাপক মুরলী ইসলাম। সেই সাথে অধ্যাপন ধারাবাদ আগামী পর্যন্ত দিয়ের  
'দার্শন' বিষয়ক বিষয়ে অধিবেশনে নির্দেশিত আলোচক ড. সাহেব উদ্দিন আহমেদ ও ড.  
হোসেন জিলুর রহমানকে।

বাংলাদেশ অধিকার সমিতির ইতিহাসে এবারের দিবার্ষিক সম্মেলন কয়েকটি বিষয়ে বিশ্বাস  
করতে যাচ্ছে। যার মধ্যে অন্যতম হল কর্ম অধিবেশনে পঠিতুক্ত প্রবন্ধের সংখ্যা। তিনটি  
বিষয়ক অধিবেশন ও পাদেরসহ মোট ৮টি কর্ম অধিবেশনে এবারের মোট ৬৪টি প্রবন্ধ উপস্থাপন  
করা হয়, চতুর্থর সর্বাধিক ৬২ জন (পাদের বাদে)। সম্মেলন প্রাপ্তক করতে এবার প্রবন্ধ  
যথেষ্ট মাত্রায় বৃহত্ত্বার রাখায় আশা করি। প্রবন্ধ রচনা প্রক্রিয়ায় আপনারা আন্তর্জাতিক যে ক্রিয়া  
করে সে জন্য আমরা আপনাদের প্রতি কৃতজ্ঞ। অভিনন্দন সকল প্রবন্ধ চারিতাকে।

বাংলাদেশ অধিকারী সমিতিকে জানাতে আমাদের অবনিয়ন নামক কাজে অন্যদের  
রেখেছেন অনেকই। আমরা তাদের সু-কীর্তির সুখী তিনে চাই। এ লক্ষে আমাদের কুলোর  
সাহায্যের মধ্যে থেকে বাধ্যতামকারী কাজে বিভিন্ন সমালোচনা সমিতির সম্প্রদায়ে এবং সাহায্য  
সমাপ্ত হইতে যারা আমাদের প্রতি রেখেছেন তাদের সবাইকে আমরা আপনাদের অন্তর্ভুক্ত শূন্য  
নিদর্শন স্বর্ণ আজ সামাজিক রেস্ট প্রদান করলাম। অনেকই প্রতাপে কেউ কেউ স্বল্পতায়  
বিদেশে অবস্থান করছেন; অনেকই অপার্থতা নিয়ে দেখে দেই সবাইকে আমারা কৃতজ্ঞতার স্বর্ণ  
করিব। তাদের প্রথায় থেকে আজ যাত্রা এখনে এসেছেন আপনাদের সবার প্রতি আমরা নির্ভর  
কৃতজ্ঞ। আপনাদের সবাইকে ধন্যবাদ।

সম্মেলনের বিভিন্ন কার্যক্রমে আধিক সহযোগিতা প্রদানের জন্য যাদের কাঙ্ক্ষায় আমরা কৃতজ্ঞ  
বীর্যাক করছে তাদের মধ্যে আছে বাংলাদেশ ব্যাংক, জনতা ব্যাংক, প্রিমিয়ার ব্যাংক, প্রাইম
ব্যাং লি: এইচএসবিসি, স্ট্যান্ডার্ড চাটার্ড ব্যাংক লি: মার্কেটইল ব্যাংক লি: ডাচ-বাংলা ব্যাংক লি: সিটি ব্যাংক এন এ, গ্রামীণ ফোন, মানব উন্নয়ন পরিষদ প্রতিষ্ঠান, মানব শক্তি উন্নয়ন কেন্দ্র, সরা ডাউনগার্ডনার্ক সেনাবাহিনী, কাশেম-নাহার শিক্ষা প্রসার ট্রাস্ট।

০১। আজকের উদ্দেশ্যে অনুষ্ঠানটি তিনিতন্ত্রী দ্বিমাত্রিক সম্মেলন আয়োজনে সমিতির কার্যনির্বাহক কমিটির বিভিন্ন কমিটি-উপকমিটির সকল সদস্য এবং সমিতির সীমিত সংখ্যক কর্মচারী-কর্মকর্তা যারা নিজেদের প্রশিক্ষণ করেছেন - সবাইকে ধন্যবাদ। ঢাকা, জাহাঁজিরপুর, রাজশাহী ও চট্টগ্রাম বিশ্ববিদ্যালয়ের অন্তর্নিহিত বিভাগের ছাত্র-ছাত্রীরা সম্মেলন সার্থক করার জন্য আজকের বাজারের অংশগ্রহণের মূলে যে দিন-রাত নীতিশীল দিয়েছেন - সেজন্য সবাইকে সমিতির পক্ষ থেকে ধন্যবাদ।

০২। সুবিশাল এই সম্মেলন-এর সকল প্রস্তুতি সফল নেতৃত্ব দিয়ে সম্মেলন প্রস্তুতি কমিটির আহরণযোগ্য এমএ সাহায মজলিস প্রস্তুতি কমিটির সবাই সমিতিকে তাদের কাছে ধন্যবাদ। সংশ্লিষ্ট সবাইকে ধন্যবাদ।

১১। এবারের দ্বিমাত্রিক সম্মেলন সার্থক করার জন্য গঠিত বিভিন্ন উপ-কমিটির সদস্য-সদস্যদের অন্তর্ত্রী ধন্যবাদ।

১২। এই মিলনায়তনে অনুষ্ঠিত অধ্যায় সম্মেলন কর্মকারী সুন্দর ও সার্থক করা যাদের অবদান ছাড়া অস্বীকার করা হয়েছে সুন্দর মুদ্রণ-কর্মী, তোর বেলের ভান চালক, হোটেলের বায়ুর্বর্তী, বাইরের খাদ্য পরিবেশক - সবাইকে আন্তর্ত্রী ধন্যবাদ (যদিও তারা এ ধন্যবাদের কথা জানে না, জানা যেতে হবে কিন্তু জানিনা)।

১৩। সবগে, ইনস্টিটিউশন অব ইঞ্জিনিয়ারস-এর কর্তৃপক্ষকে বিশেষ করে ইনস্টিটিউট-এর সভাপতি অধ্যাপক আনোয়ার আজিম, প্রধান সভাপতি ইঞ্জিনিয়ার জানাব কামরুল ইসলাম সিদ্ধির্থ, সম্মান সংহিতা প্রশিক্ষণ সম্পাদক জানাব এ এম এইচ আত্তার হোসেন, এবং সহকারী কর্মী বোমার হোসেন আলিসাহ সংশ্লিষ্ট সবাইকে সম্মেলনটি এ মিলনায়তনে অনুষ্ঠিত হবার বিপরীতে উদ্যোগ প্রচেষ্টা ও সর্বস্তরে সহযোগিতার জন্য বাংলাদেশ অর্থনীতি সমিতির পক্ষ থেকে আন্তর্ত্রী ধন্যবাদ।

সম্মানিত সুখীমানী, আপনাদের সবাইকে আরও ধন্যবাদ। আজকে আত্তার তিনিতন্ত্রী বিভিন্ন কর্ম অধিবেশন আমন্ত্রণ রইলে।

আপনারা সবাই সুখ থাকুন; দিয়া হোক আপনাদের জীবন; মঙ্গল হোক আপনাদের সবার পরিবারের।

ধন্যবাদ।
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