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MUINUL ISLAM

Executive Editor

JUNE, 2002

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মইনুল ইসলাম
নির্বাহী সম্পাদক

সম্পাদনা উপদেষ্টা কমিটি

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Ratan Sarkar

Editorial Note

We are happy to inform the members of the Bangladesh Economic Association and all our readers and contributors that the Bangladesh Journal of Political Economy (BJPE) has finally become a regular peer-reviewed journal published twice a year. The challenge for all of us now is to continue our painstaking effort to keep it regular, and to make sincere efforts to improve the quality of the articles published in the journal. I appeal to all our fellow members to contribute their mite to this difficult endeavour by regularly contributing articles for publication in BJPE. I can assure you that the Editorial Board will be steadfast in strictly maintaining the sanctity of the referral process so that quality is not compromised through any negligence or relaxation of rules and principles.

We admit that the internal and external review process is time consuming, and may be frustrating at times. Please bear with us. We earnestly hope that a smoothly functioning pipeline will emerge for reviewed articles, if the flow of submitted articles becomes stronger with increasing trust about the quality, viability as well as regularity of publication of the journal.

Meanwhile, I take this opportunity to express my gratitude to the members of the Editorial Board for their excellent co-operation and hard labour put behind the publication of this volume of the journal also thank our learned referees, who responded to our request to review the articles. Last, but not the least, I congratulate the authors of the articles published in this volume.

Sincerely,



(Dr. Muinul Isiam)
Executive Editor,
Bangladesh Journal of
Political Economy
and
President,
Bangladesh Economic Association.

বাংলাদেশ অর্থনীতি সমিতির বার্ষিক জার্নাল Bangladesh
Journal of political Economy প্রকাশনার নীতিমালা

- ১। অর্থনীতির বিভিন্ন শাখায় তাত্ত্বিক এবং প্রায়োগিক বিষয়ে প্রবন্ধ প্রণয়ন করার জন্য প্রবন্ধকারদেরকে অনুরোধ জানানো হবে। ইংরেজী এবং বাংলা উভয় ভাষায় রচিত প্রবন্ধ জার্নালের জন্য গ্রহণ করা হবে।
- ২। Initial Screening নির্বাহী সম্পাদকের এখতিয়ারভুক্ত থাকবে, তবে প্রয়োজনবোধে সম্পাদনা পরিষদের অন্য সদস্যদের সহায়তা তিনি নেবেন। নির্ধারিত Format মোতাবেক সংশোধনের জন্য এই পর্যায়ে প্রাথমিক ভাবে short-listed প্রবন্ধসমূহ প্রবন্ধকারের কাছে প্রেরণ করা হবে।
- ৩। অভ্যন্তরীণ reviewer সাধারণতঃ সম্পাদনা পরিষদের সদস্যদের মধ্য থেকেই মনোনীত হবেন। বহিঃস্থ reviewer সম্পাদনা পরিষদের সিদ্ধান্তক্রমে প্রবন্ধের বিষয়ের ভিত্তিতে সম্পাদনা পরিষদের বাইরে থেকে মনোনীত হবেন, তবে তিনি দেশের অভ্যন্তরে বা বিদেশে অবস্থান করতে পারেন। সম্পাদনা উপদেষ্টা কমিটির সকল সদস্য reviewer হতে পারবেন। তৃতীয় reviewer প্রয়োজন হলে সম্পাদনা পরিষদের বাইরে থেকে তাঁকে মনোনীত করা হবে।
- ৪। Reviewer দেরকে ৫০০.০০ টাকা হারে সম্মানী প্রদান করা হবে। এ হার পরিবর্তনযোগ্য।
- ৫। প্রবন্ধকারের প্রবন্ধ জার্নালে প্রকাশনার জন্য গৃহীত হলে তাঁকে ২০০০.০০ টাকা সম্মানী প্রদান করা হবে। এই হার পরিবর্তনযোগ্য। Note এর জন্য ১০০০.০০ টাকা সম্মানী দেয়া হবে।
- ৬। ক) সমিতির দ্বিবার্ষিক কনফারেন্সে উপস্থাপিত প্রবন্ধগুলো referral প্রক্রিয়ার মাধ্যমে জার্নালের জন্য বিবেচিত হবে।
খ) বিভিন্ন সময়ে সমিতি কর্তৃক আয়োজিত সেমিনারে পঠিত আমন্ত্রিত প্রবন্ধসমূহ জার্নালের সম্পাদনা পরিষদের অনুমোদনক্রমে জার্নালে প্রকাশ করা যেতে পারে।
- ৭। অর্থনীতি সমিতির সদস্য এবং সদস্য-বহির্ভূত যে কোন আগ্রহী প্রার্থী জার্নালের গ্রাহক হতে পারবেন। তবে সদস্যদের ক্ষেত্রে গ্রাহক ফি (subscription fee) পঞ্চাশ শতাংশ রেয়াত দেয়া হবে।
- ৮। জার্নালের Footnoting এবং Writing Style এতদসঙ্গে সংযোজিত হলো (সংযুক্তি-২)
- ৯। ক) Reviewer হিসেবে সম্পাদনা উপদেষ্টা কমিটির সদস্যদেরকে Involve করা হবে।
খ) দেশের অভ্যন্তরে অবস্থানকারী উপদেষ্টা কমিটির সদস্যদেরকে বছরে দু'বার সম্পাদনা পরিষদের সাথে মিলিত সভায় আমন্ত্রণ জানানো হবে।
- ১০। ক) তিনটি কোটেশন সংগ্রহ করে সম্পাদনা পরিষদের সিদ্ধান্তক্রমে মুদ্রক প্রতিষ্ঠান নির্বাচন করা হবে।
খ) প্রথম Proof প্রেস দেখবে, পরবর্তীতে floppy তে প্রবন্ধকার ফাইনাল proof দেখে দেবেন।

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1. The Bangladesh Journal of Political Economy will be published in June and December each year.
 2. Manuscripts of research articles, research notes and reviews written in English or Bangla should be sent in triplicate to the Executive Editor, The Bangladesh journal of political Economy, Bangladesh Economic Association office, 4/c Eskaton Garden Road, Dhaka-1000, Bangladesh.
 3. An article should have an abstract within 150 words.
 4. Manuscript typed in double space on one side of each page (preferably with softcopy) should be submitted to the Executive Editor.
 5. All articles should be organized generally into the following sections: a) Introduction: Stating the background and problem; b) Objectives and hypotheses; c) Methodological issues involved; d) Findings; e) Policy implications; f) Limitations, if any; and g) Conclusion (s).
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 9. Tables, graphs and maps may be used in the article. Title and source(s) of such tables should be mentioned.
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 12. Reference in the text should be by author's last name and year of publication (e.g. Siddique, 1992, P. 9. In the list of references, the corresponding entry in the case of article should be in the following manner:
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 15. Articles, not accepted for publication, are not returned to the authors.
 16. Each author will receive two complimentary copies of The Bangladesh Journal of political Economy and 25 off-prints.

Macroeconomic Performance and the Need for Foreign Aid in Bangladesh

Omar Haider Chowdhury*

1. Introduction

A considerable amount of literature exist on the effect of foreign capital inflow on national saving and economic growth of aid receiving countries. In the growth process of the less developed countries (LDCs), the traditional role of foreign capital inflow is generally regarded as additive to domestic saving and thus making possible an increase in domestic investment over domestic saving by its full amount. This additive view or assumption was first challenged by Haavelmo in 1965. Later on, the same view came under heavy attack from Rahman (1965) Griffin (1970) and Hazari (1976), who on the basis of theoretical arguments have shown that foreign capital inflow has a negative effect on domestic saving. Their arguments revolves around the "psychological hypothesis". An increase in foreign capital inflow causes a relaxation of the government saving efforts and thus causes a relaxation of the government saving efforts and thus causes a reduction of the average saving rate.

Kennedy and Thirlwal (1971) Stewart (1971) Eshag (1971) and Papanek (1972) bitterly criticized psychological hypotunities and foreign capital inflow increases investment opportunities and thus causes and increase in domestic saving. Along with this, they also felt that an increase in investment due to foreign capital inflow leads to an increase in income and hence an increase in domestic saving. Consequently, they expect a positive relationship between domestic saving and foreign capital inflow unlike Haavelmo and others who postulate a negative impact on domestic saving.

Now, on the basis of theoretical argument, one is bound to arrive at the conclusion of either a positive or negative affect of capital inflow on domestic saving. As mentioned earlier, quite a number of empirical studies exist analyzing the impact of

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foreign capital inflow on domestic saving; of which the results based on cross-section data have recorded a negative relationship. But, cross-section data are open to a number of criticisms (Ahmed, 1986). It is expected that time series studies would provide better estimates of the relationship between domestic saving and foreign capital inflow. Other empirical studies both cross-section and time series data were carried out by Landau (1969), Weisskopf (1972), Voivodas (1974), Chen (1977), Alamgir (1974) and Over (1975). However, their results were mixed in the sense that the relationship between domestic saving and foreign capital inflow is positive for some countries and negative for others.

This is neither the occasion nor am I competent to carry out a full blown econometric analysis to assess the impact of foreign assistance on the process of economic development of Bangladesh. I will rather historically trace the nature and growth of foreign assistance to Bangladesh and its implications for the economic development of the country in a fairly simple minded manner.

The Early Years

Our experience of economic development and the role of foreign aid during the immediate post-independence period may provide some insight as to what shaped our thinking about the overall development policy to be pursued and our attitude towards foreign aid. The economy was devastated by the war of liberation in 1971 and the dislocation caused a sharp fall in the overall level of domestic production of goods and services in general and that of foodgrains in particular compared to that in 1969/70, the immediate pre-war level. Natural disasters in terms of floods and droughts during the immediate post-war period accentuated the problem. In fact, huge foreign assistance for the rehabilitation of the wartorn economy was pouring in. But by 1974 donor sympathy was slowly dying down. Internationally food prices increased and as such food assistance dropped drastically. To top it all, the U.S. abruptly stopped food shipment to Bangladesh in 1974 due to a policy dispute with the government of Bangladesh regarding exports of jute sacks to Cuba [(see, among others, Hossain, M. (1989); Sobhan, R. (1979)]

The little foreign exchange reserve and food stock that the country had was completely exhausted due to cumulative effect of production short-fall by 1974. Thus, the country neither had enough food in the goddamn nor the requisite foreign exchange reserve to buy food commercially (see Table 1). When even food assistance failed to materialize, the country had no option but to accept the fate of a large section of the poor dying from hunger and malnutrition. Table 1 indicates that foodgrains import constituted more than 40 per cent of total imports during early

seventies (1973/74 and 1974/75). This excluded imports of other non-grain food items and such essential commodities as petroleum and raw materials needed for the running of the economy. The table also shows that we did not have the necessary income in terms of foreign exchange to import even the required foodgrains for the survival of the population of the country. Hence, it is clear that we needed foreign assistance to import foodgrains for mere survival during the initial years. Food situation remained vulnerable during the seventies as can be noted from the table. The share of foodgrains imports declined to less than 10 per cent of total imports by 1975/76 to rise to more than 25 per cent by 1979/80. However, paying for all the foodgrains imported even in 1979/80 would have exhausted more than half of our total foreign exchange earnings.

Table 1 Foodgrains Import

	(Per cent)						
Year	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/1980
Foodgrains Import as a share of total foreign exchange earnings	96.2	103.5	54.8	15.9	36.7	23.0	50.9
Share of foodgrains	43.8	41.5	26.6	9.6	21.5	13.5	25.6

* Total foreign exchange earnings = commodity export earnings + remittances under WES + invisible receipts.

Source: BBS.

Hence inability to acquire necessary food through trade and failure to get food assistance when it was needed most forced Bangladesh to advocate for achieving self-sufficiency in domestic foodgrain production as one of the primary objectives of our economic development. This was largely a political decision. However, several studies have shown that attainment of self-sufficiency in terms of domestic production of rice is not only an important socio-political objective, it is eminently sensible as well from strictly economic point of view.

Bangladesh has come a long way in terms of overall economic development in general and domestic food production in particular since the days of the famine in 1974. In the early eighties, Terrant (1982) observed that at no time during the last 20 years has Bangladesh produced enough foodgrains to provide her population with 15 oz (425 gm) of foodgrains per capita per day. He went on to point out that Bangladesh is a food deficit country by any method of measurement and by any

criteria. But by early nineties the situation in the food sector seem to have changed dramatically. There was no commercial government imports, and small quantities of aided import during 1991/92 to 1993/94. Thus according to a relatively simple and operationally meaningful definition of self-sufficiency meaning that "complete import substitution has been accomplished without excessive subsidization or high (above import parity) prices, one may say that Bangladesh was self-suffecient in rice in the years 1991/92 to 1993/94" (Abdullah et. al., 19855 p. 135). However, food situation deteriorated thereafter to improve recently. In fact, after four consecutive bumper harvests Bangladesh for the first time has achieved surplus in total foodgrain production in 2000. It is althemore remarkable considering the fact that it was accomplished during a period when total cultivable land was diminishing and the population almost doubled. Efforts of the millions of small farmers combined with appropriate government policies to support them helped to overcome the most challenging feat faced by the country since independence. It may be noted the some of the policies pursued in the process of achieving food self-sufficiency were not approved by the donor agencies.

Flow of Foreign Aid

Bangladesh has received a total amount of USD 34,756.7 million of foreign aid since independence up to 30th June 1999. Table 2 shows that the annual average flow of foreign aid in nominal terms increased from USD 546.2 million in early seventies (1971/72-1974/75) to 16663.4 million by early nineties (1990/91-1994/95) and then declined to average yearly disbursement of USD 1428.1 million by late nineties (1995/96-1998/99). Average yearly disbursement of aid peaked in early nineties and declined thereafter. Yet both in per capita terms and as a share of GDP disbursement of aid in general declined al throughout the nineties as can be seen from Table 3. There was a spurt in foreign aid disbursement in 1998/99 in response to the devastating flood in Bangladesh and hence sudden an increase in per capita aid and share of aid to GDP compared to earlier periods. The composition of foreign aid by purpose has undergone a dramatic change from early seventies to late nineties as indicated in Table - 4.

Table 2 Yearly Average Flow of Foreign Aid

	1971/72 to 1974/75	1975/76 to 1979/80	1980/81 to 1984/85	1985/86 to 1989/90	1990/91 to 1994/95	1995/96 to 1998/99
US Million Dollars	43.3	26.4	19.7	14.4	10.6	8.8

Source : Calculated from Flow of External Resources into Bangladesh, Economic Relations Diversion, Government of the Peoples Republic of Bangladesh, Dhaka, 2000.

Table 3 Dependence on Foreign Aid

Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Per capita USD	16.5	15.6	14.5	14.8	13.5	14.5	11.8	11.9	9.9	12.0
Foreign Aid as Percentage of GDP	8.8	7.4	6.8	6.9	6.1	6.0	4.5	4.5	3.7	4.2

Source: Calculated from Flow of External Resources into Bangladesh, Economic Relations Diversion, Government of the Peoples Republic of Bangladesh, Dhaka, 2000.

Table 4 Composition of Foreign Aid by Purpose

	(Per cent)					
	1971/72	1975/76	1980/81	1985/86	1990/91	1995/96
	to 1974/75	to 1979/80	to 1984/85	to 1989/90	to 1994/95	to 1998/99
Food Aid	43.3	26.4	19.7	14.4	10.6	8.8
Commodity Aid	42.1	42.6	35.0	28.8	23.6	16.1
Project Aid	14.7	30.5	45.3	56.8	65.8	75.1

Source : Calculated from Flow of External Resources into Bangladesh, Economic Relations Diversion, Government of the Peoples Republic of Bangladesh, Dhaka, 2000.

As would be expected from our brief review of the performance of the domestic food production, the share of foreign assistance for food has also gone down continuously from a high of around 43 per cent in early seventies (1971/72-1974/75) to less than 10 per cent by late nineties (1995/96-1998/99). However, during the same period the share of project aid has gone up from 15 per cent to 75 per cent and that of commodity aid has also gone down from a high of 42 per cent to 16 per cent. However, it is unlikely that the flow of foreign assistance to Bangladesh will increase in future as changes in the world economic environment suggest. For Example, emergence of independent states in the former Soviet Union has been attracting substantial foreign assistance in recent times. Hence even if Bangladesh needs foreign assistance it may not be forthcoming and the conditionalities attached may increasingly be unfavourable.

Elimination of Poverty

Bangladesh has achieved self-sufficiency in food production at the aggregate level. However, it does not ensure fulfilling food requirements for everyone at individual level. According to the latest Household Expenditure Survey (HES) carried out by the BBS in 1996 report that 47.1 per cent of population in rural areas and 49.7 per cent in urban areas of Bangladesh live below the poverty level defined in terms of intake of less than 2122 kcal per day. In other words, about 50 per cent of the population of Bangladesh still suffer from food poverty. Elimination of poverty is regarded as the primary objective of economic development in all the official documents of the Government of Bangladesh since independence. The poor lack the purchasing power required to procure enough food. It is argued that the economy as a whole will have to grow at least at 7-8 per cent per annum at the aggregate level to make any dent on the poverty problem of the country.

The Macroeconomics Performance

The Bangladesh economy has grown by around 5 per cent per year since mid-nineties compared to 4 per cent on a long-term basis over the last two decades compared to an average GDP growth rate of 4.4 per cent per year during the first half of 1990s, the growth rate has accelerated to over 5 per cent per year in recent years. Despite the devastating floods of 1998, GDP growth was 4.9 per cent in 1998/99. The growth rate is over 5 per cent in for 1999/00. A notable feature of the growth process during the 1990s is the fluctuating role of both agriculture and industrial sectors, particularly of the two major sub-sectors: crop and horticulture and manufacturing industry. The average growth rate of crop and horticulture was -0.43 per cent per annum during 1990/91-1994/95 which increased to 6.13 per cent in 1999/00. The growth in manufacturing, however, sharply decelerated from average of 8.20 per cent during the first half of 1990s to 4.25 per cent in the second half. The recent performance of the economy is largely driven by the agriculture sector which has a potential source of vulnerability due to dependence of agricultural production on the nation. One of the concerns in promoting steady growth in the country is the slow growth and continued failure over the last two years of the manufacturing sector to regain its momentum which was lost during the 1998 floods. Thus ensuring accelerated and sustained growth requires an early and fast revival of manufacturing growth.

Savings-Investment Performance

According to the new national income accounts, both savings and investment have consistently increased in the 1990s (Table 5). Gross domestic savings increased from 13 per cent of GDP in 1989/90 to about 18 per cent in 1999/00. During the same period, gross national savings increased from 18 per cent to 23 per cent of GDP.

The investment-GDP ratio, on the other hand, has increased from 17 per cent in 1989/90 to 22 per cent in 1999/00.

Table 5 Savings-Investment behaviour

	(as per cent of GDP)											
	1989/ 90	1990/ 91	1991/ 92	1992/ 93	1993/ 94	1994/ 95	1995/ 96	1996/ 97	1887/ 98	1998/ 99	1999/ 00	
Investment	17.05	16.90	17.31	17.95	18.40	19.12	19.99	20.72	21.63	22.19	22.41	
Private	9.81	10.27	10.33	11.47	11.76	12.38	13.58	13.70	15.26	15.47	15.68	
Public	7.24	6.63	6.97	6.48	6.65	6.74	6.42	7.03	6.37	6.72	6.73	
Gross domestic savings ^a	12.86	14.57	13.86	12.30	13.10	13.13	14.72	15.90	17.27	17.66	17.78	
Gross national savings ^b	17.60	19.66	19.30	17.96	18.79	19.12	19.99	20.72	21.63	22.26	22.60	

a Equals GDP at market prices minus consumption (private and general government).

b Equals gross domestic savings plus net factor income and net current transfers from abroad.

c Provisional

Source: Preliminary Estimates of Gross Domestic Product 1999-2000 and Final Estimates of Gross Domestic Product 1998-99, BBS April 2000.

Gross investment, in general, has been higher than gross domestic savings by 4-5 per cent of GDP. Foreign savings bridged this investment-savings gap. It may be pointed out here that the new estimates differ substantially from the old ones based on national accounts with 1984/85 as the base (Table 6).

An important macroeconomics concern in sustaining higher growth and increasing it to desired levels (e.g. 7-8 per cent per year) is to ensure increased level and quality of investment. According to the revised national income estimates, gross investment in the country increased from Tk. 217 billion in 1999/00 at constant 1995/96 prices. During the same period, gross domestic savings increased from Tk 125 billion to Tk. 434 billion and gross national savings from Tk. 119 billion to Tk. 535 billion, both at constant 1995/96 prices. There exist, however, wide fluctuations in annual changes in both investment and savings which are, in some cases, difficult to reconcile with growth performance and other macro-aggregates (Table 7). The deceleration in recent growth of investment is, however, a major cause of concern: the growth rate declined from 12 per cent in 1997/98 to 10 per cent in 1998/99 and further to 8 per cent in 1999/00. If sectional growth performance is taken as an indicator, a major factor in recent decline in investment growth may be attributed to a decline in manufacturing investment largely due to uncertainties associated with relatively longer term investment.

Table 6 Savings-Investment estimates of new and old national accounts

(Per cent of GDP)

	Gross investment		Gross domestic savings		Gross national savings	
	New series	Old series	New series	Old series	New series	Old series
1990/91	16.9	11.5	14.6	4.1	19.7	10.9
1991/92	17.3	12.1	13.9	5.8	19.3	13.0
1992/93	17.9	14.3	12.3	7.0	17.9	14.4
1993/94	18.4	15.4	13.1	7.4	18.8	14.9
1994/95	19.1	16.6	13.1	8.2	19.1	16.1
1995/96	20.0	17.0	14.7	7.5	20.0	14.8
1996/97	20.7	17.3	15.9	7.5	20.7	14.8
1997/98	21.6	17.8	17.3	8.6	21.6	14.2
1998/99	22.2	18.2	17.6	8.7	22.3	14.5
1999.00a	22.4	18.7	17.8	9.0	22.6	15.2

a Provisional

Source: BBS, Statistical Yearbook of Bangladesh 1998, and Preliminary Estimates of Gross Domestic Product 1999-2000 and Final Estimates of Gross Domestic Product 1998-99, BBS April 2000.

Table 7 Annual changes in savings and investment

(Per cent, constant 1995/96 perces)

	1990/ 91	1991 92	1992/ 93	1993/ 94	1994/ 95	1995/ 96	1996/ 97	1887/ 98	1998/ 99	1999/ 00a
Investment	1.42	4.44	9.52	9.35	9.11	10.60	11.08	12.06	9.85	8.19
Private	6.07	2.57	16.69	8.87	11.21	16.17	7.70	19.73	8.46	8.52
Public	-5.06	7.35	-1.13	10.19	5.46	0.40	18.25	-2.72	13.13	7.45
Gross domestic savings	22.21	28.03	-6.95	22.02	-10.64	3.62	34.50	26.00	11.46	11.60
Gross national savings	43.54	13.43	11.21	6.99	14.47	25.59	7.20	16.82	14.95	11.72

a. Provisional

Source: Preliminary Estimates of Gross Domestic Product 1990-2000 and Final Estimates of Gross Domestic Product 1998-99, BBS April 2000.

Despite liberal and attractive policies, foreign investment is yet to make a significant contribution to the country. The net direct and portfolio investment was US \$ 252 million in 1997/98 which declined by 24 per cent to US \$ 192 million in 1998/99. The projection for 1999/00 is US \$ 155 million recording a further fall of 19 per cent over the previous year. The net inflow of foreign investment in the EPZs is also relatively low: US \$ 54 million in 1996/97, US \$ 69 million in 1997/98, and US \$ 71 million in 1998/99.²

Since 1998/99, savings and investment performance in the economy appears to have undergone a sharp downward trend. The national and domestic savings rates have declined along with the growth rate of investment. These trends are a matter of concern and warrant appropriate responses in macroeconomic management. The relatively high growth performance of the economy, largely due to the contribution of the agriculture sector, has helped to minimize the macroeconomic strains during the years. It is, however, important to identify the causes as to why the momentum in growth of savings and investment could not be maintained despite acceleration in growth rate of the economy and implement effective measures to ensure sustained growth and economic stability.

Trends in External Sector

During the 1990s, economic reforms and associated policies significantly affected the external sector in Bangladesh. The share of foreign trade (exports and imports) in GDP increased from 17 per cent in 1989/90 to over 29 per cent in 1998/99 (Table 8). The economy is now more integrated with the global economy and the trend is likely to continue.

Table 8 Selected external sector indicators

	(as per cent of GDP)										
	1989/ 90	1990/ 91	1991/ 92	1992/ 93	1993/ 94	1994/ 95	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 00c
Merchandise exports	5.0	5.5	6.4	7.4	7.5	9.2	9.5	10.5	11.7	11.7	12.1
Merchandise imports	12.4	11.3	11.3	12.7	12.4	15.4	16.9	16.9	17.1	17.8	17.9
Trade balance	-7.4	-5.8	-4.9	-5.3	-4.9	-6.2	-6.4	-6.4	-5.4	-6.1	-5.8
Current account balance	-5.2	-3.1	-1.8	-1.9	-1.2	-2.4	-4.0	-2.1	-1.1	-1.4	-1.1

a Provisional

Source: BBS, Statistical Yearbook of Bangladesh 1998, and Preliminary Estimates of Gross Domestic Product 1999-2000 and Final Estimates of Gross Domestic Product 1998-99, BBS April 2000.

² The figures include investments in joint ventures with local entrepreneurs.

Total merchandise exports of the country have increased consistently from 5 per cent of GDP in 1989/90 to around 12 per cent in 1998/99. Over the same period, imports have increased from 12 per cent to 18 per cent of GDP leaving a trade deficit of around 6 per cent. The current account deficit has been lower: around 1-2 per cent of GDP in most years. While the long-run trends do not appear to be a cause of concern, it is the short-run fluctuations and slow growth of external sector indicators along their desired directions that are important concerns for macroeconomic management in the country.

Role of the Government

It is being increasingly realized that even in a globalized market oriented economy the government will have to play a pro-active role particularly in a poor economy such as Bangladesh. Appropriate state-market mix especially in conducting the affairs of a developing economy would crucially depend on the initial conditions and the objectives of development pursued by a country. The importance of the role of the government cannot be overemphasized when the primary objective of economic development is elimination of poverty as poverty is essentially a problem of market failures. Poverty is a multi-dimensional concept. Alleviation of poverty depends not only higher incomes but also on improvements in literacy, health and other social sectors. Therefore, one cannot think in terms of a direct and positive link with increase in economic growth and improvements in poverty situation. In other words, the nature of growth is equally, if not more, important in reducing poverty. Since poverty is essentially a problem of market failure, the role of the government in achieving this objective is more relevant than leaving it to the whims of the market alone. The government will have to play its regulatory and developmental functions effectively to ensure growth and reduce poverty.

According to the above analysis on the widening of gap between investment and domestic savings Bangladesh would require an increasing inflow of foreign assistance to bridge the widening gap between investment requirements and domestic savings to accelerate the rate of growth of GDP from around 5.5 per cent per annum to 7-8 per cent annum. So far Bangladesh has received a total amount of \$ 34,756.7 million of foreign assistance up to 30 June 1999, of which 48.2 per cent was grants and 51.8 per cent was loans. The share of grants is declining gradually. However, loans were also received mostly under highly concessional IDA terms. As a consequence annual debt service in fiscal 1999 amounted to USD 773 million on an outstanding stock of USD 14.8 billion in external debt with a current debt servicing rates of under 10 per cent. However, as discussed earlier the opportunities for contracting foreign loans at concessionary rates seem to be drying out. It is reported that (World Bank, 2000) a number of government agencies are looking for alternative ways of meeting foreign assistance. Some are reported to be turning to Suppliers' credit as a

principal avenue of non-concessional public sector finance for public sector projects. If current trends continue in FY 2000 and beyond the share of non-concessional debt flows-suppliers, credit and publicly guaranteed FDI-are projected to exceed concessional debt flows [World Bank, 2000, pp. 3]. Hence, it appears that Bangladesh is recently trying to contract foreign assistance from various sources at increasingly unfavourable conditions. In fact, Table 9 indicates that the government is increasingly resorting to borrowing from the domestic resources as well. It shows that the total central government outstanding debt on account of domestic and foreign components in nominal terms have not changed much during 1992/93 to 1998/99. However, the share of domestic debt in total outstanding debt has increased from a mere 12 per cent to almost a third (32%) of total outstanding debt during the period. The whole problems of increased indebtedness (foreign and domestic takes together) arises out of the weakness to mobilize internal revenues. In fact, the above analysis indicates that the government is looking for soft options to mobilize resources for financing public expenditures instead of attempting to improve its revenue efforts.

Table 9 Total Outstanding Debt

(Tk. in Crores)

Year	Total Domestic Outstanding Debt	Total Foreign Outstanding Debt	Total Outstanding Debt
(1)	(2)	(3)	4(2+3)
1992/93	7550.20	53290.2	60840.5
1993/94	9961.80	61493.6	60840.4
1994/95	11016.70	67401.3	78418.0
1995/96	13932.90	61969.1	75902.0
1996/97	16643.62	64155.5	80799.0
1997/98	198823.00	63795.8	83618.8
1998/99	24084.53	72639.2	96723.7
1999/2000	30836.8	N.A	N.A

Source: Ministry of Finance.

Any form of borrowing can benefit an individual or a country if it finances additional productive investment with a rate of return greater than borrowing cost. However, in case of foreign borrowing it must be ensured that the extra output does generate

additional foreign exchange receipts to be able to meet the repayment obligations in foreign currencies. However, sustainability of external balances does not guarantee the sustainability of domestic debt unless fiscal stance of the government is prudent as well. Even though the foreign exchange liabilities can be met from the future export earning, losses incurred in public sector projects ultimately becomes contingent liabilities of the government requiring budgetary provision in the long run.

Table 10 Financing Public Expenditures

Year	(Per cent of public expenditure)				
	Net Domestic Borrowing from System	Net Domestic non Bank Borrowing	Total Domestic Borrowing	Net Foreign Financing	Total Financing through borrowing
1992/93	1.77	6.99	8.77	33.66	42.42
1993/94	4.08	8.87	12.95	27.82	40.77
1994/95	-0.3	5.0	4.773	25.69	30.42
1995/96	7.17	5.49	12.79	20.16	32.95
1996/97	6.99	3.98	10.97	21.02	31.99
1997/98	4.70	7.21	11.91	17.22	29.13
1998/99	6.51	7.52	14.03	17.93	31.96
1999/00	9.99	9.15	19.14	16.82	35.96

Source: Ministry of Finance and World Bank.

Table 11 Share in Revenue Expenditure

		(per cent)					
Sl. No.	Ministry/Division	Actual 1990-91	Revised 1996-97	Revised 1997-98	Revised 1998-99	Revised 1999-00	Budget 2000-2001
01.	General public services	9.89	17.36	16.59	15.11	15.83	16.65
02.	Defence	15.48	18.41	18.23	15.15	17.44	16.70
03.	Public Order	8.72	9.27	8.75	8.34	8.87	8.35
04.	Interest	13.98	14.00	15.99	17.57	19.27	19.00
	i) Foreign	6.09	5.39	5.00	4.32	4.26	4.2
	ii) Domestic	7.89	8.61	10.99	13.25	15.01	14.9
	Total	48.07	59.04	59.56	56.17	61.41	62.8

Source : Calculated from the various issues of the 'Budget Summary Statement'.

In this context emergence of interest payment on domestic borrowing as an important factor can provide some lesson. Its share in revenue expenditure has increased from less than 8 per cent in FY 91 to around 15 per cent in FY00. This appears to be a fallout of the incapability of the GOB to generate enough revenue to finance the growing volume of public expenditure. It is thus clear that interest payments on domestic borrowing is claiming an ever increasing share of public expenditure. This rising claim on the budget for debt servicing is not likely to decline in the near future since such a debt burden becomes cumulative as more and more borrowing is needed to meet the past debt repayment obligation. Its growth can only be moderated if increased revenue collections can substitute the resort to domestic borrowing while financial intermediation in the capital market can sufficiently improve to provide private savers with more alternative financial instruments compared to those on offer by the government. In practice, a case could be made out for continuing to use public borrowing to mobilize private savings as long as this is done without resort to capturing further savings in the capital market. The aggregate level of savings in Bangladesh remains low by any standard and all efforts both in the public and private sector to mobilize such savings should be encouraged.

The extent of budget deficit has attracted the attention of many economists this year. I do not subscribe to the idea of any optimal size of the government or safe limit of budget deficit. It all depends on the initial conditions and the objectives pursued. Hence, a careful analysis of the nature of public expenditure and the sources of funding should be carried out before arriving at any conclusion about the appropriate size and/or the extent of budget deficit (defined simply as the difference between the sum of revenue and development expenditures and the sum of the tax and non-tax revenues). Table 12 reports the performance of the fiscal accounts in terms of mathehing the budgeted with the realized figures. It show that revenue expenditures in general overshoot the budgeted frigates (except in FY98) while the development expenditures in general remained unrealized (except in FY99) for the period covering FY96 to FY00. Realized total revenue, on the other hand, remained close to the budgeted figure in FY 96 and FY 97 and then fell increasingly short of budgeted figures in later years. The sum total of this is reflected in the budgetary deficit¹ which indicate the the percentage deveiation of realized deficit from the budgeted figure increased over the years from - 13 per cent in FY 96 to as high as 49 per cent in FY 00. When the revenue expenditures overshoot and the development expenditure remains unrealized, it has a moderating effect on the divergence between the budgeted and the realized total expenditures. However, when both the development and revenue expenditures exceed the budget estimates, the total realized expenditures exceed the corresponding budget figures by a wide margin. This combined with a shortfall in the revenue earnings considerably widens the gap between the realized and the anticipated deficit in the budget. The sources from which this unanticipated

funding requirements are met and the nature of expenditure that lead to such over-spending have important bearings on the performance of the overall macroeconomy. The two outgoing fiscal years (FY 99 and FY00) had the unfortunate coincidence of both the revenue and development expenditures overshooting the budget allocation. This combined with an increasing shortfall in the revenue carryings raised the absolute budget deficit by more than 25 per cent in FY 99 and around 50 per cent in FY00. The unprecedented flood that devastated the country in 1998 may be blamed for the worsening fiscal performance in FY 99. However, no such excuse of natural disaster can be given for the FY00. It probably indicates a continuing trend of worsening fiscal discipline. It may clearly be pointed out that the worry here is not about the extent of the deficit but the undanticipated nature of it as defined by the difference between the anticipated deficit as opposed to the realized figures. The larger is the difference between ex-ante and ex-post budget deficit, the greater is the worry since it indicates that the policies are adopted by default and not by design.

Table 12 Performance of Fiscal Accounts

Year	Percentage deviation of realized from the budgeted figures				
	Revenue Expenditure	Development Expenditure	Total Expenditure	Total Revenue	Deficit
FY 96	6.72	-13.7	-3.9	0.4	-12.6
FY97	3.56	-6.4	-1.5	0.2	-5.3
FY 98	-0.31	-4.7	-2.4	-4.3	2.6
FY99	5.20	2.0	4.2	-5.2	26.3
FY 00	3.50	6.1	4.9	-11.8	48.6

Source: Calculated from relevant issues of the 'Budget Summary Statements'.

Growth of public expenditure in the long run is constrained by the potential of increasing revenue from domestic sources. Tax and non-tax yields are the primary sources for financing public expenditure without having to enhance the burden of debt servicing obligations on the budget. Taxes contribute about 80 per cent of total revenues in Bangladesh. Tax yield of FY00 fell short by around 9 per cent compared with that proposed in the budget.

Ambitious target of increasing the tax yield by more than 22 per cent in the FY00 compared to the tax yield of the FY 99 may be pointed out as a major reason for failing to realize the projected tax yield. In fact, tax yields, in nominal terms, on average, has been increasing in the recent past by around 10 per cent per year. Only in FY 92 and FY93 in the nineties did the tax yield, in nominal terms, increase by more than 10 per cent. However, we have seen that the budget proposals have

sometimes been very optimistic (for example, projecting a more than 20 per cent yield in FY 98 and FY00) or very modest (around 10 per cent) without making any realistic assessment of realizing the projected tax yield. The gap between expectation and realization of tax yield may have very serious repercussions on macroeconomic performance of the country since the size of the government expenditure would naturally be dependent on the expected revenue yield. A large shortfall in revenue yield can cause serious problems for meeting the budgeted expenditure and may distort the nature of expenditure and/or the size of it and thereby destabilize the whole macroeconomic scenario depending on how the funding for the expenditure is met. In fact, the rationale for determining the size of the tax yield should follow from an overall development strategy. The Fifth Five Year plan (FFYP) of Bangladesh envisaged that the tax effort (Tax/GDP ratio) should increase from 10.04 per cent (which translates into 7.8 per cent for the new GDP series), in 1996/97, the benchmark year of FFYP, to 11.8 per cent by the terminal year of the plan. However, Table 13 indicates that both the revenue and tax effort have been declining since FY97. Thus it is not clear what was the rationale for fixing the target for tax yield. The apparently ad hoc nature of fixing target without taking ground realities into consideration is one of the major causes of weakening macroeconomic performance in recent years. Tax effort of Bangladesh is low compared even with the poor developing countries of the world.

Table 13 Revenue Effort

Period/Revenue	Total REvenue	(Per cent of GDP at current market price)	
		Tax	Non-Tax
1990-91	7.4	6.1	1.3
1991-92	8.1	6.5	1.6
1992-93	9.0	7.3	1.7
1993-94	9.1	7.1	2.0
1994-95	9.8	8.0	1.8
1995-96	9.0	7.2	1.8
1996-97	9.5	7.8	1.7
1997-98	9.4	7.5	1.9
1998-99	9.0	7.2	1.8
1999-2000	8.9	7.1	1.8

Source : Calculated from the relevant issues of the 'Budget Summary Statements' and 'The Statistical Yearbooks of Bangladesh'.

Conclusion

Our analysis of the developments in the foreign aid regime and its implications for economic development suggest that in the initial years Bangladesh needed foreign assistance even to fulfill its food requirements at the aggregate level. Hence, food assistance was essential for mere survival of the population.

Merchandise export earnings and healthy growth in foreign exchange remittances by Bangladeshi nationals have eased our foreign exchange constraints to a large extent. Developments in the food front has been very encouraging. Bangladesh has turned from a chronically food deficit to a surplus food producing country by the end of the last millennium. This was achieved by the efforts of millions of small scale farmers combined with appropriate food policies pursued by the government during a period when cultivable land was declining and population almost increased to double its size at the beginning of the period.

However, self-sufficiency of food at the aggregate level does not ensure food security at the individual level. About half of the population of Bangladesh lived below the poverty level in 1995/96. The problem of poverty is essentially a problem of market failure. Hence, the government will have to play a pro-active role in the economic development of the country to alleviate poverty. Resource use by the government has been increasing. Foreign assistance, both in per capita terms and as a share of GDP has been declining. Thus one may argue that dependence on foreign aid is decreasing. However, recent developments suggest that the government and some of its agencies are trying to contract foreign assistance at relatively unfavourable terms compared to those we have been receiving so far. Hence, it appears that decreasing foreign aid dependence as indicated above is happening by default and not by design since it is constantly exploring possibilities of contracting more foreign assistance. This mentality to borrow becomes apparent when we look at the recent developments in the total outstanding debt. The government of Bangladesh has recently been borrowing heavily from the domestic sources. The share of net domestic borrowing in total public expenditure financing has increased from less than 10 per cent to around 20 per cent during the nineties. It is all the more disturbing because our analysis of the budget indicate that such increase in domestic borrowing was not planned for. In other words, it appears that we are not in control of the economy. Our present policy decisions are not based on any proper understanding of the workings of the economy. We are depending more on ex-post analysis to justify our policy decisions and surrendering to ground realities rather than attempting to change them to suit to our purposes.

Resource use by the government has been increasing. It is increasingly being financed by domestic borrowing. On the other hand, allocation on social sectors have also

increased but the outcome in terms of alleviation of poverty has not been encouraging. The twin problem of financing in a self-reliant manner and effective use of government expenditure may be ensured by improving the quality of services provided by the government. Quality of investment in public sector should also improve so that the increased efficiency may contribute to higher growth in output from the same amount of investment.

Supported by ample evidence, donor agencies also now believe that a large part of development assistance in the past contributed neither to economic growth nor to reducing poverty in recipient countries. It is argued that institutional development and policy reforms in the recipient countries for better utilization of aid is needed. The donor agencies are increasingly favouring targeting aid directly to the poor within the developing countries. This view of aid is largely in conformity with reorienting aid toward social development. However, effective utilization of aid and resources in general need to be ensured to get any benefit out of such resource use. Good governance and appropriate institutional frameworks will have to be established. However, it is difficult to imagine how aid agencies can help recipient countries on these vital issues. Ultimately it is the political commitment and will of respective countries that will determine whether such objectives will be accomplished.

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Adam Smith and Friedrich List: A Fresh Look

Mahbub Ullah*

BEA has chosen the theme “Bangladesh Economy into the new Millennium” for its thirteenth Biennial Conference, 2000. For making historical prediction a millennium is beyond the comprehension by the most intelligent man. I am sure this is not the agenda of the learned organizers of the conference. I believe what the organizers have in mind is to initiate a lively exchange of ideas among the Bangladeshi economists relating to philosophical perception, formulation of strategies, setting priorities, identification of constraints, institutional requirements, ensuring good governance, and if considered feasible, making tentative predictions for the next two decades as Bangladesh enters the new millennium.

Economists trained in quantitative methods are fond of making forecasts and drawing trend lines on the basis of alternative scenarios. These exercises may be useful for a very short period, especially for formulating strategies in business deals. But, I am personally skeptic about making forecasts for a relatively longer period. I feel strong about such a feeling as I witness revolutionary breakthroughs in technology. Technological breakthroughs have a tendency to shaking common men’s perception. This is why historian Eric J. Hobsbawm in the first of the annual lectures given at the London School of Economics to commemorate the British demographer David Glass said, “.. *Historical predictions differ from all other forms of forecasting in two ways. In the first place historians are concerned with the real world in which other things are never equal or negligible... Historians are by definition concerned with complex and changing ensembles and even their most specific and narrowly defined questions may make sense only within this context... History resembles disciplines like ecology, though it is wider and more complex. While we can and must single out particular strands from the seamless web of interactions, if we were not interested primarily in the web itself we should not be doing ecology or history. Historical forecasting is therefore, in principle, designed to provide the general structure and texture which, at least potentially includes the means of answering all the specific forecasting*”

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questions which people with special interests may wish to make: of course in so far as they are answerable at all." I tend to agree more with historians like Hobsbawm than my fellow economists who would like to discover measuring rod for everything relating to human behaviour including such absurd concepts like the value of human life. I want to feel assured that BEA would not attempt to tread in absurd futurology.

With the demise of the cold war many people expected that the world society was entering the age of peace and tranquility and gone are the days of conflict and war. But the disquieting events in Bosnia, Cosovo, Chechnya, Afghanistan, Kashmir, Moro islands and India's North-East proved these expectations to be wrong. The world is no less unstable than any era in the past. Countries possessing no nuclear arsenal are getting armed with nuclear capabilities, only to add to our insecurity. While our concern for human security deepens everyday, new philosophies of history like 'the clash of civilization', 'the end of ideology' and the 'end of history' have begun to proliferate. I need not deal at length on these new philosophies or theories of history. But the last one among them deserves some attention as I enter into the basic ideas of this essay. This pertains to Francis Fukuyama's article 'The End of History', celebrating the end of cold war. Fukuyama argues: *What we may be witnessing is not just the end of the Cold War, or the passing of a particular period of postwar history, but the end of history as such: that is, the end point of mankind's ideological evolution and the universalization of Western liberal democracy as the final form of human government.*

Fukuyama's firm conviction in eternal sustainability of Western liberal democracy automatically smells of nostalgia for the past and the boredom that awaits the humanity. After all when the dynamics or the dialectics comes to stop, the quality of human social organization gets bogged into the mire of continuity without change which is tiringly boring. I am afraid Fukuyama is not sure about the kind of Western liberal democracy in which he holds so much of faith. Western liberal democracy is not simply a political precept; It has its image in the economy too. One may ask Fukuyama whether the ideal type of Western liberal democracy is found to exist anywhere in the world including the birthplaces of Western liberal democracy. It is quite logical to think if liberalism is a failed idea in the polity, how it cannot be so in economy too. John Dewey himself comes straight from the American mainstream. People reading Dewey these days would consider him somewhat like an anti-American lunatic or something else. He was expressing mainstream thinking before the ideological system had so glaringly distorted the tradition. By now the whole system is difficult to recognize in its classical image. Dewey, a major theorist of democracy said, "the goal of production is to produce free people". That is the goal of production in a democracy, not to produce commodities. His contention was that we can not think of democracy until we have democratic control of industry, commerce, banking and everything else. That means control by the people who workd in the institutions and communities.

Alex Carey who was a professor in the University of New South Wales did a pioneering work in the field of corporate propaganda. Corporate propaganda is a major phenomenon in the contemporary world. Professor Carey in his most important essay "Changing public Opinion: The Corporate Offensive" pointed out that there have been three major phenomena in the 20th century with regard to democracy. One is the broadening of franchise. The second is the growth of corporations. The third is the growth of corporate propaganda to undermine democracy. That is why we witness the explosive growth of public relations industry. The objective is to control the public mind, because it was recognized that public mind would pose as threat to industrialists. They could correctly assess that democracy is a real threat to private tyranny, just as it is a threat to state tyranny. In order to balance off the effect of expanded people's participation it was purposively conceived to build up huge public relations industry and to unleash massive propaganda offensive. The peoples in the West are deluged with propaganda through the Advertising Councils, radio, television and other media. Today, the holy cow of democracy is nothing but a sophisticated thought control instrument.

In a poor country like Bangladesh corporate houses have already entered into propaganda enterprises like newspapers and private TV channels. One may feel elated to see the growth of opinion building industry and consider this to be a success of democracy. However, anybody who has a stake in the flourishing of democracy must not forget to ask the question who controls them. At this stage we may go back to Dewey once again. Repeating basically Adam Smith, Dewey said, "politics is the shadow that the big business casts over society".

These days conservatism and liberalism are thought to be two sides of the same coin. The original proponents of liberalism had a very different connotation of the term. The views of Adam Smith and Thomas Jefferson are adored for reasons completely different from how they are understood or visualized by the current day apostates mimicking liberalism. Part of the argument for the market that was made by Adam Smith meant advancing towards perfect equality, equality of condition, not just equality of opportunity. One may genuinely raise the question whether Adam Smith could structure his logic in a perfect manner. We do not possess experimental results, so we cannot say in definitive terms. What Adam Smith really argued is that under conditions of perfect liberty a market would lead to equality of conditions and there is no denying the fact that we have never approached that situation. Given the intellectual character of Adam Smith's argument, the nature of society visualized by him was clear. It was a society which brook no concentration of power as demonstrated by the feudal system and the Church and the royalty. As it was advocated that systems like these should dissolve so it was expected that there would be no scope for the development of similar conditions in the future.

Adam Smith while studying at the University of Oxford was about to be expelled when a copy of David Hume's *Treatise of Human Nature* was found in his room. Definitely, certain ideas contained in the *Treatise* were considered unacceptable to the authorities of the University of Oxford. We can only guess Hume's observations such as: *Everything in the world is purchased by labour, and our passions are the only causes of labour*. Thus utility, the utility of a piece of work in satisfying men's passions, is the core of his theory. This does not mean, however, that he ignores the claim of labour. On the contrary, he holds that it is the business of the state to guarantee all men the right to enjoy the fruits of their labour; all should have the necessaries, most of the conveniences of life. Great differences in wealth are moreover a source of weakness to the state. David Hume found occasions to write notes of appreciation for Smith's intellectual contribution. When *The Wealth of Nations* was published in 1776, Hume wrote, "Euge! Belle! Dear Mr. Smith, I am much pleas'd with your performance."

What sort of social order pre-occupied Smith's mind? When Smith engaged himself in serious philosophical pursuit, capitalism was yet to assume a mature shape. The social order that Smith addressed was pre-industrial capitalism. Even the word capitalism was not yet coined. As a matter of fact the word got currency after one hundred years of the publication of the *Wealth*. Smith conceived of a society of perfect liberty. "Society of perfect liberty" as the coinage itself connotes had a predominantly political character. The economic character of such a society was rather secondary to Smith. In a society of perfect liberty its members are free to pursue their chosen goals. If the members of such a society pursue their goal of free choice then it would lead to general good of the society.

Smith considered perfect liberty as the economic engine of the society. While extolling the productive impetus driven by the urge to accumulate private wealth, Smith didn't uncritically accept the outcome. Smith was a philosopher rather than an apologist of a particular class interest. Excerpts from his *Theory of Moral Sentiments* ((1759) and *The Wealth of Nations* stand testimony to this observation: *How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it. Of this kind of pity or compassion, the emotion which we feel for the misery of others when we either see it, or are made to conceive it in a very lively manner. That we often derive sorrow from the sorrow of others is a matter of fact too obvious to require any instances to prove it; for this sentiment, like all other original passions of human nature, is by no means confined to the virtuous and humane, though they perhaps may feel it with the most exquisite sensibility. The greatest ruffian, the most hardened violator of the laws of society, is not altogether without it. (The Theory of Moral Sentiments-Part I; Sec. I; Chapter I in Clarendon Press, Oxford Edition, 1976, edited by Raphael and MacFia).*

Adam Smith is celebrated for his commitment to *invisible hand of the market and the strength of free enterprise*. But, we manage to forget that he laid great emphasis on the visible hand of the state too. Distinguished economist Herbert Stein has pointed out, Smith explicitly accorded to government the following powers:

- protecting the merchant marine and giving bounties to defense-related manufactures
- Imposing tariffs to obtain reciprocal reductions from other countries
- Taking measures against dishonesty, violence and fraud
- Establishing quality indicators, such as sterling silver mark
- Requiring employers to pay wages in cash rather than kind
- Regulating banking
- Providing public goods, such as highways, canals, and the like
- Running a postal service
- Granting patents and copyrights
- According temporary monopoly rights to trading companies developing commerce in new or risky regions
- Requiring that children attain a certain level of schooling
- providing protection against communicable disease
- Requiring public hygiene, such as clean streets
- Imposing taxation to discourage improper or luxurious behavior
- Establishing ceiling on interest rates.

Adam Smith writes *Of the Wages of Labour* in Chapter VIII in his *Wealth of Nations*. The excerpt quoted below is self-explanatory with regard to his position in matters of conflict of interest between labour and capital: *What are the common wages of labour depends everywhere upon the contract usually made between those two parties, whose interests are by no means the same. The workmen desire to get as much, the masters give as little as possible. The former are disposed to combine in order to raise, the latter in order to lower the wages of labour.*

It is not, however, difficult to foresee which of the two parties must, upon all ordinary occasions, have the advantage in the dispute, and force the other into a compliance with their terms. The masters, being fewer in number, can combine much more easily; and the law, besides authorities, at least does not prohibit their combinations, while it prohibits those of workmen. We have no acts of parliament against combining to lower the price of work; but many against combining to raise it. In all such disputes the masters can hold out much longer. A landlord, a farmer, a master manufacturer, or merchant, though did not employ a single workman, could generally live a year or two upon the stocks which they have already acquired. Many workmen could not subsist a week, few could subsist a month, and scarce a year without employment. In

the long run the workman may be as necessary to his master as his master to him; but the necessity is not so immediate.

We rarely hear, it has been said, of the combinations of masters; though frequently of those of workmen. But whoever imagines, upon this account, that masters rarely combine, is as ignorant of the world as the subject (Smith, Modern Library edition, 66).

That Smith was an economist who viewed pursuit of self-interest devoid of morality and ethical values is not an objective assessment of the man should by now be loud and clear. The variant of liberalism that certain brands of neo-classicists clamour about does not fit in with Smithian perception. Smith thought a “*propensity to truck, barter and exchange*” was discoverable in no creature except humankind. It is this propensity that gives rise to the mode of production based on perfect liberty. However, in the primitive societies this propensity is not observable. This particular feature failed to draw Smith’s attention. Robert Heilbroner came to his rescue and pointed out that for such propensities to grow, congenial institutions had to be in place. Heilbroner thinks, this could be at the back of Smith’s mind.

For all practical purposes, Adam Smith can be considered to be a development economist. England’s economic development was an essential preoccupation of Smith. He viewed trade as the path to expand the wealth of England. A closed English economy meant growing misery in an overcrowded island. Lack of investment opportunities would force the profit rate down. Opening free trade and settling the New World could expand the horizon of nineteenth-century capitalism. As Adam Smith put it, trade extended the size of the market, promoted specialization and generated prosperity through gains from trade. He advanced the idea of trade as an engine of growth. This is his Vent-for-surplus theory as identified by Hla Myint. Hla Myint (1958 327) considers it more appropriate for developing countries than the more modern Heckscher Ohlin theory, because (i) it stood for a more efficient balanced growth relationship between domestic and foreign trade, and (ii) it emphasized agricultural development first instead of protecting the manufacturing. Adam Smith spoke about foreign trade in the following words: *It carries out that surplus part of the produce of their land and labour for which there is no demand among them, and brings back in return for it something else for which there is demand. It gives a value to their superfluities, by exchanging them for something else, which may satisfy a part of their wants, and increase their enjoyment. By means of it, the narrowness of the home market does not hinder the division of labour in any particular branch of art or manufacture from being carried to the highest perfection. By opening a more extensive market for whatever part of the produce of their labour may exceed the home consumption, it encourages them to improve its productive powers, and to*

augment its annual produce to the utmost and thereby to increase the real revenue and wealth of society (Smith, The Modern Library edition, 415).

Did Smith develop his ideas in a historical vacuum? Didn't he have any lessons to learn from historical experiences? let us recall a section from David Landes's famous book *The Wealth and Poverty of Nations: The economic expansion of medieval Europe was thus promoted by a succession of organizational innovations and adaptations, most of them initiated from below and diffused by example. The rulers, even local seigneurs, scrambled to keep pace, to show themselves hospitable, to make labour available, to attract enterprise and the revenues it generated. At the same time, the business community invented new forms of association, contract, and exchange designed to secure investment and facilitate payment. In these centuries a whole new array of commercial instruments came into use; commercial codes were elaborated and enforced; and partnership arrangements were devised to encourage alliances between lenders-and doers, between the men who supplied the funds and merchandise and those who went to distant lands to sell and buy. Almost all of this "commercial revolution" came from the mercantile community, bypassing where necessary the rules of this or that city or state, inventing and improvising new venues for encounter and exchange (ports and outports, faubourg, local markets, international fairs), creating in short a world of its own like an overlay on the convoluted, inconvenient mosaic of political units.*

They got thereby substantially enhanced security, a sharp reduction in the cost of doing business (what the economist calls "transaction costs"), widening of the market that promoted specialization and division of labour. It was the world of Adam Smith, already taking shape five hundred years before his time (Landes, 1998, p.44). The life span of Adam Smith was extended between 1723 and 1790.

Another famous economist was born in Germany just one year before Smith's death. His name is Friedrich List (1789-1846). Although List did not earn fame as an economic thinker to the level of Smith, his ideas shaped economic policies in his own country and the post-war developing world. K. Tribe wrote about List in *The New Palgrave Dictionary of Economics: Known chiefly as a proponent of economic nationalism and protection to 'infant industries', List's career followed a colourful, not to say disorderly course, from his engagement on behalf of a customs union in the early 1820s to exile and residence in the United States, agitation on behalf of railway construction, energetic economic journalism, and finally to his death by suicide in November 1846, depressed by his lack of success in promoting commercial agreement between Prussia and Britain and also by chronic financial insecurity.*

In what way List is different from Smith? Is the difference between them substantive? List wanted to drive home the point that the Smithian principle of natural liberty and commercial freedom gave an appearance of universality, but they were essentially faulty generalization of the British situation for the rest of the world. Free trade and economic freedom are desirable only in a world economy composed of nations with equitable level of development. Such a world economy can be created if weaker economic entities are allowed to protect their major industries against premature competition. In the international arena protective tariffs and trade regulations should be so designed through international agreements and treaties so that some day protection becomes redundant and the world turns into a realm of free flow of goods and services.

List advanced quite a different logic of human welfare in contra-distinction to Smith. In his *Outlines of American Political Economy* List sharply pointed out that Smithian economy of the individuals and of mankind and national economy stand in contrast. Smith's chain of argument was that satisfaction of individual wants would lead to universal welfare. But, List thought this would not happen and insisted that the ideal path to economy of mankind would emerge from enhanced level of national economy.

In a 2x2 Ricardian trade model, assumptions are highly restrictive. No economies and diseconomies of scale are allowed. Therefore, each country must specialize completely and permanently. The terms of trade are determined exogenously and nothing can be done about it. The trading partners are trapped in initial production conditions and there is no shift in comparative advantage due to growth dynamics. Is this theory of trade objective and value-free? Some would agree and others like Joan Robinson would not. Joan Robinson clearly identified the nationalistic undertones of classical trade theory. She said, (*Classical economists*) *were in favour of Free Trade because it was good for Great Britain, not because it was good for the world* (Robinson, 1962: 117). Ricardo, like Adam Smith, supported the Navigation laws to protect and maintain supremacy of Britain in the seas. Gun-power was marshalled to guard economy of trading. Theorization skillfully shadowed to protect narrow national interest led List to make the following observation: *under the existing conditions of the world, the result of general free trade would not be a universal republic, but, on the contrary a universal subjection of less advanced nations to the supremacy of the predominant manufacturing, commercial and naval power(i.e. Britain)... A universal republic ... i.e. a union of nations of the earth .. can only be realized if a large number of nationalities attain to as nearly the same degree as possible of industry and civilization, political cultivation and power* (List 1837:126-7). List, the economic nationalist, rejected laissez-faire individualism of Adam Smith and extended support to collectivity in the person of a nation or state. According to List, state has a special responsibility to promote and guide economic development for the good of the nation

as a whole. Nation stands with an identity in the international community. So List wrote: *Between each individual and entire humanity .. stands THE NATION, with its special language and literature, with its own peculiar origin and history, with its special manners and customs, laws and institutions, with the claims of all these for existence, independence, perfection and continuance for the future, and with its separate territory .. It is the task of national economy to accomplish the economic development of the nation, and to prepare it for admission into the universal society of the future* (List 1837: 174-5).

List's infant industry argument was rejuvenated through the import substituting industrialization (ISI) strategy. The ISI strategy holds that the developing countries should nurture new industries, subsidizing and protecting them with tariffs and other incentives on grounds of increasing economies. This protection is necessary till the infant industries achieve dynamic comparative advantage through a process of learning by doing. In other words, the short and medium term cost of ISI is worth the long-term social and economic benefit. Interestingly, this same argument was utilized in the case of export-led strategies. Japan, Taiwan and South Korea implemented industrial strategies in a manner that did not discriminate against domestic firms. But, in many instances ISI strengthened MNCs and their branch plants. Indeed, these emerged as beneficiaries of ISI in the developing countries in the name of questionable long-term benefits. What a misplaced use of economic nationalism of List! ISI strategy received initial boost from the secular deterioration of terms of trade argument advanced by Raul Prebisch and Hans Singer. The empirical studies made by these economists became a strong arsenal against Ricardian comparative advantage theory, which justified export of primary products by the developing countries. As a matter of fact, trade impoverished the developing countries instead of serving as engine of growth. This created a strong urge to delink developing countries from the countries of the core. This is the stand of the dependency school. Prebisch became a socialist while working in UNCTAD and developed fascination for dependency theory. In the final years of his life, Prebisch changed his position and took a middle roader position to reach a synthesis between socialism and economic liberalism. However, ISI strategy degenerated into development of enclave sectors in the third world countries. Western multinationals established strong foothold in these countries at the expense of public resources. As Barnett and Muller put it, the third world was thus captured as part of the global supermarket in the global reach of the MNCs, superimposing Western tastes and marketing techniques on local cultures.

The discussion above shows that well meaning theories can be distortedly applied to serve narrow interest. The so-called liberals of the present day gave a serious twist to the ideas of Adam Smith. The progressive and humane aspects of Smith's theory have been kept under the rug to justify the sins committed by the neo-liberals. The

neo-liberals are bent upon foisting the so-called globalization as schematized by the World Bank and IMF and other international bodies to the detriment of the interest of the third world countries. Globalization as conceived by these bodies is bound to create serious social and economic contradictions in a world pervaded through and through by inequality and deprivation. So long as inequities and deprivations persist, Fukuyama's much exalted End of History theory can not be expected to make a mark. The dialectics whether in the form of development of spirit through time or conflict around interpretation of ideologies or through class conflicts or through a new movement urging to put a brake upon consumerism in a fossil fuel thirsty world is sure to bring dynamism in the process of history.

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Converting Services Trade between Bangladesh and India into Commodity Trade: A Mutually Beneficial Alternative to Transit-Transshipment Treaty*

Abul Kalam Azad**

Abstract

Ostensibly, India wants to save on transport costs by using Chittagong sea-port and also Bangladesh territory for moving merchandise to and from her land-locked northeastern 'States'. With this purpose in view, India wants to conclude a formal transit treaty with Bangladesh. While Bangladesh stands to gain economically from a transit treaty, such formal treaty, nevertheless, is opposed in Bangladesh on non-economic (security) grounds. In this paper, we suggest an alternative trade model that can simultaneously take care of both economic and non-economic needs of the countries (India and Bangladesh) involved.

Section I Introduction

Two quite similar but contentious issues with almost the same solution vitiate the current Indo-Bangladesh bilateral economic relationship carrying definite implications for the present and future economic/diplomatic ties between the two countries. One is the so-called 'transit issue', which is related to the Indian demand for transportation of Indian merchandise between her landlocked northeastern region and mainland India through Bangladesh territory. The other issue, also involving the movement of merchandise, is related to India's demand for the use of Chittagong sea-port by the Indian exporters/importers¹. While there are clear economic gains to be reaped by both India and Bangladesh from deals involving implementation of these Indian demands, in Bangladesh such deals are, however, perceived as potential threats to the

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security of the country. Consequently, the Bangladesh government cannot readily respond to the Indian demands with formal agreements allowing the use of Bangladesh's territory/port for transportation of Indian merchandise, either originating in or destined to India (particularly, landlocked north-eastern India). This paper, by way of suggesting an alternative trade arrangement, demonstrates that these are basically economic (trade) problems with familiar economic (trade) solutions that can simultaneously take care of both the economic and non-economic (security) needs of the 'parties' (countries) involved. The scheme of the paper is as follows: Section II presents brief descriptions of the issues at hand; Section III presents the proposed alternative trade model; Section IV contemplates the possible outcomes to follow from the implementation of the proposed trade model; and Section V presents the concluding remarks.

Section II Issues of Contention

The Transit-Transshipment

Currently, the movement of merchandise between the almost landlocked territories of northeastern India (Assam, Tripura, Mizoram, etc.) and western mainland India takes place through the long, roundabout, narrow and often inaccessible route known as the Shiliguri corridor. Naturally, this makes the transportation costs high. However, if the same merchandise can pass through Bangladesh territory, there could be substantial savings in terms of transportation costs. This induces India to seek an agreement with Bangladesh allowing the passage of Indian merchandise through Bangladesh territory. This is the so-called 'transit issue'. The present Bangladesh Government, however, prefers to call it 'transshipment' as the sealed containers containing Indian merchandise will be carried by the Bangladeshi carriers (trucks/lorries) within the boundaries of the country.

Use of Chittagong Sea-port by the landlocked northeastern Indian States

The landlocked northeastern region of India currently depends on the Calcutta sea-port and other ports located in western India for export/import of merchandise. This again involves substantial transportation costs that could be saved if Chittagong sea-port were used as a substitute. This makes it economically beneficial for India to seek an agreement with Bangladesh allowing the use of Chittagong sea-port for export/import of merchandise by the landlocked northeastern Indian states.

In both the cases, of course, Bangladesh will be entitled to receive an 'agreed amount' of royalties for allowing the passage of Indian merchandise through her territory/sea-port. Thus, both India and Bangladesh stand to gain from making such deals.

Opposition in Bangladesh against allowing India to use Bangladesh territory or Chittagong seaport

However, in Bangladesh, such deals are opposed on the following grounds: it is feared that the implementation of the transit agreement may threaten the very independent existence of Bangladesh. Indian merchandise may be looted, it is argued, by the unscrupulous miscreants or saboteurs and the Indian Army may use it as a pretext to march into Bangladesh jeopardizing the latter's sovereignty and independence. India may use the transit route through Bangladesh territory to send containers loaded with arms and ammunition in the guise of ordinary merchandise to be used against the rebels in her eastern states. This may provoke the rebels of the eastern region of India to attack the Indian 'supply line' through Bangladesh territory. In such a case, granting transit facilities to India will mean inviting the Indians to fight out their internal conflict on Bangladesh soil. It is further argued that the transit agreement will widen the scope for smuggling of Indian merchandise and arms and ammunition into Bangladesh with undesirable consequences for both the economy and the law and order situation in the country. Another possible danger, pointed out by those against the transit agreement, is that in the event of an outbreak of hostility between India and China, the former may want to use the transit route through Bangladesh to transport military hardware to her Eastern front. This is likely to draw Bangladesh also into a probable Indo-China conflict with dangerous consequences.

Dilemma for Bangladesh

Thus, Bangladesh faces the dilemma of whether or not to (a) grant transit facility to Indian merchandise through Bangladesh territory, and (b) allow the landlocked northeastern India to use Chittagong sea-port for export/import of merchandise. If Bangladesh concedes these facilities to India, she benefits economically but faces the risks of probable dangers mentioned above. Again, if Bangladesh does not agree to such deals, she has to forego the opportunity of earning income and India loses in terms of transport costs for movement of her merchandise. Is there a solution that can simultaneously respond to the economic needs of both India and Bangladesh as well as take care of the latter's security need? Such an alternative solution is described in the following sections.

Section III An Alternative Trade Model

A. Restatement of the Problem

What we have gathered above about transit/transshipment between Bangladesh and India, briefly, is: India wants to carry goods to and from her landlocked north-eastern states using routes over Bangladesh territory. In economic terms, this is nothing but selling by Bangladesh to India of the 'use right' over the roads belonging to the former for carrying merchandise to and from the landlocked region belonging to the latter. In the trade discipline, this is known as services trade. Although the General Agreement on Trade in Services (GATS) is included in the Charter of the World Trade Organization (WTO), the services trade, as far as the liberalization of trade is concerned, lags far behind the commodity trade². Besides, in the case of services trade, the security concern of the trading partners is explicitly recognized by the GATS³.

So we suggest an alternative trade arrangement between Bangladesh and India which converts the services trade (implied by India's proposed Transit/Transshipment Agreement) into commodity trade.

B. Description of the Model

Suppose there are three countries - country A, country B and country C. Suppose further that country C is landlocked. Now country C may import from and export to country A, and country A may also export to country C either its own products or products imported from elsewhere (other country, but not country B). In each case, the transport cost between country A and country C is, say, 't' dollars. Now, country B may import the same commodity from country A and re-export it to country C. According to trade theory, as long as this whole process costs less than 't' dollars, it is profitable for country C to import from country B instead of importing directly from country A. The same will hold true for the export of goods from country C to country A via country B. It is, of course, needless to mention that country B also earns financial benefits by working as a link between the producers/consumers of country A and country C.

C. Application of the Model to Bangladesh and India (Case 1)

Movement of Merchandise

In our general model described above, we may consider country A as the mainland India, country C as the landlocked north-eastern region of India, and country B as

Bangladesh, which is situated in-between the mainland India and the landlocked north-eastern India. Under the so-called transit/transshipment system, the producers from the mainland India carry their products through Bangladesh (paying royalty for the passage) to the north-eastern region of India and sell those to the consumers. Under our proposed model, a business firm from Bangladesh (an Indo-Bangladesh joint-venture firm may be possible too) imports the same commodity from the mainland India and re-exports⁴ it to the landlocked north-eastern region of India. In the same fashion, goods produced in the landlocked north-eastern region of India can be supplied to the consumers of the mainland India by the Bangladeshi business enterprises.

Customs Duty

Since the system of import to re-export described above is an internationally known trade practice, and since the merchandise involved will pass custom check point twice (once, at the time of import and once, at the time of re-export), naturally the question of payment of customs duties will arise. In this special case, we suggest that since the goods from India will be imported into Bangladesh only for re-export to India and since these goods will not be consumed by the consumers in Bangladesh, Bangladesh should realize 'zero' or 'nominal' tariff from such commodities. Similarly, the Indian authority should allow the entry of these commodities into India (after, of course, ensuring their Indian origin⁵) free of customs duty, because these are Indian products and will be consumed by the Indian consumers.

D. Application of the Model to Bangladesh and India (Case II)

Movement of Merchandise

In this variant of the model we consider, as before, country C as the landlocked region of India and country B as Bangladesh, but country A, in this case, represents any country other than the mainland India. According to the proposed model, one or more Bangladeshi firms can import the desired commodity from any country in the world and re-export the same to the landlocked north-eastern region of India. Similarly, the Bangladeshi business firms can import the products of the north-eastern region of India and re-export them to any other country.

Customs Duty

In this case also, since the commodities concerned - imported from/exported to India - will not be consumed by the Bangladeshi consumers, the Bangladesh government should collect 'zero' or nominal tariff from such goods. Of course, in this case, since these goods are not of Indian origin, the Indian Government will remain free to impose and realize, expectedly, normal import duty as they do in other cases.

E. Economic Rationale for Non-Imposition of Tariff on goods Imported for the purpose of Re-export: Converting Services into Commodities

For the working of our suggested model, Bangladesh is required to not-realize the tariff on goods imported from India or other countries for the purpose of re-export. The economic rationale for such practice may be stated as follows: Realizing tariff on goods imported into any country is a common practice. This practice stems from the purpose of generating revenue and/or according protection to domestic industries. On the other hand, it is also an equally common practice in modern economies - particularly developing economies - to accord all sorts of incentives ranging from tax benefits to direct subsidies for the promotion of exports.

When Bangladeshi entrepreneurs import commodities from abroad - including India - for the purpose of re-export, these commodities become intermediate goods intended for further 'processing'. In the case of moving goods from western India to northeastern India or vice-versa, this 'processing' is performed by transporting those 'intermediate goods' from one border of Bangladesh to another border. In the case of moving goods from the landlocked northeastern India to the outside world through Chittagong sea-port or vice versa, the 'processing' is performed by granting these commodities access to the facilities of the Chittagong sea-port and also by transporting the same goods between the Chittagong sea-port and the place bordering northeastern India. It is, of course, needless to mention that such 'processing' adds value to the commodities imported from India/rest of the world with the intent of re-exporting the same to the rest of the world or India. Consequently, the imported commodities become 'new commodities' at the time of re-export. By exporting such 'processed' commodities, Bangladesh would be exporting the services added to these commodities. So the larger the amount of such commodity Bangladesh can export, the greater the economic benefits accrued to Bangladesh. Commensurate with the policy of promoting exports, Bangladesh allows duty-free imports of raw materials by the Readymade Garments (RMG) industry and so on. Hence, imposing and realizing duty on goods (which are, in fact, 'intermediate products' or 'inputs' requiring further processing) imported for the purpose of re-export will be contradictory to the policy of export-promotion pursued by the Bangladesh government.

F. Why India should not Impose Tariffs on the Goods of Indian origin Imported from Bangladesh: Trade for Transit

Since the Indian government does not realize duty on the Indian goods that move between her western and northeastern regions along the long and arduous routes through Indian territory involving high transport costs (and the Indian

government, presumably, will not realize any duty from goods that will move through Bangladesh territory under transit treaty) and since the Indian government would like to see that Indian producers/consumers can supply/procure goods at cheaper costs, India should not impose on and realize duty from the same Indian goods simply because they pass through Bangladesh territory by way of trade. In fact, the Indian government does want a 'short-cut route' through Bangladesh for the passage of Indian merchandise between the western and northeastern regions of India and wants to get it through a formal transit treaty with Bangladesh. The proposed model suggests only a technical alternative to the formal transit treaty that is sought by India and opposed in Bangladesh for non-economic (political) reasons.

G. Precautionary Measures Needed for Bangladesh: Concerns Taken Care of

Of course, Bangladesh needs to adopt certain precautionary measures in order to avoid any misuse of the proposed model:

Preventing Smuggling: As a precautionary measure, Bangladesh may decide to impose and realize tariffs above the normal rate from the goods imported into Bangladesh with the declared intent of re-export. Later on, these tariffs will be refunded only at the time of re-export of the commodity concerned from Bangladesh after, of course, making necessary deductions for royalty and other surcharges. This system is expected to work like the Duty-Drawback System⁶ currently in practice in Bangladesh in the case of raw material import for the RMG industry. This will discourage the consumption of goods imported into Bangladesh with the exclusive and explicit purpose of re-export.

Fixation of Surcharge: Surcharges on goods imported for the purpose of re-exporting should be fixed judiciously. It should be kept in mind that the transport costs normally paid within the country for carrying goods from one place to another covers only the marginal variable costs, not the fixed costs. Hence, the rate of surcharges should make up also for the fixed costs of transportation incurred by the country.

Section IV

Consequences Pursuant to the Implementation of the Proposed Model: Universal Gains

One of the immediate consequences to follow from the implementation of the proposed model is that merchandise can move between the mainland India, that is, the western India and the north-eastern land-locked region of India at cheaper costs. The Indian

producers and consumers will be saving on the transport costs and Bangladesh also will earn normal economic profits from the latter's role as a link between the Indian producers and consumers. These benefits will accrue to India and Bangladesh through normal international business practice, instead of through more formal (and hence more rigid) transit/transshipment agreement.

The second variant of the proposed model (Case II) shows that if the model is implemented, the land-locked north-eastern region of India can avail of the opportunity of indirectly using Chittagong sea-port for import/export purpose. Bangladesh also can earn handsome profits from such transactions in the form of surcharges for port-use⁷ and trade and transport services. Again, these benefits also accrue to both India and Bangladesh through normal business practices.

Although it is claimed that the transit/transshipment agreement between Bangladesh and India will enhance the trade relationship between Bangladesh and the land-locked north-eastern region of India, there is no *a priori* reason to believe so. By contrast, if the proposed model is implemented, the trade relationship will be boosted between Bangladesh and India, in general, and between Bangladesh and the land-locked north-eastern region of India, in particular.

Since the Indian merchandise (meant for re-export) will be imported into Bangladesh like other ordinary imports through customs-check, the possibility of transporting military hardware through Bangladesh territory will be remote. Hence, there will be no reason for neighboring countries/communities to be annoyed with Bangladesh or to consider her an enemy.

It has been mentioned earlier that since the Indian goods (meant for re-export) will enter into Bangladesh on payment of duties at a higher rate than normal, there will be the least tendency for these goods to stay in Bangladesh. Consequently, the scope for misusing our proposed model for smuggling of Indian goods into Bangladesh will be minimized.

Finally, since the Indian merchandise (meant for re-export) will be imported into Bangladesh by the Bangladeshi entrepreneurs at their own initiative and risk, there will be no excuse for India to invade Bangladesh in the name of protecting the financial interests of the Indian citizens.

Section V

Concluding Remarks: Trade as an Alternative to Treaty

In this paper we have tried to find answers to two trade policy questions for Bangladesh. One: whether Bangladesh and India should enter into a transit/transshipment agreement for the passage of Indian merchandise through Bangladesh territory. This has been the most hotly debated trade policy question in Bangladesh in the recent times. This transit/transshipment agreement is again most strongly and expressly desired by India. The other question we have tried to answer is: whether Bangladesh should allow India, particularly the landlocked northeastern region of India, to use Chittagong seaport for export/import of merchandise. The objective of India in both the cases is to save on transport costs for the movement of merchandise. The objective of Bangladesh is to earn income by letting India use Bangladesh territory and seaport for the movement of Indian merchandise.

In this paper it has been shown that the objectives of both India and Bangladesh can be realized without any formal transit/transshipment agreement. **If India wants to have her merchandise transported between her western and landlocked north-eastern regions at cheaper costs, all she needs to do is allow import of Indian goods from Bangladesh⁸ free of import duty. Similarly, if Bangladesh wants to earn income by letting India to use Bangladesh territory/port for the movement of Indian merchandise, all that Bangladesh needs to do is adopt a trade policy which allows duty-free import of goods into Bangladesh for the purpose of re-export.** If both India and Bangladesh implement their decisions simultaneously, the stage will be set for the simple rules of economics and trade to accomplish the rest of the task. That is to say, if India and Bangladesh adopt the above mentioned trade practices, their respective objectives can be realized in the normal course of trade without requiring any formal transit/transshipment agreement.⁹ Again, such a trade practice will give additional leverage to Bangladesh in respect of her control over the volume of transit trade between Bangladesh and India. If, at any time, Bangladesh desires to reduce the volume of Indian merchandise passing through her territory/and using her seaport, all she needs to do is raise the rate of surcharge or impose an export tax. This will bring the transit trade through Bangladesh to a halt without requiring her to revoke any formal transit/transshipment agreement with India, and thereby, damaging bilateral relationship.

So why make fuss over transit, when trade can do the trick?

Notes

1. India's demand for the transit-facility through Bangladesh and the use of Chittagong seaport found formal expression in the Trade Protocol signed between India and Bangladesh on the 9th December, 1998, which states, "The Indian side pointed out that measures which could reduce the trade imbalance (between India and Bangladesh) included the export of gas and gas-based products or the export of transit facilities as a service: Bangladesh could use the advantage of its location and earn sizable revenue. It was also suggested that Bangladesh carriers could carry goods between Tripura and other northeastern states of India and West Bengal or Chittagong Port.
2. Compared to the General Agreement on Tariffs and Trade (GATT), GATS is a 'child'. Since its inception in 1947, the scope of GATT has been liberalized, both extensively and intensively, through several rounds of multilateral trade negotiations. By contrast, multilateral negotiations on services trade began formally only since the early eighties and in the face of stiff primary resistance from the developing countries. The GATS was negotiated in the Uruguay Round and takes a first major step towards bringing the trade in services gradually under international discipline.
3. 'Nothing in this Agreement shall be construed to prevent any member from taking any action which it considers necessary for the protection of its essential security interests.' (Article XIV bis, GATS) (World Trade Organization, 1995, p.340).
4. Re-exporting imported goods with or without further processing is an internationally known and recognized trade practice. For instance, a major portion of Japan's exports consist of goods which are imported from her foreign subsidiaries. In our country, soybean oil is imported from Singapore that imports it from Europe/Australia and re-exports after doing mere packaging or so.
5. The identification of Indian merchandise may be carried out according to the international practice prescribed in the Agreement on Rules of Origin of GATT 1994 and the relevant import-documents.
6. The Duty-Drawback System is one of the most successful policy measures of the Bangladesh Government aimed at promoting industrialization and accelerating the growth of exports. This system has been introduced to help the RMG manufacturers and exporters. Under this system, the RMG manufacturers and exporters are allowed to import raw materials for their product free of import duty. Of course, the RMG manufacturers and exporters are required to pay the import duty at the time of import of raw materials. They receive a refund against that duty after they make good on their commitment to export the stipulated quantity of RMG.
7. The possibility of selling port-service to the landlocked region of India has been discussed in a recent paper (Azad, 1999).
8. That is, Indian goods that have been imported into Bangladesh for the purpose of re-export.
9. This will be an ideal example of non-coercive economic integration of the less developed areas and a milestone in the evolution of cooperation among the SAARC countries (Allen, 1961; Balassa, 1962; South Asian Association for Regional Cooperation, 1988).

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WTO and Investment: Looking for a Desirable Stand for LDCs with Special Reference to Bangladesh

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I. Introduction

Investment issue has remained still unsettled and been proposed as an issue for future negotiation under WTO. This issue has been raised many times even before the Uruguay Round multilateral trade negotiations. But no agreement could be reached because of sharp disagreement among the countries involved. There had been hot debates among the countries regarding investment agreement during the period of 1986-1994 of Uruguay Round Trade Negotiations (Focus, 1992-94). At last an Agreement on Trade Related Investment Measures (TRIMs) has been reached (WTO, 1995). Agreement on TRIMs has virtually been a narrow agreement on investment and remained very much incomplete as compared to the demands of the industrial countries. Even this partial agreement has come under attack from countries like India and Brazil in view of possibility of its adverse impact on the self sustained development of the countries, especially developing countries (WTO, 2001). At a later stage, after the agreement on TRIMs had been reached, an attempt has been made by the Organisation for Economic Cooperation And Development (OECD) to make a comprehensive Multilateral Agreement on Investment (MAI) to be presented later on to the non-OECD countries for ratification and approval in WTO. But it ended in failure because of differences among the OECD countries themselves (OECD, 1998). Later on, WTO on the recommendations of Singapore Ministerial Meeting has constituted a committee to make observations, determine the link between trade and investment and make recommendations on the possible future agreement on investment. By this time, many developed and developing countries have expressed their position of interests explicitly and made propositions on future investment agreement (WTO, 2001). There has been heavy pressure for agreement

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on investment in the recent Doha Ministerial Meeting (Doha Ministerial, WTO, November, 2001), and it is expected that in future Ministerial Meeting and new round of trade negotiation it would be a central issue of agreement under WTO. It is therefore a high time for a LDC like Bangladesh to determine its stand collectively to make a move to gain out of the possible agreement on investment. At least two things it has to do immediately. First of all, it has to consult other LDCs to decide whether they would support new investment agreement, which is going to be more liberal and broader than the previous one. If they decide positively, next issue to deal with is the preparation of a draft of the probable investment agreement by incorporating their own interests. They have to be ready to clarify their position on the individual components of the probable investment agreement. Bangladesh as a previous representative and important role player in the negotiation must come forward with present representative Tanzania to take the initiative for making consultations among the Least Developed Countries (LDCs) to make a firm decision on the future courses of action as regards investment agreement. In the present paper, we shall try to analyse the components of the probable investment agreement and give indications for desirable stand to be taken by the LDCs. The paper is designed to initiate discussion on the probable stand that the LDCs can take with clear understanding of their respective interests and impact of negotiation on their economy.

In order to fulfil the aforesaid objective, the issues to be dwelt on in the present paper are the following:

- i. Benefits of investment for both hosting and investing countries, identification of the areas of their interest conflicts and state of investment flows in the LDCs with special reference to Bangladesh;
- ii. Review of Agreement on TRIMs ;
- iii. Possible alternatives of future International Investment Agreement including its individual components;
- iv. Discussion on the propositions of different countries regarding components of investment agreement;
- v. Possible impact of liberalised investment agreement on LDCs;
- vi. Possible fears apprehended and precautions to be made;
- vii. Desirable Stance of LDCs in view of their interests; and
- viii. Targeting of sectors for foreign investment under Positive List Approach.

II. Methodology

The paper has been prepared by analysing the provisions of agreement on trade related investment measures in the context of interest conflicts of different trading nations of the world, particularly the countries investing or hosting investment and exploring possibilities of coalition of interests among the nations. We have analysed the situation of forty-nine LDCs regarding investment by using the database of WTO, OECD, World Bank and UNCTAD, Bangladesh Bureau of Statistics, Bangladesh Bank and Board of Investment of Bangladesh. We have laid emphasis on the qualitative analysis with the background of quantitative analysis. We have used the survey data of UNCTAD to delineate the relative position of LDCs in investment flows. We have tried to use experiences of other countries to throw light on the desirable decisions to be taken by the LDCs on the liberalisation of investment to uplift their economy. We have used the data of Bangladesh Bureau of Statistics, Board of Investment of Bangladesh and Bangladesh Bank to analyse the Bangladesh situation regarding investment flows. We have followed politico-economic approach as a main methodological strategy to indicate the desirable stand of LDCs and analyse the interests of different countries in an attempt to arrive at an acceptable investment agreement in the framework of a positive-sum game of coalition of interests. We have tried to identify the areas of interests of LDCs to be protected in course of negotiation with a clear-cut analysis of the strategies for protecting them. We have tried to make detailed analysis of the propositions of different countries to reveal the nature of interest conflicts among nations and to settle down their differences. In this way we tried to hint on a blue print of an investment agreement acceptable to all and designed towards making coalition of interests of all including LDCs.

III. Importance of Foreign Investment, Nature of Interest Conflicts and State of Investment Flow in the LDCs

3.1. Benefits of Investment for both hosting and investing countries and The nature of their Interest Conflicts

As empirical evidences suggest (UNCTAD, 2000), foreign direct investment is not only a route and mode of international trade but also an important factor and element of globalisation through facilitating movement of goods, capital, technology, management and entrepreneurship. Analysis would show that global flow of goods and services is intertwined in major cases with international investment of the companies, and in future also, correlation between global trade and international investment flow is expected to remain not only strong but also become stronger, functioning in a more supportive environment for its growth.

In the process of its growth, it is expected that investment flow will benefit both the capital-deficit host and capital-surplus investing countries. The common objective and interest of international investment is the development of both host and investing countries. Investing country will benefit from increased economies of scale, low production cost per unit because of cheaper sources of raw materials and labour and accessibility to larger market. International competitiveness of the investing country would get enhanced because of enjoyment of incentives and facilities provided by the host country not available in the investor's home country. Per capita income of the investing country will increase because of homebound profit and wage flow associated with outward investment. For the host country, it has been one of the most important determinants of economic development through providing capital, disseminating advanced technology, facilitating economies of scale, raising levels of employment, diversification of exports and acceleration of economic growth. Concrete benefits to the host country are related to increased level of investment, increased opportunities to exploit its comparative advantage in raw-materials or labour, accessibility to more productive inputs in the form of technology and skill, access to expanded market, spill over of technology, increased competition and higher levels of income from increased production in the country. With this background, there has been increasing competition among the countries to attract FDI. The countries, which have succeeded to attract foreign investment and have gained out of it, have experienced increased rate of savings and investment. These countries could use their comparative advantage and increase exports through use of improved technology, management and marketing network provided by the multinational investing companies. These countries could increase their per capita income through enhanced competitiveness because of more effective use of resources of labour and rawmaterials available inside the country and use of more advanced technology, skill and access to larger market at the disposal of investing companies. But these benefits in general do not accrue automatically. Extent of benefits to the host country depends upon the quality of bilateral treaty with investing country. It is expected that there is a win-win position in FDI for both host country and investing country. But this position depends on how FDI policies and development objectives of the host country are coherent with the performance of the foreign investor in respect of using host country's resources, marketing the products, earning profits and making investment and reinvestment of profits. Sometimes it happens that in the competition to attract FDI, the host country incurs more cost than it gets from the FDI, which is quite annoying. This is the situation where protection of interests of host country becomes an issue of concern, which is less addressed in bilateral treaty between the investing country and the host country. Investing country stands in the stronger bargaining point and emphasises on liberalisation and protection of the foreign investors even at the cost of interest of the host country which, because of scarcity of capital, can

do little about it. The effect of investment on the economy depends upon how the components of agreement relating to use of local resources, their pricing, marketing of product, repatriation of profit, investment and reinvestment of profit have been taken care of. Ideal situation demands that there is a coalition and coherence of interests of investors and host country to maximise gains out of FDI for both the parties. But this type of ideal condition does not prevail in most of the countries. This may be attributable to two explanations. First of all, the competing countries spend more than it gets out of the inflow of foreign investment. It provides huge incentive and subsidies to attract the FDI but in return faces crowding out effect on domestic investment. Second, the host country remains the weaker party because of acute scarcity of capital in the country and has less bargaining strength, and consequently becomes victims to the adverse bargaining terms dictated by the stronger party, the developed investing country. An unequal agreement is signed to the disadvantage of the weaker LDC or other developing country. In such a situation, foreign investment flow may increase, but desirable economic growth of the country may not ensue because of low quality of investment agreement and because of adverse terms of the treaty. It should not be forgotten that foreign companies are in major cases the multinationals who fly from one country to another to gain maximum profit and if any country imposes such terms as to reduce their profit, they may switch over to other location of investment where better facilities are provided. That may endanger the position of any government, and the government becomes helpless before the threat and pressures from the multinationals for definite terms and conditions. Consequently, in most cases, development interest of the host country becomes subdued to the interest of multinationals and the investing country. This is the situation created by bilateral treaties that the host countries need to be relieved of and their interest needs to be protected through multilateral negotiation on investment. The sourcing investing countries with stronger position on the contrary have been trying to bargain on harsher terms and thinking of greater liberalisation of investment to increase their earnings. The sole thinking of the investing country is to protect the interest of the investor companies on a solid basis and make a broad based agreement to discipline the consolidated gains of bilateral treaties. Very often the other side of the agreement remains forgotten: the developing countries and LDCs suffer from shortage of capital and vast magnitude of poverty, and hope that investing countries will come forward to help them in alleviating shortage of capital and reducing poverty through effective investment. In these circumstances, it is implied that the future investment agreement should aim at resolving these contradictory interests, and quality of such agreement will depend on how coherence of differing interests could be maintained and how an investment friendly agreement for investors becomes development friendly for the host country. The main concern of the future investment agreement should be thus to make out the way of coalition of interests of all the parties in the agreement.

Possible areas of conflict of interests between the host and investing countries are as follows:

- i. profit maximisation goal of investor companies and the developmental interests of host country;
- ii. interest of host country in the use of local resources (raw-materials and labour) versus interest of investor companies in the use of imported inputs;
- iii. distortion of factor proportions in choosing methods of production by the investor companies;
- iv. interest of investor companies in capturing domestic market (rather than expanding external market and thus ousting domestic industries) versus interest of host country to protect the domestic industries, increase capital stock, crowd in investment and expand external market;
- v. pressure on foreign exchange reserve of host country because of increased imports and repatriations by the foreign companies not commensurate with their export earnings and investment inflow to the host country;
- vi. acquisition and purchase of existing concerns rather than investment in new ventures by the investing companies;
- vii. pricing of local raw materials at low domestic rate used by multinationals and pricing of output to be used by the government or domestic industry at higher international rate; and
- viii. Non-performing labour standards and environmental standards in the interest of investing companies versus performing ones in the interest of host country.

3.2. Situation in LDCs and Their Problems to Attract FDI

Despite several benefits of FDI, LDCs including Bangladesh are failing to attract the levels of FDI they need for their development. In spite of increased FDI flows all over the world, its distribution is skewed and concentrated in the developed countries and newly industrialising developing countries. Whatever FDI flows to developing countries ninety percent of it is concentrated in twenty countries, and one third of this FDI flow is to China alone. In 2000, only ten countries* had 74% of total FDI flows to developing countries. Even a country like Thailand had FDI flow double the flow of FDI to LDCs in 1997. FDI flows to LDCs do not exceed 0.5% of the world total as against one third of the world total as shared by the

* Ten countries are China, Argentina, Brazil, Mexico, Malaysia, Poland, Chile, Korea, Thailand and Venezuela.

developing countries. Even with a low level of investment in the country, the proportion of FDI flows to total investment of the country is only 1.3% in the LDCs. Much of the inflows to 49 LDCs went to five countries that attract FDI for natural resource- based industries like petroleum and minerals. All these talk about a frustrating situation of flow of FDI to LDCs.

To know about the situation of LDCs, we can analyse the situation in Bangladesh. Like all other LDCs, Bangladesh has not been a favourite location of foreign investment and it has received only a meagre amount of world FDI varying from \$6million on average annually during 1986-90 to \$ 14million in 1996. Only in 1997, foreign investment jumped to 145 million, increasing to 190 million in 1998 with a slight fall to \$179 million in 1999. The FDI is equivalent to only 0.4% of the country's GDP in 1999 (UNCTAD, 1999 and World Bank, 2001).

Not only the volume of average annual FDI flow is meagre, but also most of the investment (50%) is sector skewed and concentrated in gas and power sectors though there has been some shift to manufacturing and infrastructure over the years (Nath, Narayan Chandra, 2000, World Bank, 1999). It is apprehended that when the profit repatriation would increase there would be pressure on foreign exchange reserve, if care is not given to support balance of payments through effective use of FDI.

The crucial question now is why LDCs failed to attract FDI. The reasons why foreign countries choose to invest in some countries than in others have been well identified by the UNCTAD study into three groups:

- i. the policy framework or environment for investment;
- ii. economic determinants such as market size and availability of resources and
- iii. Business facilitation such as investment incentives, etc.

Regulatory framework and its implementation and policy environment are very much important to attract foreign investment. There should be transparency in law and regulation of the country, especially relating to entry and exit of the foreign companies. The government should provide and ensure policy framework as attractive as possible for foreign investors. Foreign investment will not be attracted unless there is an economic, political and social stability in the country, transparency of rules and regulations regarding investment, the standards of treatment by the host country of the foreign investing firms, policies on the functioning and structure of market ensuring fair competition policies, coherence of trade policies with FDI policies and favourable fiscal and monetary policies inductive to the investors. It has been found that corruption, unnecessary regulatory requirements, complicated and non-transparent administrative procedures and insufficient protection of physical and intellectual property rights impose substantial costs on both domestic and foreign

investors and discourage investment in the country (Hoekman and Saggi, 1999). In a recent study in 53 countries hosting FDI, it has been found that corruption index was associated with a 33 percent fall in FDI (Wei, 2000b). In another study, it has been found that index of transparency was associated with an average 40 percent increase in FDI inflows. Thus a small improvement in transparency may bring about substantial rise in FDI (Drabek and Payne 2000).

The second important determinant of attracting foreign investment is the economic determinants. Economic determinants are perhaps the most important factors for investing firms. Whatever policy framework is there and how transparent the policy in the foreign investors will not be attracted unless economic determinants are favourable for foreign investment. The three most important economic determinants are reasonable market size, availability of the resources and high efficiency level of the economy. The size of market is important in the sense that foreign investors will prefer a bigger market to a smaller market to enjoy increased economies of scale. The possibility of expanding market to regional and international level is very much important to attract the investors. The second important economic determinant is the availability of resources like rawmaterials, skilled labour and locally developed technologies and reasonably developed infrastructural facilities like port, transport system, telecommunication, power and energy. The most important factor for attracting the foreign investor is the level of productivity and efficiency and level of cost of inputs in the country.

The third important determinant of foreign investment is business facilitation through providing incentives, infrastructural facilities and utility services for investment. The foreign investor will look into the overall level of governance in the country in providing utility services and facilities to the investors.

If all these three factors work simultaneously well, then one can assume that ground has been created for attracting the foreign investors. Deeper analysis would show that a government may try to encourage foreign investment through formulating favourable policies and providing attractive incentives and facilities, but foreign investment may not be attracted unless there is adequate infrastructure in the country, there is market for the product, there is economic, political and social stability, there is transparency in the law and regulations, there is security of life and investment, there is good governance at all levels concerning investors and there is coherence between investment policy and trade policy.

As an example of LDCs, Bangladesh offered very liberal investment incentives for the foreign investors. Bangladesh has adopted a very liberal industrial policy to attract foreign investment.

- * It has adopted liberalized Industrial Policy, export-oriented, private sector-led growth strategy.
- * There is no limitations pertaining to equity participation i.e. upto 100 percent foreign private investment is allowed.
- * Except five reserve sectors, all industries are open for private investment. Industries earmarked for public sector investment are included in the reserve sector. They are namely i. Arms, ammunition and other defence equipment and machinery; ii. Production of nuclear energy; iii. Forest plantation and mechanized extraction within the bounds of reserved forests; IV. Security printing (currency notes) & minting; and v. Railways & Air transportation (except certain domestic routes and air cargo).
- * No permission of the Government is required to set up new industries. For obtaining institutional facilities like procurement of land, electricity, gas and sewerage connection, importation of capital machinery and raw materials tax rebate, duty drawback facilities etc. industries need only to be registered with the Board of Investment (BOI) in a simple prescribed form.
- * Non-resident Bangladeshi investors enjoy facilities similar to foreign investors. They are allowed to buy newly issued shares /debentures of Bangladeshi Companies. Quota of 10% is reserved for non-resident Bangladeshis in primary shares (IPO). They can make foreign currency deposits in the Non-resident Foreign (NFCD) account.
- * Foreign Private Investment (Promotion & Protection) Act, 1980 ensures legal protection to foreign investment in Bangladesh against nationalization and expropriation.
- * It also guarantees repatriation of capital & dividend and equitable treatment with local investors.
- * The facilities and incentives relate to the tax holiday for 5-10 years depending on location of Industries, 15 years tax holiday for private power generation companies,
- * It provides exemption of tax on interest on foreign loan, tax exemption on royalties, technical know-how & technical assistance fees.
- * There is facility for six months, multiple entry visas for the investors.
- * It provides facility for the nation's currency convertibility for international payments in the current account.

- * Re-investment of repatriable dividend is treated as new investment.
- * Working capital loan as well as term loan from local commercial banks is allowed to the industries set up with foreign capital.
- * Citizenship may be acquired by investing a minimum of US\$ 5,00,000 or by transferring US\$ 10,00,000 to any recognized financial institution (non-repatriable), permanent residency by investing a minimum of US\$ 75,000 (non-repatriable).

The incentives as mentioned above, by any standard, are highly alluring for foreign investors. Despite such liberal incentive regimes of investment, Bangladesh failed to attract foreign investment. This might in main be due to small market size, limited material resources, backward infrastructure and political instability in the country. The first and the second factors are related to long term development of the country and are not controllable by the government and nor there is any visible regional cooperation to redress them. The last two factors may be improved by the efforts of the government to make the liberal incentive regimes effective for the purpose of attracting foreign investment.

V. Historical Background and Previous Works on Investment Agreement

Investment as an issue and linkage between trade and investment received little attention within the framework of GATT prior to the Uruguay Round. In the Havana Charter, 1948 for an International Trading Organisation there were provisions regarding treatment of foreign investment as a part of chapter on Economic Development. The Havana Charter was never ratified and only its provisions on commercial policy were incorporated into the General Agreement on Tariffs and Trades (GATT). In 1955, the GATT members adopted a resolution on international investment for economic development in which they, inter alia, urged countries to conclude bilateral agreements to provide protection and security to the foreign investment. Before Uruguay Round of Trade Negotiation, perhaps the most significant event with respect to investment was a ruling by a panel in a dispute settlement proceeding between the United States and Canada, where Canada under Foreign Investment Review Act (FIRA), 1980, enacted provision regarding certain types of undertakings which were required from foreign investors by the Canadian authorities as conditions for the approval of investment projects. These undertakings pertained to the purchase of certain products from domestic sources (local content

¹ Article III:4 states in relevant part:

“The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale.

requirements) and to the export of a certain amount or percentage of output (export performance requirements). Those investors have to use certain portion of local materials and export certain portion of output. The GATT dispute settlement panel concluded that the local content requirements were inconsistent with the national treatment obligation of Article III: 4 of the GATT¹ but that the export performance requirements were not inconsistent with GATT obligations. The Panel emphasized that at issue in the dispute before it was the consistency with the GATT of specific trade-related measures taken by Canada under its foreign investment legislation and not Canada's right to regulate foreign investment per se. The panel decision in the FIRA case was significant in that it confirmed that existing obligations under the GATT were applicable to performance requirements imposed by governments in an investment context in so far as such requirements involve trade-distorting measures. At the same time, the panel's conclusion that the GATT did not cover export performance requirements also underscored the limited scope of existing GATT disciplines with respect to such trade-related performance requirements. Following this case, illegality of investment measure related to use of local materials was adopted in the GATT provisions. After the FIRA case, limitation of GATT to deal with the investment measures became evident.

There has been a host of analytical and informational works on investment related issues in OECD and UNCTAD. Along with them, there exist investment-related rules in a number of WTO agreements, such as GATS, the Telecommunication Agreement and the Agreement on Financial Services. A number of attempts have been made in the past to establish multilateral agreement on investment. Such attempt has been made during Uruguay Round Negotiation but failed. It is at this background that a compromising narrow agreement on Trade Related Investment Measures (TRIMs) has been made under WTO in 1995.

V. Agreement on Trade Related Investment Measures (TRIMs)

5.1. Nature of Discussion and Interest Conflicts in the Making of TRIMs

There was a hot debate in Uruguay Round Negotiation on investment agreement. The main focus was on trade related investment measures (Focus, 1993, 1994, GATT). The discussion concentrated on removal of distortive effects of trade regulations related to investment. There was sharp difference between countries as regards the scope of disciplining the investment measures adopted by the host countries. The countries were sharply divided on the basis of difference of interests between host and investing countries. The investing country was in favour of a

purchase, transportation, distribution or use.”

comprehensive and more liberal investment regime while the host countries, especially the developing countries entirely rejected such radical approach. At last, a compromise agreement was reached in the form of TRIMs, which was a very narrow and partial agreement as against the desires of the major industrial trading nations. The Punta del Este Ministerial Declaration which launched the Uruguay Round included the subject of trade-related investment measures as a subject for the new round through a carefully drafted compromise: "Following an examination of the operation of GATT Articles related to the trade-restrictive and trade-distorting effects of investment measures, negotiations should elaborate, as appropriate, further provisions that may be necessary to avoid such adverse effects on trade." The emphasis placed in this mandate on trade effects made it clear that the negotiations were not intended to deal with the regulation of investment as such. The Uruguay Round negotiations on trade-related investment measures were marked by strong disagreement among participants over the coverage and nature of possible new disciplines. While some developed countries proposed provisions that would prohibit a wide range of measures in addition to the local content requirements found to be inconsistent with Article III in the FIRA panel case, many developing countries opposed this. The compromise that eventually emerged from the negotiations is essentially limited to an interpretation and clarification of the application to trade-related investment measures of GATT provisions on national treatment for imported goods (Article III) and on quantitative restrictions on imports or exports (Article XI). Thus, the TRIMs Agreement does not cover many of the measures that were discussed in the Uruguay Round negotiations, such as export performance and transfer of technology requirements.

5.2. Discussion on Scope of TRIMS

The Agreement on TRIMs applies to investment measures related to trade in goods only and does not apply to services. The definition of TRIMs was not given in the agreement directly. Only an illustrative list in the Annexes indicated the inconsistent trade related measures of investment. It implies that agreement on TRIMs was a very narrow investment agreement. The objectives of the Agreement include the expansion and progressive liberalization of world trade and to facilitate investment across international frontiers so as to increase the economic growth of all trading partners, particularly developing country members, while ensuring free competition. While objectives are broad one, the agreement seemed to be very skeptical and unreasonably brief one.

5.3. Analysis of Main Provisions of the Agreement on TRIMs

5.3.1. Provision on Trade Related Investment Measures

There is a lack of a generic definition of a "Trade-Related Investment Measure". And the term "trade-related investment measures" ("TRIMs") is not defined in the Agreement either. However, the Agreement contains in an annex on Illustrative List of measures that are inconsistent with GATT Article III: 4 or Article XI: 1 of GATT 1994. Article 2.1 of the TRIMs Agreement requires members not to apply any TRIM that is inconsistent with the provisions of Article III (national treatment of imported products) or Article XI (prohibition of quantitative restrictions on imports or exports) of GATT 1994. An Illustrative List annexed to the TRIMs Agreement lists measures that are inconsistent with paragraph 4 of Article III and paragraph 1 of Article XI. We can see that under these two categories of disciplines under national treatment and quantitative restrictions, there are five disciplines that govern the trade related investment measures. These provisions of elimination of restrictions relate to:

- a) the purchase or use by an enterprise of products of domestic origin or from any domestic source, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production (1a);
- b) the enterprise's purchases or use of imported products an amount related to the volume or value of local products that it exports (1b).
- c) the importation by an enterprise of products used in or related to its local production, generally or to an amount related to the volume or value of local production that it exports (2a);
- d) the importation by an enterprise of products used in or related to its local production by restricting its access to foreign exchange to an amount related to the foreign exchange inflows attributable to the enterprise (2b);
or
- e) the exportation or sale for exports by an enterprise of products, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production (2c).

The Illustrative List covers both TRIMs which are mandatory or enforceable under domestic law or under administrative rulings and TRIMs, compliance with which is necessary to obtain an advantage. TRIMs which are inconsistent with the national treatment obligation of Article III: 4 of GATT 1994 Paragraph 1(a) of the Illustrative List covers local content TRIMs, which require the purchase or use by an enterprise

of products of domestic origin or domestic source (local content requirements) while paragraph 1(b) covers trade-balancing TRIMs, which limit the purchase or use of imported products by an enterprise to an amount related to the volume or value of local products that it exports. In both cases, the inconsistency with Article III: 4 of GATT 1994 results from the fact that the measure subjects the purchase or use by an enterprise of imported products to less favourable conditions than the purchase or use of domestic products. TRIMs, which are inconsistent with the prohibition on imposition of quantitative restrictions of Article XI: 1 of GATT 1994. Paragraph 2(a) of the Illustrative List covers measures which limit the importation by an enterprise of products used in its local production in general terms or to an amount related to the volume or value of local production exported by the enterprise. There is a conceptual similarity between this paragraph 2(a) and Paragraph 1(b) in that they both cover trade-balancing measures. The difference is that paragraph 1(b) deals with internal measures affecting the purchase or use of products after they have been imported, while Paragraph 2(a) deals with measures affecting the importation of products. Measures identified in Paragraph 2(b) of the list involve a restriction of imports in the form of a foreign exchange balancing requirement, whereby the ability to import products used in or related to local production is limited by restricting the enterprise's access to foreign exchange to an amount related to the foreign exchange inflows attributable to the enterprise. Finally, Paragraph 2(c) covers measures involving restrictions on the exportation of or sale for export by an enterprise, whether specified in terms of particular products, volume or value of products or in terms of a proportion of volume or value of its local production. Since paragraph 2 applies the provisions of Article XI: 1 of GATT 1994, it deals only with measures that restrict exports.

Other measures relating to exports, such as export incentives and export performance requirements are therefore not covered by the TRIMs Agreement. Article 4 allows developing countries to deviate temporarily from the obligations of the TRIMs Agreement, as provided for in Article XVIII of GATT 1994 and related WTO provisions on safeguard measures for balance-of-payments difficulties.

5.3.2. Transition Period

Under Article 5.1 Members were required to notify to the Council for Trade in Goods, within 90 days after the date of entry into force of the WTO Agreement, any TRIMs that are not in conformity with the Agreement. The elimination of TRIMs is to take place within two years after the date of the entry into force of the WTO Agreement in the case of a developed country member, within five years in the case of developing countries and within seven years in the case of a least developed country member. TRIMs introduced less than 180 days before the date of the entry

into force of the WTO Agreement do not benefit from these transition periods. Thus, the transition provisions of the TRIMs Agreement do not permit the introduction of new TRIMs that are inconsistent with the Agreement. The Agreement precludes members from changing measures notified under Article 5.1 in a manner, which would increase their inconsistency with the Agreement (Article 5.4). However, if a member has notified a TRIM under Article 5.1, it may during the transition period apply the same TRIM to a new investment in order to avoid a distortion of competition between the new investment and existing investments (Article 5.5). Under Article 5.3, the Council for Trade in Goods may, on request, extend the transition period for the elimination of TRIMs in the case of a developing country which demonstrates particular difficulties in implementing the provisions of the Agreement.

5.3.3. Transparency Provision

Provisions designed to ensure transparency with respect to the application of TRIMs are contained in Article 6 of the TRIMs Agreement. Members reaffirm, with respect to TRIMs, their commitment to obligations on transparency and notification in Article X of GATT 1994, in the undertaking on "Notification" contained in the Understanding Regarding Notification, Consultation, Dispute Settlement and Surveillance adopted on 28 November 1979 and in the Ministerial Decision on Notification Procedures adopted on 15 April 1994. Each Member shall notify the Secretariat of the publications in which TRIMs may be found; including those applied by regional and local governments and authorities within their territories. Each member shall accord sympathetic consideration to requests for information, and afford adequate opportunity for consultation, on any matter arising from this Agreement raised by another member. In conformity with Article X of GATT 1994 no member is required to disclose information the disclosure of which would impede law enforcement or otherwise be contrary to the public interest or would prejudice the legitimate commercial interests of particular enterprises, public or private.

5.3.4. Dispute Settlement

The general WTO dispute settlement procedure, as laid down in the Dispute Settlement Understanding also applies to disputes arising under the TRIMs Agreement (Article 8). Issues relating to the alleged inconsistency of particular measures with the TRIMs Agreement have been raised in a dispute settlement proceeding in which a panel was established in 1997 concerning measures applied by Indonesia in the automotive sector. The TRIMs Agreement has also been referred to in the disputes concerning the European Community's import regime for bananas. However, the panels established in those disputes did not make findings under the

TRIMs Agreement. Measures taken by Brazil and the Philippines have been the subject of bilateral consultations pursuant to the TRIMs Agreement.

5.3.5. Investment Policy and Competition Policy as subjects for Future Consideration

In this review, consideration is to be given as to whether the Agreement should be supplemented with provisions on investment policy and competition policy. The first WTO Ministerial Conference held in Singapore in 1996, established working groups on trade and investment and on trade and competition having regard to the existing WTO provisions on matters related to investment and competition policy and the built-in agenda in these areas, including under the TRIMs Agreement.

One of the observations on TRIMs is that main critical provisions of TRIMs are related to Article III, Article XI and Article XVIII of GATT, 1994 and hence TRIMs as an investment agreement is not original and has nothing to be said new as created in the Uruguay Round trade negotiation. If we look into the agreement closely, we can see that the agreement because of being based on existing GATT disciplines on trade in goods is not concerned with the regulation of foreign investment as such. The disciplines of the TRIMs Agreement focus on discriminatory treatment of imported and exported products and do not govern the issue of entry and treatment of foreign investment. The fact that there is no discrimination between domestic and foreign investors in the imposition of the requirement is irrelevant under the TRIMs Agreement. One positive aspect of the agreement is that host country may direct the investor to export certain portion of the production since elimination of restriction for export performance requirements is not provided in the TRIMs agreement. The second positive aspect of the document is that developing country may resort to provision of safeguard against balance of payments difficulty for restricting imports at least temporarily. The next observation is that agreement on TRIMs concentrates on liberalisation of sourcing of materials used by the foreign enterprise, liberalisation of imports of related products and liberalisation of exports of output. In essence, it seeks to prohibit the host country's performance requirements on foreign investors such as local content, export restriction and trade balancing requirements. Another observation about TRIMs is that it may create balance of payments difficulties because of liberalisation of imports. The overall implication of elimination of restriction on sourcing of raw-materials and imports of inputs or related products is that the host country may face the problem of crowding out effect on domestic investment. The host country may face unemployment problem. Local raw materials may even remain unused or underutilised because of use of imported materials by foreign investors. In the Agreement, there has been provision for withdrawing restrictions on exports and restrictions on imports but there no mention

of the withdrawal or any provision regarding the incentives for foreign investment. All these may mean crowding out effect on domestic investment and unemployment problem in the country at the cost of resources deployed for attracting foreign investors. There is a possibility of more imports than exports in a liberal market regime for the investing companies. There may be market disruption at home, while there may not be expansion of external market and consequently, there may be serious balance of payment difficulty in the country. There is a possibility of increasing sick enterprises because of cut throat competition with the foreign stronger companies. This may affect the financial and fiscal performance and macro economic stability of the country. There is a possibility that product of foreign enterprise which is important as intermediate input for domestic production need to be purchased at a higher price because of unequal price terms in the agreement. There may be possibility that price of raw materials used by foreign investors may be too low while price of their output may be too high to be purchased by the host country. Foreign investment in fertilizer sector in this situation may create problem for Bangladesh. Again, elimination of export restriction may affect the extracting sector like natural gas. Enforcement of TRIMs would bar Bangladesh from restricting these extracting companies to export this non-renewable resource, vital for sustainable development of the country. Thus TRIMs may affect the developmental efforts of the country in the long run if precautionary measures are not taken to prevent the adverse effects. For the investing country the investing environment would be better because of liberalised export and import trade regime but few obligations. Given the liberalised investment regime, enforcement of TRIMs that is going to take place from 2002 is likely to encourage foreign investors to invest in Bangladesh. From the above discussion, it is clear that provisions for elimination of trade related investment measures, have subjugated interest of the host country to the interest of the investing companies. All these provisions need to be redesigned and modified to take care of the interests of weaker host countries in order to start framing a broad based new Investment Agreement.

VI. Thoughts over Investment Agreement in the Post Uruguay Round Period

It has been mentioned earlier that in the Uruguay Round, a comprehensive multilateral agreement on investment was attempted, but faced resistance and the result was the framing of agreement on TRIMs as a compromise. After the formation of WTO two attempts have been made for MAI. One attempt has been made by OECD during 1995-1998 to develop and negotiate a MAI with the objective of renegotiating it with non-OECD countries subsequently. But it failed to come up with any consensus outcome. The second attempt has been made by WTO working group assigned by the Ministerial Conference in Singapore in 1996. The Working Group has still been working on it.

6.1. Multilateral Agreement on Investment (MAI) by OECD

The negotiations during MAI by OECD are very instructive to study the intentions and interests of the OECD countries regarding investment related issues. The aim of OECD initiative in this regard was basically to agree on a fully comprehensive MAI. Secondly, the agreement was intended to cover all types of investment of both long term and short term capital including portfolio investment. Thirdly, the agreement was intended to adopt a 'top down' and 'negative list' approach to each country's commitment. It was to cover all types of investment, in all sectors, exclusions specifically listed as being outside the agreement. This is completely different from GATS' positive list approach under which countries state which sectors they are willing to have commitments for the agreement. Fourthly, the agreement was intended to make a comprehensive programme on investor protection at a very high level. Under this, the foreign investor, if it feels, adversely affected, could take the Host State to dispute settlement within the WTO. In fact, the objective underlying MAI by OECD was to establish strong enforcement mechanism of discipline to protect the interest of the investors even at the cost of the interest of the host country. Fifthly, the agreement included provision against use of restrictive performance requirements like requirements to source a certain proportion of resource from local suppliers or that a certain proportion of the work force should be locals. These were intended to be similar but more comprehensive than TRIMs. Finally, comprehensive national treatment provision seems to affect the development objectives and economic freedom of the host country. The deficiency of this MAI lies not only in its contents but also in its forum (W.A. Dymond, 2000). The forum was OECD rather than the WTO where both the OECD and non-OECD countries could try to settle down their differences and try to establish a coalition of divergent interests of member countries. Unlike earlier agreements on investment, here there was a shift of emphasis from protection of the interest of host country to that of interest of the investors. In fact, the main aim of the developed countries in multilateral agreement on investment has become to institute an enforcement mechanism of discipline to protect the interest of the multinationals.

6.2. Formation of WTO working group on Trade and Investment

By a decision taken at the WTO ministerial Conference in Singapore in December 1996, WTO Working Group on the interaction between Trade and Investment was established. This is a discussion and idea formation forum. Its works include studies on:

- a. implication of the relationship between trade and investment for development;

- b. the economic relationship between trade and investment including their determinants and impact of trade on investment and that of investment on trade;
- c. stock taking and analysis of existing international instruments and activities regarding trade and investment with their implications for trade and investment flows; and
- d. identification of possible conflicts and gaps in existing international instruments, advantages and disadvantages of bilateral, regional and multilateral rules on investment, rights and obligations of investors and host countries, the relationship between existing and future international cooperation on investment policy and existing and possible future cooperation on competition policy.

The Working Group is assigned the task of seeking benefit from the experiences of members at different stages of development and take account of recent trends in foreign investment flows and of the relationships between different kinds of foreign investment.

VII. Possible options for an International Investment Agreement

Possible options for further liberalisation of investment in the WTO are very limited, nor there are many supporters within WTO that would be willing to resurrect the MAI. It is most likely that further investment liberalisation will focus on one of the two areas:

- a. modifying or extending the investment related provision in existing WTO agreements, such as GATS and TRIMs; and
- b. beginning negotiation on some form of multilateral agreement probably based on the GATS.

7.1. Modifying or Extending the Investment Provisions in Existing Provisions in Existing WTO Agreements

There may be modification regarding performance requirements regarding local contents of production whether local materials or labour, minimum proportion of exports of output and minimum local equity participation and extension of the transition period for LDCs upto the time they come up above the level of LDCs. There is a likelihood to focus on extending the scope of liberalisation commitments to those service sectors that are not covered within GATs schedules, and extend the depth of liberalisation commitments by removing other barriers that restrict entry into the service sectors that are already covered within a country's schedule of

commitments. Most of the problems and restrictions that investors face, as viewed by developed countries, have been in the service sectors rather than in manufacturing sectors. Hence, extending liberalisation under GATS potentially offers significant benefits.

7.2. Probable Components and Framework of Rules in Future Investment Agreement

The proposals put forward at present for negotiations on a multilateral agreement on investment rules are very different from the MAI negotiations and are based along the approach that has already been established within GATS. The future investment agreement is likely to involve two stages:

- a. firstly, an agreement on transparency of rules & regulations applicable to all signatories in all sectors; and
- b. secondly, an agreement covering the specific rules for the treatment of investors whereby the members of WTO would sign commitments in the specific sectors and will be subject to whatever components are included in the agreement. The key issues that are likely to be proposed are the principles of non-discrimination, investor protection, performance requirements, the right to regulate and the issue of development angle i.e. the issue of how the said investment agreement helps the economic development of the host country.

7.2.1. Component of Transparency of Investment Rules

Transparency of investment rules & regulations is important for the foreign investors to reduce uncertainty. They must know well how they will be treated once they have invested. This is important for his investment decision. Transparency concept already exists in a number of WTO agreements. Hence, one of the important components of investment agreement will be the issue of full transparency of investment rules and regulation.

The most likely approach under transparency component would require that a) each government signing the agreement would publish and make publicly available all rules, regulations, measures and all administrative actions, procedures and decisions relating to or affecting investment, b) all the signatory governments would publish all their domestic regulations and all their international agreements affecting investment, and c) members would provide any necessary information regarding investment to other members should they request it. The basic aim of including transparency component in investment agreement is to protect the interest of investors from uncertainty by making them fully aware of what requirements and restrictions exist with respect to investment in a particular host country in all sectors.

7.2.2. Component of non-discrimination

Issue of non-discrimination covers the principles of national treatment and most favoured nation. National treatment is intended to stop the practice of governments discriminating against firms on the grounds of nationality. Under this principle, member governments must treat foreign investors at least as favourably as its own country investors. The principle of most favoured nation requires that a member government does not treat a firm from one country more favourably than one from another country, i.e. it can not discriminate against firms on the grounds of their nationality.

The principle of non-discrimination under WTO is not applicable to all investors at the pre-establishment phase. Rather it would be applied only to the treatment of investors in those sectors that the host country had committed itself to investment agreement. There will be positive list approach like GATS under which signatories commit themselves to liberalise specific sectors. At the post establishment phase, the principle of non-discrimination would be applied to the treatment of investors in any sector, not just those covered by the commitments the host country has signed up for in the agreement.

7.2.3. Performance Requirements

These are legal requirements the government of host countries use in seeking to maximise benefit from FDI. They are related to requirements as to local content of resources used (such as material and labour), to export as a given proportion of output, certain level of technology transfer, employ a certain proportion or number of employees from within the country. There is a possibility of inclusion of performance requirements as a component of investment agreement. However, such proposals may not go far in as much as performance requirements are regulated by TRIMs Agreement which is under review and there is very little expected to change in it.

7.2.4. Definition and Scope of Investment

The definition of investment is an important issue for future negotiation. Majority of the WTO members are in favour of defining investment in terms of only foreign direct investment and excluding from it all types of short term and portfolio investment which are thought to be destabilising the economy. Given the problem with the Asian Crisis arising out of short-term capital movements, it is unlikely that any extension beyond FDI would be proposed or acceptable.

7.2.5. Investor Protection

The concept of investor protection is used to describe a range of measures that are designed to ensure the fair and equitable treatment of foreign investors at the post establishment phase. It includes a) a commitment to the principle of non-discrimination, b) protection against expropriation of the foreign investors' assets discriminatingly and c) a guarantee to the rights of repatriation of all their capital and earnings, subject to any balance of payments crisis measures. The purpose of this provision is to reduce the fear of perceived risk in a country to invest by the foreign investors. It is a very contentious issue; there is a possibility that it may be excluded altogether from the agreement because of foreseeable interest clash and sharp differences between host and investing countries. If it is included, prominent view is that it need the to be much weaker and at a lower level in WTO than in the existing Bilateral Investment Treaties (BITs). Especially, the balance of payments situation of the host country needs to be protected from the investor's right of repatriation of profits and capital.

7.2.6. Right to regulate

Right to regulate is another delicate issue for WTO investment agreement. This is an issue of ensuring compatibility between a government's right to regulate the affairs of its own economy and the issue of non-discrimination. This issue arises because of a possibility that some government policies inadvertently but not intentionally may discriminate against foreign investors. A right to regulate would ensure that the government is able to implement certain policies that could inadvertently discriminate against foreign investors, which would otherwise be an issue for dispute settlement.

7.2.7. Issue of Development Angle

One of the key issues in the proposed negotiation would the issue of development angle, i.e. consideration of how a multilateral agreement will help the economic development of nations, especially the host country where investment will be made. No provision on investment can be made acceptable which will be in conflict with the development objectives of host the nation.

Investment agreement to be made successful must make coalition of interests of both the investors and host nation in a workable way to maximise the contribution from FDI. It should protect the interests of both. But it is problematic to make coalition of divergent interests of both host country and investing country in the agreement. In any way, no agreement is possible if provisions for protection of interest of investors affect development objectives and is in conflict with the economic and

social interests of the host countries. Indeed, it is important to ensure that the developmental needs and concerns of host developing countries and more so of LDCs are centrally addressed by any investment agreement so that such agreement becomes development friendly as well as investment friendly. UNCTAD (1998) has drawn attention to three alternative but not mutually exclusive approaches of development friendly agreement. One approach is to establish a catalogue of development friendly elements of international investment agreements and analyse how each of the elements contributes to development. A second approach would be to identify a set of developmental objectives that international investment should serve. A third approach begins with the recognition that not only the contents or provisions of investment agreement need to be development friendly, their very structure i.e. design or plan needs to reflect this objective as should, their implementation. Thus the challenge is to spell out the structure in operational detail and transcribe it into workable formulations that can be implemented, enforced, monitored and adjudicated.

7.2.8. Market Access

The issue of market access is about increasing the number of sectors that are open to foreign investment. It implies the extension of commitments and the concepts of standstill and roll back, i.e. once these sectors have been liberalised; the commitments can not be unwound.

7.2.9. Issue of Dispute Settlement

MAI sought to introduce investor to state dispute settlement, which is the standard practice in bilateral investment treaties. It allows foreign investors direct access to arbitration to challenge any discrimination in the court. But this is not the dispute settlement that is used in WTO. And it would involve a major shift in the WTO approach to dispute settlement if it were included in the investment agreement. As such it is unlikely that state dispute settlement will have support to get place in the agreement.

7.2.10. Investment Incentives

The fact that the benefits of FDI for host countries is sometimes large enough that these countries are willing to give large subsidies to attract the investors. The problem arises when so many countries are in wasteful race to compete for foreign investment, when none of the host country gains and the winners are only the investor firms who receive the undue subsidies. To address the issue, investment agreement may include provision against investment subsidies. However, it is very unlikely that there will be support from investing nation to restrict investment subsidies.

VIII. Position of Different Countries Favouring or Opposing the Agreement

The position of key players can be visualised from

- a) The papers submitted in the preparation for the Ministerial Conference (1999);
- b) The papers presented to the WTO working group on trade & investment; and
- c) The verbal presentation and debate of the WTO members in the working group meetings.

The countries are divided into two groups: some favouring an investment agreement and some opposing it.

8.1. Countries Favouring WTO Agreement

The key countries favouring the agreement are fifteen EEC countries, Japan, Korea, Hongkong (China) and Switzerland.

- * Most of these countries feel that WTO is the only multilateral forum that can fully take into account the interests of both developed and developing countries in their position as home or host countries to international investors (EEC).
- * They propose to include non-discrimination and transparency of rules and regulations as core principles of the investment agreement (EEC, Japan and Korea).
- * They support a positive list or bottom up approach to commitments along the lines of the GATS model (EEC, Japan and Korea).
- * They support the idea of preserving the right of host countries to regulate the foreign investors according to the country's economic situation as long as the regulations are compatible with the agreement (Korea and Japan).
- * They limit the scope of investment to FDI only to the exclusion of short-term capital movements (EEC, Japan, Korea, and Hongkong).
- * Some countries argue for exclusion from investment as well of equity investment below certain level of local participation (Japan).
- * Most of the countries are in favour of giving consideration to the developmental needs of developing countries. They recognise developmental dimension as an integral part of the agreement. They recognise the special needs of developing and least developed countries and support the idea of lengthening phase in rules (Japan, Korea and Hongkong).

- * There are countries who are in favour of establishing a high standard of investment protection by consolidating key elements of protection in bilateral treaties and regional agreements (Korea).
- * There are countries which are in favour of addressing the issue of performance requirements and investment incentives with a view to minimising their distortive effects (Korea and Switzerland).
- * They are in favour of including dispute settlement in the agreement (Korea);
- * They are in favour of providing technical assistance to those countries, which maintain transparency of rules (Korea);
- * They are in favour of including environment issue and the issue of sustainable development in the agreement (EEC);
- * Though all of them support the ability of host countries to regulate, they feel that overall objective of multilateral framework of rules should be not only liberalisation but also protection of international investment (Almost All).

From the above discussion, it is clear that the proposals of the countries favouring the investment agreement under WTO are much softer and less ambitious than those in MAI by OECD, though basic premises may not be much different and it is not certain whether all developing countries and LDCs will come to support these proposals. In the Doha Ministerial, 2001, many developed and developing countries have shown interest in a new investment agreement. Their point of argument is that prevailing BITs and Regional Investment Treaties have created a non-transparent and disorderly situation. All tend to agree that a multilateral investment agreement under WTO may try to establish a non-discriminatory environment so that investors will get encouraged and flow of international investment would get boosted. Aggrieved parties can highlight their situation to reduce the grievances and involve others to contribute to the solution of the existing problem in foreign investment.

8.2. Position of Countries Opposing WTO Investment Agreement

Among the countries opposing investment agreement the USA, India, Egypt and Pakistan stand prominent. Though all these countries have the same stand they have different objective and interests to oppose it.

The circumstances under which the USA opposes the investment agreement are different from others. The USA has already high level of protection, since it has a significant number of bilateral treaties covering both pre-establishment and post-establishment phase. The USA believes that any WTO agreement will provide lower provisions for investment protection than it enjoys at present and it does not expect

to gain by supporting any agreement. Many stakeholders inside the country including the Congress may also resist further liberalisation of investment.

On the other hand, the countries like India, Pakistan and Egypt are afraid to lose their freedom to direct the investment and make developmental plan in the country. They argue that it is far too soon to commit a WTO legal agreement on an issue that has such domestic and political implications. They view, those discussions and analytical works should continue within the WTO working group on trade and investment. They believe that existing BITs are protecting investors' interest. The hosting countries are not certain of increase of inflow of investment, though there will certainly be increased obligations by signing the multilateral investment agreement. Thus it is more of a problem of confidence building in the host countries in the increased inflow of investment and the desirable benefits associated with it. Moreover, it is difficult to foresee the acceptable adjustment pattern of the government in response to the policy of the foreign companies without violating non-discrimination principle.

It is because of the differences of these two opposing camps, in the Doha Ministerial of September 2001, that two alternative options were talked of. The first alternative is to agree upon an agreement and to proceed accordingly in making it. The second option is to continue study on link between investment and trade by the Working Group of WTO and submit a report indicating acceptable areas of agreement. The overall circumstances suggest that there would be heavy pressure for a new investment agreement and since there is a possibility of softer proposals and better terms of agreement, many may get encouraged to consent to it. The objective of proposed agreement would be to make rule for a transparent and broader but modest multilateral framework of international investment.

IX. Prospects of Investment Being Included in the Millenium Round

Though investment is a contentious issue it is not unlikely that negotiations will begin in the next round of trade negotiation, and an attempt will be made to reach an agreement on a liberal investment agreement. We perceive that the task will not be so easy to arrive at an agreement acceptable and beneficial to all parties concerned. Still we can hope for a modest solution. Though there has been fallout from the breakdowns of negotiations on MAI, the proposals of the countries favouring the agreement are quite different from what the MAI would have potentially looked like. Their present proposals are less ambitious and the agreement is likely to follow the GATS approach to commitment, i.e. positive list approach, the opposition is not as strong as it was before. If this is the case, then there may be a good chance that negotiations on a WTO agreement may begin in the near future. Of course, everything depends upon four key groups, namely the ASEAN countries, LDCs, France and

USA. There is another group consisting of India, Pakistan and Brazil. The ASEAN is a large block and the members differ on the issue whether to support or not to support investment negotiations. France is important as it could lead to the EU failing to push very hard on investment. The interest of the USA, needs to be served in order to make the agreement a reality. India, Pakistan and Brazil may seek some favour in the agreement to protect the interests of their domestic industries while supporting the protection of the rights of foreign investors. This position of balance potentially gives LDC block the power to swing the issue one way or the other. If these countries could know what a WTO investment agreement would actually look like they may well support it. Before anything happens, they must be clear about their own interests and must understand how to make the negotiation gainful for them and accordingly place it in the negotiation table. It is expected that new framework of international investment would ensure simultaneously the protection of the rights of investors and the protection of interests of the host country and protection of its right to regulate and adopt independent development policies.

X. Implications of Investment Agreements for LDCs

From the above discussion, it is clear that the LDC block and Bangladesh could potentially have significant influence on whether or not investment is included as an issue for negotiation. This puts the LDCs in a strong position, and Bangladesh as a previous leader and an influential member of the block needs to decide jointly with other LDCs whether or not it should support the inclusion of investment in the new round and should beforehand discern the implications of such negotiation. It should be clear about the benefits and costs of such an investment agreement.

10.1. The benefits to LDCS and Bangladesh of Signing an Investment Agreement

The analysis of benefits out of liberalisation of investment has two aspects. First one is related to the quantitative analysis and the second one relates to highlighting the qualitative aspect of probable divergent benefits out of the implementation of the agreement. In this paper we shall be confined to the qualitative aspect of the probable net gains from the proposed investment agreement. We shall try to understand the probable impact of liberalisation of investment in the light of experiences of other countries of the world. We can think of three alternative conceivable outcomes of proposed agreement. One conceivable outcome is that the agreement would help to increase investment flows quantitatively as well as qualitatively because of more disciplined regime for investor protection and more relaxation of barriers to invest attracting the foreign investors. Another conceivable outcome is that foreign investment may be discouraged and may decrease because

of deprivation of the benefits of Bilateral Treaties and creation of uncertainties of benefits of investment in the new framework. The third conceivable outcome is that such agreement would have little or no effect because this would not have changed the policy framework or incentive regime for the investors. We deem the first alternative assumption more realistic in view of the fact that a modest investment agreement internationally agreed upon would create a transparent, stable, secure and predictable situation world wide for all parties to play more proactive role. The foreign investors will be encouraged to choose fearlessly any location for investment and LDCs will gain out of a development friendly investment agreement and changed world environment of mutual cooperation among the nations. In the new environment, there would be confidence building in favour of LDCs, and foreign investors could easily use the LDCs' low wage factor in the labour intensive process of integrated international production. LDCs are expected to gain from a WTO investment agreement because of lessening of the unequal terms in the Bilateral Treaties. These countries are comparatively open to FDI and then they have potentially little to lose from signing commitments in a number of sectors where capital is vitally necessary. If there were a multilateral broad based investment agreement, investing country could be debarred from exerting unilateral pressure once the least developed host country can publicise conflicts within WTO as regards FDI. As a LDC, Bangladesh has nothing to lose since it is already open to FDI except in only five sectors. Bangladesh and other LDCs will gain out of opportunity of plugging themselves into any part of value chain of international investment and from supplying components, parts and materials linked with international investment. It has become important for host least developed countries in breaking into the global network of investment and gaining access to global trade along with sourcing inputs for the international investors. LDCs must highlight their areas of interest for thorough discussion and try to gain in the negotiation. It would be difficult to determine the magnitude, the level and the directions of benefits to be derived from the agreement because it is uncertain whether the host country will be able to make the policy framework and environment pro-active and whether the foreign investors will respond positively to the incentives provided by the LDCs for investment when optimal sourcing and destination is the main guiding force for the foreign investors. We can determine the gains of the agreement if we can sort out the difference between possible effects out of the agreement and the effects without it. We can analyse these gains of investment agreement from the point of view of economic, social and environmental development.

10.1.1. The Economic Benefits

10.1.1.1. Possibility of increasing Investment

It is well recognised that Bangladesh and LDCs have been suffering acutely from the shortage of capital, and there is urgent necessity of heavy capital inflow. By signing the WTO investment agreement, Bangladesh and other LDCs are expected to get increased inflows of FDI because then these countries would become more attractive to foreign investors in view of ensuring full transparency and non-discrimination sought by them. In fact, the policy framework, which is the key determinant of FDI, would be more attractive for its flows to increase. Secondly, there will be better opportunities for the host country to exploit its comparative advantages, say labour in the context of Bangladesh. Thirdly, it will get more productive levels of investment from the foreign investor, given its better technology, knowledge and skill. There will be more scope of technology & skill transfer, as for example, Bangladesh gained from this in the financial services sector. In LDCs including Bangladesh, there already prevails the liberal incentive package for investment, and most of the sectors remain open for investment under negative list approach. Hence there is a least possibility that new agreement will be more harmful and will call for more liberal investment regimes and more costs for the government to attract and support the foreign investors. Question may arise whether increased foreign investment in the new environment would crowd out domestic investment. One can assume that domestic investment may be crowded out because of the domestic producers being crowded out from the input and output market of the country. As against this, there is a possibility of increased domestic investment out of increased demand for local inputs and supplies to be used in the foreign enterprises. There may also be more supply of quality manpower for the domestic enterprises as a spill over effect of high level training organised by the foreign enterprises. In most of the studies on crowding effect of foreign investment, it was found that impact of foreign investment on the domestic investment of the country was positive. In one of the studies on 69 countries over the period 1970-1989, it has been found that foreign investment has led to increase of overall investment of the country from 1.5 to 2.3 times. There may be projects, which are financially or technologically beyond the capacity of a domestic enterprise. The foreign investors may venture new capital, invest and reinvest the profit and expand the external market. In all such situations, foreign investment would help increase the overall investment of the country.

10.1.1.2. New Wealth Creation and Higher Capacity Building

Increased inflow of investment, as a result of liberal international investment regime, would induce creation of wealth, introduction of improved technology, creation of organisational capital and resultantly higher capacity building in the host country. Foreign resources combined with domestic resources will help increased competitiveness through higher capacity building, greater wealth creation and higher productivity. There will be increased scope for using comparative advantage of the host country in making the least cost product by using the local materials processed through improved technology and skill. The activities of the foreign companies are expected to help in enhancing domestic capability through the development of research, training and infrastructure.

10.1.1.3. Increasing Overall Efficiency and Productivity

Increased flow of investment, as a result of investment liberalisation, would contribute to raising culture of efficiency and productivity of the host country. Impact of foreign investment and productivity is made possible through three routes: through creating spill-over effects, through demonstration effects and through competition effects. Overall productivity would increase because of spill-over effects, i.e. through spill-over of technology, knowledge and skill from foreign companies on domestic industries. Overall activities of foreign companies would create demonstrative effects of modern management, advanced skill and improved marketing techniques on the performance of domestic industries. There would be creation of competition effects because of inflow of foreign investment. The stimuli for competition created by the presence of foreign companies are expected to induce higher level of efficiency in domestic enterprises. Increased competition from the foreign firms would lead to improvement of international competitiveness of the firms of the host country. The host country through access to improved technology, higher skill, improved management of foreign companies will get higher quality of investment in the country which would have positive impact on overall productivity of the economy. In this way, foreign investment proves to be a channel of technology transfer, and transfer of skill and management styles from developed to backward economies. The process of such transfer occurs through links with domestic enterprises directly or indirectly. Foreign companies act as catalyst for restructuring and enhancing competitiveness of the domestic enterprises on a higher efficiency level of management and marketing. In this regard, example of development of the software sector of India is pertinent. Two foreign companies: Texas Instruments Company (1986) and Hewlett-Packard Company (1989) are the significant contributors to the development of competitive software sector in India (UNCTAD, 1999). Today India could earn more than 9 billion dollars out of software exports and six largest software companies in India are domestic Indian companies.

10.1.1.4. Increasing Exports Earnings and Improving Balance of Payments

International investment liberalisation has become important because of global trade liberalisation as a result of WTO. Now it is urgent not only for transfer of capital and technology but also for strengthening base for import substitution and export expansion through strengthening international competitiveness of the host country through effective use of its resources having relative comparative advantage. The results of a study of UNCTAD on 52 countries indicate that foreign investment has positive impact on manufactured exports and technology level of exports of the country contributing to greater value addition in the economy. This impact is relatively greater in developing countries where export orientation and export intensity of foreign investment is much higher indicating that countries with smaller market need worry for marketing in case of foreign investment. As per regression results of a study of UNCTAD, 10% increase of foreign investment leads to 4% increase of manufactured exports, high technology exports by 5.5%, low technology exports by 2.8%. For developing countries this relation is still stronger, the corresponding figures being 7.8%, 3.9% and 3.1% (World Investment Report, 1999). Multinational investors have greater access to market not only because of greater competitiveness but also because of greater link with the buyers and access to inter-firm purchase of the parent company. Domestic companies can make link with the foreign companies to use this market link for expanding their market. The examples of Mexican Automobile, Indian Software companies are glaring examples of development of domestic companies because of liberalised foreign investment. Investment liberalisation not only helps export expansion but also helps import substitution and thus make positive impact on balance of payments. There may be adverse effect of homebound repatriation of earnings of the foreign companies. The inflow of capital may be in the form of imports but not in dollars. There may be imports of inputs not commensurate with the export earnings of the foreign companies. All these make a big balance of payments problem. Evidence suggests that ratio of repatriated earnings does not exceed one third of FDI inflow. So monitoring needs to be stressed on transfer pricing and on imports vis-a-vis export earnings rather than repatriation of earnings though it also need to be checked in case of balance of payments difficulty.

10.1.1.5. Increasing Government Revenue

One of the probable outcomes conceivable from investment liberalisation is the increased government revenue because of higher level of economic development and additional tax revenue in course of exports and imports of foreign companies and increase of overall economic activities and trade volume in the country. However, there is a possibility of drain of resources and loss of revenue through transfer pricing mechanism of multinational corporations.

10.1.1.5 Employment Expansion and Poverty Alleviation

For a labour surplus LDC like Bangladesh, liberalised investment regime would encourage employment expansion, improvement of labour productivity, raise wage level and help poverty alleviation. Its direct employment effect is through encouraging domestic supplies and employment of labour of local origin. Its indirect employment effect is multiplicative through creating backward and forward linking activities to serve the foreign companies. Foreign investment is expected to create dynamism for higher growth, which is important for employment expansion and better living standard. But there may be cases of purchase and merger of enterprises rather than new investment in which case there may be adverse employment effects and the host country may experience a disturbing situation at least on short terms. Thus there is a need for proper monitoring of the acts of foreign investors.

10.1.1.5. Integration with International Division of Labour and Development of Entrepreneurship

A LDC like Bangladesh may benefit from liberalised investment agreement through getting integrated with the world production system and international division of labour and resultantly enjoy the benefits of scale economies and expanded global market. Inflow of new advanced entrepreneurs would help to create new entrepreneurs and awake the domestic entrepreneurs to strive for higher level of performance.

The economic gain for the host country out of investment agreement needs to be explored in the gap difference of effects germinated when there is investment agreement and the effects without such agreement. Such gain is perceived to be dependent on the decisions of the foreign investor and the capacity of host countries to use the investors in serving the development needs of the country. Different studies show that the countries benefiting from investment liberalisation are ones, which have achieved a certain threshold level of development. This is very important for understanding the outcome of investment liberalisation across the countries. In this situation a country like Bangladesh may expect gains from investment agreement through developing its capability in human resources and infrastructure. The message of the above discussion is that country like Bangladesh and other LDCs may expect positive economic gains out of the agreement. They can expect positive gains through more effective use of their underused labour and material resources and through inflow of capital and technology and resultantly through increasing productivity and scope for newer wealth creation. It will not be unjustified to think that the LDCs may dream to enter into the mainstream of world development through this route and gain higher level of living through creation of dynamism out of inflow of FDI. One major gain of multilateral investment agreement is that the host country will

be free from losses emanating from unfavourable terms of BTIs prevailing now with the stronger bilateral partner. At the same time, there will grow new aspiration to rise up for new wealth creation and increased living standards through higher capability, higher productivity, larger economies of scale and expanded market .

10.1.2. Social Gains

LDCs are expected to gain not only economically but also socially, in as much as movement of labour and social interaction between advanced investing countries and host less developed societies would increase contributing to the conscientisation of the people of both societies and social development out of give and take from each other's society. Increased foreign capital inflow is expected to exert pressure and positive impact on the quality of governance of the state. Foreign multinational companies with the background of higher level of technology, skill, management and more educated manpower may have positive demonstration effects on the people of host countries for aspiring a efficiency culture in all walks of life. There will be conscientisation for enhancement of competitiveness of nation and protection of human rights in the country. There will be favourable influences in bettering working environment and life style and wage rate. Of course, there may be some reactions and restlessness in the society if inequality increases the country loses for unequal terms of agreement, if the foreign companies intervenes in the internal politics of the country, or foster unethical norms of behaviour for the sake of profit making. Government needs to monitor and deal with these properly to ensure net social gains out of foreign investment. At the end of the day, we can expect fairly net social gains for the country in terms of higher standard of living, increased education higher level of consciousness of the people and better level of human rights and social condition.

10.1.3. Improvement of Environment

It is expected that a multilateral investment agreement would ensure higher level of environmental standards and the foreign firms with environment friendly technology adopted in their own country would act more environment friendly than the host country's local firms with weaker base of technology. There is a possibility of diffusion of advanced knowledge and technology and management of environment in the host country. Indeed, the role of multinationals in raising environmental standard of the LDCs would be tremendous if properly monitored and effectively managed. There would be a demonstration effect on the domestic firms in raising environmental standard and raising consciousness in making healthy product to sustain competition in the market. The state can make a workable collaboration with the foreign companies in raising overall standard of environmental. There is a

possibility that environment would be a special issue in the investment agreement and adequate measures would be made to maintain high environment standard by the investing firms and LDCs would surely gain out of it.

10.1.4. Negotiating Return

Bangladesh and other LDCs stand to gain not only economically but also in terms of extracting return from a strong negotiating position (BDXDP,1999).The fact that LDCs may have significant influence over the final outcome will put the LDCs and Bangladesh in a strong negotiating position. If Bangladesh & other LDCs were to support negotiation, they could and should extract something in return. They should seek a large amount of technical assistance as a prerequisite for their support to it. They should insist as well that their obligations under the agreement would apply only once the country has received sufficient levels of technical assistance. They should also insist on delayed phasing and finally should trade support investment for its priority interests.

10.2. The Costs and Negative Effects to Bangladesh and other LDCs

The costs to Bangladesh and other LDCs after signing the agreement are basically two. First they have to incur administrative cost of complying with the transparency component of the agreement. This cost is connected with making all the rules and regulations regarding investment publicly available. It would probably require at least some technical expertise and capacity building. The cost may not be so high. Second, they have to incur the economic and social cost of opening a sector to foreign competition, and this could be potentially serious cost. However any decision on the sectors to open up for foreign investment need to be supported by technical and analytical works to identify potentially vulnerable sectors. Similarly, there may be cost on account of real exchange rate appreciation and situation of 'Dutch Disease' out of inflow of FDI. But that is manageable under careful economic management of the state.

From the above discussion, it is clear that the effect of the investment agreement is not limited to increased investment inflow; its effects are manifold extending to multifarious economic, social and environmental dimensions. The quick upliftment of the LDCs may be possible if resources of multinational companies are effectively used in the wealth creation and raising productivity in these countries. Foreign firms can link up the domestic firms and can give access to their channel of international marketing network, which may be mutually beneficial and good for the host LDCs. Of course, contrary results will ensue if the foreign firms become limited to profit maximisation and increasing its own competitiveness at the cost of host country's interests. We can not bypass the fact that foreign capital is necessary for LDCs for

their developmental interests and if these interests are not served, necessity of foreign investment will be questionable and conflict of interests with investing company is bound to arise and objective investment liberalisation will not be realised. In these circumstances, the investment agreement will take care of developmental interest of host countries more specially the LDCs as a prime concern of negotiation.

10.3. Some Precautions and Fears for the Negotiators of LDCs

Some precautions and possible problems are believed necessary to be discussed in getting ready for negotiation. It is expected that there will be clash of interests of investing companies with the independent development policy of the state. There is a possibility of clash of interests in between foreign and local firms if non-discrimination principle is pursued by the state. One of the fears is that after signing the agreement Bangladesh and LDCs will not be able to enact any domestic economic, regional or social policies. This fear is without any valid ground. Problem would arise if Bangladesh or other countries enacted policies that were intentionally discriminatory against the foreign firms. This would violate the principle of national treatment and most favoured nation treatment. There is a fear that Bangladesh or other countries after signing the agreement will no longer be in a position to adopt development policies as they desire, such as support to small industry or impose environmental or labour standards, because these would violate national treatment. This fear also has no base. The right to regulate would ensure that the government is able to implement certain policies, which may inadvertently discriminate against the foreign investors.

Secondly, foreign firms by dint of freedom to use materials and labour from the sources of their choice may cause losses to the nation by keeping the local resources unutilised and may aggravate balance of payments difficulty taking the advantage of liberalisation of exports and imports. Domestic market may be captured ousting the domestic firms causing unemployment, increase of sick units and increase of classified loan and creating adverse effect on the financial and fiscal sectors and consequently on the macroeconomic stability of the country. Here provision of balance of payments requirement in the agreement may protect the host country from much danger. If there is a pressure on balance of payment because of act of foreign firms in the host country, the host country may restrict unfavourable acts of such firms in the interest of maintaining balance of payments of the country.

Next fear is that after the investment agreement, Bangladesh and other countries will not be able to provide subsidies to the domestic investors. This fear is also baseless. Only thing is that under national treatment provision, a host country like Bangladesh requires to treat the foreign investor at least as favourably as the domestic investor.

There is a possibility that there would be heavy pressure on balance of payments because of repatriation of profit and other earnings and capital by the foreign firms. This type of situation may be tackled by using balance of payment requirement in the agreement. Thus rule regarding balance of payments should be carefully enacted.

One of the fears is that host country may be under threat of 'Dispute Settlement' through the use of rules of 'National Treatment' and 'Most Favoured Nation'. Thus rule on dispute settlement needs to be carefully designed. There is a fear that the host country would be in trouble to prove whether certain policy is inadvertently discriminatory or not.

The host country may take the risk of cases under 'National Treatment' rule, if the government takes incentive packages for encouraging domestic firms, or backward groups or backward areas in a sector where foreign firms are operating. It should be clear in the agreement that right to regulate for the sake of development of the country should predominate.

The transparency issue also is very sensitive from the point of view of long term interest and bargaining power of the country. There are many state secrets that government can not leak out for the sake of protecting interest of the country and its people. There may be secrets of foreign firms, leaking of which may affect their goodwill and business interests. Thus transparency is though necessary, some secrecy also is necessary for protecting mutual interests of all the stakeholders. Accordingly, transparency rule needs to be carefully enacted.

10.4. Targeting in Foreign Investment

There is a need for targeting for opening up the sectors for foreign investment under a positive list approach as expected to be acceptable in the agreement.

- * The main objective of sectorwise targeting is to encourage the foreign investors in the sectors where the host country can not afford to develop but whose development is important for the development of the country through capacity building, raising productivity or market expansion..
- * In targeting prime importance should be given to those sectors which are important in view of their backward and forward linking effects in the economy (Textiles, Engineering and Electronics).
- * Priority should be given to medium technology level sectors (like Electronics) or simple technology) like textiles and ready made garments).
- * In targeting labour intensive sectors should get preference in the context of labour surplusness in the economy. There should be room for all types of skill,

low, medium and high with emphasis on the first two with a look for shift to high skill in course of development ;

- * There should be targeting and encouraging of those sectors where investment is scanty though important (e.g. IT, Solar energy, wind power, machinery sector);
- * There is a need of targeting those sectors where domestic sectors can stand competition in the world market and need help (e.g. Pharmaceuticals, Textiles, Electronics, Tourism, Leather & Leather Goods, IT);
- * There is need of targeting those sectors which help in enhancing competitiveness and increasing productivity through high technology and higher level of management (e.g. Infrastructure like Transport, Communication, Energy, IT and Intermediate and Capital Goods sectors);
- * There should be targeting of sectors where there is scope of export expansion (e.g. IT, Electronics, Textiles, Footwear, Pharmaceuticals and Ceramics);
- * There is a necessity for targeting of sectors which are important for import substitution (consumer goods, intermediate goods and capital goods); and
- * There is a need for targeting of sectors, which bring dynamism in domestic investment.

XI. Identification of Interests and Desirable Stance of LDCs

The first task in preparing for the negotiation is to identify the interests of LDCs vis-à-vis developed investing countries for taking a stance and incorporating them in the investment agreement in proper design. The main area of interest for LDCs is to ensure effective use of local materials and surplus labour by the investing firms. The second area of interest is to ensure heavy flow of capital for quick upliftment of the economy through capacity building in infrastructure, human capital and market and investment in the production and service sectors for which capital is scanty in the country. The third area of interest in investment agreement is to make use of resources and technology of foreign investors in poverty alleviation and development of the country. The next area of interest is to create indigenous entrepreneurship with the help of foreign investors. The fifth area of interest of LDCs is to raise productivity and efficiency to increase competitiveness of the economy through foreign investment. Next interest is to get integrated with the international division of labour for availing economies of scale with the help of multinationals. Lastly, interest of LDCs is in the development of environmental standard and social condition of the people as an outcome of investment agreement. LDCs like to see the investment agreement as development friendly investment agreement.

The stance of the LDCs in the negotiation is desirably be positive one in as much as prevailing investment regime in these countries are already highly liberal and nothing they will lose if there is an agreement, rather they will gain out of lower level of liberalisation and more protection of host countries than in BITs. There will be positive list approach in selecting the sectors for opening for foreign investment as in GATs. The right to regulate will predominate but non-discrimination principle will be pursued. Performance requirements should not be so framed as to create balance of payments difficulty, disrupt domestic market or create unemployment in the country. Rule of balance of payments requirement should be incorporated and carefully drafted in the agreement. There should be sufficient space for the development of indigenous entrepreneurship. There should be reasonable share of local participation in labour, management and equity of the foreign firms. A quality agreement requires that the interests of both investing and host countries are in good coalition. In this coalition matrix of interests, profit-making objective of investing companies and developmental interests of the host countries will get harmonised. If these two interests are coalesced, world demand would expand, savings and investment would increase globally benefiting all countries. In these circumstances, it is improper to set non discrimination principle against the right to regulate or developmental angle principle, where we can make productive effort for friendly coordination of them to benefit all instead and Only with positive approach, we can strive for a development friendly investment friendly multilateral investment agreement for the future development of the world bringing the LDCs into the mainstream of development.

XII. Conclusions

International investment issue is one of the new issues proposed for future negotiations and the least developed countries including Bangladesh must get prepared to make their own stand collectively in view of identification of areas of their interests and areas of benefits out of the negotiation. The LDCs need to decide first whether they would support the inclusion of investment as an issue of future negotiation. If they are positive in supporting so, they have to decide what should the agreement look like with clear understanding of its implications. FDI has increasingly becoming a vital force for international trade and globalisation. It is expected to be beneficial to both the investing and host countries. For host country it is an important determinant of economic development. It helps dissemination of technology and know-how, raising employment level, increasing the growth and diversification of exports and accelerating economic growth. This is the reason why different countries are competing to attract the foreign investors through different investment incentive measures and subsidies.

Although a number of countries support the negotiation on a WTO investment agreement, some countries oppose it, and the situation is nearly balanced. In these circumstances, the role playing of LDCs is very important and their position in the negotiation is strong to insist their own interests and gains. Whether Bangladesh and other LDCs will benefit from agreement depends on the relative costs and benefits out of the agreement. Since MAI is dead, and the proposals made by the supporters of the agreement are less ambitious and based on GATS, it is unlikely that the agreement would be unacceptable for Bangladesh. The probable agreement may require transparency and non-discrimination as core principles of FDI and follow the positive list approach for commitment in different sectors. This would include investor protection, performance requirements, the right to regulate and focus on only to FDI excluding short-term capital flows..

Given the substantial liberalisation of foreign investment in the country, a LDC like Bangladesh has little to lose but quite a lot to gain. If there were an agreement, it would be able to attract foreign investment more with the increased credibility out of signing the investment agreement. Impact of such agreement may be visualised by looking into the difference between the effects with and without the agreement in economic, social and environmental dimensions. Investment is expected to increase without adverse crowding out effect on domestic investment, increase efficiency and productivity level and making capacity building for strengthening competitiveness of the country. Foreign investment may help integrate the economy into international division of labour and hence help enjoy economies of scale for investment expansion in the economy. The country like Bangladesh has one of the most liberal investment regimes with fairly high incentive packages. If there is any investment agreement the level of required investment regime would be much lower and Bangladesh is sure to gain. Again the LDCs like Bangladesh will get relieved of the losses incurred because of unequal terms with a stronger partner under Bilateral Investment Treaties. They can seek better terms under multilateral forum of investment Treaty. If LDCs decide to support the negotiations, they can bargain for higher return in the negotiation as well. They can exploit the development angle, longer transition phase in periods and maximum amount of technical assistance as a prerequisite of support. They can insist that the obligations of LDCs under the agreement would apply only when the countries have received sufficient levels of technical assistance. They can trade support for higher priorities in increasing the levels of investment and bringing increased net gains for the country.

All this does not mean that signing the agreement will necessarily lead to flows of FDI. At best it may be a necessary condition to encourage the foreign investor to consider the country for investment, but it may not be sufficient condition for real investment. For attracting foreign investment, the prime condition is to ensure

political and economic stability and good governance in the country and secondly, ensure supply of utility services as and when required by the foreign investors, and lastly, market and investment opportunities must be present in the country. For attracting the foreign investors, investment subsidies may be a factor but may prove to be insufficient unless there is secure and comfortable environment for investment. Again, the inflow of investment may not benefit much unless it is properly directed and serves adequately the objective needs of the country. Indeed, the government that seeks to attract and benefit from foreign investment needs to be proactive in its policy stance and management .

To conclude, the investment agreement should look like such as to protect the interests of both the investing country and host country and would create condition for a 'win-win' situation for both the groups. In fact, the quality of the agreement depends how far we can call it a development friendly as well as investment friendly multilateral investment agreement. It is expected that such investment agreement would be a positive sum game for the world in its globalisation process.

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Trade-Related Intellectual Property Rights: Challenges and Opportunities for Bangladesh

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I. INTRODUCTION

International agreements on Intellectual property rights (IPRS) were initiated by developed countries, while developing countries preferred to rely on diffusion in obtaining foreign technology; copying reverse engineering until the conclusion of the Uruguay Round. Commercial counterfeiting and misappropriations entail heavy losses for IP based industries resulting in a reduction of transfer of resources towards research and development (R&D). Prior to the WTO agreement on TRIPS (Trade-related Intellectual Property Rights), which came into force in 1995, all treaties except on breeder's rights are administered and supervised by the World Intellectual Property Organization (WIPO). The TRIPS agreement is sometimes referred to as a "Berne and Paris-plus Agreement".

Intellectual property rights (IPRs) are the rights given to persons over the creations of their minds. They usually give the creator an exclusive right over the use of his/her creation for a certain period of time (website WTO). It is argued that the protection of IPRs is (a) to encourage and reward creative work; (b) to provide incentive to finance research and development for technological innovation; (c) to stimulate and ensure fair competition among producers; (d) to protect consumers by enabling them to make informed choices between goods and services; and (e) to facilitate transfer of technology in the form of foreign direct investment, joint venture and licensing.

The agreement on Trade-related Intellectual Property Rights (TRIPS) covers two main categories (Articles 9-39):

- (i) Copy rights and rights related to copy right i.e. right granted to authors of literary and artistic works such as books and other writings, musical

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compositions, paintings, sculpture, computer programs, data base and films for a minimum period of 50 years after the death of the author. The rights of performers (e.g. actors, singers and musicians), producers of phonograms (sound recordings) and broadcasting organizations are also protected.

(ii) Industrial property:

- (a) Trademarks which distinguish the goods or services of one undertaking from those of other undertakings,
- (b). Geographical indications where a given characteristic of the good is essentially attributable to its geographical origin,
- (c) Other types of industrial property (to stimulate innovation, design and creation of technology): inventions (creation of technology) protected by patents usually for 20 years in a number of countries (patents include also protection of new varieties of plants); industrial designs; the layout designs of integrated circuits; undisclosed information including trade secrets and test data.

The TRIPS agreement sets minimum standards allowing members to provide more extensive protection of intellectual property if they so wish. There are three main features of the agreement: (i) standards - minimum standards of protection to be provided by each member. The rights relate to subject matter to be protected, the rights to be conferred and minimum durations of protection, (ii) enforcement - domestic procedures and remedies for the enforcement of intellectual property rights. All WTO signatories are required to change their judicial and trading systems to match their international provisions of TRIPS so that right holders can enforce their rights; and (iii) dispute settlement subject to WTO dispute settlement procedures. The US uses retaliatory tools such as denying the benefits of GSP and unilateral sanctions (Special 301) to the countries that do not provide adequate protection. More recently (17 September 1999), South Africa was forced to back off (due to its exclusion of GSP from US) in its battle to obtain cheaper AIDS medicines. None of the retaliatory tools includes least developed countries at least to the US.

Bangladesh became signatory to the TRIPS Agreement of WTO on 1 January 1995. As a least developed country, she is entitled to have transitional period of 11 years to the implementation of the TRIPS provision until 1 January 2006. It also has the opportunity to prolong the extension period upon duly motivated request (Article 66.1). The objective of the paper is to clarify the probable opportunities and challenges to be faced by Bangladesh in the implementation of TRIPS agreement and to make recommendations for strengthening Bangladesh position for review and amendments on TRIPS II Agreement.

II. ECONOMIC IMPLICATIONS: DIVERGENCE AND CONGRUENCE VIEWS ABOUT BENEFITS TO BE DERIVED FROM TRIPs IMPLEMENTATION

It was argued that in general terms, the TRIPs Agreement will have significant effects on (a) technological innovation and its diffusion, and (b) on international trade and investment flows. It is, therefore, essential to assess the effects on domestic welfare in Bangladesh, on the changes in its terms of trade, and on its prospects for larger technological flows and greater foreign direct investment.

(a) Effects on Technological Innovation and Diffusion

Developed countries argued that an effective framework of IPRS would increase the dissemination of technologies to Developing Countries. IP protection lead to more research which in turn leads to develop scientific and technological capacity and results in technological progress, creating an environment for global technological dynamism. There is likely to have more investment on research and development to diversify exportable products such as non-traditional agricultural products (flowers, vegetables, fruits, etc.) but Bangladesh farmers should be protected from restrictions on re-using seeds of known varieties.

It is assumed that LDCs will enable their domestic firms to gain access to new technologies by granting patent rights to foreigners. The information disclosed by foreign IP owners may be obtained from original home country without granting IPRS to foreigners. Moreover, the information submitted to the patent office is insufficient in the sense that additional know-how is required to exploit it in full.

IPRs such as patents and copyrights are expected to increase domestic benefits by stimulating greater innovation in the future. The importance of IPRS to innovative activities varies significantly across industries and countries. The software, pharmaceutical and biotechnology industries address much greater importance to IPRs than other sectors. The capability of IPRs to function as a vehicle for innovation in LDCs is quite limited. LDCs must receive financial, technological and technical assistance from developed countries, regardless of implementation of TRIPs.

According to the TRIPs agreement, plant varieties (including germplasms) are to be protected either by patents or by an effective sui generis system, such as plant breeders' rights (PBRs). Both types of IPRS are problematic as they represent the basic trade-off between more innovation in the future and greater restrictions at present.

Implementation of TRIPs in least developed countries (LDCs) is likely to entail considerable legal and administrative costs. In Bangladesh, where IP mechanisms do exist, the costs of legislative drafting and judicial work concerning TRIPs are

estimated at around \$1.25 million annually (UNCTAD 1996; reprinted in TRIPS and WTO, Maxwell Stamp, November 1999). Substantial costs are also likely to emerge from the recruitment and training of new staff and the establishment of adequate institutions for the enforcement of IPRs in Bangladesh. Bangladesh, like other least developed countries, is now on the grace period and assumes significant amount of costs to be required for the implementation of TRIPS.

(b) Effects on Foreign Direct Investment

The increased IP protection will induce greater inflows of foreign investment, as technology owners do not have an incentive to transfer their proprietary knowledge to countries with weak IPRS system in view of potential 'piracy'. It seems to appear that the upward harmonization of IP legislation will induce foreign direct investment. In general, IPRs have a more remarkable effect on FDI in higher-technology products. There is a complementarity between trade and FDI in products in which knowledge-based assets give rise to investment. Similarly, in software and pharmaceuticals, together with investments in local R&D facilities, strong relationship between IP protection and investment exists (Ongun, 2001).

IPRs is just one factor for multinational corporations, (MNCs) decisions to invest in LDCs. The empirical evidence (UN report from 1993) shows that there is little basis to find an association between stronger IPRs and FDI flows to LDCs. But different industrial sectors such as chemical and transportation industries attribute different importance to IPRS to invest in developing countries (Mansfield 1994, reprinted in Ongun 2001). Although it is argued that stronger IP protection in Bangladesh may create a more suitable environment for increased inflows of Technology Transfer (TT) and FDI, it is not currently possible to isolate the magnitude and composition of TT and FDI to Bangladesh as a function of its IP regime at an aggregate and industry level, as well as to estimate potential benefits over present cost from granting IPRs to foreigners (Tables II.1 to II.3).

(c) Effects on Domestic Welfare and Terms of Trade

LDCs argued that a higher level of IP protection would reduce competition, raise prices and entail significant welfare losses. The least developed countries are net importers of embodied and disembodied technology. TRIPS implementation would certainly increase the level of royalty payments abroad for proprietary knowledge. The grant of IP protection to different products and processes is likely to increase their prices as they essentially secure the monopolistic position of their products. Anti-competitive effects may lower the consumer surplus resulting in the increase of price of imported inputs as well as outputs. Further, the rules on biotechnology and plant varieties will be of particular concern to the agricultural commodity exporters and farmers of least developed countries.

The more capable a country is in the realm of IP, the more likely it is to improve its terms of trade under TRIPS. In other words, the TRIPS agreement is expected to have negative effect on LDCs, terms of trade, as they essentially become net importers of IP related products. The empirical evidence from 1996 data suggests that developed countries were able to maintain their complete dominance in the foreign ownership of patents with a total of 96 percent with the US holding a total of 27 percent (Trips and WTO, Maxwell Stamp PLC, 1999). Trade flows from IP related products as a percentage of total trade in services also grew in OECD countries from an average of 4.4 percent in 1971 to 5.8 percent in 1991. As Bangladesh's main exports are non-IP related products and net importer of IP related products, it can be argued that upon implementation of TRIP, it is likely to worsen its terms of trade.

(d) Agricultural production

Article 27.3b of the TRIPS agreement permits patenting of essential products and life forms such as food, medicine seeds etc. Developing countries argued that natural organisms, i.e. plants, animals and micro-organisms, and processes that produce them, should not be subject to patents, since natural organisms and processes that exist in nature are discoveries and not inventions.

The Agreement (Article 27.3b) provides two forms of IPRs in plants, animals and seeds: patent and *sui generis* system and or by any combination thereof. Patent protection implies the exclusion of farmers' rights while effective *sui generis* system allows both breeder's and farmer' rights over resources having genes. A small number of multinational corporations operating in the life sciences industry dominate and control the production of seeds, pesticides, food and pharmaceuticals by making use of IPRs. In 1998, top ten corporations controlled one-third of commercial seeds industry, pharmaceuticals; 85% in pesticides (Hamour, 2001).

The TRIPS will enable the inventing organizations to prevent the farmers from using a part of their produce as seeds, increasing the input price and the cost of our agricultural production. As a least developed country, Bangladesh is in favour of the *sui generis* system and acknowledges farmers' right. Government provides fund for almost all kind of agricultural research, animal and plant breeding in Bangladesh, and their research belongs to the public and should get patented for high-yielding seeds and plants.

(e) Pharmaceutical and Chemical Industry

These industries depend mainly on the imported materials from the developed countries because of relatively easy reverse engineering. All types of patents such as product per se, products by process, by uses apply to these industries in TRIPS

implementation. For example, paracetamol can be patented as a product per se but its anti-clotting property can also be taken as a use patent. It appears that patents will increase import costs of drugs and chemicals. In the post-TRIMS period, reverse engineering is no longer permissible and consequently, there would be no imitation on drugs and chemicals.

There would be a loss of annual real income in post-TRIPS period of Bangladesh. When full impact of TRIPS in 2015 will be felt, annual income losses in pharmaceuticals sector is estimated to lie between \$341 million and \$1.26 billion for India depending on price elasticities of demand (Subramanian, Arvind, 1995 reprinted in BXDP 1999c).

(f) Information Industries

The information technology industry is at the early stage of development in Bangladesh. The industry includes computer software, data processing, electronic hardware, microchips, printing machines, etc. The TRIPs agreement will jeopardize the growth of the industry since software, CDs and other related instruments are pirated in the market. However, if IP protection leads to domestic R&D, then Bangladesh is in favor of sui generis protection to accommodate the needs of this new technology.

(g) Other Issues

Technological capabilities & technological competence will determine how capable countries are to derive benefit from implementation of the TRIPS agreement. Globalization does not equalize capabilities across economies; it only leads to technology flows in a static sense. In a dynamic context, technology development depends on the growth of national technological capabilities, which depend in turn on national policies (not just free trade and information flows).

The important determinants of technological capabilities are human capital formation, R&D activity, physical infrastructure, etc. Formal education is only one way to create skills; on-the-job learning, interaction and training are more important. Within Asia, Korea has by far the highest proportion of enrollment in engineering subjects in 1993 (.834% of its population in Korea while .025% in India in 1990; 1.655% in all technical subjects, that in India .146%). In 1995, Korea spends 2.3% of GDP on R&D activity (one-third of USA in per capita terms) while that in India is 1% in 1992 (per capita R&D is \$3.1 compared to \$176.2 in Korea). Between 1980 and 1996, the Gross Domestic Expenditure on R&D has increased by 60 percent in the EU, 57 percent in the US and 118 percent in Japan.

It is difficult to find an unambiguous indicator of national technological competence. The possible indicators may be considered as inherited base of technological

capabilities, manufactured export performance, total factor productivity, role of government policy in influencing technology development (i.e. from know-how to know-why). It needs to account for the level of technology involved in the export activity and the role of MNCs in export and technological activity. There has been a sharp reduction in the concentration of FDI among developing countries, excluding China (Dunning 1998).

III. PROGRESS OF TRIP IMPLEMENTATION IN BANGLADESH

As stated earlier, Bangladesh has a ten-year transitional period i.e. up to the end of 2005 to meet its obligations under the TRIPs agreement. Bangladesh has also been a member of the World Intellectual Property Organizations since 1985, as well as of (i) Universal Copyright Convention for the Protection of Literary, Scientific and Artistic Works since 1975, Paris Convention for the Protection of Industrial Property Rights since 1991, and the Berne Convention for the Protection of Literary and Artistic Works since 1999.

The patents Office under the Ministry of Industries in Bangladesh is responsible for the granting of a patent or industrial design. The number of registrations of industrial property increased between 1992 and 1999. The number of registration for both patents and trade-marks are much higher for non-residents than residents while the opposite is true for industrial design (Table III.1). Trademarks are protected under the TradeMark Act 1940 and TradeMark Rules 1963. According to authorities, most of the provisions in the existing Trade Mark Act are in conformity with the TRIPS agreement. The registration of trademarks provided only in respect of distinguishing goods, but not services. The draft trademark legislation is making proposals to include provisions for the registration of service marks as well as collective marks. The new proposed Trade Mark Act includes provisions for the protection of geographical indication, which is not provided under the 1940 ACT. The terms of protection are provided in Table III.2.

The copyright legislation 2000 conforms to the TRIPS agreement and includes protection to computer programs, the recognition of rental rights for computer programs, sound recordings and films, and the recognition of rights of performers. With regard to the enforcement, there are provisions for imprisonment and /or fine, which have been increased from the provisions of the previous Act.

IV. SPECIFIC PROPOSALS FROM BANGLADESH RELATED TO TRIP IMPLEMENTATION

Under WTO provisions, countries get not what they deserve, but what they negotiate. New round of negotiations to devise TRIP II strategy is justified only to negotiate on technology transfer, greater market access and extension of grace period for least developed countries.

Bangladesh, as a least developed country, should ask for full implementation of Article 66.2 and Article 67 respectively to facilitate FDI inflows, and bring its intellectual property regime in conformity with TRIPS alongside with technical and financial assistance.

Article 27.3(b) permits the government to protect plant varieties by sui generis system by which it is possible to protect farmers'/breeder's rights. Bangladesh should pursue for such system because government needs to protect farmer's rights, i.e. the farmer's must continue to have complete freedom to use, reuse, sell and modify seed. But in patent system, farmers have little control or rights over the use of seeds.

With respect to patents, according to TRIPs obligations, Bangladesh is required to extend plant protection to pharmaceutical products and processes (Article 70.8 & 70.9). Given the difficulties due to low technological base, and that developed countries do not provide enough financial, technological, and technical assistance for TRIPs implementation in LDCs, Bangladesh may wish to apply for an additional period of extension to prevent patentability of these products.

Along with SAARC common stand, Bangladesh will favor higher level of protection to products in the form of geographical indication for products of export interest to developing and the least developed countries like 'Basmati rice' and 'pollau rice'. While wine and spirits can get a higher level of geographical indication protection, other goods of interest to developing and least developing countries are not given similar protection.

V. DOHA DECLARATION ON TRIPS AGREEMENT

There was a significant development for SAARC countries in New Delhi meeting, which was held in August 2001, just before Doha Conference, with respect to pre-Doha declaration on 15 points on WTO issues including TRIPS agreement. Subsequently, this decision was endorsed in the summit of SAARC Heads of Government in Katmandu, Nepal, which also called for closer co-operation among SAARC countries in the WTO. In the Doha Declaration, which was adopted on 14 November 2001 on TRIPS Agreement and Public Health, there were some

achievements for Least Developed Countries including Bangladesh, in the context of not enforcing patent rights with respect to pharmaceutical products till 1 January 2016. The Declaration No. 4 states, "that the TRIPS Agreement does not and should not prevent members from taking measures to protect public health. Accordingly, while reiterating our commitment to the TRIPS Agreement, we affirm that the Agreement can and should be interpreted and implemented in a manner supportive of WTO members' right to protect public health and, in particular, to promote access to medicines for all." (Appendix I). The implication is that Bangladesh will continue to have access to life-saving medicine at affordable price, and to have opportunity to develop pharmaceutical industry due to extension of transition period till 1 January 2016. As stated earlier, Bangladesh can benefit from high level protection to the products of export interests for geographical indication.

Note:

The paper is heavily drawn from three reports of Maxwell Stamp PLC: (i) TRIPS and the WTO, (ii) The WTO: TRIPS and Trade and Investment: Bangladesh Perspectives, and (iii) WTO Document (2000).

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Table II.1 FDI Inflows as a Proportion of Total Gross Fixed Capital Formation

	1985-1990	1992	1995
Developed Countries	5.5	3.2	4.4
Developing Countries	8.0	5.1	8.2
Least Developed Countries	2.3	2.0	1.3
World	5.4	3.3	5.2

Source: UNCTAD (1997)

Table II.2 FDI in Bangladesh, 1992-99

Fiscal Year	Amount (Million US \$)
1992	4
1993	7
1994	16
1995	6
1996	7
1997	16
1998	249
1999	298

Source: Ministry of Finance, Bangladesh Economic Survey, 1999

Table II.3: FDI in Bangladesh (Five Year averages)

Sectors	1996-00 million \$	2001-05 million \$	2006-10 million \$
Gas	134	218	114
Power	113	193	174
Telecom	17	17	17
FDI in EPZ	58	123	199
Other FDI	150	205	241
Total	472	757	744

Source: World Bank (1999)

Table III.1 Industrial property registration, 1992-99.

	Applications			Grants		
	Residents	Non- residents	Total	Residents	Non- residents	Total
Patents						
1992	72	89	161	6	55	61
1993	36	71	107	10	66	76
1994	39	89	128	29	69	98
1995	70	156	226	6	74	80
1996	22	131	153	18	52	70
1997	46	119	225	15	61	76
1998	32	184	216	14	126	140
1999	49	202	249	25	122	147
Industrial design						
1992	273	7	280	137	4	141
1993	328	7	335	92	2	94
1994	337	1	338	203	6	209
1995	287	19	306	173	2	175
1996	394	21	415	205	18	223
1997	609	23	612	345	20	365
1998	649	33	682	392	17	409
1999	815	40	855	410	25	435
Trade-marks						
1992	2,152	517	2,669	432	433	865
1993	2,160	607	2,767	412	423	835
1994	2,382	711	3,093	405	429	834
1995	2,398	713	3,111	338	236	574
1996	2,854	922	3,776	382	149	531
1997	3,357	1,016	4,373	174	53	227
1998	3,629	926	4,555	142	143	285
1999	2,626	805	3,431	72	201	273
(up to 30 Sept.)						

Source: Government of Bangladesh, reprinted in WT/TPR/S/68, Document.

Table III.2: Terms of Intellectual Property Rights Protection in Bangladesh

IPR	Main Legislation	Duration of Protection under TRIPS	Minimum Duration of Protection	Comments
Copyrights	Copyright ordinance 2000	Life of author plus 50 years	Life of author plus 50 years	
Patents	Patents and Design	16 years Act & Rules	20 years	Amendments up to 20 years
Industrial design	Patents and Design Act & Rules	5 years	10 years	
Geographical indications	None	None	Unlimited	
Trade marks	Trade marks act	7 years, renewable	At least 7 years: renewable	
Layout designs	None	None	10 years	Amendment for 15 years
Undisclosed information	None	None	No specific period	

Source: Government of Bangladesh, reprinted in WTO (2000)

Table III.3: Comparative Summary of the Proposed Provisions relating to Patents and Industrial Design in Paris Convention / TRIPS Agreement and the Corresponding Provisions of the Patents and Designs Act of 1911

Provisions of the Paris Convention/TRIPS Agreement	Comment
A. Provisions of the Paris Convention applicable to patents	
Right of priority (Articles 4A, B, C, D, F and H)	Proposed amendments enable Bangladesh to conclude agreements with other countries and international organizations on patents and designs, instead of with only the Commonwealth countries; amendments also revise the provision inconsistent with the convention.
Division of the patent application (Article 4G)	Consistent with the convention.
Independence of patent obtained for the same invention in different countries (Article 4 bis)	Consistent with the convention.
Mention of the inventor in the patent (Article 4 ter)	Consistent with the convention.
Patentability in case of restrictions of sale by law (Article 4 quarter)	Proposed amendments incorporate a provision consistent with the convention.
Importation of articles in case of patents (Article 5A(1))	Proposed amendments expand the provision to include importation of patent articles.
Patents: failure to work or insufficient working: compulsory licenses, (Article 5A(2) through (4))	Proposed amendments revise the provision inconsistent with the convention.
Making of patents on goods (Article 5D)	No conflict with the convention.
Period of grace for the payment of fees for the maintenance of patent rights (Article 5 bis (1))	Proposed amendments extend to six months
Patent devices forming part of vessels, aircraft or land vehicles (Article 5 ter)	Proposed amendments expand the provision to include aircraft and land vehicle.
Importation of products manufactured by a process patented in the importing country (Article 5 quarter)	Proposed amendments incorporate a provision consistent with the convention.
Temporary protection of certain international exhibitions (Article 11)	Consistent with the convention.
Special national industry property services (Article 12)	Proposed amendments revise the provision inconsistent with the convention.

Source: WTO Secretariat, reprinted in WTO Document (2000): WT/TPR/S/68

Table III.3 (Continued)

B. Provisions of the TRIPS Agreement applicable to patent	
National treatment (Article 2 and 3) Most-favoured-nation treatment (Article 4)	Consistent with the agreement. Proposed amendments incorporate a provision consistent with the agreement.
Requirements for protection (Article 25)	Proposed amendments revise the provision inconsistent with the agreement.
Protection (Article 26(1) and (2))	Proposed amendments incorporate a provision consistent with the agreement.
Protection (Article 26(3))	Proposed amendments extend to 10 years.
Inventions are patentable, whether products or process (Article 27(1))	Proposed amendments revise the provision to include a complete definition of "invention".
Inventions which may be excluded from patentability (Article 27(2) and (3)(a))	Proposed amendments revise the provision inconsistent with the agreement.
Plant varieties under TRIPS Agreement: Members must provide protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof (Article 27(3) (b))	Proposed amendments incorporate a provision regarding patent for plants and seeds which are subject to the provisions of the Patents and Designs Act, 1911; moreover, the Plant Varieties Act and the Biodiversity and Community Knowledge protection Act are now been drafted to provide protection in this area. The proposed provision excludes the patentability of plants and animal other than microorganism, and essentially processes for the production of plants or animals other non-biological and microbiological processes.
Exclusive rights (Article 28(1))	Consistent with the agreement.
Change of ownership and licensing agreements (Article 28(2))	Proposed amendments revise the provision inconsistent with the agreement.
Conditions on patent applications (Article 29(1))	Consistent with the agreement.
Information concerning corresponding foreign applications and grants (Article 29(2))	Proposed amendments revise the provision inconsistent with the agreement.
Exceptions to rights conferred (Article 30)	Consistent with the agreement.
Other use without authorization of the right holder (Article 31)	Proposed amendments revise the provision inconsistent with the agreement.
Revocation/forfeiture (Article 32)	Consistent with the agreement.

Table III.3 (Continued)

Term of protection (Article 33)	Proposed amendments extend to 20 years.
Process patents. burden of proof (Article 34) consistent with the agreement.	Proposed amendments incorporate a provision
Layout-designs (topographies) integrated circuits (Article 35-38)	Proposed amendments incorporate a provision consistent with the agreement.
C. Provisions of the Paris Convention applicable to industrial designs	
Failure to work an industrial design (Article 5B) and the importation of articles constituting or containing an industrial design (Article 5B)	Proposed amendments incorporate a provision consistent with the convention.
The indication upon the goods enjoying industrial design protection of the fact that industrial design has been deposited (Article 5D)	No conflict with the convention.
Period of grace for the payment of fees (Article 5 <i>bis</i> (1))	Proposed amendments extend to six months.
Temporary protection at certain international exhibitions (Article 11)	Consistent with the convention.
Establishment of a special industrial property service (Article 12)	Proposed amendments revise the provision inconsistent with the convention.
D. Provisions of TRIPS Agreement applicable to industrial designs	
Conditions of protection (Article 25(1))	Consistent with the agreement.
Textile designs (Article 25(2))	Consistent with the agreement.
Rights (Article 26(1))	Consistent with the agreement.
Exceptions to rights (Article 26(2))	Consistent with the agreement.
Term of protection (Article 26(3))	Consistent with the agreement.
E. Provisions of TRIPS Agreement regarding enforcement, and acquisition and maintenance of IPRs	
Enforcement of IPRs (Article 41-61)	Proposed amendments revise the provision regarding piracy of registered design to increase the amount of fine for infringement.
Acquisition and maintenance of IPRs and related <i>inter partes</i> procedures (Article 62)	Proposed amendments include a provision dealing with appeals and other litigation for timely disposal of industrial property cases

Appendix-1

**WORLD TRADE
ORGANIZATION**

WT/MIN(01)/DEC/2
20 November 2001
(01-5860)

MINISTERIAL CONFERENCE
Fourth Session
Doha, 9 - 14 November 2001

DECLARATION ON THE TRIPS AGREEMENT AND PUBLIC HEALTH

Adopted on 14 November 2001

1. We recognize the gravity of the public health problems afflicting many developing and least-developed countries, especially those resulting from HIV/AIDS, tuberculosis, malaria and other epidemics.
2. We stress the need for the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) to be part of the wider national and international action to address these problems.
3. We recognize that intellectual property protection is important for the development of new medicines. We also recognize the concerns about its effects on prices.
4. We agree that the TRIPS Agreement does not and should not prevent Members from taking measures to protect public health. Accordingly, while reiterating our commitment to the TRIPS Agreement, we affirm that the Agreement can and should be interpreted and implemented in a manner supportive of WTO Members' right to protect public health and, in particular, to promote access to medicines for all.

In this connection, we reaffirm the right of WTO Members to use, to the full, the provisions in the TRIPS Agreement, which provide flexibility for this purpose.

5. Accordingly and in the light of paragraph 4 above, while maintaining our commitments in the TRIPS Agreement, we recognize that these flexibilities include:
 - (a) In applying the customary rules of interpretation of public international law, each provision of the TRIPS Agreement shall be read in the light of the object and purpose of the Agreement as expressed, in particular, in its objectives and principles.
 - (b) Each Member has the right to grant compulsory licences and the freedom to determine the grounds upon which such licences are granted.
 - (c) Each Member has the right to determine what constitutes a national emergency or other circumstances of extreme urgency, it being understood that public health crises, including those relating to HIV/AIDS, tuberculosis, malaria and other epidemics, can represent a national emergency or other circumstances of extreme urgency.
 - (d) The effect of the provisions in the TRIPS Agreement that are relevant to the exhaustion of intellectual property rights is to leave each Member free to establish its own regime for such exhaustion without challenge, subject to the MFN and national treatment provisions of Articles 3 and 4.
6. We recognize that WTO Members with insufficient or no manufacturing capacities in the pharmaceutical sector could face difficulties in making effective use of compulsory licensing under the TRIPS Agreement. We instruct the Council for TRIPS to find an expeditious solution to this problem and to report to the General Council before the end of 2002.
7. We reaffirm the commitment of developed-country Members to provide incentives to their enterprises and institutions to promote and encourage technology transfer to least-developed country Members pursuant to Article 66.2. We also agree that the least-developed country Members will not be obliged, with respect to pharmaceutical products, to implement or apply Sections 5 and 7 of Part II of the TRIPS Agreement or to enforce rights provided for under these Sections until 1 January 2016, without prejudice to the right of least-developed country Members to seek other extensions of the transition periods as provided for in Article 66.1 of the TRIPS Agreement. We instruct the Council for TRIPS to take the necessary action to give effect to this pursuant to Article 66.1 of the TRIPS Agreement.

Assessing Foreign Aid Need for Bangladesh: Some Relevant Issues of Poverty Alleviation

Jamshed uz Zaman*
M. Abul Quasem
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Executive Summary

Overall environment for foreign aid has changed as much as the attitude to and impact of foreign aid on growth and distribution. These changes have shown up in sporadic crises with debates. Donors are contemplating response to stress significant reforms in policies, institutions and instruments of aid administration and utilization. Donors' disillusionment has been particularly severe with respect to the failure of foreign aid to alleviate poverty in most recipient countries. Despite mixed performance of foreign aid across the globe and conflicting explanations thereof, a feeble agreement that the failure was largely the result of wrong policies and weak implementation in the recipient countries is gradually emerging. On the other hand, besides filling out foreign exchange gap through external resource complement attention has been concentrated on plugging underlying savings-investment gap by fixing domestic problems. Most studies on foreign aid remained focused on the determinants of demand for external assistance with scant attention to the supply side. Over the past two decades or so, bilateral and multilateral grants and concessional finance have been replaced in some countries by private capital flows through capital market instruments. This highlights the fact that donors have been facing difficulties in mobilizing resource for concessional foreign aid budgets and that commercialization of the deals in global surplus resources is increasing. Alongside these developments, concern for poverty alleviation has been growing under increasing popular demand, possibly because of the failure of the 'trickledown'

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thesis, and a new approach to strengthen 'safety net' mechanism seems in the offing. The G-8 countries have proposed a **7-point global action plan for poverty alleviation**, and the World Bank and the IMF have jointly adopted **Poverty Reduction Strategy Initiative** that underlines the need for hefty preparation in recipient countries for fighting poverty sincerely. There is thus a strong likelihood that in the coming decades the strategy for funding poverty alleviation efforts would fork out from that for the private sector and the government.

Taking note of the developments in global aid prospects, this paper argues that assessment of the need for foreign aid for Bangladesh should be made separately for the *private sector*, *the government* and *poverty alleviation program*. Further, arithmetic for aid assessment should be based on an evaluation of our own pull factors of foreign investments in order to shun traditional disappointment at the gap between expectation and realization. At the same time, it is observed that foreign aid has played an important role in some sectors of the Bangladesh economy moderately contributing to growth but negligibly touching poverty, and that growth performance of Bangladesh could have been much better with distributive equity. The paper also argues that aid administration in Bangladesh has betrayed constitutional pledges for care of the weak since the promises have not been given matching national concern in the shape of legal and institutional recognition. Finally, some observations have been made that in order to cope realistically with upcoming situation at home and abroad, Bangladesh would have to make substantive efforts at innovating and renovating poverty alleviation policies and institutions that could include a **National Poverty Alleviation Council/Body** to be headed by the executive chief of the country, a **National Poverty Alleviation Fund** initially with own resources, **yearly target of poverty reduction and budgetary allocation for it**, a **macroeconomic framework for poverty analysis** and a **broad-based partnership** including civil society and NGOs.

Section One

Introduction

The overall context of discourses on external aid has changed drastically over the past half-century. The eras of post second-world war European reconstruction and the last decade of the twentieth century are two distinct watersheds in the history of foreign aid regime. Much of the thought on the role of external assistance and the stake of the state in economic development has given way to a deeper scrutiny of the reality. Aid-supported growth models have also changed and now they have limited relevance. The governments of the rich countries used to dole out resources

to their weak allies mainly on the consideration of their geo-political interests during the years of cold war. With the fall of the Berlin wall in 1989 and the signing of the GATT agreement in Marrakesh the world has transformed into a different place where efforts are underway to build a truly global environment for unfettered sprawling of the world capital into the far flung reaches of the globe. This radical change has necessitated outright creation of an environment for the safe journey of world capital. Donors seem to be in a mood to use foreign aid as an instrument of straightening out policies and institutions resistant to the sway of global capital. Reforms are often thrust upon the recipient poor countries dependent on foreign aid through the multilateral agencies. The new brand of political economy of foreign aid must be clearly understood and kept in mind while devising strategies for aid and growth.

Other equally significant developments are the changes in the form and terms of foreign aid as well as in the attitude of the donors with respect to the use of aid in poverty alleviation. Grants and soft loans of the multilateral agencies have already declined substantially over the past decade, and in their place have emerged direct private investment and commercial lending through the financial institutions. This change is important to watch because the cost of foreign aid is going to be higher and determined by the market forces. There is thus little scope for dissipating these expensive resources in relatively non-essential projects. The pronouncements and evolving policies of the donors with respect to poverty alleviation suggest that the little concessional finance that would be henceforth available would be disbursed competitively strictly on the compliance of donors' conditionalities in terms of appropriate institutions including broad-based partnerships among the government, private sector, civil society and other concerned parties. One related issue is the emphasis on the need for change in policy and institutions for both administration and utilization of foreign aid. In this changed context, recipient countries need to look at their own policies and institutions, and to make necessary modifications in their traditional way of thinking in order to avail external resources and put them to uses for the welfare of the lowest stratum of people.

Apart from foreign assistance for directly productive activities, technical assistance should be properly used. Now it seems that there must be well-planned policies and effective strategies to utilize newly acquired skill and knowledge in useful purposes. To improve utilization of technical assistance, there must be periodic follow-ups, evaluation and necessary changes such that training programs financed by external grants or loans are not dissipated, and the nation can really tap the technical knowledge. Overhauling the administration is another job. Those in administration often failed to put in place administrative control over the misuse of resources within a well-planned framework of action. Our politicians have to remain busy afield with

skirmishes with their opponents and have little time to look deeper into these issues. On the other hand, the bureaucracy that is the permanent organ of the government takes this opportunity and remains sluggish to their statutory duties. Thus political apathy toward serious matters of the state on the one hand and the professional lethargy of all concerned on the other have paved the way for colossal waste of resources received over the years as foreign assistance for skill formation and human resource development.

Despite some moderate improvement in the field of poverty situation of the country, a very hefty task is lying ahead in this respect, and foreign aid is considered to be a necessary component of it. But the changed circumstances around the globe made it very difficult to mobilize such resources and as such the country needs to go very cautiously. However, foreign aid has not been generally pernicious as such. The important point is whether foreign assistance will be a curse or a cure depends on how we manage it. It is precisely through the policy maneuvering that foreign assistance directs the actual course of the society and also lays the foundation of power hierarchy shaping the social mindset. Seen in this perspective, foreign assistance for which we have virtually disrobed ourselves is important to judge. It is not possible to guide foreign aid into socially beneficial channels unless there is in place a truly pro-poor leadership at the helms of the state. Much depends on the quality of governance, and we must not let ourselves be lured away from our people's welfare in exchange for external assistance. Bearing this in mind, we in this paper have tried to outline some broad guidelines that may be kept in mind while making an assessment of foreign aid need and the strategy through which it can be mobilized and used for poverty alleviation, the *number one priority of the nation*.

To do this the paper has been organized in the following sections. Section Two deals with reasons why poverty alleviation is specially emphasized in foreign aid issues. Section Three discusses the country's poverty situation while section Four provides a brief review of foreign aid in Bangladesh. Section Five is an assessment of aid received by the country, and Section Six contains some of our concluding observations.

Section Two

Reasons Why Poverty Alleviation is Specifically Emphasized in Foreign Aid Issues

Poverty alleviation should be linked with foreign aid issues because of a number reasons. Firstly, traditional growth theories have failed to accommodate poverty within their framework. The utility of the framework of Chenery and Strout for foreign aid need assessment has changed by now, at least its application has found

a new dimension where the emphasis is more on reducing the gap in domestic resource availability and use. On the other hand, there was little place for welfare economics in the classical theory of growth. It assumed poverty alleviation as a natural concomitant of growth but history has disproved this assumption. At that time the concept of social justice did not receive as much importance as now. Above all, the huge amount of foreign aid could not soothe the scourge of poverty in most countries.

Second, the structural adjustment programs and their financing in the nineties have followed economic stagnation and inflation of the seventies, and consequently debt crisis of the eighties. But one of the serious gaps in the ongoing structural adjustment programs is the absence of serious analysis of whether free market economy paradigm could ensure poverty alleviation in its fold. It seems that like the classical theory the neoliberal theory may also be poor at analyzing poverty issues. There is a great chance that the poor may be excluded, marginalized and even bypassed in Big Bang Reforms. The trend of marginalization of the poor from the mainstream economic activities is already discernible. Thus there is a strong argument for making poverty alleviation a separate and distinct issue in the finance of development.

Third, the concept of comprehensive development has found a place of importance in recent years. The class of endogenous growth theories (Adelman, Irma, and Robinson, Sherman: 1988, Cassen, Robert and Associates: 1986, Galor, O., and Zaria, J.: 1993, Persson, T., and Tabellini, G.: 1994 and Perotti, R.: 1992) consider distribution and socio-political realities as endogenous in the process of growth. There is thus a need for diverting the course of foreign aided growth into pro-poor channel. At the same time, currently important issues like empowerment of women and preservation of environment and taking care of the interests of the minority and the underclass should form distinctive dimensions in growth dynamics.

Fourth, the change in the composition of foreign assistance in the nineties (the chart and the table.1 below) should be considered. Reduction of ODA and significant increase of private capital flows is an event that can hardly be overlooked. In the sixties, industrialized countries promised under International Development Strategy (IDS) to deliver ODA equivalent to 0.7 percent of their GNP but by 1998 it was only 0.23 percent or so of their GNP or one third of their pledge. The implications of these changes for growth in developing countries should be examined with special emphasis on poverty eradication.

Fifth, the role of the financial institutions in transacting external resources is becoming sharper and sharper.

Sixth, financial institutions in Bangladesh are hardly up enough to the expectations to intermediate international resource flows for development. Here also, there is some scope for thought.

Finally, one must take into consideration domestic conditions apart from the changes in the international environment. The overriding consideration is to take desired course of action in the light of the extent, depth and intensity of poverty in the country for the sake of sustainable growth. In countries like Bangladesh, no development strategies can be acceptable unless poverty alleviation is put to the center stage. But there is much less than desired preparation at national level to bring poverty alleviation issues at the front.

In the analytical framework of Chenery and Strout in the sixties, saving investment gap and foreign exchange gap are merely two alternative manifestations of the resource gap because we know from basic national accounting framework that ex post domestic saving investment gap is equal to the foreign exchange gap. However, their analytical framework provides some insight useful for policy analysis and evaluation and for an assessment of the trend of resource use. Theoretically, a country can live up with increasing domestic resource shortfall if it can borrow indefinitely in the international markets. In practice, however, for a number of reasons this is not the case because one day accumulated debt will have to be repaid. Future generations will not be able to bear the burden of profligate current consumption, and the donors will not be willing to roll over their claims indefinitely. Also the pattern of living based on borrowed resources and shifting the burden to the posterity have social and political implications. That is why there has been plenty of discontent about the way external assistance was used over the past fifty years. Already, a good number of poor countries have become heavily indebted, and their economies are suffering. Therefore, the present trend in thought on foreign aid is to curtail over-expenditure (absorption) at home, that is to reduce the savings investment gap. With this end in view, structural adjustment facilities of the IMF and sectional adjustment loans of the World Bank are being given to make nations live within their means. Administrative reforms, public sector management, private sector encouragement along with a host of socio-political reforms are being increasingly emphasized. Underlying this agenda of worldwide reforms is a set of core principles dubbed as "Washington Consensus" (Williamson, J. : 1989), that can better be called "Ten Commandments."

The Issues of Governance, Safety and Foreign Aid

Corruption and cronyism in the upper echelon of the society, and irregularities, waste and misuse of public resources in the developing countries have been made immensely transparent, omnivorous and ubiquitous. Governance failure is equally stark, stupendous, and glaring as they have manifested for decades in violence, extortion and grabbing. All these have happened partly because of foreign aid that

has all along supported a tiny mass of people who never had to account to the people for what they do and who can comfortably lunch on the doles of their foreign allies. The politicians, the policy makers, the policy counselors and those who afford to stick around power can cozily bask in comfort with their back to the people because aided development over the past half century has created and nurtured this social elite as well as consolidated a socio-economic and politico-cultural environment that permits none but those who have muscle and money.

FDI has now become still another preoccupation with the promise that it brings with it adequate finance, superior technology, technical know-how, marketing facilities and thereby spills the fruits of knowledge. Impressed by rosy hopes, we hastily took off most controls at the recommendation of our development partners, and we now find multinationals coming up to dump obsolete technology and processes, poisonous agro-chemicals, adulterated drugs and genetically modified crops. There is now another threat of poisonous contamination along our food chains.

There is almost a universal notion that the donors dictate foreign assistance through different terms and conditions but there is still another perspective, the perspective of the people of the recipient countries. The people must have a crucial say in the negotiation of foreign aid and its use. We must give a serious thought to the question if borrowing for unproductive showcase projects and conspicuous consumption in the conditions of Bangladesh is at all necessary. We must resist any bid to pass on the burden of this insidious foreign aid on to the children and grand children of the so-called millions teeming in poverty, the so-called owners of Bangladesh who fought valiantly in the war of liberation and now have to suffer all disasters - political, economic and natural.

Another equally significant development in the international aid environment is the disenchantment with the way the governments of the recipient countries have administered humanitarian aid and inter-governmental transfers. In most cases, international resources flowed where they were dissipated to the utter neglect of general welfare. In the US, a comprehensive poll found that more than 80 percent respondents believed that waste and corruption kept foreign aid from reaching the people who need it (WDR 2000). External assistance helped only a thin coterie to subsist and aggrandize socially, politically and economically. On top of everything, banks and other financial institutions of the donor countries are confronted with problems of stuck up international debt. As a result, it has become difficult for the donors to mobilize further resources at home through taxes.

Consequently, there is a near-consensus that international resources should be transacted through private channels, specifically through the capital market instruments on commercial principles. For this to take place smoothly, safe, sound and efficient financial systems worldwide should be posted first. Simultaneously,

private sector should be strong, active and trustworthy. The role of the governments in this new scheme of things is to nurture, promote and assist the private sector initiatives through business friendly regulatory mechanisms, liberalization of trade and investment and decontrol and decentralization of decision making process along with macroeconomic stability.

The recent World Bank- IMF Report on world development has identified several strategies to be followed in their aid administration. They are the following:

Box:1

- ❖ To include local conditions and country ownership of policies;
- ❖ To provide sector wide loans with minimal old-fashioned conditionalities;
- ❖ To extend support for pro-poor policy and institutions;
- ❖ To arrange debt relief;
- ❖ To make donor coordination;
- ❖ To integrate all sources of aid.

Despite this notion of a radical change in international aid administration, the issue of fighting poverty has not been thrown overboard. Rather, there seem to be in the offing more concerted efforts at international level for poverty alleviation on a global scale. Inspired by deliberations at different international fora on social development, for example, Copenhagen Social Summit in 1995, World Microcredit Summit in 1997, Agenda 21 and the follow-ups in the UN Millenium Summit 2000, the G-8 countries have adopted a social development agenda in its Okinawa Summit in July 2000. They have set out a 7-point target to be achieved by 2015 (Tables below). Their thought has been reflected in two documents – Poverty Report 2000 and Better World for All.

International Social Development Goals	Target Year
“ For Economic Well-being	
- Reduce by half the proportion of people in extreme poverty	2015
“ For Social Development	
- Achieve universal primary education	2015
- Eliminate gender disparities in primary and secondary education	2005
- Reduce by two-thirds the mortality rates for infants and children under 5	2015
“ For Environmental Sustainability and Regeneration	
- Implement national strategies for sustainable development	2005
- Reverse current trend loss of environmental resources globally and nationally	2015

Source: Global Poverty Report, G8 Okinawa Summit, July 2000 and 'Better World for All.'

International Poverty Reduction Goals

Region	Optimistic Scenario			Less Optimistic Scenario		
	Number of People (million) Living Below \$1 a Day			Number of People (million) Living Below \$1 a Day		
	Baseline 1990	Projection 2008	Target 2015	Baseline 1990	Projection 2008	Target 2015
1. East Asia	452.4	72.1	290	452.4	182.8	290
2. South Asia	495.1	205.9	369	495.1	465.0	369
3. Sub-Saharan Africa	242.3	329.8	218	242.3	406.2	218
4. Latin America	73.8	74.7	52	73.8	130.8	52
5. Eastern Europe and Central Asia	7.1	7.4	4	7.1	45.7	4
6. Middle East and North Africa	5.7	4.7	5	5.7	11.4	5
Total	1,276.4	694.7	897	1,276.4	1,241.8	897

Source: G8 Okinawa Summit, July 2000: (i) Global Poverty Report, and (ii) 'Better World for All'.

The World Bank and the IMF have adopted a new **poverty reduction strategy initiative**, which will seek to link external support to homespun and results-based poverty reduction strategies. **A novel aspect of this strategy is to emphasize a broad participatory dialogue with the representatives of the civil society and the private sector.** The Bank and the Fund have also approved in their annual joint meeting in September 1999 the **Enhanced HIPC (Heavily Indebted Poor Countries) Initiative** proposed by the G-8 countries in July 1999 in Cologne, Germany. The IMF has transformed its ESAF into Poverty Reduction and Growth Facility (PRGF). There are a good number of implications of these developments for external assistance in the future. Some of them may be the following:

- ✓ External aid will be highly competitive with transparent policies, and satisfactory performances in social sectors. Bank-Fund evaluation of the performances in the recipient countries will form the basis of inter-governmental transfers;
- ✓ Capital flows to the private sector will take place mostly through banking system and capital markets, in which case the quality of policy and institutions will weigh heavily in aid prospects for any country.

Should such a prognosis come true, the task of poverty alleviation cannot be put off and detached from the overall policy planning and execution. Thus it seems a strong imperative to work out right away operational linkages of distributional consequences of any set of policies envisaged for the future development of Bangladesh.

Section Three **Poverty in Bangladesh**

Bangladesh was fortunate enough to receive constitutional recognition of the need for poverty reduction and also to see these pledges reflected in its first five-year plan (FYP). But the country was equally wretched to find the initiatives packed up and trashed into oblivion by the later generation of policymakers. Though the scrapped issue of poverty alleviation has been put back into the fifth FYP, there are a number of serious gaps in it, namely-

- .. Though poverty alleviation is the number one national priority, no national body has been created with befitting legal status and urgency in order to institutionalize our agony(?) for the poor. There are a good number of national bodies (Export Development Council for example) to take care of the interests of specific groups/sectors but there is none even merely to flag the strongest hurdle of poverty to our social prosperity.
- .. Poverty alleviation seems to be a political buzzer, a password for political power and a catchy slogan to lull the people because there is no annual or medium or long term target rate of poverty reduction. There is no time horizon selected for doing the job.
- .. There is no serious institutional attempt to work out potential impact on poverty of different development policies taken at times. There are only sporadic attempts of individual researchers to look at segmented issues of poverty. Government-sponsored or externally supported research projects on poverty remained mainly confined to sector-specific and microscopic examination of the extent and depth of poverty and other generic attributes of poverty although by virtue of its urgency poverty issues need to be thrashed out into minute details. We are not aware of any attempt to model impacts of different shreds of policies/actions that can be used as criterion to choose from a menu of alternative options for development.

There are no national funds set aside for use in poverty eradication projects. Although several funds have been created, they contribute much less than required to do away with poverty. Budgetary allocations of funds for different sectors presumed to be poor-friendly are erratic and residual and subject to availability of resources. They do not mean any statutory commitment on the part of the government. Rather, they occasionally represent personal benevolence of a political leader. The NGO Affairs Bureau has been working for a few years, and the Social Development Fund is going to be commissioned shortly.

- “ No laws have been enacted so far to impart a sense of obligation on the part of the lawmakers and administration of the country to bind them to use some portion of public funds, be it negligible, exclusively for the pro-poor development. Social responsibilities, moral obligation and legal legitimacy of the constitutional pledges thus seem to have been trodden.
- “ In contrast to this apathy toward this national obligation, photographs of octogenarian ladies whose wrinkled faces portray dry soil of Bangladesh during drought, the maimed underage poor children of the streets, acid-burnt faces of the innocent and powerless girls have been put on publicity gear in the world sympathy market for collecting doles from the good folks.

Poverty eradication is the avowed number one socio-economic objective of the present government. Other governments had also given a special place although only on paper to the objective of poverty alleviation but no institutional arrangement for giving this noble objective at least a place of national recognition has been developed. Bangladesh's constitution also has more than a score sections on poverty eradication and social justice but these constitutional pronouncements have fallen just orphan. There is the need to convert national slogan of poverty eradication into a viable working policy framework. In view of the renewed emphasis of the donors to closely target poverty eradication along with their reshuffling of aid policy, it is felt that an appropriate national institution building is absolutely necessary at the moment. Such a national institution will not only give a sense of credibility of the oft-spoken *jihad* against poverty but also sharpen our efforts with a strong jolt through effective mobilization of domestic and foreign resources. The donors may also have a trust in government efforts.

Although Bangladesh has important organizations like the Planning Commission, Economic Relations Division and the Bangladesh Bureau of Statistics, we do not have data on foreign aid classified by sectors, nor were any efforts undertaken to take stock of the impact of foreign aid on the poverty of the country.

Section Four **Trends of Foreign Aid to Bangladesh**

Our starting point is the observation that three decades of foreign assistance has largely failed to improve directly the economic status of the poor in Bangladesh, particularly that of the lowest quarter of the population. A good number of empirical studies on other least developed countries of the world have confirmed the observation above. We take the position that Bangladesh's external aid regime is flawed and there is little scope for debate over it. Rather, an important issue at hand is how to swing the trend of benefit of aid in favor of the poor. Significant changes

have taken place in thought on the link between growth and distribution with an emerging consensus in favor of endogenizing distribution in the growth process. Assessment of the need for external aid was the lead issue of the first seminar of Bangladesh Economic Association of the year 2001, and hopefully many relevant issues would come for scrutiny. In this context, we have posed the question: **whom should we assess the need of foreign aid for? Would we continue with replaying past sequences to fatten the obese and sicken the sick or commit to a new discourse?** One of our computations shows that if we could ensure spend only the grant portion of foreign aid among the lowest decile of the population, their income per head could have increased to Tk. 3000 by 2000. Several studies (Sobhan, Rehman 1990, Rahman and Rahman, 1982) on the spilled benefit of foreign aid to the poor show that external assistance has substantially been appropriated by those who do not deserve it.

Food aid (grants and loans) was 17 percent of the total foreign aid (Table A.1 in the annex). Besides a few strictly poverty-focused channels like FFW, VGD, GR etc. a large part of it has been used for subsidized food supply for the defense, police, BDR, urban middle class and industrial workers. Except in dire cases of famine the real poor could avail only bits of it. The number of jobs created through FFW, road maintenance projects and the like remained seasonal and irregular. The media and some studies report glaring corruption and misappropriation of resources allotted for rural infrastructure development. Therefore, the impact of food aid on the poor has been minimal. Therefore, official data on positive impact of food aid on poverty should be discounted.

Most of the resource of project aid has been utilized in public sector projects in which power development preempted the lion's share of the project aid. What have been the results? 35 to 40 percent of electricity generated is dissipated (better to call it stolen) through line loss, the highest in the world compared to only 3-5 percent in Sweden and about 10 percent in North America. PDB's financial performance has become so poor that according to media report the organization had to use the pension fund of its employees to defray current expenses. Public sector textile mills, the railways and public jute mills are the second largest group of users of project aid but all of the three organizations are also losing concerns of the public sector.

Apart from this broad classification, external assistance can be seen from still another perspective. The government of Bangladesh had procured some long term foreign loans for socio-economic and rural development and distributed them through banks under the supervision of the central bank, and in some cases, of the ministry of finance. Several start-up funds for industrial development were also procured in the early and mid-eighties to help develop a strong industrial base of the country. The

funds were disbursed through the Bangladesh Shilpa Bank and Bangladesh Shilpa Rin Sangstha, two specialized financial institutions of the country. To the utter dismay and bewilderment of the donors, most of these loans have long been overdue and some have little prospect of recovery. Nationalized commercial banks also were given some foreign funds for on lending to the rural borrowers. The banks formed consortiums with other financial institutions and disbursed loans. Nonperforming loans of the NCBs and the BKB are also high.

Section Five **Impact of Foreign Aid in Bangladesh**

It will be a good exercise to scan foreign aid by components and track the benefits going to the poor. There are four principal forms of foreign aid whose impact on the poor can be examined. First, grants in the form of food aid. Bangladesh received food grants worth US dollar 5.1 billion or 14 percent of total aid received over the past three decades till 2000 (Table A.1 in the annex). Food aid has been used in a number of areas, and only that used for FFW, development and maintenance of rural physical infrastructure, VGD and other sharply focused pro-poor programs had some positive impact in mitigating the severity of poverty. Even then, the portion that trickled to the poor is negligible. Different studies on the efficiency of rural infrastructure development projects have shown that misuse was gigantic. The second element of aid is in the form of project aid preempted by the public sector projects.

As the analysis suggests there were a number of projects that were implemented purely on political consideration in order to muster political support during the undemocratic regimes. In contrast to the favorable impact of these projects on the poor, they had rather pernicious effects on the poor through high rates of inflation triggered by conspicuous consumption of those who were the beneficiaries of these prestige projects. Unearned benefits flowed not only from these projects but also from other public expenditures not with proper supervision. Huge non-performing assets of the banking system are an example of the political bribery that fueled inflation thorough mounting bank loans and consequent monetary expansion. Inflation spread across the economy and seriously eroded already puny purchasing capacity of the poor. Foreign aid increased substantially during the two martial law regimes and caused abnormal growth of money supply intensifying inflation. High correlation between foreign aid, money and between money supply and inflation rate supports this observation.

There are good reasons to argue that directly productive public investment should go for poverty alleviation, and the private sector will have to mobilize its own resources where the role of the government will be that of a promoter. In the light of the pledges of our

constitution, poverty alleviation has been identified as number one national priority in the first five year plan of Bangladesh but it has been pushed down in the subsequent plans, and recently it has found its place in the fifth five year plan. In order that poverty alleviation is not relegated to back places again with changes in governments there is the need for stabilizing its place along with a permanent stake in foreign aid. More importantly, resources availed as doles through safety net should not be allowed to be dissipated and misappropriated, and there should be a permanent mechanism to check it in future. **Foreign aid should be made a launching pad for the poor to enable them to compete in the market. Poverty alleviation should not be merely a traditional chapter in the planning document but an integral part of it, elaborate and self-contained, and if necessary prepared as an independent document.**

The World Bank that is, to most of the people of the "poor world," all powerful and omniscient also failed to foresee the danger of arsenic pollution due to hand and shallow tube well technology used in Bangladesh. Rather they forced it on Bangladesh with the help of a permissive chief of the state who found no problems with money because when you put your policy independence on sale there is always an overbid.

Since independence Bangladesh received external resource of \$ 36.332 billion (Table A.1 in the annex) in which the shares of food aid, project aid and commodity aid were 17.0 percent, 53.6 percent and 29.4 percent, respectively. External resources were equivalent to 4 to 10 percent of GDP of Bangladesh during the same period. On the other hand, foreign aid for the ADP ranged from a low of 57 percent to 75 percent during the 1975-93 period. The projected share of foreign aid in the fifth plan period is 22 percent. The impact of foreign aid was found to be mixed. While some studies found important positive correlation between aid and growth, other studies that focused on equity aspects reported a skewed pattern of distribution. Studies in the sixties (Rahman, Anisur, 1968) found that foreign aid failed to trigger a process of a sustainable savings investment. One of the serious gaps in aid evaluation exercise was the failure to examine how external assistance impacted poverty situation in Bangladesh. Overall, aid administration in Bangladesh could not create an environment in which external resource supplement could strengthen domestic efforts to fill the saving investment gap.

A Small Econometric Exercise on the Impact of Foreign Aid on Poverty in Bangladesh

We did not attempt to technically assess the significance of aid on poverty alleviation in Bangladesh because of several reasons that include non-availability of a time series on poverty. Of the several alternative measures, data on Gini Coefficient could be

made available in a scattered way. Using interpolation and extrapolation a series could be generated for a time span of 1982 to 1998. Augmented Dickey Fuller (ADF) Unit Root test, though it is not appropriate for such a short span of time period, showed that Gini Coefficient was stationary at level and not a Random Walk. ADF test statistics at level was found at -4.374 against critical value of -3.692 at 5% significance level.

We ran a Granger Causality Test (2 lags) for Gini and Foreign Assistance (FA) and the result follows:

Null Hypothesis	F-Statistics	Probability
FA does not Granger Cause Gini	0.777	0.481
Gini does not Granger Cause FA	0.330	0.725
Log FA does not Granger Cause log Gini	0.709	0.512
Log Gini does not Granger Cause log FA	0.365	0.702

The result (though very weak) shows that foreign economic assistance does not have any impact on poverty alleviation.

We dwelled with other alternative measures of poverty, which could not pass the ADF test of integration nor could show any causality. A proxy, financial deepening, could be taken to understand structural changes in rural areas reflecting poverty situation. Causality test results between financial deepening (FD) and foreign assistance (FA) in log terms stood as follows.

Granger Causality		
Null Hypothesis	F-Statistics	Probability
FA does not Granger Cause FD	5.955	0.023
FD does not Granger Cause FA	3.161	0.0890

Johansen Cointegration			
Eigen Value	Likelihood Ratio	5% Critical Value	Hypothesized No. of CE
0.709	38.91	25.32	None*
0.413	11.72	12.25	At most 1 @

*Rejects hypothesis at 5% significance level. @Indicates 1 cointegrating equation at 5%.

OLS Estimation			
log FD = - 4.49	+ 1.07 log FA	R ² = 0.633	DW = 0.80
t = (-3.88)	(6.65)	F = 44.28	ADF = -2.96 (10% level)

The results show that the FA has some impact on FD, though the theoretical inconsistency remains that the model may have faced some multicollinearity problem because of the way we have tried to measure FD. Moreover, a two-way or bi-directional causality that is found in the study is indecisive. This should be resolved by computing variance decomposition (VDC) technique that could not be calculated because of the limitation of data.

World Bank's Evaluation of Bangladesh's Performance in Poverty Alleviation and Human Development

The World Bank (2000) in its report on Bangladesh observed, "There was substantial progress in poverty reduction in the first half of the 90s.... the incidence of extreme poverty remained substantially unchanged from 1983/84 to 1991/92, and there was a notable decrease subsequently from 43 percent in 1991/92 to 36 percent in 1995/96. ..Bangladesh has done very well in the area of human development in the 1990s..... The potential decline in poverty incidence in the first half of the 1990s was negated partially by rising inequality in rural and urban areas. The Gini coefficient index of the distribution of consumption increased from 0.31 in 1991/92 to 0.36 in 1995/96 in urban areas and it increased from 0.25 to 0.26 in the rural areas. During the same period the Gini index of income inequality increased from 0.40 to 0.44 in urban areas and from 0.36 to 0.38 in the rural areas."

Box: 2

- ❖ life expectancy at birth increased from 56.4 in 1987 to 60.8 in 1998;
- ❖ infant mortality rate decreased from 116 per thousand live births in 1988 to 67 per thousand live births in 1996;
- ❖ total fertility rate decreased from 4.3 in 1990 to 3 in 1998; adult literacy rate increased from 24.8 percent in 1990 to 56 percent in 1998;
- ❖ gross primary enrollment ratio increased from 61 percent in 1991 to 35 percent in 1997, and
- ❖ primary dropout rate decreased from nearly 60 percent in 1991 to 35 percent in 1999

Apparently, World Bank has good indicators to project but there is some scope for qualifying their observations. The countervailing effect of increased Gini coefficients for both consumption and income inequality in rural and urban areas on reduced poverty is not precise and may mask much of the reality. For example, though national average of head count index (HCI) of poverty declined from 43 percent in 1991/92 to 36 percent in 1995/96, there is still significant regional variations in

poverty. In ten worst pockets¹ of poverty the HCI was as high as 50 percent (Salma Chaudhuri Zohir, 2000). On human development front, national average of infant mortality rate and total fertility rates may not be a good representation because the rates are not uniform among the poor and the well-to-do families. In fact, fertility has declined mostly in educated and rich couples. **Thus there is a likelihood that total fertility has declined because of a steep fall among the educated couples with unchanged rate among the uneducated poor.** In education, though school enrollment has increased and dropout rate has fallen on the basis of official data, in practice real achievement may be much smaller. Food for education program has created an incentive for the parents to send their children to school but in many cases they are only on paper. It was found in a survey that only 59 percent of the students shown as enrolled were present on the day of visit by the survey team (Education Watch/Omar Haider Chowdhury, 2000). Apart from this, corruption in education is so high that the real impact cannot be known precisely without onsite inspection by independent evaluators. The possibility of clustering of improvement among the literate people, and not among the poor, cannot be ruled out. The results of the World Bank report should be interpreted cautiously, though the overall picture may be of an improvement but not as bright as might prima facie appear.

Causes of Differential Performance of the Impact of Foreign Aid

Research on aid evaluation followed two tracks. One strand (Chowdhury, K.: 1991, Rahman and Rahman: 1982, Cassen, Robert and Associates: 1986, Weisskof: 1972) investigated into purely economic issues like structural change, performances in growth, foreign sector, saving and investment etc. The other strand (Bayes, Abdul: 1989, Dornbusch, R.: 1990, Sobhan, Rehman: 1990) looked at socio-political aspects or the evolution of political economy of foreign aid in the donor and recipient countries. In the second track, those who had some specific ideological stand tried to explain good and poor performances of foreign aid in terms of their judgement about geo-political realities of the cold war era. On the other hand, economists sharing the World Bank-IMF tradition of thought focused on country-specific conditions especially on administrative conditions, policy and institutional weakness and political leadership. The first group of the second strand has identified favorable preferential treatment of some countries by the donors as the main facts of their success. Somewhat neutral and independent researchers sought to explain the impact in terms of economic forces as they have shown up in different sets of data. However,

¹ Jamalpur, Sherpur, Panchgar, Rangpur, Serajganj, Kurigram, Gaibandha, Lalmonirhat, Nilphamari, and Sherpur.

it can be accepted as a majority opinion that **national policies had crucial role in aid utilization and in the results that followed them.** As such, foreign economic assistance by itself could do neither good nor evil to a country, and it lay with those who dictated policies. **Local power configuration and political strength of different classes of the population had much to explain the experiences as they were.** For example, in some East Asian countries external resources had profound good impact on growth and distribution. Although these countries enjoyed a better position in global relations despite somewhat undemocratic political setting, their policies had all along been conducive to expansion. In contrast, Latin American countries availed huge amount of foreign aid but they were found groping in stagnation and high rates of inflation. About Zambia in Africa, it has been said that if the country could convert into investment all the external resources it had received since the sixties, per capita income of its people would have been \$24000 instead of \$6000 as at present (WDR 2000).

Section Six

Concluding Observations

What emerges from the discussion above as tips for Bangladesh is that with things as they are in the international arena and with no power at the disposal of Bangladesh to influence global political reality, the country will have to make judicious decisions and adopt policies in order to maximize its share in external available assistance. In this context, **pragmatism, rather than isolation on rigid ideology seems the right move.** At domestic front, efforts must be there to make full use of borrowed resources and to place them where social return is the highest. Bangladesh being a dotty entity on the world map in terms of both economic weight or diplomatic muscle will have to try to make the best use of the opportunities that the country may happen to come across. The discussion above reveals clearly that firm commitment to and necessary policy changes in favor of poverty alleviation are going to be the central element of donor policies in respect of multilateral and bilateral deals, and policy stance along with poor-friendly institutions based on broad partnership with the stakeholders at home will feature prominently in the donor evaluation in aid dispensation. Keeping these realities in mind, we may make the following tentative observations.

- ✓ Assessment of external aid requirement should be made separately for the private sector, public sector and poverty alleviation taking into consideration unique challenges and opportunities in each area. The availability of foreign aid for the private sector depends, among other things, on macroeconomic stabilization, risk and return of foreign private investment, quality of

institutional and physical facilities, labor market conditions and, above all, overall socio-political environment etc. Government's demand for foreign aid depends mainly on its investment programs, domestic resource position and the size of the public sector in the delivery of goods and service. On the other hand, foreign resource needed exclusively for poverty alleviation can be determined following two approaches. One of them is to consider poverty alleviation being dependent on general economic performance or the so-called trickledown assumption. The other is the safety net approach in which case poverty alleviation is taken as a separate problem that results from the failure of the economic system to protect the poor from vulnerabilities due to shocks and adjustment or policy shifts. Since these three sectors have their own peculiarities and the vulnerability of the poor cannot be overcome immediately, it is our observation that poverty alleviation would need to have its own way of resource projection.

- ✓ Institutions building for poverty eradication should be based simultaneously on technical preparedness and advocacy for social mobilization. Institutional buildup has two aspects: technical preparation and social mobilization.

i. Technical Preparation

- A national body (Council, Board, Trust or whatever) with the top state executive as its head has to be created to translate constitutional pledges into institutional reality, and at the same time to give a feel among the donors that Bangladesh is serious and sincere about poverty eradication as it has been enshrined in its constitution.
- A separate poverty alleviation program has to be legitimized through suitable pieces of legislative enactment, and specification of the tasks, roles and responsibilities for selected public agencies have to be made;
- A national fund for poverty alleviation has to be created to justify demand for external assistance for this purpose.
- A detailed analytical framework to evaluate the impact of alternative national development strategies has to be evolved;
- Appropriate legal sanctions and procedural guidelines to be followed in the formulation, execution and monitoring and evaluation of poverty alleviation projects have to be declared.

ii. Social Mobilization Issues

- Social mobilization in favor of pro-poor pressure on the political process is important as past experience showed. Such advocacy is

inevitable on two counts. First, bipolar social polarization with one group thriving on external assistance and the other being progressively bypassed and marginalized has to be checked not only on equity consideration but also on the grounds that social stability would be at stake. Ongoing social trend is perhaps an omen to such a prognosis. Second, with erosive aid utilization policies donor confidence will suffer and aid-worthiness of Bangladesh will decline. Advocacy is also a part of the efforts at bridging the gap between the poor and the rich. Civil society and private sector participation in the national policy decision process as underlined in the new pro-poor strategy of the World bank and IMF have to be strengthened for better results and wider acceptability of social choice.

NGO Participation

- The NGO sector is a powerful development in recent years, and the pressure for involving them in broad partnership is mounting day by day not because of the change of mood of donors but because of the proactive contributions of the NGOs themselves to the overall social mobilization. In 1998, NGOs all over the world mobilized \$10 billion of which \$5 billion was from the official sources (WDR 2000). In a good number of projects financed by multilateral aid, NGOs were involved in a big way. At the same time, the donors are gradually giving a place of trust to the NGOs due to the growing disillusionment of the donors with the role, intention and capacity of many governments of the poor countries to deal with poverty.

In Bangladesh, there is a mixed reaction to the NGO activities. Firstly, NGO activities are not transparent and specifically so in respect of procurement of funds and their utilization. There is a feeling among the political circles that given a boost to the NGOs they may outgrow and pose a challenge to the political status quo. The administration on the other hand is fearful of the NGOs because they may disturb their status, opportunities and authority. At the academic circles also there is mist of distrust about the achievements claimed by the NGOs. Finally, the religious fundamentalism opposes NGOs in view of its reactionary stance and dominant social status being at stake. The NGO image in Bangladesh has been soiled somewhat by the irresponsible conduct of some of the self-styled NGOs that have created a muddling environment by indulging in fraud and deception.

There are also some silly arguments that NGOs supposedly being the vanguard of the poor should not be permitted to be involved in commercial activities for profit.

There is a serious misconception in this sort of picturization of the NGO role. In real perspective, NGOs are a different organizational form with dominant interest in poverty alleviation and boosting social consciousness of the weak. But this should not preclude them from profit seeking so long as their profit from commercial undertakings is used to subsidize poverty eradication programs. NGOs can even emerge as viable service providers and very well compete with public and private sector firms and thereby help to improve overall economic efficiency.

However, the real point is that **doubts about NGO activities in Bangladesh have emerged mainly because of the lax administration over them**, for which in many cases they can evade public scrutiny and disclosure of information. With proper set of policies the NGOs can be brought into positive regulatory net, and fake NGOs can be screened out. A good decision therefore would be to design appropriate mechanism requiring them of information disclosure, audit and other functions.

In assessing the need of foreign aid for Bangladesh for a decade or two into the future, we have stressed the following several new perspectives on aid and poverty alleviation. Poverty alleviation that is the number one national priority should be sharply focused in seeking external assistance. This priority has again several important implications as follows.

- Investment mix of aided projects should be determined with clear and unambiguous focus on poverty alleviation.
- Institutional and policy issues should be reorganized in order to garner greater resources for poverty alleviation.
- The shares of the private sector and the public sector in external assistance should be determined separately not only because of the fact that prospects for world aid and composition of external resource has changed over the past years and the modalities in each area are different but also because the objectives of aid are also different.
- ODA is already on the decline and the fall is going to be precipitous in the coming years. Naturally, the competition for soft loans would be stronger in the world. The perspective of the donors has also changed with increasing disillusion with the intention, objectives and capability of the governments of the poor countries to improve the conditions of the poor.
- Another equally important change is the mounting insistence of the bilateral and multilateral donors on the development of partnership of the stakeholders in the development process - from policy formulation, execution and monitoring/evaluation. The World Bank, IMF and Asian Development Bank

have already declared their policy to set aside their potential assistance for social development under suitable institutional arrangement where the voluntary private organizations including NGOs have an important part to play. Many of their projects have been tagged with NGO participation as a policy requirement. Bangladesh will have to realize correctly these implications and be ready to vie for already scarce resources.

- There is a strong case for concrete arrangement for local funds for poverty alleviation to match external assistance.
- In view of the changed attitude of the donors about targeting resource for the poor and about accommodating institutional setup, the government will have to develop new institutions and/or modify and renovate old ones to the best satisfaction of donors' and recipients' interests simultaneously.
- Assessing future need of foreign assistance on the basis of past practices by the hardened public agencies will be simply an extrapolation of the past trend that seems hardly acceptable now or in the future.
- Inducting voluntary private organizations including NGOs should be one of the viable options for developing aid-utilization mechanism through meaningful partnership.
- The number one national priority for poverty alleviation should be given an institutional shape on a firm footing through the involvement of top state executives.
- Since inter-government or official philanthropic transfers have already thinned out and are going to be scarcer in the years to come, external resources can be tapped only through competitive bidding. The stronger the credibility of the government's intention, sincerity, commitment and the more proven is its ability, the brighter will be the prospects for external assistance.

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Annex

Table A1: Food, Commodity and Project Aid: Year-wise Disbursement (Million US Dollar)

Year	Grants			Loans			Total				
	Food	Commodity	Project	Food	Commodity	Project	Food	Commodity	Project	Total	
1971/72	129.6	115.5	0.0	0.0	22.2	3.5	25.6	129.6	137.7	3.5	270.8
1972/73	181.7	279.2	25.5	0.9	9.7	54.5	65.1	182.6	288.9	80.0	551.5
Subtotal	311.3	394.8	25.5	0.9	31.9	57.9	90.7	312.2	426.6	83.5	822.3
1973/74	111.6	40.3	66.7	117.1	67.9	57.7	242.7	228.7	108.1	124.4	461.2
1974/75	199.6	109.6	65.7	182.8	266.1	77.3	526.2	382.3	375.7	143.0	901.0
1975/76	111.8	90.9	31.1	201.7	270.6	94.4	566.7	313.5	361.5	125.5	800.5
1976/77	77.1	125.5	52.9	44.5	129.1	105.7	279.2	121.6	254.6	158.6	534.8
1977/78	116.9	154.5	121.5	61.0	225.9	154.1	441.0	177.8	380.5	275.6	833.9
Subtotal	616.9	520.8	337.9	607.1	959.6	489.2	2055.8	1224.0	1480.3	827.1	3531.4
1978/79	162.1	204.5	135.3	16.9	278.2	233.1	528.2	179.0	482.6	368.4	1030.0
1979/80	318.8	161.6	170.2	55.9	216.9	299.7	572.5	374.7	378.5	469.9	1223.1
Subtotal	480.9	366.1	305.5	72.8	594.1	532.8	110.7	553.7	861.1	838.3	2253.1
1980/81	162.6	179.6	251.5	31.5	212.9	308.4	552.8	194.1	392.5	559.9	1146.5
1981/82	230.5	213.0	210.3	0.0	206.9	378.9	585.8	230.5	419.9	589.3	1239.7
1982/83	221.1	244.5	121.9	34.4	207.5	348.0	589.9	255.5	452.0	469.9	1177.4
1983/84	263.0	244.4	226.4	13.4	194.8	326.4	534.7	276.4	439.2	552.8	1268.4
1984/85	244.5	243.9	214.9	2.5	187.7	376.0	566.1	247.0	431.6	590.9	1269.5
Subtotal	1121.6	1125.3	1025.1	81.8	1009.8	1737.7	2829.2	1203.4	2135.1	2762.8	6101.3

Year	Grants				Loans				Total			
	Food	Comm odity	Project	Total	Food	Comm odity	Project	Total	Food	Comm odity	Project	Total
1985/86	202.7	137.2	205.7	545.6	0.0	256.2	504.1	760.3	202.7	393.4	709.8	1305.9
1986/87	225.4	176.0	260.2	661.6	0.0	226.5	707.1	933.6	225.4	402.5	967.2	1595.1
1987/88	300.4	170.7	352.6	823.7	0.0	338.7	477.9	816.6	300.4	509.4	830.5	1640.3
1988/89	226.9	164.0	282.0	672.9	0.0	373.7	621.9	995.5	226.9	537.7	903.9	1668.5
1989/90	187.5	135.7	442.7	765.9	0.0	321.0	722.7	1043.7	187.5	456.7	1165.4	1809.6
Subtotal	1143.0	783.6	1543.2	3469.8	0.0	1516.1	3033.6	4549.7	1143.0	2299.7	4576.8	8019.5
1990/91	268.6	246.2	316.7	831.5	0.0	161.9	739.2	901.1	268.6	408.1	1055.9	1732.6
1991/92	241.2	192.4	383.7	817.3	0.0	193.6	600.4	794.2	241.2	386.0	984.2	1611.4
1992/93	121.0	207.8	489.5	818.3	0.0	164.3	692.4	856.8	121.0	372.1	1181.9	1675.0
1993/94	117.9	184.5	407.8	710.2	0.0	266.8	581.8	848.6	117.9	451.3	989.5	1558.7
1994/95	137.4	226.9	525.8	890.1	0.0	105.8	743.1	849.0	137.4	332.7	1268.9	1739.0
Subtotal	886.0	1057.8	2123.4	4067.2	0.0	892.5	3357.2	4249.6	886.0	1950.3	5480.5	8316.8
1995/96	138.0	182.4	357.0	677.4	0.0	46.9	709.3	766.3	138.0	229.4	1076.4	1443.8
1996/97	100.9	247.6	387.5	736	0.0	15.5	729.6	745.2	100.9	263.1	1117.2	1481.2
1997/98	93.1	77.2	332.5	502.8	0.0	42.4	706.2	748.5	93.1	119.6	1038.7	1251.4
1998/99	176.9	118.8	373.7	669.4	0.0	205.2	661.6	866.8	176.9	324.0	1035.3	1536.2
1999/2000	NA	NA	NA	NA	NA	NA	NA	NA	142.0	283.0	1150.0	1575.0
Subtotal	508.9	626	1450.7	2585.6	0	310	2806.7	3126.8	650.9	1219.1	5417.6	7287.6
Grand Total	5068.6	4874.4	6811.3	16754.3	762.6	5314	12015.1	17012.5	5973.2	10372.2	19986.6	36332.0*

NA = Not available

* The numbers in the last row will not add up to the grand total because desegregated data for 1999/2000 are not complete.

Source: Economic Relations Division.

Table A2: Annual Commitment, Disbursement and External Debt Service Payment (Million US Dollar)

Year	Commitment	Disbursement	Debt Outstanding	Debt service Payment	Debt Services (% of exports*)
1971/72	610	271	26	0	-
1972/73	878	551	65	0	-
1973/74	555	461	324	17.5	4.2
1974/75	1266	901	793	70.8	14.4
Subtotal	3309	2184		88.3	
1975/76	958	801	1324	55.6	11.7
1976/77	726	535	1580	50.0	9.1
1977/78	1147	834	2521	65.0	9.2
1978/79	1760	1033	2934	89.0	9.9
1979/80	1153	1223	3009	108.0	8.8
Subtotal	5744	4426		367.6	
1980/81	1559	1147	3412	85.1	6.3
1981/82	1922	1240	3916	91.5	7.1
1982/83	1522	1177	4352	136.1	8.9
1983/84	1695	1268	4810	128.3	7.6
1984/85	1980	1269	5268	170.0	10.2
Subtotal	8678	6101		611.0	

Year	Commitment	Disbursement	Debt Outstanding	Debt service Payment	Debt Services (% of exports*)
1985/86	1661	1306	6140	183.7	11.2
1986/87	1603	1595	7528	232.8	11.3
1987/88	1529	1640	8675	289.0	12.6
1988/89	1873	1668	8923	293.7	11.7
1989/90	2175	1810	9809	301.7	10.9
Subtotal	8841	8019		1300.9	
1990/91	1370	1732	11934	317.2	11.0
1991/92	1915	1611	12371	336.6	9.8
1992/93	1274	1675	12748	374.4	9.5
1993/94	2410	1559	14562	402.2	1.0
1994/95	1612	1739	15947	467.9	8.5
Subtotal	8581	8316		1898.3	
1995/96	1280	1444	14454	469	7.9
1996/97	1661	1480	14373	463	7.0
1997/98	1791	1251	13455	444	8.6
1998/99	2648	1536	15338	481	9.1
1999/2000	1475	1575	15791	548	9.5
Subtotal	8855	7286	73411	2405	
Grand total	43619	36337		6671.1	

Source: ERD

* Including services receipts and remittances.

Table A3: Private Capital Flows to the Developing Countries

	1992	1993	1994	1995	1996	1997	1998	1999	2000/a	2001/a
Total Flows	131.9	177.3	147.1	227.1	226.7	167.9	121.5	80.4	56.3	125.9
Private Capital Flows, net	106.9	128.6	142.3	211.4	224.7	115.2	66.2	67.4	36.4	116.0
Private direct Investment, net	35.7	57.9	81.0	95.8	119.5	141.3	151.6	154.6	141.9	140.5
Private portfolio investment, net	62.7	76.8	105.0	41.4	79.6	39.4	0.3	4.8	17.3	31.8
Other private capital flows, net	8.5	-6.1	-43.7	74.2	25.6	-65.6	-85.6	-91.9	-122.8	-56.2
Official flows	25.0	48.7	4.8	15.7	2.0	52.7	55.3	13.0	19.9	9.9
Five Crisis Countries of Asia	21.4	22.5	33.6	53.9	67.4	-15.6	-28.2	0.0	-22.4	10.5
Private direct Investment, net	6.3	6.7	6.5	8.8	9.8	9.8	10.3	13.1	9.1	9.0
Private portfolio investment, net	12.4	18.3	12.0	18.8	25.5	8.4	-8.2	12.8	13.2	3.3
Other private capital flows, net	2.7	-2.5	15.1	26.3	32.0	-33.8	-30.4	-23.0	-44.6	-1.7
Official flows	2.1	1.4	0.6	0.7	-6.1	15.7	19.5	-6.7	5.0	-2.1
Other Asian Countries	-7.4	20.8	36.0	38.3	52.6	22.3	-12.5	-0.6	4.6	13.0
Private direct Investment, net	8.4	26.3	38.2	39.3	44.4	45.3	49.6	41.1	38.4	38.9
Private portfolio investment, net	3.4	0.9	7.0	2.6	3.9	-0.1	-7.2	-8.9	-8.0	-0.2
Other private capital flows, net	-19.2	-6.4	-9.2	-3.5	4.3	-23.0	-54.8	-32.8	-25.8	25.8
Official flows	8.9	8.1	2.0	-3.8	-7.6	-8.3	-1.1	-0.1	-8.1	-4.2

a/ Projection.

Source: Global Economic Prospects 2000, Table 2.6, p. 98

Financial Globalization: The Banking Sector in Bangladesh

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Abstract: This paper examines changes in banking sector in the context of financial globalization of Bangladesh. Since 1982, Bangladesh has undertaken a wide range of reforms in this sector. Now foreign and local private banks and non-bank financial institutions are doing business profitably. But financing development projects still remains a responsibility of the DFIs and NCBs. This is the single largest area of loan default. In the changing scenario, NCBs are losing their market share in terms of deposits and advances. Some recent domestic and international developments are likely to affect the financial position of various categories of banks. As a result, merger and takeover of banks in the near future cannot be ruled out.

1. Introduction

The liberalization and globalization process in an economy covers both the stabilization and structural adjustment measures. Stabilization efforts in Bangladesh economy revolved around the measures for controlling the fiscal imbalances, balance of payments and external payment deficits and maintaining a low level of inflation. On the other hand, it introduced a host of structural measures in the industrial sector, foreign trade regime and financial sector. These measures were aimed at improving efficiency and productivity and integrating itself with the world economy.

Through the stabilization and structural adjustment measures, Bangladesh wanted to achieve some major objectives. These are: *first*, an efficient and dynamic industrial sector with more participation of local and foreign private investors; *second*, an external sector with minimum quantitative and tariff restrictions; *third*, an exchange rate system free of allocative restrictions for trade; *fourth*, a financial system

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operating in a competitive market and regulated by prudential norms and standard; and *finally*, macroeconomic stabilization for faster growth and poverty alleviation (Barai, 2001; p.1). So globalization of the financial sector and reforms in banking were pursued with an overall objective of achieving economic growth.

After liberation in December 1971, six nationalized commercial banks (NCBs) with 1116 branches started operations. At that point of time, the economic and social objectives of the government were clearly pursued through them. The banks were to operate under a regime of rigid government control. Nationalization of banks brought hope for the common man through a new approach of credit delivery and branch expansion. The bankers were expected to help develop the economy by mobilizing savings and channel them to the more needy segments.

No doubt, banks played an important role in making the credit delivery relatively easier but the poor recovery of loans posed a major problem for their loan portfolio management during 1972–82. The opportunity to borrow at cheap rates encouraged many less productive investments. Those who borrowed for projects with low financial returns could not repay their loans. In other cases, borrowers wilfully defaulted because they believed creditors would not be able to take any legal punitive measure due to inadequate laws and regulations for debt recovery and ineffective debt recovery efforts on the part of the banks and financial institutions.

As liberalization in the sector progressed and private banks were allowed to operate in a favorable atmosphere since 1984, their number increased particularly in the 1990s. Side by side, a host of new foreign banks opened their branches here. With their rise and growth during the period of liberalization, the NCBs witnessed a relative decline of their financial position in the economy. The private commercial banks (PCBs) and foreign commercial banks (FCBs) have now become important players in the financial market.

The deregulation of the economy has not seen an expected growth of the non-bank financial institutions (NBFIs). This could be understood from the figure that since 1981, when the first NBFIs was formed, up to 2001 only 22 NBFIs came into operation in the market. (See Appendix Table A1). This has partly contributed to the non-growth of a meaningful capital market, which in turn has affected the efforts of industrialization and economic growth of Bangladesh. Stock exchanges were not able to generate any sort of dynamism in terms of capital mobilization as well. Since the stock market mayhem in 1996, it is yet to bounce back and has remained an insignificant institution in the financial market.

The present paper makes an attempt to look at various developments and changes that took place in the banking sector during the period of financial liberalization and globalization. In doing so, it has been divided into six sections including the introduction.

Section II

2. Financial Globalization in Bangladesh

The financial system in a country comprises two major financial institutions, viz. the banking financial institutions (BFIs), the non-bank financial institutions (NBFIs) including the stock exchange. First we have to have some idea on these and different measures undertaken to liberalize and globalize them in Bangladesh:

2.1 Banking Financial Institutions (BFIs)

The banking sector is still the mainstay in Bangladesh. After 1982, the government started liberalization measures in the form of denationalization and privatization of banks. The objective of liberalization policy was to create competition, increase level of customer services and improve operational efficiency in the banking sector. But the NCBs and PCBs could not improve their financial and operational efficiency. Moreover, the liberalization measures could not restore credit discipline and overall health of the banking sector. This was mainly because of the absence of prudential and information regulations and effective lenders' recourse related laws. Prior to the liberalization drive, the banks and financial institutions spent much time for compliance with directives on credit allocation and too little time for screening the quality of their loans. In these circumstances, by the early 80s, it was realized that without broad-based financial reforms, the continuing "financial distress" would further aggravate.

The government set up a National Commission on Money, Banking and Credit in 1986 to identify problems in the above areas and suggest remedies to overcome the problems. A World Bank Mission also made an in-depth study on the banking sector in 1987 and submitted a report to the Government. On the basis of two important reports, wide-ranging reform measures were adopted and undertaken under the Financial Sector Reforms Project (FSRP) since 1989.

Section III of the study deals in detail with the various reform measures implemented in the banking sector in the FSRP phase and afterwards.

2.2 Non- Banking Financial Institutions (NBFIs)

The operations of BFIs remained confined in limited sphere of financial services, i.e. the intermediation function. Moreover, their effort to meet long term demand requirements (industrial project financing) with short-term sources (demand deposits) created a mismatch in the financial cycle and put a tremendous pressure on their financial base. They failed to come up with innovative financial products to meet the customers' choice base as well as to broaden their operational horizon. That is why the need for vibrant NBFIs was felt.

The first private sector NBFIs emerged in the financial market only in 1981 when the Industrial Promotion and Development Company of Bangladesh Ltd. (IPDC) was floated. After the establishment of IPDC, two multinational leasing companies, viz. Industrial Development Leasing Company (IDLC) of Bangladesh and United Leasing Company Ltd. (ULC) were set up in the mid-1980s. In the meantime, another investment company - Saudi-Bangladesh Industrial and Agricultural Investment Company Ltd. (SABINCO) came into being as a joint venture between two sovereign states namely Bangladesh and Saudi Arabia in 1984 and it started operation in 1986. Two locally sponsored investment companies namely Bangladesh Commerce and Investment (BCI) and National Credit Limited (NCL) were also formed but within a few years of their operations both the investment companies fell into crises and were closed down.

Two NBFIs, viz. BCI & NCL were permitted to operate in the mid-80s; they were incorporated in Bangladesh under the Companies Act, 1913. However, their operations were regulated by the provisions relating to Non-Banking Institutions as contained in chapter V of the Bangladesh Bank Order, 1972. The regulatory framework under which the NBFIs came into being in 1985 was far from adequate and left some scope for ambiguity, which led the then NBFIs to carry on their operations in the nature of banking. To remove the ambiguity and to regulate the activities of NBFIs, Bangladesh Bank promulgated an order named 'Non-Banking Financial Institutions Order, 1989.' (Saha et al, 2000)

The order was an improvement over the previous regulatory base, but its purview was limited, i.e. the order did not cover the whole range of NBFIs' activities. To meet the regulatory inadequacies which existed so far, a new Financial Institution Act (FIA) has been enacted in 1993 (repealing NBFIs Order 1989 and chapter V of Bangladesh Bank Order, 1972) for better regulation and growth of the NBFIs sector of the country. The new FIA-1993 encompasses a wide range of institutions, viz. merchant bank, investment company, mutual association, mutual company, leasing company, building society, etc.

A quick look on their growth and operational horizon brings out some important facts that they are yet to emerge as important players in terms of resource mobilization, product diversification or offering intra-competition so that financial consolidation happens. Moreover, the effort to bring more NBFIs in the capital market has so far made a limited progress as the number of 22 NBFIs substantiate it. A new project named Financial Institutions Development Project (FIDP) has been initiated by the Bangladesh Bank along with the IDA. Under the project Credit Bridge Standby Facilities (CBSF) will be offered to the NBFIs at the time of their needs.

SECTION III

3. Banking Sector Deregulation

The deregulation and reform process of banking sector in Bangladesh could be divided into three major phases. These are:

- v Pre- FSRP Phase (1972-1989)
- v FSRP Phase (1989-1996)
- v Post-FSRP Phase (1996-)

3.1 Pre-FSRP Phase (1972-1989)

Bangladesh had 6 nationalized banks since independence up to 1982. During this period, they were under rigid economic regulations of the government and their functioning was directly guided by a socialistic objective. Hence, the commercial consideration got a back foot. Credits were directed to the priority sectors; rate of interests were low and were determined by Bangladesh Bank (BB). The basic features of the period are:

- a. Directed credits to the priority sectors, particularly the agriculture sector and small and nationalized industries with little consideration to loan quality.
- b. Rapid expansion of bank branches. For example - branches of 6 NCBs increased to 3343 in 1984 from 1116 in 1972. while 2 DFIs expanded their branches from 108 to 981 during the period (see Table A9 in the appendix).
- c. Focus to provide banking services to the rural mass. Urban-rural proportion of branches deposits and credits improved significantly in favour of rural areas.
- d. Operated under rigid control of the government and BB. The regulations of BB also covered fixation of interest rates.

In 1982, Govt. decided to liberalize and privatize 2 nationalized banks, viz. the Pubali and Uttara Banks. The reform measures in the 1980s in banking sector were concentrated mostly in the ownership restructuring.

Erosion of credit discipline and operational efficiency of the banks emerged during the period. In this context, a National Commission on Money, Banking and Credit was formed to suggest measures to overcome the problems. A World Bank Mission also prepared a report for overhauling the banking sector at that time.

3.2 FSRP (Period 1989-1996)

On the basis of the reports submitted by the National Commission and the World Bank Mission, Bangladesh Bank adopted wide ranging measures under the Financial Sector Reforms Project (FSRP) to reform the banking sector in 1989. The measures are considered to be significant as their implementation changed the map of banking sector of the country.

Important measures under the FSRP were:

- Liberalization of interest rate policy.
- Abolition of refinance and introduction of rediscounting scheme.
- Introduction of new system of loan classification and provisioning.
- Capital adequacy requirement
- Strengthening the Central Bank.
- Improvement in the operation of NCBs.
- Computerization of banks.
- Development of human resources.
- Reforms in the legal environment.
- Reforms in foreign exchange regime.
- Development of capital market.

One major aim of FSRP was to improve the operations of NCBs through the development of new banking technologies, computerization of banking operations, changing the back-dated internal banking practices, corporate and credit cultures, etc. During 1992-96, FSRP consultants developed a number of new management and operational tools such as Lending Risk Analysis (LRA), Large Loan Reporting System (LLRS), New Loan Ledger Card (NLLC), Performance Planning System (PPS), Management Information System (MIS), Bank Supervision Technique, especially off-site supervision through CAMEL rating of the banks, etc. and disseminated these tools and techniques through extensive training programs to a large number of bank officers. (Chowdhury et al., 1999)

It is important to note that the FSRP was funded by the World Bank under the Financial Sector Adjustment Credit Programme.

3.3 Post-FSRP Phase (1996-)

The post-FSRP phase is marked by one important development, i.e. constitution of the Banking Reform Committee, popularly known as Mahmud Committee, in 1996. The government asked the Committee to give suggestions on the following areas of NCBs and BB:

- a. How to improve the recovery position;
- b. How to increase income, reduces expenditure and improves service standard;
- c. How banks should formulate policy on recruitment, promotion and training for the employees;
- d. How to strengthen the supervisory and regulatory authority of BB;
- e. Others - the Committee considers fit for recommendations.

The Committee submitted its final report in December 1999, which recommended a broad base reform measures in the above areas. The report is considered to be a comprehensive one. Unfortunately, no significant measures have been introduced following the BRC report to enhance the operational efficiency of commercial banks. Therefore, the impact of the proposed recommendations of the committee could not be ascertained.

Section IV

4. Globalization Effort and State of Affairs of Banks

Reform measures introduced in the banking sector during the globalization drive of the economy have changed the financial map of country. An increase in involvement of the PCBs, and FCBs in the financial sector, more use of technological gadgets and improved set of banking regulations to supervise their activities are in place now. But with the passage of time, the NCBs are proving to be less adaptive to the open environment and hence losing their competitive position. On the other hand, PCBs are increasingly capturing the share of market. In the following discussion, an effort has been made to highlight the changes in comparative positions of different categories of banks as the globalization process went on. Deposits, advances, net profit, sector-wise portfolios, default position, capital adequacy, number of branches and rural-urban position of banks are the variables on which the following discussion has been made.

4.1 Share of Deposits

From Table A2 in the Appendix we can compare the share of deposits of different banks for a period of 1991 to 2001. During the period of 1991 to 1994, the share of deposits of NCBs showed a marginal increase from 61.18 percent to 62.52 percent. Since then, they lost their share consistently and in June 2001 it went down to 54.17 percent. That shows a significant decline.

On the other hand, PCBs achieved nearly 6 percent increase in their market share during the period, i.e., from 26.99 percent in 1991 to 32.59 in 2001. This nearly equals the share of deposit lost by the NCBs during the period.

FCBs in the same time could not improve the market share in the period. Actually, their share has remained stagnant around 6.5 during the entire period. Though we see a downward trend in their deposits in the first half of the 1990s.

4.2 Share of Advances

Though NCBs maintained about 52 percent share of advances from 1991 to 1997; their position declined since then. In 2001, NCBs had 45.92 percent share of advances from 50.08 percent in 1999. This was a significant fall. Table A2 in the Appendix highlights these statistics.

PCBs on the other hand, experienced a rapid rise of their share in those years. While they had 22 percent of advances in 1991, it rose to 33.21 percent in 2001.

FCBs had no major changes in share of advances during the period. Interestingly, their share of advances marginally declined at the end of the period of our analysis.

All along, the DFIs played a major role in advances, having a share of 15.43 percent in 2001. Their share of advances was even higher in the first half of 1990s.

4.3 Net Profit :

In 1991 and 1992, NCBs were incurring losses but showed profits to a tune of Tk. 2332 million in 1995. Since then the profits of NCBs declined to Tk. 58.5 million in 1998. Then a further rise is followed to reach profits to Tk. 2035.2 million in 2000. But observers are skeptic of the profit figures shown by NCBs.

From the same Table A2, we find that net profit of PCBs increased to Tk. 1997.3 million in 1997 compared to Tk. 1378.7 million in the previous year. Actually, the profits of PCBs has followed an upward line since 1994 and reached to a peak at Tk. 4306 in 2000.

Interestingly, the profit of FCBs rapidly increased from Tk.253.2 million to Tk.2264.50 million during the period 1991–2000. The rise in profit was consistent.

While analysing the net profit earning position of different categories of banks, we find a steady increase of profits for both FCBs and PCBs. NCBs in recent years are also showing profit but in some questionable terms. DFIs, on the other hand, remained in red during the entire period of our review.

A query that might arise here is - how did FCBs increase net profit without increasing their share in total advances? Income from off-balance sheet activities, interest from quality credit and income from inter bank money market could be the components through which they are earning more. Superior human, financial and technological base of the FCBs might also have played an important role in this regard. They have established their superiority in banking through offering a host of innovative financial products like on-line banking, ATMs, international ATM Card, Credit Card, Tele-banking, Debit Card, Point of Sale (POS), VISA Card, Master Card and so on.

4.4 Economic Sector-wise Advance

Table A5 in the Appendix shows the sector-wise involvement of different categories of banks for a period of December 1984 to June 2001. While analysing sector-wise advances by various categories of banks, we find that NCBs were still the highest suppliers of advances to the agriculture, fisheries and forest sectors. In June 2001, this sector absorbed about 13 percent of the advances given by NCBs. Noticeably, the percentage of advances to this sector by NCBs was declining. PCBs and FCBs had very insignificant advances in the sector.

Interestingly, in the industrial sector, advances by NCBs and DFIs increased over the years while the share of advances by PCBs and FCBs declined. This might indicate that FCBs and PCBs were less interested to offer medium and long-term loans to the entrepreneurs.

In regard to working capital, shares maintained by all categories of banks was a fluctuating but an overall upward trend was visible during the period of 1991 to 2000.

Trade was the major area where advances by NCBs, PCBs and FCBs were the highest. Here PCBs had the highest level of their portfolio engagement, though it declined in recent years. Downward trend was also visible in the portfolios of NCBs and FCBs.

4.5 Default Position

Over the years, the overall default position in the banking sector has deteriorated. The total classified figures for all banks reached about 35 per/cent of the total loan/advance made by all banks in December 2000. The percentage went down to 31.49 per/cent in December 2001. This classified loan figures may not truly represent the real default picture because of changes in overdue criterion that was brought up to 6 month from 3 months that was applied earlier. (*The Daily Star*, 2002).

Analysis of the trend of bad and loss loans (see Table A6 in the Appendix) to total classified loans shows an alarming position. From 1995 to 2000, it reached from 74.56 percent to 88.57 percent to the discomfort of the banking sector.

But a look on the classified advances by category of banks highlight that DFIs was facing the maximum default pressure while it was minimum for FCBs. NCBs also faced a serious crisis with their defaulted loans. In December 2000, non-performing asset position for NCBs, PCBs, FCBs and DFIs stood at 38.56 percent, 22.01 percent, and 3.38 percent respectively. It could be seen that NPA position of FCBs was well under the international acceptable standard (Please see Table A7).

The legal support for recovery of defaulted bank loans is still weak despite the introduction of a number of legal reforms under the FSRP. This might have encouraged a section of borrowers to become wilful defaulters.

4.6 Capital Adequacy Position

Table A8 in the Appendix deals with the capital adequacy position of various categories of banks. As per the Banking Companies Act, a bank should maintain 8 percent risk-weighted assets at any time. By this consideration, NCBs were constantly failing to maintain the level and could be identified as significantly under capitalized. Though PCBs were not able to manage the capital requirement ratio up to 1998, their capital requirement position reached 11.29 percent in 2000. This was a significant improvement.

The FCBs always maintained more than 10 percent level of capital signifying that they were well capitalized all the time.

4.7 Number of branches

In 1984, 2 out of 6 NCBs were denationalized and 6 private banks and 4 more foreign commercial banks were in operations in the market. During the FSRP period (1989-96), the government fairly eased entry for both domestic and foreign banks. As a result, the number of both PCBs and FCBs increased quite rapidly. As in June 2001, the number of domestic private banks and their branches increased to 29 and 1296

respectively, while the foreign commercial banks and their branches reached 12 and 33 respectively in the same period. The number of branches of 4 NCBs were the highest in 1996 and since then declined. Now, more than 700 NCB-branches face closure under the policy of the government to stop operation of the loss making branches (see Table A9 in the Appendix for details).

4.8 Share of Bank Deposits and Credit in Rural and Urban areas

Table A10 shows that the share of rural deposits stood at 19.6 percent in June 2001 compared to 21.9 percent in December 1992. It also shows that the share of rural credit declined to 14.1 percent in June 2001 from 19.8 percent in December 1992. Interestingly, the rural credit had all along remained significantly lower than rural deposits. So, the rural area has remained under serviced. Deposits in rural area might have served the deficit sector of the economy as well.

Section V

5. Some Recent Developments and the Banking Sector

In recent time, some developments in the domestic and international arena have affected or have the potentials to affect directly or indirectly the operational and financial positions of banks in Bangladesh. The terrorist attack on the United States and the subsequent war on terror in Afghanistan further slowed down the world economy in 2001. This has also affected worldwide trade. In Bangladesh, the export sector has particularly been hit by the down turn in the international economy. The export of garments and other important items in the United States, EU and other countries declined sharply during the second half of 2001. This along with some other developments may have bearing on banks. Let us briefly discuss some of them.

5.1 Decline in Garment Export:

During the first months of FY 2001-02, export of garments from Bangladesh declined by 7.64 percent. In aggregate figure this stood at \$1527 million against \$ 1653 million for the same period of FY2000-01. The relevance of this development in the garments sector is that about 17 percent of the banking advances are directed to this sector. The heavy involvement of commercial banks in the garments sector financing was ensuring a regular flow of income. So any adverse development in garments sector is likely affect operational efficiency of banks as well.

Reports are there that about 1000 garments factories have been closed down and many others are facing closure. So both the drop of export and closure of the

factories are likely to affect income and advance portfolio of banks by way of creating non performing assets. Drop of export in other items like frozen fish, tea and leather products have the same implications for the banks.

5.2 Changes in the CRR Composition

In February 2002 Bangladesh Bank issued a circular through which it changed the cash reserve ratio (CRR) rule followed by it. Under the new policy, the previous components of cash reserve were changed. Earlier, a bank could maintain 4 percent CRR deposit with Bangladesh Bank in both local and foreign currency. The new policy made it obligatory to maintain the deposit only in local currency. This qualitative change in CRR immediately created a pressure on some banks particularly newly established PCBs to have more local currency, which they tried to get from the inter-bank money market. The Eid Festival coincided with the implementation of the new rule and the cash demand on all commercial banks increased. As a result of sudden demand for local currency, the call money rate in the inter-bank money market shot up to a record 51 percent. This abnormal increase in the call money rate has a possibility to erode the profitability of the borrowing banks in this year.

5.3 Changes in Government Deposit -Keeping Policy

The government has taken a decision not to keep government fund in any private bank, which has not completed five years of operation. PCBs, which have completed more than five years of operation, can now get 15 percent of government deposits. This rate has been reduced from 25 percent recently. This is likely to affect the liquidity and profitability of the PCBs particularly those are established recently.

5.4 Closure of Bank/Branches

The banking financial market has seen merger of two important foreign banks. The ANZGrindlays Bank merged with the Standard Chartered Bank, and Bank of Nova Scotia merged with Bank Asia Ltd.

Three more FCBs, viz. Habib Bank Ltd., Muslim Commercial Bank Ltd. and the National Bank of Pakistan are facing closure because of their inability to maintain a capital of \$ 10 million. In February 2002 Bangladesh instructed NCBs and DFIs to close by the end of the year more than 700 branches which were incurring losses for last consecutive five years.

These developments together have the potentials to affect the banking environment of Bangladesh in short, medium to long term basis.

Section VI

6. Conclusions and Recommendations

It may be noted that the globalization drives in trade, financial and investment sectors in Bangladesh have not gone unrewarded totally. The liberalization in the financial sector has brought local and foreign bank and non-bank financial institutions to enter into the market. They have entered in to the financial market with their superior financial, human and technological base. This has brought a qualitative change in the banking sector in Bangladesh. Following business rule, they seem to be more interested in doing those financial and business activities which have more profitability but little or no growth or development role. But all things could not be left to the pure market forces. There are lots of avenues of improvement in the standard of services, loan recovery measures, income generation and expenditure reduction in NCBs. Without doing these, they could not be made economically viable either.

Based on the discussion in the paper the following suggestions are made for future steps:

1. In the financial sector, foreign participation may be beneficial, by easing economic regulations without tightening prudential and information regulations. So economic regulations should be gradually eased but prudential and information regulations should be strictly tightened and domestic financial markets need to be competitive to ensure that intermediaries are efficiently run for creating fair competition among the domestic and foreign banks.
2. With the rapid financial globalization, the share of FCBs in total bank advances, particularly in project finance, should be increased for economic development of the country.
3. Human and technological base of NCBs has to be raised to an international standard so that they can compete with players in the financial market.
4. Innovative financial products that have given a leading edge to FCBs should also be introduced by NCBs and PCBs to remain competitive in the market.
5. For their existence, particularly DFIs and NCBs should henceforth draw a combat plan to attack the classified loan position. They should target to check the bad and loss category of classified loans. Incentives could be given to the employees in recovery of such loans.

6. More credit should be channeled to the rural sector to involve more people in the rural economy.
7. Political interference by way of loan disbursement and waiver must be stopped. Professional and ethical standard of the bankers in NCBs has also to be raised.
8. It seems that present banking laws have become toothless, and defaulters are taking full advantage of this weakness. So, effective enforcement of laws relating to defaulted banks loans has to be ensured. The enforcement problems of our legal and judicial system are "Systemic". The government should have strong political commitment to speed up the process of updating the legal and judicial system.

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**Table A1: NBFIs and Their Ownership Pattern
(Share of Equity Holding)**

Sl. No.	Name of the NBFIs	Local (%)	Foreign (%)	Public (%)
01.	Industrial Development Leasing Company of Bangladesh (IDLC)	46.89	45.00	08.11
02.	United Leasing Company Ltd. (ULC)	28.00	60.00	12.00
03.	Phoenix Leasing Company Ltd. (PLC)	100.00	-	-
04.	International Leasing and Financial Services Ltd. (ILFS)	100.00	-	-
05.	Uttara Finance and Investment Ltd. (UFIL)	25.00	25.00	50.00
06.	Bay Leasing and Investment Ltd. (BLIL)	100.00	-	-
07.	GSP Finance Company (BD) Ltd. (GSPFC)	24.00	76.00	-
08.	Prime Finance and Investment Ltd. (PFIL)	100.00	-	-
09.	Industrial Promotion and Development Company of Bangladesh Ltd. (IPDC)	30.00 (Govt.)	70.00	-
10.	Saudi-Bangladesh Industrial and Agricultural Investment Company Ltd. (SABINCO)	50.00 (Govt.)	50.00	-
11.	VANIK (BD) Ltd. (VANIK)	40.00	60.00	-
12.	Delta-Brac Housing Finance Corporation Ltd. (DBH)	70.00	30.00	-
13.	Union Capital Ltd. (UCL)	100.00	-	-
14.	Bangladesh Industrial Finance Company Ltd. (BIFL)	100.00	-	-
15.	Infrastructural Development Company Ltd. (IDCOL)	100.00 (Govt.)	-	-
16.	Peoples Leasing & Financial Securities Ltd. (PLFS)	100.00	-	-
17.	The UAE-Bangladesh Investment Company Ltd. (UAEBICL)	40.00	60.00	-
18.	Bahrain Bangladesh Finance & Investment Co. Ltd. (BBFI)	70.00	30.00	-
19.	National Housing Finance & Investment Ltd.	100.00	-	-
20.	Midas Financing Ltd.	100.00	-	-
21.	First Leasing International Ltd.	100.00	-	-
22.	Bangladesh Finance & Investment	100.00	-	-

Source : Compiled from brochures of various NBFIs

Table A2: Distribution of Deposits, Advances and Net -Profit by Category of Banks

Year	NCBs			PCBs			FCBs			DFIs		
	Share of Deposits (%)	Share of Advances (%)	Net Profit (Tk. in million)	Share of Deposits (%)	Share of Advances (%)	Net Profit (Tk. in million)	Share of Deposits (%)	Share of Advances (%)	Net Profit (Tk. in million)	Share of Deposits (%)	Share of Advances (%)	Net Profit (Tk. in million)
1991	61.18	52.66	-387.8	26.99	22.00	-114.5	6.95	6.01	253.2	4.88	19.33	-1934.0
1992	62.78	49.56	-1433.9	25.63	24.75	-76.2	6.48	6.13	383.6	5.11	19.59	-971.4
1993	62.16	52.16	297.7	28.23	26.25	-94.6	4.17	4.71	543.6	5.44	16.88	-2508.8
1994	62.52	50.60	749.1	27.22	27.35	164.0	3.95	5.01	683.2	6.31	17.04	-2624.7
1995	61.19	53.13	2332.2	27.93	27.59	764.9	4.54	5.14	907.6	6.34	14.14	-2920.7
1996	61.33	52.88	273.1	27.83	26.73	1378.7	5.30	5.40	987.2	5.54	14.99	-2091.2
1997	60.26	53.03	157.7	28.19	26.94	1997.3	6.40	5.77	1350.2	5.15	14.26	-2687.2
1998	60.21	51.09	58.5(P)	27.22	25.58	1609.7	7.36	5.21	1494.3	5.02	17.92	-3039.1(P)
1999	59.91	50.08	118.8(P)	27.54	25.92	1849.4	6.99	5.21	1575.3	5.56	18.07	-1475.5(P)
2000	55.81	48.53	2035.2	30.30	29.16	4306.7	7.93	5.22	2264.5	5.96	17.09	N.A.
2001	54.17	45.92	-	32.59	33.21	-	6.78	5.43	-	6.46	15.43	-

Source: Bangladesh Bank, *Economic Trends*, various issues Bangladesh Bank, *Annual Report*, various issues

Note: (1) Net Profit figures are after Tax.

NCBs = Nationalized Commercial Banks

PCBs = Private Commercial Banks

FCBs = Foreign Commercial Banks

SBs = Specialized Banks

(P) = Provisional

Table A3: Deposits Distributed by Category of Banks

(Tk. in Crore)

Year	NCBs	DFIs	FCBs	PCBs
December 1975	1.017	28	78	-
March, 1981	2,658	140	227	-
December, 1981	3,378	187	285	-
December, 1984	717	471	566	701
December, 1985	7,495	465	673	1,781
December, 1989	12,536	860	1,398	4,779
December, 1990	13,633	954	1,560	5,691
June, 1993	18,799	1,666	1,403	8,076
December, 1996	27,755	2,133	2,737	12,971
December, 1998	34,328	2,965	4,194	15,518
June, 1999	35,346	3,282	4,121	16,244
June, 2000	39,617	4,232	5,625	21,506
June, 2001	44,227	5,273	5,538	26,612

Source: Bangladesh Bank, Scheduled Banks Statistics, Various issues.

Table A4: Advances by Category of Banks

(Tk. in Crore)

Year	NCBs	DFIs	FCBs	PCBs
December, 1975	697	181	40	-
March, 1981	2,434	547	110	-
December, 1981	2,886	684	142	-
December, 1984	5,473	1,914	411	414
December, 1985	5,913	2,328	536	1,370
December, 1989	9,898	3,822	1,087	3,563
December, 1990	11,108	4,297	1,209	4,429
June, 1993	14,127	4,848	1,139	6,713
December, 1996	20,862	6,537	2,041	10,127
December, 1998	26,027	9,131	2,751	13,031
June, 1999	27,423	9,756	2,813	13,990
June, 2000	28,805	10,144	3,102	17,311
June, 2001	31,584	10,614	3,737	22,842

Source: Bangladesh Bank, Scheduled Banks Statistics, various issues.

Table A5: Sector-wise Advances by Category of Banks

(Tk. in Crore)

Date	Agriculture, Fisheries, Forest	Industry	Working Capital/ Cash Credit	Trade
NCBs				
31-12-84	1095 20.00%	1051 19.20%	182 3.33%	2492 45.53%
31-12-89	1677 16.94%	3278 33.12%	768 7.76%	3036 30.68%
31-12-94	2408 15.23%	4376 27.66%	2473 15.63%	4334 27.40%
31-03-99	3615 13.60%	8645 32.52%	3548 13.35%	6401 24.00%
30-06-2000	3801 13.19%	10458 36.30%	2688 19.33%	7113 24.69%
30-06-2001	4040 12.79%	10327 32.70%	3192 10.11%	8712 27.59%
FCBs				
31-12-84	13 3.16%	101 24.61%	43 10.63%	211 51.42%
31-12-89	3 0.30%	17 15.68%	313 28.85%	524 48.21%
31-12-94	13 0.97%	395 30.00%	232 17.70%	440 33.46%
31-3-99	3 0.13%	609 22.44%	485 17.89%	764 27.78%
30.06.2000	5 0.17%	462 14.91%	463 14.93%	672 21.65%
30.06.2001	8 0.22%	663 17.73%	815 21.80%	892 23.87%
PCBs				
31-12-84	4 0.96%	72 17.38%	13 3.11%	289 69.87%
31-12-89	116 3.26%	644 18.00%	267 7.49%	2027 56.89%
31-12-94	233 3.00%	1369 17.74%	512 6.64%	4131 53.52%
30.06.2000	249 1.44%	2387 13.79%	1739 10.05%	9021 52.11%
30.06.2001	278 1.22%	3642 15.94%	1840 8.06%	10334 45.24%

Source: Bangladesh Bank, Scheduled Banks Statistics, various issues.

Table A6: Status of Classified Loans, Sub-Standard Loans and Bad/Loss Loans for all Banks

Year	Total Loans	Total Classified Loans	Classified Loans as % of Total	Sub-Standard Loan as % of TCL	Doubtful Loans as % of TCL	Bad/Loss Loans as % of TCL
1990	177.12	46.21	26.09	N.A	N.A	N.A
1991	185.60	46.54	25.00	N.A	N.A	N.A
1992	214.36	65.74	30.67	N.A	N.A	N.A
1993	244.28	85.16	34.86	N.A	N.A	N.A
1994	262.78	91.56	34.85	N.A	N.A	N.A
1995	310.29	99.42	32.04	13.08	12.36	74.56
1996	351.00	110.54	31.49	13.42	12.27	74.31
1997	462.27	173.32	37.49	7.88	11.70	80.42
1998	312.95	199.03	39.18	4.66	7.72	87.62
1999	342.04	238.79	41.11	5.26	8.27	86.47
2000 (Dec.)	654.42	228.51	34.92	4.82	6.33	88.57

Source: Bangladesh Bank, *Banking Regulation & Policy Department*.

- Note: 1. For the period 1990-1996, data of DFIs are not included in the above table, but for 1997-98, the figures include those of BSB, BKB and RAKUB.
 2. Data of BSRS for 1990-98 are not included in the above table.

Table A7 : Trend of Classified Loans by Category of Banks

Year	NCBs	PCBs	FCBs	DFIs	(in percentage)
					% of Classified Loans as a whole
1990	27.59	23.73	20.65		26.09
1991	26.30	34.20	11.87		25.00
1992	31.86	31.10	12.64		30.67
1993	32.23	44.42	10.46		34.86
1994	32.12	44.53	8.89		34.85
1995	31.00	39.43	5.40		32.04
1996	32.55	34.77	4.72		31.499
1997	36.57	31.42	3.58	65.72	37.49
1998	40.38	32.72	4.14	63.15	3.18
1999	45.62	27.09	3.80	65.02	41.11
2000 (December)	38.56	22.01	3.38	62.56	34.92

Source: Bangladesh Bank, Banking Regulation & Policy Department.

- Note: 1. For the period 1990-1996, data of DFIs are not included in the above table, but for 1997-98, the figures include those of BSB, BKB and RAKUB.
2. Data of BSRS for 1990-98 are not included in the above table.

Table A8: Capital Adequacy of Different Banks (In percentage)

Year	NCBs	PCBs	FCBs	All Banks
1992	4.29	5.00	10.12	5.81
1993	5.72	5.29	11.34	6.76
1994	5.18	4.97	13.90	6.50
1995	4.91	4.97	13.17	6.30
1996	5.36	7.02	20.03	6.79
1997	5.25	7.34	18.79	6.70
1998	6.42	7.90	18.22	7.43
2000(June)	5.04	11.29	16.77	7.54

Source: Bangladesh Bank

Choudhury, T A (2001), "Financial Sector Reforms", CPD Task Force Report.

Table A9: Movement of Banking Variables: Group wise Banks and Bank Branches Expansion

Year	NCBs		PCBs		DFIs		FCBs	
	No. of Banks	No. of Branches						
1972	6	1116	-	-	2	108	3	14
1973	6	1291	-	-	2	142	3	14
1984	6	3343	6	628	2	981	7	20
1985	4	3393	8	653	3	1028	7	20
1992	4	3603	10	942	5	1169	7	18
1993	4	3612	11	943	5	1186	6	18
1994	4	3619	11	1000	5	1168	6	19
1995	4	3628	13	1065	5	1151	9	23
1996	4	3631	17	1081	5	1170	10	25
1997	4	3629	17	1120	5	1177	12	28
1998	4	3627	-	1153	5	1179	-	29
1999	4	3621	-	1219	5	1200	-	31
2000	4	3609	27	1264	5	1213	13	34
2001 (June)	4	3612	29	1296	5	1215	12	33

Sources: Bangladesh Bank Economic Trends, various issues.

Table A10: Shares of Bank Deposit and Credit in Rural and Urban Areas (in Percentages)

Date	Deposit		Credit	
	Rural	Urban	Rural	Urban
1	2	3	4	5
December 1992	21.9	78.1	19.8	80.2
December 1993	22.7	77.3	19.3	80.7
December 1994	21.9	78.1	19.9	80.1
December 1995	22.1	77.9	19.8	80.2
December 1996	22.1	77.9	19.1	80.9
December 1997	23.1	76.9	17.8	82.2
December 1998	22.6	77.4	17.1	82.9
December 1999	22.7	77.3	17.0	83.0
December 2000	19.5	80.5	14.6	85.4
June 2001	19.6	80.4	14.1	85.9

Source: Bangladesh Bank, Schedule Banks Statistics, various issue

Economic Fallout of the September 11 Terrorist Attacks in US

Ayubur Rahman Bhuyan*

Introduction

The paper highlights the observed repercussions as well as the probable impact of the September 11 terrorist attacks in the United States on the global economy. It also discusses some of the consequences of the tragic September event and its aftermath on the economy of Bangladesh and makes some tentative recommendations for policy.

Even before the September 11 attacks, the global economic situation was weak, with synchronized downturn across all major regions. Reports and economic forecasts of various international institutions indicate that the world economy has been in recession since the middle of 2000. In the United States, the largest economy of the world, the downturn began in March 2001. The September 11 terrorist attacks in New York and Washington have heightened the risks of the already deep global recession as business and consumer confidence slumped not only in the United States but also in the two other major economic blocs – Europe's Euro zone area and Japan. The rest of the world has caught the proverbial cold as America has started sneezing.

In assessing the impact of the September 11 terrorist attacks on the slumping US economy, Princeton University economics professor Paul Krugman wrote in the New York Times Magazine on 30 September 2001: "The main reason to worry about the economic fallout from the attack is not the attack itself, but the timing." Compared with the awesome size of the US economy, Krugman observes, the attack should only have a minor impact on the economy's overall ability to produce goods and services. Perhaps 15 million square feet of office space was lost, but it is less than half of 1 percent of the office space in the nation. The cost of clearing the rubble and rebuilding will run into tens of billions of dollars but that is less than 0.1 percent of the country's national wealth. The airlines are in financing trouble, have cut back flights, and laid

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off tens of thousands of employees, and the Boeing is scaling back in anticipation of cancelled aircraft orders, but the basic ability of the United States economy to move people and products around the country has not been seriously impaired.

The main cause of worry according to Krugman is that the attacks could have a disproportionately large psychological impact on demand by dissuading consumers and investors from spending and investing. In his view, such a negative spending trend would compound the US economy's existing problems. He explains that despite a series of interest rate cut by the Federal Reserve earlier during the year, efforts to reverse the economic downturn did not succeed. Moreover, he finds a "distinct resemblance" between today's US economic conditions and the persistent Japanese recession that began in the early 1990s. Krugman emphasizes, however, that the United States does not face an imminent risk of following Japan into a slump. The US leaders, he suggests, could avoid a prolonged period of stagnation by trying fresh remedies for stimulating the economy if the conventional solutions of cutting interest rates and taxes, or increasing government spending fail.

Table 1
IMF Projections on
Global Output Growth (annual percentage change)

	Pre-Sept 11	December	Difference	Pre-Sept 11	December	Difference
	Projections*	Projections@	from pre-Sept 11	Projections*	Projections@	from pre-Sept 11
	2001	2001	Projections	2002	2002	Projections
World Output	2.6	2.4	-0.2	3.5	2.4	-1.1
Advanced economies	1.3	1.1	-0.2	2.1	0.8	-1.3
United States	1.3	1.0	-0.3	2.2	0.7	-1.5
Japan	-0.5	-0.4	0.1	0.3	-1.0	-1.3
European Union	1.8	1.7	-0.1	2.2	1.3	-0.9
Asian NIEs	1.0	0.4	-0.6	4.2	2.0	-2.2
Developing Countries	4.4	4.0	-0.4	5.3	4.4	-0.9
Africa	3.8	3.5	-0.3	4.4	3.5	-0.9
Asia	5.8	5.6	-0.2	6.1	5.6	-0.5
Western Hemisphere	1.7	1.0	-0.7	3.6	1.7	-1.9
Middle-East, Malta, and Turkey	2.3	1.8	-0.5	4.8	3.9	-0.9
World trade vol. (goods & services)	2.8	1.0	-1.8	5.3	2.2	-3.1

Source: IMF, *World Economic Outlook*, December 2001.

Notes: * October 2001 WEO projections include data compiled on the basis of information available through end-August 2001.

@ December 2001 WEO projections include data compiled on the basis of information through early December 2001.

Before attempting to assess the impact of the September 11 terrorist attacks it will be worthwhile to look at the reports and forecasts of different international institutions like the IMF, the OECD, the World Bank, the WTO, and the Asian Development Bank on global economic growth.

IMF's Pre-September 11 Projections

The *World Economic Outlook (WEO)*, the IMF's regular biannual survey of global prospects and policies, published in October 2001 but compiled on the basis of information available through end-August 2001, warned of a steeper, longer downturn for an already deteriorating world economy (see Table 1).

In the October WEO, which does not gauge the impact of September 11 terrorist attacks, the IMF cut its forecast for world growth in 2001 to 2.6 percent – sharply lower than its previous projection of 3.2 percent (made in May 2001) and well below the previous year's actual 4.7 percent growth rate. The forecast for world growth for 2002 was also much lower, at 2.4 percent, than the May 2001 estimate of 3.5 percent. The October 2001 IMF report noted that even before the September attacks projections “were already showing marked slowdowns in activity in almost all regions of the world”, reflecting a delayed recovery in the US economy, a downturn in Europe, and a continuing slump in Japan.

The IMF's pre-September 11 projection for the United States envisaged growth of 1.3 percent in 2001 and 2.2 percent in 2002, down from the May 2001 estimates of 1.5 percent and 2.5 percent, respectively. It also revised down very significantly the outlook for other industrial countries. In Europe's Euro zone area, growth was marked down by 0.6 percentage point to 1.8 percent in 2001, driven by a sharp weakening in domestic demand growth and a greater than expected impact of the global slowdown. The fallout from the September 11 attacks would likely result in a further weakening of activity in the short run.

Of particular concern, according to the October *World Economic Outlook*, was the gloomy prospect for the Japanese economy. Its GDP was projected to decline by 0.5 percent in 2001, more than 1 percentage point worse than projected in May 2001.

IMF's Post-September 11 Projections

The latest IMF projections were prepared in December 2001, updating the projections in the October WEO. It provides a preliminary assessment of the events of September 11, their effects on the global economy, and how they fit in with the broader economic slowdown (see Table 1).

In this latest report, global growth in both 2001 and 2002 is estimated at 2.4 percent – lower than the October projections by 0.2 and 1.1 percentage points, respectively. Growth in both the developed and the developing countries is projected to slow down sharply in 2002 – by 1.3 and 0.9 percentage points, respectively, from the October WEO projections. Growth of world trade volume (goods and services) in 2001 and 2002 has also been revised downwards to 1.0 and 2.2 percent, respectively, from 2.8 and 5.3 percent in the pre-September estimates.

Overall, the IMF reports observe, GDP growth is now slowing in almost all regions of the globe, accompanied by a sharp decline in trade growth. There are also “unnecessarily large uncertainties and risks” both in advanced and emerging market economies.

First, with the broadening of the economic slowdown, there is no major region providing support to global activity. This has increased the vulnerability of the global economy to shocks and heightened the risk of self-reinforcing, deeper, and more prolonged downturn.

Another risk is that a slowing growth will put increasing pressure on financial and corporate sectors in a number of countries, notably Japan.

Thirdly, while emerging markets benefit from lower global interest rates, financing conditions remain volatile, partly reflecting continued uncertainties in a number of countries.

Finally, the United States’ threats to extend the war on terrorism beyond Afghanistan have exacerbated all of these risks.

OECD Projections

The *OECD Economic Outlook 2001* has painted a gloomy picture of the 12-nation Euro zone area, worse than in the IMF forecasts. Euro zone growth forecast is 1.6 percent for 2001 and 1.4 percent for 2002. Recovery is not in sight till 2003. Europe’s biggest economy, Germany, would expand by only 0.75 percent this year, and rebound only mildly in 2002.

Japan’s growth-rate, according to the *OECD Outlook*, is to shrink 0.7 percent in 2001 and 1.0 percent in 2002, with a return to a modest 0.8 percent growth in 2003. The growth in the US economy was projected to decline to 1.1 percent in 2001. According to the report, for the first time in 20 years OECD output is estimated to be contracting in the second half of the year.

WTO Forecasts

The World Trade Organization in its 2001 annual report released on 25 October warned that world trade could fall to zero in 2001 as the major economies that drove dynamic

growth over the last decade dipped into recession. Trade volume growth would drop to around 2 percent after hitting a near-record 12 percent in 2000, and could go even lower amid mounting global economic and commercial uncertainties. In May, the trade body predicted a drop in trade growth to only 7 percent in 2001, but events since then have darkened the picture.

According to WTO analysts, factors behind the decline in trade volume include the unexpectedly strong slowdown in demand growth in EU (the world's top single trader after the United States) and the US in the first half of 2001, and the repercussions on trade, especially that of East Asia, of the dramatic downturn in production and investment in the information technology worldwide.

There was now even a greater uncertainty for the fourth quarter, especially after the devastating September 11 attacks on the United States and their aftermath, the report added. The attacks have hit hard at major global industries like airlines, hotelery and cargo shipment.

WTO economists who drew up the report on the basis of figures and trends for the first half of 2001 said the political tensions resulting from the September attacks and the diversion of resources to the US "war on terrorism" were bound to have a heavy impact.

World Bank Report

In a regular World Bank report, growth forecast for US was 1.1 percent in 2001 and 1.0 percent in 2002. The report says that the US economy was already in a recession before September attacks but notes that interest rate cuts, reduction in tax rates, and additional spending under the stimulus package adopted by the US would help attain recovery.

On Japan, the World Bank report says that the economy was already in deep recession and that it will continue during 2002 as well, and may worsen even further thereafter. Japan's economy was projected to grow by a negative 0.8 percent in 2001, the report says.

In the Euro zone area, growth forecast for 2001 was a modest 1.5 percent. According to the report, major recovery is not expected until 2003.

Asian Development Bank Report

The Asian Development Bank in its November 8 update of the *Asian Development Outlook 2001* notes that economic growth among developing countries in Asia and the Pacific would fall to 3.4 percent in 2001 – from 7 percent in 2000 – as the terrorist

attacks in the US and the war in Afghanistan put pressure on an already fragile world economy.

The *Asian Development Outlook 2001* released in April predicted 5.3 percent growth in the area's developing economies. The November 8 update slashed the forecast dramatically in the wake of the September 11 attacks and the aftermath of the attacks.

The ADB forecasts, which do not include Japan, Australia and New Zealand, are roughly in line with the predictions from other financial institutions. Growth in the NIEs of Hong Kong, Taipei, South Korea and Singapore was projected to plummet to 0.1 percent in 2001 from 8.4 percent in 2000.

The ADB predicted a "modest rebound" in 2002 but until then economies that were already hurting will suffer as exports plummet, borrowing becomes more expensive, and investors shun increased risk. The report said fading hopes of speedy economic recovery in the US, Japan and Europe's Euro zone area – which together buy half of the exports from developing Asia and Pacific – further endangered the region. It said that the economies of Hong Kong, Taipei and Singapore would likely to contract as their exports dropped 10.1 percent in 2001, compared with a 19.5 percent rise in 2000.

The Situation in Specific Asian Countries

China

No country in Asia has been immune from the global recession that began in 2000. For the first time in more than a decade, growth in China, the envy of Asia, slowed to 7.6 percent in the first half of 2001. In the third quarter of the year, growth slowed to 7.0 percent as exports took a hit from the global downturn and the terrorist attacks in the United States.

Seven percent growth is the minimum required to generate the 10 million new jobs China needs each year over the next five years to cover the natural increase in the workforce, and absorb surplus farm labour plus workers unemployed as a result of state factory closures. Now that China has become a member of the WTO, a faster opening of the market to foreign competition may accelerate job losses.

India

India's economy has been growing slowly for the third year in succession. In the first quarter of 2001/02 (April-June), economic growth declined to 4.4 percent, compared to 6.1 percent in the same period of the previous year (2000/01). The September

attacks will worsen the situation. Tourism has suffered a setback. In 2000, some 2.6 million tourists visited India but the number came down to a trickle in 2001. After the September attacks, the major tourism-related industries like airlines and hotels are in distress. India's annual average earnings from tourism are \$3.5 billion. The anticipated losses cannot be estimated at the moment but these should be substantial.

Sri Lanka

GDP growth in Sri Lanka in the second quarter of 2001(April-June) was a paltry 0.4 percent compared to 1.3 percent in the first quarter. Government forecast for overall GDP growth in 2001 was a negative 0.6 percent from the original forecast of 4.5 percent. It is the first negative growth experienced by the country since records began in 1950. The cut in the forecast is because of the anticipated fall in export earnings in the wake of the September terrorist attacks and the US war against terrorism launched in Afghanistan. The most optimistic forecast at the moment puts the growth at 3 percent in 2002.

Pakistan

The Pakistan economy, already in crisis since 1998, has been hit particularly hard by the US-led military offensive launched in Afghanistan on October 7. With investors more leery, tourism off, manufacturing orders cancelled or cut back in all sectors, and production costs on the rise because of soaring insurance rates, Pakistan, being in the front line, has suffered more than its share of economic woe from Washington's Afghan venture. Even after the end of war in Afghanistan, tourists and businessmen are steering clear of Pakistan. Thousands of people have lost their jobs. Nobody at present considers investing in Pakistan. Unemployment has climbed to 20 percent and is unlikely to come down soon. Government forecast of economic growth has been cut back to 2.5 percent for 2001-02 (July-June).

Immediate Impact of the September 11 Attacks

Effect on Global Stock Markets

Having surveyed the forecasts of various international organizations for the global economy and the experience of some specific countries, we turn to the immediate effects of the September 11 terrorist attacks. The impact of the attacks has been the most severe on US financial markets. Stock prices in the Wall Street plummeted - the worst since the great depression - and the gloom quickly spread to markets of Eurozone areas and Japan. The Eurozone share prices fell to a rock bottom, and the Nikkei stock index in Tokyo tumbled to levels not seen in 17 years.

Effect on Tourism and Tourism-related Industries

The terrorist attacks have severely affected tourism and tourism-related industries like airlines business and hotels around the globe. The allied attacks on Afghanistan have aggravated the problem. Countries that depend greatly upon tourism for their foreign exchange earnings are the worst victims. Tourism prospects have become bleak. Airlines have fewer bookings, hotels have fewer guests, and tourist resorts are getting fewer tourists. Even in peaceful lands like France, Spain, Greece and Australia, the tourism industry is in trouble.

Countries of South and Southeast Asia are not immune either. A substantial portion of foreign exchange earnings in Indonesia, India, Philippines, Thailand, Sri Lanka, Maldives and Nepal derives from tourism. In some of these countries, tourism is the major basis of the economy. The tourist industry in Bangladesh, though small, feels the impact of the terrorist attacks. Business-related travels have gone down. Five-star hotels are facing crisis because of fewer visitors. Room occupancy in these hotels has fallen to a quarter of their total capacity.

Airline business has fallen drastically and is predicted to fall further. Airlines around the world, struggling to cope with rising insurance costs, falling demand and extra costs of additional security measures, are seeking financial aid to remain in business. All major US, European and Japanese airlines as well as a few others in Asia have declared massive lay-offs following a sharp slowdown in passenger booking. The aircraft manufacturers have laid off thousands of their employees due to slumping sales and fewer orders for new aircrafts.

Effect on Consumer Confidence in Major Economies

Consumer confidence remains shattered, signaling a prolonged downturn in the manufacturing sectors of the US, Eurozone area, and Japan, where companies have already slashed thousands of jobs. The October 1 Survey of the US National Association of Purchasing Managers (NAPM) shows that the purchasing managers' index (PMI), a closely-watched barometer of US manufacturing activity, fell 0.9 points in September. In Europe, the Eurozone Purchasing Managers' Index of manufacturers hit the lowest level in its four-year history in September, indicating that the region's manufacturing sector has entered recession. At the same time, the Bank of Japan's "tankan" quarterly business survey, a key indicator of Japan's corporate confidence, tumbled, which reflects deteriorating business confidence in Japan. The index, which gives the percentage of companies saying conditions are bad subtracted from those reporting conditions are good, showed corporate confidence at minus 38 in December 2001, the lowest since the tankan hit minus 47 in March 1999.

Meanwhile, more disconcerting news about worsening consumer confidence is pouring in. A survey by a Washington-based private economic research group (Conference Board) indicates that consumer confidence in the US, battered by job fears in the depths of recession, fell to a new seven-year low in November (2001). The consumer confidence index dropped 3.1 points to 82.2, the lowest figure since February 1994. Rising unemployment and continuing lay-off announcements are dampening confidence. The gloomy sentiment report was released a day after the US National Bureau of Economic Research officially declared the US economy had plunged into recession. The US economy shed 415,000 jobs in October as the unemployment rate jumped to a five-year high of 5.4 percent from 4.9 percent the previous month.

Japan's bleak economic picture has darkened further as the downgrading of the country's sovereign rating by the ratings agency Standard & Poor in November, and another corporate failure in the past month sent shivers through markets and retail data pointed to a deep recession. The Nikkei share average fell three percent.

These survey results indicate that the downturn in the world's three major economic blocs is going to deepen, spelling more woe for mounting unemployment in these regions. This downturn will surely have major repercussions on developing countries that greatly depend on them for trade, capital flows and investment.

Setback to Globalization

The tragic events of September 11 have given a big blow to the forces of globalization by affecting flows of world trade, aid, and investment. Cross-border transfer of goods, in which lies the essence of globalization, has now become costlier because of soaring insurance costs and the vastly increased shipping costs and costs associated with tightened security along national borders, airports and shipping ports. The higher cost of cross-border connectivity may make companies turn inwards. The time-honored principle of comparative cost advantage that determines the pattern of trade may now be less relevant.

Investment as proportion of GDP could fall worldwide as governments would now decide to spend more on national defence and internal security.

The prospect of FDI flows was already bleak because of the global recession. The UNCTAD's *World Investment Report 2001* published on 18 September, but prepared before the September 11 terrorist attacks, projected a 40 percent decline in the flows of global FDI (from \$1271 billion in 2000 to \$760 billion in 2001). The September events would in all likelihood reduce the FDI flows even further.

Flows of foreign aid from the developed to developing countries may decline because of the diversion of resources to fight “the war against terror”. The branding by the US of some countries as “the axis of evil” and its resolve to extend the fight against global terrorism beyond Afghanistan may also divert attention of the major economic powers from key international economic issues and genuine grievances of the poor nations.

Prospects and Risks

The highly pessimistic forecasts about global economic recovery notwithstanding, there is still a possibility that the recovery could come more rapidly than expected. Much, of course, will depend upon how effective the measures adopted by the US and the other major industrial nations will be in the coming days to bolster their economies by restoring consumer and business confidence.

In fact, government interventions that have taken place in different countries and regions in the five months after the September attacks have raised optimism about a quicker economic recovery and resumption of growth in the US as well as in other parts of the world.

- *First*, there is now a sizable amount of policy stimulus in the pipeline in most major economies.
- *Second*, economic fundamentals across the globe are now stronger than at any other time. as is evident in lower inflation, stronger fiscal position, greater monetary policy credibility, and more flexible exchange rate regimes in many emerging markets.
- *Third*, as observed by Krugman, the terrorist attacks should not substantially affect underlying productivity in the United States, on which global economic prospects ultimately depends.
- *Fourth*, lower energy costs is a positive sign, although it wouldn't fully offset declining employment and the loss of wealth caused by the terrorist attacks.
- *Finally*, despite the investment boom of the 1990s, the United States does not have any massive overcapacity. Unlike in Japan, US investment has been productive. Lower interest rates will encourage additional investment in the economy. One obvious area for further investment and growth is the energy sector, as the United States develops domestic energy to reduce its dependence on Middle Eastern oil.

After all, one should not forget that the United States' is a resilient economy, and its past history shows that all previous recessions had always been followed by periods of strong growth. Already, the US Administration and the Congress have adopted stimulus packages worth \$130 billion to invigorate the economy through tax cuts/rebates/investment credits for individuals and businesses and additional spending in

support of those that were directly affected by the attacks. In addition, the US Federal Reserve stands ready to provide the needed liquidity through its discount window to keep financial markets functioning and counter any potential market turmoil. The Fed, which had already cut federal fund rates seven times this year by a total of 3 percentage points (from 6.5 percent to 3.5 percent) prior to September, has cut the rate twice after the terrorist attacks to bring it down to 2.5 percent, the lowest in forty years. These fiscal-monetary measures are expected to give a psychological boost to the ailing economy.

In fact, already a lot of optimism is now being expressed about an early US recovery. The Fed in its latest semi-annual set of economic forecasts, published in the last week of February 2002, projected that US GDP would grow by about 2.5 to 3.0 percent this year. This would mark a sharp improvement from the lackluster 1.1 percent expansion in GDP during 2001, and a large increase over IMF's revised forecast for 2002 of just 0.7 percent growth.

As in the United States, governments and central banks in Euro zone areas and Japan have also taken emergency measures to jolt their economies back to life and fend off the risk of a global recession.

Consequences on the Economy of Bangladesh

Evidence to date indicates that the consequences of the tragic September event and its aftermath on the economy of Bangladesh could be substantial. The country was already in a difficult economic situation. Exports were falling, which led to a decline in export production and export-related activities. Imports declined and with that government revenues fell, too. The country's foreign exchange reserves position also deteriorated.

The Asian Development Bank in its Quarterly Economic Update released in January 2002 estimates a low GDP growth of around 4 to 4.5 percent in the current fiscal (2001-02), a slump from the estimated growth rate of about 6 percent achieved in fiscal 2000-01. The anticipated low growth is due to the sharp deceleration in export growth, subdued investor activity, and decline in external aid and investment. The set-back in export-oriented manufacturing and loss of investor confidence are adversely affecting other key production and services sectors such as trade and transport, banking, insurance, port and shipping, according to the Up-date. The manufacturing sector, which recorded a moderately high, if not robust, growth of 9.1 percent during 2000-01 is likely to suffer during 2001-02 on account of dislocation in export-oriented production.

Exports prior to September 11

Even before the September terrorist attacks, Bangladesh's exports had been declining because of the global recession. In the first quarter of the current fiscal (July-September), export earnings plunged 8 percent below the corresponding quarter of the last fiscal and more than 10 percent below the quarter's target. The slump in demand in international markets also pulled down export prices, which resulted in lower export earnings. During the quarter, export volume declined 6.5 percent while export prices fell 1.5 percent.

No export item was immune from the decline. Export earnings from readymade garments, knitwear, frozen foods, petroleum products, raw jute, jute goods, engineering and chemical products, leather and leather products, handicrafts, electronics, all registered declines.

According to EPB sources, RMG export to the US market registered a growth of about 19 percent in 2000, but in the months till September 2001 it recorded a negative growth of 36 percent, compared to the corresponding period of the previous year. A drastic drop of 280 percent in apparel export to US market was recorded in the month of September 2001, compared to September 2000, according to EPB.

Frozen food export was suffering a slump in the wake of the global slowdown. Exports declined drastically by 32.43 percent during the first quarter of the current fiscal compared to the same period of the previous fiscal.

Export earnings from raw jute and tea fell 36 percent and 31 percent, respectively, due to slump in world demand.

The export slump registered in other major sectors is jute goods by 22.5 percent and chemical products by 27.3 percent.

The major setback to the country's exports was the weakening of demand for its RMG exports in the US market, which takes about 40 percent of Bangladesh's total exports. An important reason, as is claimed by the BGMEA, is the quota-free and duty-free access for RMG exports extended by the US Government to 72 Caribbean and Sub-Saharan African countries under the US Trade and Development Act 2000. Enforced in October 2000, the Act provides exports from these countries about 18-20 percent price advantage over those from Bangladesh. Bangladesh's RMG exporters failed to effectively face this competition. Export earnings declined as a result, and many export orders were cancelled even before September.

Exports after September

The events starting from September 11 – the terrorist attacks in New York and Washington as well as the US-led war in Afghanistan – have compounded the crisis. Owing to the contraction of demand for Bangladesh's merchandise abroad, exports received a setback. Imports related to export production also declined and with that the revenue earnings of the Government in the form of import duties and taxes also registered declines during the second quarter of the current fiscal.

According to official (EPB) statistics, all major exports, namely RMG products, knitwear, frozen foods and leather, which together account for 86 percent of the country's total exports, have suffered setbacks and shown negative growth since September.

The country's export earnings in the first two months (July and August) of FY02 amounted to \$1162.5 million while for the next two months (September and October) the export earning was only \$842.6 million – a drop of 27.5 percent. The decline in export was the worse in October. In that month, exports fetched only \$399.1 million, which is 33.2 percent lower than the average monthly target of \$597.5 million, and 10 percent lower than the September export earnings (\$443.5 million).

Latest data available from EPB sources shows that export earnings during the first half of the current fiscal year, i.e., July-December of 2001-02, are 11.47 percent lower than in the corresponding six months of the previous fiscal (2000-01) year. All export items have shared in this decline.

Export earnings during the July-December period have also fallen 16.45 percent short of the target. Actual export earning during this six-month period was \$2995 million, as against the target of \$3585 million.

None of the export items could achieve their respective export targets set for the first half of the current fiscal. Chemical products export, with 52.2 percent behind target, was the worst performer. Shortfalls from export target recorded for other items are: tea 30.7 percent, leather 30.3 percent, raw jute 28.5 percent, handicrafts 27.7 percent, frozen foods 19.3 percent, knitwear 16.9 percent, jute goods 16.4 percent, and RMG products 14.4 percent.

The export price and volume indices also received a beating during July-November of the current fiscal year. The export price index for primary and industrial products declined by 19.3 and 9.1 percent, respectively, while the export volume index for these two export categories declined by 7.8 and 9.0 percent, respectively.

Frozen Foods Export

As for the individual items, the direct and indirect effect of the September event and its aftermath has been the most severe on frozen food and RMG exports. Export earnings of frozen foods in July-December were a massive 30.0 percent lower than in the corresponding period of the previous fiscal year. It is reported that as a result of the fall in export deliveries, frozen foods worth about \$105 million remain stockpiled. Some 120 letters of credit valued at \$26.3 million were cancelled in October. Meanwhile, the continued decline in price in international markets has brought extra worries to the exporters. Prices of shrimp, which constitutes 90 percent of frozen food exports, came down by 30-40 percent over the past months. As a result of the falling export demand, production in the shrimp processing plants has gone down significantly.

RMG Exports

RMG export being the country's single largest export earner, its decline has been a cause of great concern. EPB data shows that export earnings from readymade garments and knitwear products in July-December of the current fiscal are, respectively, 11.3 and 8.2 percent, lower than the earnings in the corresponding period of the previous fiscal.

According to a BGMEA report, in the aftermath of the September 11 attacks, as many as 1300 out of the country's 3400 garment factories have closed down. Some 400,000 workers, almost 90 percent of them women, have gone out of work. The factories that are in operation also face great uncertainties. Many big export orders have been cancelled. Few new export orders are coming up. Many large buyers of the US and the EU are about to cancel or cut down the volume of their previous orders.

In the absence of fresh orders for export, BGMEA members have reduced the import of fabrics and other raw materials. According to NBR sources, the fall of imports of raw materials by the export-oriented garment industry has negatively affected government revenue earnings from import duty and import-related taxes.

Unless Bangladesh can obtain immediate quota-free and duty-free access for its products to the US and the EU markets, the consequences may be devastating. Exports will fall drastically. A great number of the existing 2100 RMG factories could close down and thousands more of RMG workers lose their jobs. The impact would be severe also on the many backward linkage industries that are directly or indirectly linked with RMG production and export. The costs in the form of loss of jobs, fall in government revenues, and decline in foreign exchange reserves would be colossal.

Effect on Manpower Export and Remittances

Global economic recession has affected the country's manpower exports as well. Non-resident Bangladeshis remit foreign currency worth between 1.5-2.0 billion US dollars every year through official channels and similar amounts through hundis. However, after September 11 attacks many countries have stopped importing manpower from Bangladesh.

In addition, there are reports of growing incidences of retrenchment of Bangladeshi workers in different countries, including in the US and the Middle East. The fate of some 3.5 million Bangladeshi workers that are currently employed abroad has thus become uncertain. The recent trend in manpower export indicates that about 300,000 workers go abroad every year from Bangladesh in search of jobs. However, in the first 9 months of the 2001 calendar year, less than a-half of this number have left the country to seek work abroad. These are indications that worker remittances in the near term may decline significantly.

Effect on Imports

Imports, which constitute a fifth of the country's GNP, will now be costlier because of the increased shipping costs resulting from the levy of high war risk premiums. World fuel prices that remained depressed since the September 11 attacks have started rising. This will make fuel imports costlier than before. Thus the higher cost of imports, falling export earnings, and lower remittances together will bring a great pressure on balance of trade and hence on the already dwindling foreign exchange reserves.

Foreign Investment and Foreign Aid

In line with the worldwide trend in FDI flows as indicated in the UNCTAD report cited earlier, FDI inflows to Bangladesh may decline as well. US foreign investment in Bangladesh is not very large. Most of US investments in this country are in oil and gas sectors. At the present, some 89 US investment proposals are registered with the BOI. There is an apprehension that because of the recession in US, these investments may not materialize.

Foreign aid flows from the US, which systematically declined in the recent years, are likely to decline further. Availability of aid funds could be greatly reduced because of increased expenditure on the "war against terror" by the new alliance. US aid policy may also be guided by strategic rather than humanitarian considerations as in the cold war era, and as such, aid flows could be directed to strategically important countries that directly assisted the war efforts of the alliance. Withdrawal of sanctions on Pakistan and India and new pledges by the US Administration to Jordan, Indonesia

and the like are indications in this regard. The risk for Bangladesh is that any change in the flow of global aid away from Bangladesh would increase the size of the budget deficit and worsen the current account balance and the position of foreign exchange reserves.

The Policy Imperative for Bangladesh

The fallout of the tragic events of September 11 underscores the need for adopting effective strategies by developing countries to keep their economies afloat. Given the uncertainties in the United States, other countries will have to rely more on internally generated growth. Many developing countries, including Bangladesh's neighbors – India, Pakistan and Sri Lanka – have already announced contingency plans to boost exports and attract foreign investment. They have also adopted stimulus packages to get out of the recession. Bangladesh should not lag behind in such efforts.

Policies regarding Exports

Of foremost importance will be the task to boost exports. The problems facing the RMG sector could in part be solved if

- (i) the United States extended quota-free and duty-free access for Bangladesh exports to the US market, as it had done for the Caribbean and the African countries under the Trade Development Act; and
- (ii) the EU sufficiently relaxed their stringent rule of origin requirements under the prevailing EU GSP facilities.

Efforts should therefore be intensified to obtain enhanced market access to the US and the EU markets for Bangladesh's RMG exports. Bangladesh should also mobilize support for improved market access for exports of all 48 LDCs in the WTO's new round of multilateral trade negotiations that began in Geneva in January this year.

Much, of course, will need to be done in the domestic front. The major weakness of Bangladesh's export sector, which in fact is the dominant cause of the present export crisis, is the acute dependence on a few export destinations and also on a narrow range of products. Top priority should, therefore, be given to diversify both export outlets and product composition of exports.

The Special Case of the RMG Sector

Since the RMG sector is the country's largest source of foreign exchange earnings, topmost priority should be assigned to solve its problems.

My own view is that the present problem of the RMG sector is its own doing. Generally speaking, garment exporters have given little attention to improvement of quality, diversification of product range, and reduction of cost. The advantages of MFA quota and liberal government support in the form of Special Bonded Warehouse facility, back-to-back L/C etc. were taken as granted, and the sector constantly lobbied for more and more official policy support, via exchange rate, for example. They attribute their problem variously to lack of domestic backward linkage industries, adverse international environment, and insufficient official support. They have not tried to emulate the examples of many other exporting countries that have successfully developed apparel industries and become internationally competitive even though they do not have the natural endowment of raw cotton production, ready availability of fabric and accessories, or access to any major official support.

In any case, while emphasis needs to be given to the development of backward linkage textile industries (already the Government has announced its intention to support the private sector for establishing some 250 specialized units), there is no better alternative for the country's RMG exporters than to concentrate on the improvement in quality, reduction of costs, and production of high value products that are demanded by high income consumers in rich countries and which are also free of quota in those countries. **Duty-free and quota-free access to rich country markets, which the BGMEA and the Government are currently lobbying for, can give temporary respite but cannot provide a long run solution unless they can produce and supply the right range of products and of the desired quality.**

While the RMG sector has its special problems, there are many policy inconsistencies, which thwart entrepreneurial initiative in investment in export production and thus hinder exports in general. Export industries that have been identified as thrust sectors by government have failed to record any positive growth so far due to the absence of backup support from the government. Entrepreneurs are dissuaded from investing in new industries or expanding old ones because of infrastructural constraints, deterioration of the law and order situation, bureaucratic hassle, an alarming increase in toll collection, and high interest cost of bank loans.

The need of the hour is to remove all these constraints and overhaul the existing fiscal-monetary incentives to make export activity more profitable than commerce or investments in other ventures. Preferential rates of interest will need to be allowed on export credit and on loans to export-oriented industries. Notice that the Reserve Bank of India has of late asked commercial banks to charge on export credit a maximum interest rate of 2.5 percentage points below the bank rate (currently the bank rate in India is 6.5 percent). The effective interest rate on export credit in India is thus a mere 4 percent. There is a strong case for Bangladesh to adopt a similar measure to bolster exports. The recent reduction in interest rate on export credit by 3 percent is welcome but the interest rate is still very high and further reductions will be needed.

Interest rates on bank loans to export industries, which now run between 14-16 percent, should also be substantially lowered to bring them within the range of maximum 2 to 3 percentage points above the bank rate.

There is also a case for reducing port charges to offset the rising export-import costs due to high war risk insurance. A cut in port charges will minimize if not completely compensate for the war risk insurance factor. Several Middle-Eastern countries and Pakistan have taken steps in that direction.

Aid and Investment

Bangladesh can do very little to reverse the flow of aid, which has been secularly declining over the past years, but substantial amounts of aid lying in the pipelines could be released if the government expedited the process of economic reforms in crucial areas as insisted upon by the donor community.

For attracting private investment, strong and effective steps will be needed to improve the law and order conditions, fight corruption, rid the privatization process of political considerations, implement reforms in labour and financial markets, and create a congenial environment for private sector development.

Monetary Policy Stimulus

Bangladesh should not fall behind neighboring countries in adopting a stimulus package. The economy is now gripped by a slowdown of demand, both consumption and investment. A cogent move to stimulate demand could be to cut the bank rate, and if bank liquidity is low, to cut the central bank's cash reserve requirement.

Monetary policy to stimulate growth has its limitations but in exceptional circumstances as of the present day its psychological effects on consumer and business confidence can be immense. Major central banks around the world, in concert with the US Fed, have cut their central lending rate to stimulate the economy. Even the conservative European Central Bank did not hesitate to abandon its stability-oriented monetary policy when it cut the euro-zone interest rate by half-a-point on September 17. Among Bangladesh's neighbors, India has slashed the prime rate by half-a-point to 6.5 percent.

Recently Bangladesh Bank has cut the bank rate by 1 percent, but the current situation demands a further cut in the bank rate to kickstart the economy. Commercial banks have reduced their interest rates by a small 1-2 percent in response to the recent cut in the bank rate. Deeper cuts in the lending rates of commercial banks will be needed to encourage industry and business to borrow for the purpose of investment in productive activities.

Fortunately for the policy makers, the present time is also propitious for expansionary monetary policies because the price level is more or less stable. There is no imminent fear that a further cut in the bank rate will generate inflationary pressure. Instead, a lower bank rate, by inducing commercial banks to reduce their lending rates, would trigger a pick-up in the demand for credit, encourage productive investments, raise production and thus hold any inflationary tendency under check.

However, as a precaution against any reckless use of bank funds as witnessed in the late eighties, care should be taken to ensure that the companies borrow for new projects and that there is a genuine demand for credit. The stimulus package to boost the economy should also include appropriate fiscal measures on the side of both revenue and spending. Exceptional situations demand exceptional measures. The present situation is one when the Government should be prepared to tolerate some increase in its budgetary deficit and a moderate inflation if these are needed to ensure recovery and stimulate growth.

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Regulatory Policy and The Problems of Power Distribution System in Bangladesh: A Case Study of DESA and PBS

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1. INTRODUCTION

Public utilities such as electric power are often described as 'national monopolies' because the long run pattern of their costs make competition inefficient. Producers tend to attain lower costs with larger scales right out to the limits set by demand. Consumers can be served at least cost or greatest net benefit by a single firm rather than by a number of sellers (Weiss 1967:89 Kahn 1988: 2 II). The required policy is therefore one of restricting entry and licensing only of entrants as are required by the 'public convenience and necessity' (Kahn: 1988: 2 II) Competitive markets automatically determine what production costs and normal profits are and the entry and exit of firms results in prices that just cover these. In public utility industry, which has monopoly position, a regulatory agency, however arrives at the appropriate costs, profits and prices so as to ensure the element of reasonableness both as regards the company and as regard the public (Weiss 1967: 103 Kahn 1988: 37). For these reasons public utilities such as the firms that supply electric power, gas or transportation services constitute regulated monopolies, although the transportation industries are not pure monopolies.

In Bangladesh, the Power Development Board (PDB) of the government, which is responsible for generation, transmission and urban distribution of electricity, at present purchases power from Independent Power Project (IPP) for onward distribution to consumers. One of the independent power project in the private sector is the Khulna Power Company Ltd, which is a consortium of international investors in partnership with local investors, i.e. Summit and United groups of Bangladesh.

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Summit is also an investor in six Rural Electrification Board (REB) small power projects (Holiday 2001). Similar contracts with other private investors have been concluded by the government for generation of electricity. PDB claimed that rates charged by the IPP are high and unprofitable for PDB which sells power to consumers at rates that are low compared to purchase price paid to IPP. (Kahn: 1988: 1, Holiday 2000, Daily Star 2000) Similar tariff row has also ensued elsewhere in other countries of South Asia (Daily Star 2000).

The legal rationale that has emerged in the west regarding regulation of private industries affected with a public interest underlined that the right to property and freedom of contract might be infringed by this regulation but recognised the right of the government to regulate these industries, including electricity production and distribution, as to the rates and terms of service on the ground that these companies functioned under government franchises and that they have monopoly or economic power consisting in exclusion of the free competition of third parties (Kahn 1988: 36, 37 Commons 1957: 33, 62 Weiss 1967: 98, 101).

In the power distribution sector, PDB and a few other government-owned agencies, namely, Dhaka Electric Supply Authority (DESA), Dhaka Electric Supply Company (DESCO) supply electricity in urban areas while Palli Biddut Samity (PBS), a co-operative organisation, distribute electricity with technical assistance from Rural Electrification Board (REB) to the rural areas (M/O Planning: 336, 339 Holiday 2001). The efficiency and financial viability of some of these organisations, particularly those government-owned, has been far from satisfactory, deterring new investment in this sector. Further it has been asserted that distribution and retail sale of power to hundreds of thousand of consumers require management practices that are different from those followed in public sector agencies, which are not subject to the market criteria and are characterized by centralized decision making. In comparison, performance of PBS, a co-operative, has been better (M/O Planning: 339). Therefore a comparative analysis of the performance of PBS and the government owned agencies like DESA would shed light on the subject of public versus private power in the power distribution sector.

The present paper is a study of principles governing the economic and legal aspects of the institution of regulated monopoly as it relates to the electric supply generation and distribution in Bangladesh. The paper also carries out a comparative evaluation of the performance of DESA, and PBS with a view to weighing the prospect of privatization of power distribution in Bangladesh.

The objectives of the study are as follows:

- a. To analyze the economic and the legal rationale as they evolved in the West and in Bangladesh, in so far as they relate to electric power utilities and the institution of regulated monopoly.

- b. To provide a guide to regulatory policy and a basis for ascertaining the rates or price charged by private companies in the electrical power sector-both in generation and distribution-for use of their property for public purpose in Bangladesh.
- c. To make a comparative study of the performance of DESA and PBS relating to management and distribution of electricity and to infer policy implications for privatization of power distribution in Bangladesh.

Following the introductory section, part II presents methodology of the study. In part III of the paper economic rationale and the legal rationale regarding institution of regulated monopoly as it relate to the public utilities, particularly electrical power, is presented. In part IV principles governing regulation of rates charged by power generation and distribution companies, both in the private and the public sector is outlined and a basis for ascertaining these rates is presented. In part V the performance of Dhaka Electric Power Supply Authority (DESA) and Palli Biddut Samity (PBS) is compared and policy implications of the comparative study are inferred. Part VI presents conclusions and recommendations of the study.

II. METHODOLOGY

Theoretical Model:

Electric power companies both in generation and distribution of electricity, have a great deal of monopoly power as the threat of competition is negligible. To offset the inefficiencies resulting from monopoly, a sound price policy needs to be evolved for private entities, which apply also to a large extent to public agencies.

To simplify analysis, it is held that long run marginal cost of electric power is constant and therefore equals average cost. The position of the power company is shown in figure - 1. To make the most profit, the company set a rate of 2 taka per kilowatt-hour (kw-hr) at an output of 100000 kw. From the consumers view point a low rate with a capacity adequate to meet greater demand would be better. A maximizing power utility would not make this reduction on its own. To offset the effect of the monopoly position, a regulated price of 0.50 take per kw-hr. would have to be set. At that price there will be no monopoly profit except normal returns and power production would be expanded to meet demand until the last unit produced would cost just as much as a customer would pay for it (Weiss 1967: 99-100). This represents the basis for price regulation, an aspect which will be focussed in this study (part III & IV below).

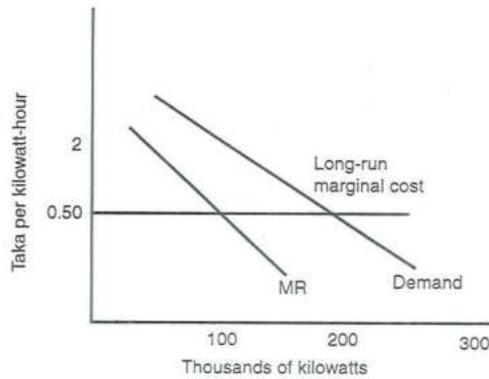


Figure - 1

In reality most electric utilities display decreasing costs with increasing level of output. When the cost per unit declines, the marginal cost turns out to be less than the average cost. If the price is set by the regulator equal to the marginal cost, it would leave the utility at a loss which would amount to confiscation of company's property if it is a private enterprise or a co-operative (Weiss 1967: 101) Therefore tolls are based on long-run marginal costs, which include the cost of additional capacity that has to be built to meet additional demand at peak hours. In order for price to cover costs in decreasing cost industries, some price discrimination might be applied in the public interest.

Figure 2 displays this case. If a single rate is to be applied, it can not be lower than 2 taka per kw-hr, and output won't exceed 10,000 kw. If the utility charges 2 taka per kw-hr. for the first 1000,000 kw and 1.50 taka for additional power, it can satisfy more customers without any loss. It costs 1.90 taka to produce the output, but the company does not take a loss by selling some power at 1.50 taka because of the profits made on the rest which sells at 2 taka (Weiss 1967: 114 Kahan 1988:O 128-29).

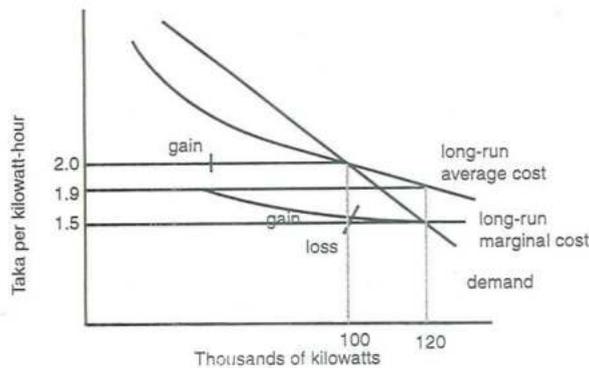


Figure - 2

In Bangladesh electricity tariffs are yet to be based fully on long-run marginal cost (LRMC) basis, although rate differentials are applied to different categories of customers. This had resulted in many units operating at a loss (M/O Planning: 339 Daily Star 2000). The first part of the study (part III & IV) will analyze the regulatory principles of rate making in Bangladesh where rates cover costs including a return on investment, within the above theoretical framework. The latter part of the study (part V) while discussing distribution of electricity examines the relative efficiency of government-owned agency and a co-operative and their effects on these costs, prices and profit.

Data Source

Relevant data on system loss, billing & collection has been obtained from the Ministry of Energy and Mineral Resources & DESA. These are available annually. Data on tariff has been obtained from publications of the Planning Commission. Data on PBS has been obtained from REB. The period of analysis of the study with respect to utilities in Bangladesh extends from 1991 to 2001.

III. THE INSTITUTION OF REGULATED MONOPOLY AND ELECTRI POWER UTILITIES.

1. The Economic Rationale

There are several reasons for regulation of electrical power industries in the private sector and also public sector entities.

- i. These industries comprise a large part of the 'infrastructure' uniquely prerequisite to economic development and supplies essential inputs to other industries (Kahn 1988:11).
- ii. Many of them are 'natural monopolies': their costs will be lower if they consist in a single supplier. This is obviously true in electrical distribution where two sets of poles, wires, meter readers, in a single neighborhood would always involve unnecessary opacity. Economies gained by having only one power company in any given area is great. Large economies of scale are experienced in power production also. Construction costs per kilowatt of capacity and fuel cost per kilowatt hour tend to decline as plant size is increased (Weiss 1967: 89-90). This is valid for steam plants and also other types of power plants.

For these reasons consumer can be served at least cost or greatest net benefit by a single firm rather than by a number of sellers thus requiring a policy of restricting competition and regulations to offset the effect of the utility's monopoly position so as to ensure an adequate supply of electricity at reasonable cost and price (Kahn 1988: 2, Weiss 1967: 90 M/O Planning: 343).

2. The Legal Rationale

The Planning Commission of the government of Bangladesh has identified a number of regulatory tasks for the power sector which include the following:

- a. approval of tariffs
- b. issuing service franchise to the distribution companies, either public or private and license to private generation companies
- c. ensuring industry standards and demand management (M/O Planning: 343)

This section provides an exposition of the legal rationale of the institution of regulated monopoly with respect to tariff or price fixation for enterprises generating and distributing electric power. It has been the most contested aspect of regulation in the West and a source of conflict for the power sector in South Asia (Kahn 1988: 35 Daily Star 2000). Developments in jurisprudence in the West in the period 1876 to 1934 provides an early illustration of this aspect of regulation and the principles that govern it and forms a background for framing a durable tariff policy in the public utility sector particularly electrical power in Bangladesh (Kahn 1988: 15-30).

In the case of *Munn vs Illinois* U. S. Supreme Court addressed itself to prayer of the appellant -a private grain warehouse company-contesting the right of the state of Illinois to regulate the rates charged by the company from the public. The court held that property lost its strictly private character and became clothed with a public interest when used in a manner to make it of public consequence and affect the economy at large. Thus the fact of economic power over the public in withholding service and thus fixing prices, proceeds from the circumstance that the public had come to depend on the use of the owners private property and to that extent the owner must submit to be controlled by the public.

Minority opinion of the court, citing the constitution opined that owner of property might be restrained as to the use and enjoyment of the property if that become threatening to the life and health of others, but not as to the compensation or price charged for its use by others. Notwithstanding these objections, the majority of the court recognized that it was evidently not the health of the public that was menaced by the warehouses but the price that the public should pay for food, an essential good. In restraining that economic power, they reduced the scope of property. But the property which they reduced in scope was not the ownership of physical property, it was the value or price of the property charged for use by others (Commons 1957: 33, 34)

It further stated

'It is insisted, however, that the owner of the property is entitled to a reasonable compensation for its use even though it is clothed with a public interest, and that what is reasonable is a judicial and not a legislative question' (Kahn 1988: 36,37).

In *Smyth vs Ames* the U.S. Court proceeded to specify the criteria of reasonableness of rates which a public utility company providing transportation service could charge and opined that the company is entitled to a fair return upon the value of that which it employs for the public convenience (Kahn 1988: 37).

These and similar court decisions and cases in West have become the focal point of public utility regulation involving private companies, state commissions and courts engaged in determination of rates for public utilities (Kahn 1988: 38,40 Commons 1957:195-6).

Courts in South Asia including Bangladesh have also deliberated on the issue of definition and assessment of value of property in various cases involving private or public entities. In *Jibendra Kishore Chowdhury vs province of East Pakistan (1957)*, *Oceanic Steamship Company vs m/s A. Rahman (1961)* and a number of other cases courts recognised the right of the owner to the market value of the property and sought an objective and reasonable basis of valuation (DLR 1990: 1435 DLR 1987:561 DLR 1961, PLR 1955:565). As in the West, the definition of property thus expanded from physical things having only use value to the price or value of a thing.

However, in a number of rate cases relating to industries affected with a public interest, courts in Bangladesh asserted the principle restraining the owner of the private property as to the price charged for its use by others when property became clothed with a public interest. In the latest decision in Cox's Bazar bus rate case in 2000, district court in Chittagong restrained the power of the private owners of transport services to charge prices from the public and in the process reiterated the police power of the state to regulate that price (Purbokone 2000).

Planning Commission while identifying the regulatory tasks including tariff approval and recommending private sector investment to supplement the public sector, recommended changes in existing laws relating to PDB, DESA and also the Electricity Act. It stressed the need for a regulatory body so as to ensure adequate provision of electricity at reasonable prices as well as the viability of the power utilities (M/O Planning: 343). The foregoing exposition of the economic and legal rationale of the institution of regulated monopoly introduces the principles governing laws, regulatory procedures and reforms in regard to electrical utilities in Bangladesh.

IV. PRINCIPLES OF RATE MAKING

Competitive markets determine what production costs and normal profits are, and the entry and exit of firms results in prices that cover these. In electric utility, however, as these are usually natural monopolies, a government agency or commission needs to find out the proper costs, profits and prices.

1. The Rate Base

Courts in the West have insisted that owner of property is entitled to charge reasonable price for its use by the public (part III above). In *Smith vs Ames*, court in U.S.A. specified its criteria of reasonableness:

'What the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience' (Kahn 1988: 37).

It was however pointed out by others that the criteria is afflicted with the problem of possible circularity. If fair value is taken to mean market value, it cannot serve as the basis for rate determination, since the market value of any enterprise or of its common stock depends on its earning, which in turn depend on the rates that are allowed it. It is correct, however if value is estimated in terms of the cost of reproducing the company's assets (Kahn 1988: 38). Reproduction cost refer to the current cost of duplicating the same existing facilities. A more plausible criteria is the replacement cost which depend on the present cost of erecting the plants with same capacity (Weiss 1967:106-108).

The firm's property or investment, properly evaluated for purposes of rate fixation, is known as the rate base. Having arrived at the rate base, it then requires to be decided what rate of return on that investment is reasonable so as to enable the regulated companies to raise capital needed to continue and provide acceptable service (Weiss 1967: 108-9 Kahn 1988:40).

It is required to determine the interest, dividends and retained earnings necessary to raise the company's capital on security markets and set rates that would cover these. In other words rate of return is determined on the basis of cost of capital, which in turn depend on what investors can earn elsewhere and therefore approximate the 'normal return' of pure competition (Weiss 1967: 109).

It should be added here that some costs that the rates are to cover need scrutiny. What is there to prevent managers from giving themselves high salaries and letting the customers foot the bill? Would the advertising expenses be included in the price of power when many of them are intended to improve the company's political position? To be effective, costs of the utility needs to be carefully examined before setting rates (Weiss 1967: 104).

2. Marginal Cost Pricing Principle

The central policy prescription of microeconomics is the equation of price and marginal cost where the last unit produced would cost just as much as a customer would pay for it. (Samuelson 1973: 482 Weiss 1967: 100) It should be added that 'cost' in economics includes a return on owner's investment which, as discussed above, is based on cost of capital (Weiss 1967: 100).

Problems arise if the costs of regulated firm decline as capacity increases and that is apparently the case with most electric utilities. When the cost per unit declines, the marginal cost tend to be lower than average cost in which case marginal cost pricing would leave the utility with a deficit (Weiss 1967: 100-101). Government can not set rates that impose losses on utility companies, particularly if they are private entities. It would tend to amount to confiscation of the value of property. Constitution of Bangladesh prevents the taking or acquisition of property by the government, save by authority of law (Article 42: Constitution of the People's Republic of Bangladesh). In other words rates are to be 'just and reasonable' as the courts in the West have insisted (Part III above).

The problems of basing the rates on Short Run Marginal Cost (SRMC) are as follows:

1. It would mean an unacceptable fluctuation in rate over time, depending on the changing relation of demand to capacity.
2. Pricing on this basis might not cover Average Total Cost (ATC) over the duration of the plant and therefore might require public subsidy. (Kahn 1988: 88).

Satisfying additional demand at times of congestion or peak hour would sooner or later require construction of additional capacity. SRMC does not include the costs of providing the capacity to serve. Long Run Marginal Cost (LRMC) include capital or capacity costs depreciation, taxes and return on future investment that will have to be undertaken for additional capacity. Prices are to be set on the basis of variable costs plus these incremental capital cost for the expanding plant.

For those hours at which demand is insufficiently responsive to a price covering only operating variable cost, LRMC include only the operating expenses; for those times of day at which demand is responsive to a lower rate as to cause congestion, LRMC includes capital costs for required additional capacity as well (Kahn 1988: 89).

A tariff study titled 'Bangladesh Power Sector Tariff Study' has been undertaken in 1988 which recommended tariffs for PDB, on the basis of LRMC (Miah 1988: 20-56). The recommended tariff structure is as follows:

*Table 1 Marginal Cost Tariff and Existing Tariff (1986 prices)
Taka per kilowatt hour*

Category	Proposed Rates	Present Rates
33 KV	1.76-2.09	1.75
11 KV	1.75-2.43	1.65-2.80
LV		
Domestic	3.83	1.0
Irrigation	2.41	1.35
Industry	2.82	1.90

Source: Miah (1988)

From Table 1, it is apparent that proposed LRMC based tariffs for many categories of consumers are higher than prevailing tariff based on traditional principles. Shift to LRMC rationalizes prices and optimize output and utilization of plants (Part II above).

V. A COMPARATIVE EVALUATION OF GOVERNMENT OWNED AND COOPERATIVE UTILITY ENTERPRISES

The Fifth Five Year Plan commenting on power sector reform and government owned entities remarks:

'Since the power supplying entities have turned to be financially non-profitable because of inadequate tariffs, high system loss and low collections, investment from own resources as well as from the development partners has become insignificant' (M/O Planning: 339).

Public power agencies are not subject to the test of the market place. Decisions are taken by bureaucratic fiat, and political consideration (Weiss 1967: 136-7). Efficiency of public power agencies, both PDB and DESA, particularly in distribution of electrical power has been questioned. Performance of these utilities, opines an Inter-Ministerial Working Group, remained far from satisfactory and deficient (M/O Planning: 338). The performance of management of Palli Biddut Samity (PBS), a consumer cooperative, entrusted with distribution of power in rural areas with technical assistance from Rural Electrification Board (REB), has been better (M/O Planning: 339). PBS as a cooperative is more susceptible to market criteria of costs, profit and prices (Miah 1988: 50-56). PBS purchases electricity from the PDB in bulk at the 33/11KV substation. The criterion for selling rate is that it must be sufficient to cover the electricity purchase cost, administrative expenses, depreciation and interest and principal repayments. Any profit or loss must be shared by the

member consumer at higher or lower rates of electricity. Each PBS has its own rate. It provides incentives to the PBS to keep their rates low through efficient working of their system. Employees are paid incentive bonus for lower system loss and vice-versa (Miah 1988: 20-56).

A comparative study of DESA, a government owned agency, and PBS (REB), a cooperative organisation, is briefly sketched in this section to shed some light on relative performances of government owned and private or cooperative enterprises in the distribution sector so as to infer policy implications from the study.

1. System Loss

Table 2 and 3 present system loss of DESA and REB respectively. It should be added that it is the distribution phase rather than transmission that account for the major part of system loss. System loss of DESA is defined as the difference between electricity purchase or import and sale, expressed as a percentage of electricity import. For DESA, during 1992-2000 period, annual system loss varied between 24.9 percent and 35.5 percent. There has been a moderate decline in system loss during the later part of the period varied between 15.2 percent and 18.6 percent only. It is apparent that annual system loss of PBS has been significantly lower compared to that of DESA throughout the period under study.

Table 2 Dhaka Electric Supply Authority- System Loss

Year	Electricity Import (million Kw-hr)	Electricity Sale (million kw-hr)	System Loss (in percentage)
1	2	3	4
1991-92	2260	1456	35.5
1992-93	3356	2309	31.3
1993-94	3696	2538	31.3
1994-95	4162	2914	30.0
1995/96	4551	3209	29.5
1996-97	4935	3589	27.3
1997-98	5419	3908	27.8
1998-99	5947	4469	24.9
	6497	4831	25.6
1999-00	6504	4831	25.7

Figures from PDB; corresponding figure quoted by DESA is 6504 million kw-hr.

Source: M/O Energy & Mineral Resources, Dhaka, 2001.

Table 3 Rural Electrification Board- System Loss

Year	Electricity Import (million Kw-hr)	Electricity Sale (million kw-hr)	System Loss (in percentage)
1	2	3	4
1990-91	575	481	16.3
1991-92	685	577	15.7
1992-93	774	653	15.6
1993-94	907	767	15.4
1994-95	1249	1052	15.7
1995-96	1382	1172	15.2
1996-97	1449	1220	15.8
1997-98	1725	1435	16.8
1998-99	2443	1989	18.6
	3805	2460	35.4
1999-00	2936	2460	16.2

Figures report by PDB.

Source: M/O Energy & Mineral Resources, Dhaka, 2001

2. Billing and Collection

Table 4 and 5 presents an estimate of pilferage and unaccounted consumption for DESA and REB respectively. The tables indicate annual amount billed and collected from consumers and the collection-import ration (CI ratio). C.I. ratio, it might be added, is the amount of collection expressed as a percentage of amount billed, corrected for system loss (see footnote table 4). A higher C.I ratio indicates higher efficiency in collection and low pilferage.

Table - 4 DESA: Billing and collection

(in million taka)

Year	Amount Biled	Amount Collected	C. I Ratio
92-93	5506.58	4558.00	58.1
93-94	5964.90	4573.18	54.6
94-95	6530.63	5721.41	62.6
95-96	7081.93	5896.18	59.7
96-97	8648.65	6943.93	59.5
97-98	9857.78	7814.96	57.8
98-99	10767.68	8028.81	56.5
99-00	11431.38	9909.42	63.44

$$\text{Collection Import Ratio (C.I ratio)} = \frac{\text{collection}}{\text{billing}} \times \left(-1 \frac{\text{System loss}}{100} \right)$$

Source: Executive Summary of DESA, June 2001.

Table - 5 PBS : Billing and Collection

(in million Taka)

Year	Amount Billed	Amount Collection	C.I. Ratio
92-93	1824.741	1836.234	84.9
93-94	2128.284	2103.884	83.5
94-95	2854.687	2714.575	80.0
95-96	3198.038	3142.866	83.3
96-97	3592.589	3419.936	80.2
97-98	4580.938	4307.391	78.2
98-99	6142.452	5764.277	76.3
99-00	7804.123	7570.410	82.0

Source: M/O Energy and Mineral Resources, Dhaka, 2001; REB, Dhaka, 2001.

It is evident from table 4 and 5 that C.I. ratio for PBS is significantly higher compared to that of DESA, which indicates higher efficiency in billing and collection and low pilferage on the part of PBS.

3. Relative Efficiency of DESA and PBS

Table - 6 Relative Efficiency of desa and PBS- Selected Variables (1992-2000)

Description	Mean value (1992-2000)		
	DESA	PBS	t-test for mean value
Collection import Ratio	59.03	81.05	10.29*
System Loss in percentage	28.45	16.06	13.04*

Sources : Table 2, 3, 4 & 5

* Significant at 1 percent level of significance.

Table 6 Shows the relative efficiency of PBS and DESA with respect to two selected variables, collection import ratio and system loss, during the period 1992-2000. Average annual collection import ratio of DESA and PBS is 59.03 and 81.05 respectively. It implies that PBS's performance in terms of collection is more efficient than DESA. The difference between the mean values of the two ratios is statistically significant. Average annual system loss of DESA and PBS is 28.45 and 16.06 respectively. This also implies that performance of PBS in terms of system loss is more efficient than DESA's. The difference between mean values of system loss of DESA and PBS is also statistically significant.

The results indicate that there are significant differences in the performance and relative efficiency of PBS and DESA. It is evident that PBS which is more commercially oriented is more efficient in its functions compared to DESA.

4. Factors Accounting for Poor Performance

The major factors responsible for system loss and inefficiency, particularly of a government owned agency as DESA, are briefly presented below.

i. Corruption

In providing electricity to various customers including factories, shops and household, officers and linemen of government agencies are alleged to have coerced these customers to conclude agreements for supplying power in return for clandestine payments. Bypassing of meters, giving illegal connections, mechanical rigging of meters and fictitious billing are a few of the common complaints regarding these agencies. It is alleged that illicit agreement between employees of these agencies and customers for clandestine connection and payment has become a major source of system loss of these organisations (Islam 96). These irregularities have apparently also resulted in relatively low collection and C.I ratio as is evident from DESA's performance (table 4 above).

Trade Unions of these government enterprises have exerted an adverse influence in protecting the illegal executions of the employees. They have retarded the normal functioning of these enterprises by imposing unreasonable demands on the administration and resisting accountability (Islam 96, Hore 97).

Officials of power agencies refer to lack of maintenance and non rehabilitation of plants due to inadequate funds as reasons for inefficient distribution (Holiday 2001) However, prospect of donor assistance to overcome the problem is bleak, as the World Bank and Asian Development Bank (ADB), two major donors, have withdrawn involvement in the power sector and pledges not to return until the sector's performance improve (Holiday 2001). These problems of public enterprises in the power sector have prompted many to suggest privatization of these enterprises to ensure reinvestment of the capitalist profits into the production process and to avoid its leakage through official exaction (Islam 96).

ii. Bureaucratic Decision Making Process

In important areas such as employee administration, pay structure and economic activities, DESA can not take decision beyond government rules and procedure. Government service rule and pay structure retard business environment in DESA. Members for finance and administration are deputed from the Government and have little commitment towards improvement of the sector. In comparison, PBS introduced commercially oriented service condition without trade union. This has led to greater efficiency on the part of PBS employees resulting in better performance (Holiday 2001).

PBS which function as a consumer cooperative include locally elected directors and operate along commercial lines, reaping the benefits of profit in the form of lower rates and incentives. Procedures are transparent and unlike government enterprises decision making is fairly decentralized; each PBS has its directors and own rate

(Miah 88 Hore 97). Organization and management of PBS, being commercially oriented, renders it more amenable to the criteria of the marketplace, i.e. prices, profit and loss, than the government owned enterprises like DESA or PDB. Experience showed that any area taken over by REB (PBS) from DESA or PDB has led to substantial reduction in system loss and much improved billing to collection ratio. It takes almost a year for REB/PBS to transform an area from loss to profit making (Holiday 2001).

The inefficiency of a government utility adversely effects cost and profit of the enterprise. Persistent system loss necessitates additional capacity construction which increases long run marginal cost (LRMC) of output of the enterprise (M/O Planning 1980: xiv 42 Kahn 1988:89). In figure 2 (part II above) this shifts the LRMC and LRAC curves upward (Hossain 2001: 2). As a result either utility's existing tariff rates are to be increase or the enterprise incurs a loss. Since prices are designed by the administrative Ministry and external agencies such as World Bank and since utility price increases affect large sections of people and have political implications, they are usually set at rates not sufficiently high to cover the increased costs. As a result the enterprise ends up with a loss. This is also the case with DESA which, along with PDB, remains a non-profitable entity because, interalia, of these cost rises, system loss and inadequate tariff (M/O Planning : 339).

5. Policy Implication

The above comparative study in the area of electricity distribution amply indicates that PBS, a consumer co-operative, functions relatively more efficiently and profitably than DESA, a government owned agency. Being a co-operative, a PBS is entitled to reap the rewards of its profit or bear the penalty of shortfalls, after necessary repayments, and therefore functions as a commercial entity akin to a private enterprise. There are 67 such cooperatives in the country with relatively low government intervention. Their performance in terms of lower system loss and improved billing and collection ratio has demonstrated the capability and potential of these cooperatives to perform as profitable enterprises. Being commercially oriented, akin to a private enterprise, these cooperative suggest that a policy of privatization of distribution of electricity will be a step in the right direction. It will enable private enterprises in the power sector to gain resources, otherwise lost through official exaction, as private profit to be reinvested in the production process. Being subject to the standards of the market, these private entities or cooperatives will be compelled to minimize costs and earn profit, thereby avoiding pilferage and misallocation of resources.

V. CONCLUSIONS AND RECOMMENDATIONS

1. Conclusions

The present paper examines the economic principles that govern the regulatory policy for public utility industries, particularly electric power, which are 'natural monopolies', with the assumption that there are general principles and that the institution of regulated monopoly, as it applies to power utilities, have common characteristics from one context to another. The paper studies a principal aspect of regulation namely, price fixing, as it represents the core of public utility regulation. Relevant recommendations for Bangladesh follows from these economic and related legal principles.

The paper analyses the economic justification for regulation of electric power utilities which is now partly open for private sector participation. It studies legal developments in the West and in Bangladesh recognizing the right of the state to regulate the price charged by power utilities but insisting on just and reasonable rate of electrical power, both as regards the company and as regards the public.

The paper examines the principles of rate fixation and in this regard studies determination of rate base and a fair of return on utility's investment. It also underline the need to scrutiny the cost that rates are to cover. The paper examines the marginal cost pricing principle and as power utilities are decreasing cost industries, it concludes that rates should be based on long run marginal cost, as short run marginal cost is unlikely to cover average cost.

The study compares the performance of DESA with that of PBS, a cooperative, in the power distribution sector and finds PBS's performance to be superior in terms of revenue collection and system loss. Difference in performances between PBS and DESA is found to be statistically very significant. Inefficiency of government enterprises as DESA, by shifting LRMC and LRAC curves upward, necessitates electricity price hikes. Tariff increases are inadequate to cover these cost increases; as a result these enterprises end up with a loss.

The study identifies corruption and bureaucratic decision making process as major factors accounting for poor performance of the government power utilities and finds that government pay scales, rules & procedure retards business environment in these enterprises.

It finds PBS to be more commercially oriented, reaping the benefits of profit or the penalty of loss, like a private enterprise. It implies that private enterprises and cooperatives, being subject to the criteria of the market namely, prices, profit and loss, will be compelled to minimize cost and earn profit, thereby avoiding misuse

and misapplication of resources. The findings suggest that a policy of gradual privatization of power distribution will be a step in the right direction.

The investment requirement in power sector during the Fifth Five Year Plan period is estimated at taka 117.36 billion in 1996-97 price. As the power supplying entities in the public sector have turned out to be financially non-profitable, investment from own resources has become insignificant. Development partners have markedly reduced their commitment to the power sector. There is therefore the necessity for private investment and participation in the power sector- in both generation and distribution-with the required regulatory framework and institutional arrangement.

2. Recommendations

1. Power generation and distribution should be opened to the private sector and cooperatives, with the government entrusted with the task of tariff regulation, prescription of terms and quality of service and protection of consumer interest.
2. A regulatory commission should be constituted for specific purpose of exercising controls over entry, price and terms of service of privately owned power utilities supplementing public sector enterprises.
3. As in many countries, particularly Saudi Arabia, foreign investors intending to participate in the power sector should form partnership with Bangladesh citizen, in order to ensure legal and constitutional safeguards for protecting the investor's as well as public interest.
4. Existing laws including those relating to PDB and DESA and the Electricity Act should be amended to facilitate the task of the proposed regulatory commission and aid efforts to remedy the problem of system loss.
5. The rates set and charged by the power utility companies should be just and reasonable both as regards the company and as regards the public.
6. System loss in government owned power utilities be reduced to 15 percent. To attain this target necessary steps are to be taken to prevent rigging or bypassing of meters, ensure metering system as per specifications and to install distribution lines and transformers in planned way rather than under pressure, as well as create an effective environment for enforcing accountability of offices and employees.
7. Pay structure and service conditions in PDB, DESA and DESCO should be rationalized so as to make these organizations commercially oriented.

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Technical, Allocative and Economic Efficiency of Farms in Bangladesh-A Nonparametric Analysis

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Abstract

A nonparametric analysis of farm-specific technical, allocative and economic efficiency for rice farmers in Bangladesh is conducted in this paper using farm-level cross-sectional survey data. The linear programs of data envelopment analysis (DEA) frontiers are specified for simultaneously measuring technical, allocative and economic efficiency. This procedure also allows inefficiency to be decomposed into pure inefficiency and scale inefficiency. Inefficiency effects are modelled as functions of environmental degradation, in particular land degradation, irrigation infrastructure factors and some farm-specific socio-economic characteristics. The empirical results show that there are considerable amount of inefficiency in agricultural farm production and that (a) land degradation and irrigation infrastructure factors have had significant contributions in determining technical, allocative and economic inefficiency; (b) experience of farmers, levels of education and land fragmentation influence allocative and cost minimizing decisions of farmers. Therefore, government policies encouraging education, land consolidation and improving irrigation infrastructure reducing land degradation could lead to greater efficiency in farm production and thereby increase farm output, revenue and household welfare in Bangladesh.

Introduction

Economic development is one of major concerns of developing countries like Bangladesh. As agriculture contributes about 32 per cent to gross domestic product

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(GDP) of Bangladesh, economic development depends largely on development of the agricultural sector. Agricultural development through improvement in agricultural productivity can be obtained in two ways: technological progress and efficiency improvement. Of these, the former is expensive, time taking and likely to require considerable amount of funds and efforts in yielding significant results while the latter can be relatively expeditious, less expensive and offers more immediate gains at modest costs. As a result, the issue of efficiency improvement in agriculture in developing countries has gained great importance.

The seminal paper of Farrell (1957) on efficiency pioneered the development of Data Envelopment Analysis (DEA) frontier (Charnes, Cooper and Rhodes, 1978), a linear programming based method. DEA approach to efficiency measurement consists of a conical hull of input-output vectors based on a production possibility set. The conical hull of vectors is constructed by linear programming (LP) techniques, for a single output case, with a subset of the sample lying on the production possibility set and the rest lying above. Charnes, et al. (1978) reformulate this piecewise-linear convex hull approach to the estimation of technical efficiency and frontier models, to incorporate multiple output multiple-input technologies. Their approach assumes constant returns to scale (CRS) and is referred to as the CRS DEA model. This model is used here to assess the relative efficiency of homogeneous farms in transforming inputs into outputs.

Banker et al. (1984) extend the CRS model by relaxing the assumption of CRS to variable returns to scale (VRS). The model is known as the VRS DEA model. The VRS DEA model differs from the CRS DEA model in that it envelops the data more closely, thereby producing efficiency estimates greater than or equal to those from the CRS DEA model.

Coelli (1995) provides a review and critique of different DEA approaches.¹ DEA is both nonparametric and nonstochastic since it does not impose any a priori parametric restrictions on the underlying frontier technology (because it does not necessitate any functional form to be specified for the frontier methodology), and it does not require any distributional assumption for the technical inefficiency terms. Therefore the method avoids the imposition of unwarranted structures on both the frontier technology and the inefficiency component that might create a distortion in the measures of efficiency (Fare et al. 1985). The minimum assumptions required for this DEA frontier methodology are monotonicity and convexity of the efficient frontier (Banker et al., 1984).

1 Seiford and Thrall (1990), Bjurek, et al. (1990), Lovell (1993,1994), Charnes et al. (1995), Seiford (1996), and Ali and Seiford (1993) also review the nonparametric DEA approach.

This paper estimates cost minimization input-oriented multistage DEA models to obtain simultaneously technical and economic efficiency and hence allocative efficiency of each farm. This simultaneous estimation procedure reflects the ability of farmers both to utilize existing technologies properly and choose cost-minimizing input combinations. Further, the tobit model is used to identify and quantify the effects of farm-specific factors on inefficiencies.

This paper is organized as follows: Section 2 explains the framework for analysis; Section 3 provides results and discussions; and Section 4 concludes.

2. Analytical Framework

2.1 DEA Frontier and measures of Technical, Allocative and Economic Efficiency

Assume that the i th farm uses $X_i = \{X_{ki}\}$ of inputs ($K=1,2,3,\dots,5$) and produces a single output y_i . The ($k \times n$) input matrix is denoted by X and the ($l \times n$) output vector is denoted by Y for all n farms where $n = 150$. The DEA frontier can be expressed as follows:

$$F(y_i) \left\{ (X_i, \left\{ \begin{array}{ccc} 150 & 150 & 150 \\ X_2, X_3, \dots, X_5 \end{array} \right\}; y_i < \sum \varpi_i y_i, X_k > \sum \varpi_i X_{ki}, \varpi_i > 0; \sum \varpi_i = 1 \right\} \quad (1)$$

where $(i) = (\varpi_1, \varpi_2, \varpi_3, \dots, \varpi_{150})$ is an intensity vector that forms convex combinations of observed input vectors and output vectors and represents the percentages of other farms used to construct the virtual efficient farmers (Ferrier and Lovell, 1990). Relative to this frontier simultaneous estimation of allocative and technical efficiencies can be obtained if a behavioural objective, such as cost minimisation is assumed and price data are available. This involves two sets of LPs, one to measure technical efficiency and the other to measure economic efficiency and hence allocative efficiency.

2.2. Technical Efficiency

Technical efficiency measures the ability of a farm to use existing technology efficiently. The technical efficiency estimates under constant returns to scale (CRS) is calculated by the input oriented DEA frontier:

$$\text{Minimize } \varphi_i^{1,CRS}; \text{ subject to } -Y_i + Y \omega \geq 0, \varphi_i^{1,CRS} X_i - X \omega \geq 0, \omega \geq 0 \quad (2)$$

$\varphi_i^{1,CRS; \omega}$

The scalar, $\varphi_i^{I,CRS}$ ($\varphi_i^{I,CRS} \leq 1$) is the technical efficiency score for the i th farm with $\varphi_i^{I,CRS} = 1$ implying that it is technically efficient and on the frontier (Farrell, 1957). The farm-specific values for φ_i are obtained by solving the LP problems n times where φ_i is the fraction by which a farm can multiply its input vector and still produce the same output. The first constraint states that the quantity of output produced by i th farm must be less than or equal to the quantity of output produced by the reference farm. The second constraint implies that efficiency-corrected inputs utilized by i th farm must at least equal inputs used by the reference farm.

The variable returns to scale (VRS) DEA frontier can be formulated by including the convexity constraint, $\Omega\omega = 1$ (2), where Ω is an $(n \times 1)$ vector of ones. If we compute the LP in (2) with this convexity constraint n times for n farms, the solution $\varphi_i^{I,VRS}$ is a measure of TE of the i th farm under VRS in an input-oriented framework. If $\varphi_i^{I,VRS} = 1$, the farm is technically efficient and lies on the frontier, the farm is technically inefficient and lies outside the frontier if.

$$\varphi_i^{I,VRS} < 1.$$

2.3. Economic Efficiency

Economic efficiency reflects the capability of farmers to choose cost-minimizing input combinations. Economic efficiency estimates are calculated based on the following cost minimization input-oriented DEA:

$$\text{Minimize } p_i x_i; \text{ subject to } -Y_i + Y\omega \geq 0, x_i - X\omega \geq 0, \Omega\omega = 1, \omega \geq 0 \quad (3)$$

$$x_i \omega$$

where p_i represents the vector of input prices for the i th farm and the solution vector x_i is the cost-minimising input vector, given the prices of the inputs and the levels of output y_i . This cost minimisation LP problem is solved separately for each farm. The economic efficiency (EE) of the i th farm is measured by the ratio of minimum cost to observed cost:

$$EE = (p_i x_i / p_i x_i)$$

Once the technical and economic efficiency are estimated, allocative efficiency can be estimated using: $TE \times AE = EE$.

This cost minimising LP computes efficiency scores under VRS; CRS efficiency estimates can be obtained by computing the LP without the convexity constraint, $\Omega\omega = 1$. Thus, $(p_i x_i / p_i \varphi_i^{CRS} x_i)$ and $(p_i x_i / p_i \varphi_i^{VRS} x_i)$ compute AE estimates from CRS and VRS models where φ_i^{CRS} and φ_i^{VRS} measure CRS and VRS TE. The total

cost or economic inefficiency of the i th farm $(p_i x_i - p_i \phi_i)$ is decomposed into its technical efficiency component $(p_i x_i - p_i \phi_i^{CRS})$, allocative component $(p_i x_i - p_i \phi_i^{VRS})$. In addition, a scale efficiency component, $(p_i \phi_i^{VRS} - p_i \phi_i^{CRS})$ is calculated from the DEA.

Scale efficiency is computed in terms of economic efficiency as:

$$SE = (EE_i^{CRS} / EE_i^{VRS})$$

where EE_i^{CRS} and EE_i^{VRS} are economic efficiency under constant and variable returns to scale respectively (Chavas and Aliber, 1993; Lund et al., 1993).

The data used are collected from two villages in the High Barind region of Bangladesh in August-September 1997. The two villages are selected to represent a range of farm types and irrigation systems. Cropping is dominated by rice which covers 95 per cent of the total cultivated lands. Other crops (wheat, potatoes, pulses and vegetables) are grown. The overall cropping intensity of this region is 175 per cent. The questionnaire was administered to 150 farms for the period covering three growing seasons; Season I lasts from March to May, Season II from May to September and Season III from October to February.

Output (y) is defined as the observed rice production and is measured in kilogram (kg). Land (x_1) represents the total amount of land used for rice production and the price of land (p_1) represents the price per acre of land. Labour (x_2) includes both family and hired labour engaged in rice production and the price of labour (p_2) indicates the wage per manday (wages for family labours are imputed). Irrigation (x_3) is the total amount of land irrigated for rice production and the price of irrigation (p_3) represents irrigation price per acre. Fertilizer (x_4) includes all organic and inorganic fertilizer and is measured in kg. The fertilizer price (p_4) indicates the average price of all fertilizer per kg. Pesticides (x_5) is the total quantity of pesticides used per acre and is measured in millilitre. The pesticides price (p_5) is the price of pesticides per 100 millilitre (for details of the survey Wadud, 1999, and Wadud and White, 2000).

3. Frontier Results

3.1. Estimates of TE, AE and EE

We use the input-oriented DEA model in (2) and (3) to estimate TE, AE and EE scores. These measures are calculated using DEAP 2.0 (Celli, 1996). This estimation procedure solves a series of 150 LPs one for each of the 150 farms. The

frequency distributions of TE, AE and EE measures under CRS and VRS frontier technologies and their summary statistics are reported in Table 1.

The efficiency groupings reported in Table 1 show that under CRS DEA, 47 per cent of farms (most farms) are 90-100 per cent technically efficient, most of farms (66 per cent) are 90-100 per cent allocatively efficient and most of economically efficient farms (28 per cent) are between 60-70 per cent; 1 per cent farms are 50-60 per cent technically efficient and economically efficient respectively, but no farm falls within this allocatively efficient and only 1 per cent farms are 1- 50 per cent economically efficient.

Under variable returns to scale, Table 1 shows that the 90-100 per cent TE and AE interval includes most of technically efficient and allocatively efficient farms (66 and 43 per cent respectively) and the 70-80 per cent EE interval includes most of economically efficient farms (27 per cent). The least number of farms (1 per cent) are between 50-60 per cent technically efficient; the least number of allocatively efficient farms (3 per cent) are between 60-70 per cent; and the 1-50 per cent EE interval includes the least number of farms (1 per cent). Therefore there is room for improving efficiency of farmers. it is also evident that the VRS DEA frontier produces efficiency estimates greater than those calculated from the CRS DEA frontier conforming with the theory that the CRS frontier least envelops the data set.

Table 1: Frequency Distribution of Efficiency Estimates from DEA

Efficiency Index (%)	Number of Farms					
	CRS			VRS		
	TE	AE	EE	TE	AE	EE
1-50	0	0	1	0	0	1
50-60	2	0	2	1	0	2
60-70	14	4	42	5	7	37
70-80	35	11	40	20	31	40
80-90	28	36	36	25	47	35
90-100	71	99	29	99	65	35
Mean	86	91	78	91	87	79
Minimum	52	67	46	53	63	46
Maximum	100	100	100	100	100	100
Standard Deviation	12	7	12	10	10	12

Under CRS and VRS technology, the mean values of TE ratings, given in Table 1, are 86 and 91 per cent with ranges from 52-100 per cent and 53-100 per cent; and standard deviations are 12 and 10 per cent respectively. This indicates that farmers on average can produce observed output levels as the most technically efficient farm using 86 per cent and 91 per cent of their observed quantities of inputs respectively. Conversely, on average, farm input use is 14 per cent and 9 per cent higher than the most technically efficient farms. Although the mean CRS TE ratings is slightly lower than that of VRS TE ratings, their ranges and standard deviations are similar.

The averages of AE ratings under CRS and VRS DEA frontiers are 91 and 87 per cent respectively. This implies that farms on average can increase their observed levels of output as the most allocatively efficient farm spending 91 and 87 per cent of their observed costs respectively. Alternatively, production costs on average are 9 and 13 per cent greater than if they were allocatively efficient. The ranges of AE ratings from both frontiers are 67-100 per cent and 63-100 per cent respectively and their standard deviations are 7 and 10 per cent which indicate little variation in AE ratings between the assumed technologies.

The mean values of 78 per cent for the EE scores calculated from CRS and VRS technologies show that farms on average could reduce their production costs by 22 and 21 per cent respectively if production was as efficient as the most cost efficient farm. The EE ranges and standard deviations are similar which shows that there is no significant variation across technologies.

3.2. Economies of Scale

The economies of scale for farms is estimated using (4) where the efficiency scores estimated under the VRS DEA frontier are equal to or greater than those calculated under the CRS DEA; results are presented in Table 2.

Table 2: Optimal, Sub-optimal and Super-optimal outputs from Input Orientation

Scale	No. of farms	Mean Output	Output Range
Optimal scale	25	31159	1600-188122
Sub-optimal scale	31	10710	1604-36101
Super-optimal scale	94	68854	2257-289940

In terms of economies of scale from the input orientation model, 94 farms are characterized by decreasing returns to scale, 25 farms have constant returns to scale and 31 farms have increasing returns to scale. The mean output at sub-optimal scale is the lowest and the mean output at superoptimal scale is the highest as expected. The results indicate that the optimal output levels overlap a great portion of the sub-optimal and super-optimal output values which conform with both Hjalmarsson et al. (1996) and Sharma et al. (1997). If all farms are using the same technology, then we would expect returns to scale to be increasing for farms with a relatively low output and decreasing returns to scale for farms with a relatively high output. Constant returns to scale would be expected for farms with a output level equal to mean output (Silberberg, 1990).

3.2 Factors Associated with inefficiency

We now examine what factors appear to be associated with the degree to which farmers are efficient. Because isolating the sources of inefficiency could play important role in designing policies to improve efficiency performance of farm households. In general, household endowments of human capital are likely to be associated with inefficiency. We consider the years of education of the households, and household experience, measured as age of the households, as human capital. Each of these human capital variables is likely to be positively related with efficiency. The greater the plot size (less fragmentation) of a farm the greater the opportunity to apply new technologies such as tractors and irrigation and hence the farmers with less land fragmentation could be expected to be more efficient.

Weak irrigation infrastructure could have positive effects upon the size of the inefficiency effects. The demand for irrigation is increasing as the cropping pattern in Bangladesh has been shifting from Aman to Boro which requires intensive irrigation. There has been a rising dependence on groundwater because surface water sources have been silted up. The number of deep tube wells (DTWs) is increasing in the north-western part of Bangladesh under the control of BMDA (Barind Multipurpose Development Authority), the area has low potential for groundwater exploitation and the over-use of DTWs results in shallow tube wells (STWs) drying up. There are no watershed scale water management systems to improve water conservation and recharge. The results have been increased costs for irrigation and increasing concerns about the irrigation management and infrastructures which may increase inefficiency. Irrigation management and infrastructure are differentiated by irrigation fuel, diesel and electricity. Some irrigation schemes are powered by diesel pumps and some by electricity operated pumps. Diesel pumps incur higher costs and lower water extraction capacity than electricity-operated pumps that cause inefficiency in agricultural production.

Land degradation is likely to have negative effects upon efficiency. Land degradation is increasing because of dependence for household fuel on crop residues and animal dung along with wood and leaves and twigs which, if recycled back to the soils, would reduce the rate of soil erosion, soil structure and land degradation. Intensification of rice-based agriculture has increased land degradation. Land degradation is also being occurred through runoff of heavy rainfall. Some farmers have lands, which have low water retention capacity and fertility of these lands is very low. This is attributed as decrease and loss of soil organic matter due to return of a very little amount of manure, crop residues and flooding low moisture availability in the soils, and cropping intensification. Visual inspection and a sub-section of the questionnaire assessed the state of land degradation on the farm.

We now quantify the effects of sources of technical inefficiency (TI), allocative inefficiency (AI) and economic inefficiency (EI) using the Tobit model. The inefficiency effects model is estimated separately as:

$$IE_i = \delta_0 + \delta_1 z_{i1} + \delta_2 z_{i2} + \delta_3 z_{i3} + \delta_4 z_{i4} + \delta_5 z_{i5} + w_i \quad (5)$$

where w_i a random error term, which is normally and independently distributed with a zero mean and variance, α^2_w . The tobit model is used as inefficiency, IE_i , is a limited dependent variable. The value of IE_i falls between zero and one, some of the values IE_i , are likely to be zero. Where z_{i1} denotes the age of the farmer, z_{i2} is the farmer's year of schooling z_{i3} represents land fragmentation, z_{i4} is the irrigation infrastructure dummy which assumes the value 1 if the farmer buys irrigation water from diesel powered schemes and zero otherwise; and z_{i5} denotes the land degradation dummy variable which takes the value 1 if the land is undegraded and zero otherwise.

Results of the tobit model are given in Table 3. The estimated coefficients on the age of the farmers for CRS TI, EI and VRS TI are positive. This implies that younger farmers tend to have higher levels of TE than their older counterparts; but the coefficients are insignificant. This accords with results obtained by Ajibefun et al. (1996), Seyoum et al. (1998), Coelli and Battase (1996) and Wadud and White (2000). This may be explained if younger farmers adopt recent technological advances which typically have more credit privileges from banks and merchants. However, the coefficient signs on age for CRS AI and VRS AI and EI are negative; this indicates that older farmers are experienced when choosing cost-minimizing input combinations.

Table 3: Tobit Regression Results of Factors Affecting Inefficiencies

Factors	Coefficients					
	TI		AI		EI	
	Coeffi- cients	t-ratio	Coeffi- cients	T-ratio	Coeffi- cients	t-ratio
Constant Returns to Scale						
Constant	0.0747	2.0858	0.1571	5.8854	0.2207	7.9267
Age of farmers	0.0007	1.0744	-0.0005	-0.9719	0.0002	0.3068
Land fragmentation	-0.0005	-0.0061	-0.1167	-2.0490	-0.0982	-1.6525
Year of schooling	0.0014	0.9246	-0.0035	-3.0282	-0.0019	-1.5536
Irrigation infrastructure dummy	0.1121	5.9643	0.0179	1.2828	0.1217	8.3255
Land degradation dummy	-0.0608	-3.1876	-0.0149	-1.0485	-0.0722	-4.8666
Log Likelihood	152.3666	196.5172	190.1654			
Variable Returns to Scale						
Constant	0.0457	1.2033	0.1831	6.4496	0.2214	7.7698
Age of farmers	0.0003	0.4904	-0.0005	-0.9531	-0.0001	-0.2461
Land fragmentation	0.0300	0.3710	-0.1530	-2.5269	-0.1231	-2.0258
Year of schooling	0.0021	1.2610	-0.0039	-3.1885	-0.0019	-1.5438
Irrigation infrastructure dummy	0.0532	2.6735	0.0869	5.8331	0.1293	8.6416
Land degradation dummy	-0.0447	-2.2119	-0.0279	-1.8421	-0.0673	-4.4326
Log Likelihood	143.7501	187.2714	186.6935			

Schooling is positively and insignificantly related with TI, is negatively related with AI and EI and the coefficients on AI are significant; this indicates that education is positively related with cost-minimizing input combinations. The estimated coefficients of land fragmentation for CRS TI, AI and EI, and for VRS AI and EI are all negative, as expected, and the coefficients for CRS AI, VRS AI and EI are significant; this indicates that smaller plot size is associated with higher level of relative TI, AI and EI. The exception is the VRS TI where the coefficient is positive but insignificant.

Positive and significant coefficients on the irrigation infrastructure dummy for both CRS TI and EI; and VRS TI, AI and EI imply that irrigation infrastructure, i.e., diesel-operated irrigation pumps, positively affect technical, allocative and economic inefficiency. This result conforms with results obtained by Wadud and White (2000). This may be attributed to lower water extraction capacity of diesel pumps and there are constraints to allocation decisions since diesel costs are higher which reduces TE, AE and EE. The estimated coefficients on land degradation dummy for both CRS and VRS TI, AI and EI are negative implying that land

degradation not only creates obstacles in applying technology efficiently but also hinders the cost-minimizing input utilization in rice production in the High Barind in Bangladesh. This results conform with results obtained by Wadud and White (2000). The coefficients for CRS TI, EI and VRS TI and EI are significant but the coefficients for CRS and VRS AI are insignificant. Therefore policies leading to improving irrigation infrastructures and reducing land degradation could enhance the efficiency of farms, thereby increasing farm production, revenue and welfare.

4. Conclusions

This paper assesses efficiency performance of farms in Bangladesh and quantifies factors to calculate constant (CRS) and variable returns to scale (VRS) technical, allocative and economic efficiency simultaneously and scale efficiency. Tobit regression analyses are conducted to quantify factors associated with inefficiency. Assessing efficiency of farms reveals that CRS frontier produces technical, allocative and economic efficiency ratings with means of 86, 91 and 78 per cent respectively, and VRS frontier calculates technical, allocative and economic efficiency scores with mean values of 91, 87 and 79 per cent respectively. The estimate of the mean technical efficiency from the VRS frontier is greater than that from the CRS frontier model. The variability of AE estimates as measured by the standard deviation is lower than those of technical efficiency and economic efficiency estimates. Economies of scale shows that most farms are characterized by decreasing returns to scale.

Tobit analysis evaluating factors associated with technical, allocative and economic inefficiency suggests that irrigation infrastructure and land degradation are the most statistically significant factors associated with technical, allocative and economic inefficiency from both the CRS and VRS frontiers. Results indicate that all types of inefficiency are positively influenced by the irrigation infrastructure, i.e., diesel-operated irrigation schemes create more inefficiencies than do electric ones. This implies that irrigation infrastructure is not only creating obstacles to obtaining the maximum output from given inputs and technology but is also causing sub-optimal cost-minimizing input decisions. Results also indicate that land degradation as an environmental factor is negatively associated with technical, allocative and economic inefficiency; these imply that land degradation lowers farmer's ability to utilize existing technology efficiently and hinders the allocation of inputs in a cost-minimizing way. Human capital variables age of farmers and years of education also increase farmers capability to choose cost minimizing input combination.

Evaluating efficiency suggests that there is a considerable amount of inefficiency among our sample farms and a substantial potential for increasing rice output

through the improvement of technical, allocative and economic efficiency without resort to technological improvements. On average, production costs could be reduced by 9 to 22 per cent; this could contribute to compensation of high production cost, hence improve farm revenue, welfare and generally help economic development. In assessing factors associated with inefficiency, we have policy conclusions as follows. First, policies that promote farmers' education would help them better understand the requirements of successful cultivation. Second, government electrification programmes which convert diesel pumps into electricity operated pumps for irrigation in rural areas, and policies which aim to reduce land fragmentation and land degradation would reduce inefficiency, thereby, increasing rice production and welfare of farm households. These would decrease variability in output, enable farmers better realise the potential gains from agricultural cultivation and help raise living standard and obtain a more equitable distribution of income both of which lie at the heart of the problem of rural development in Bangladesh.

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Environment - Poverty Linkages in Bangladesh Perspective: Need for Sustainable Development

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1. Introduction

Poverty is perhaps the most talked about issue in Bangladesh. Politicians, academics, NGO leaders, concerned citizens — all try to project this as a formidable challenge to development in Bangladesh. However, this discussion still hovers around a poverty line constructed with the help of a certain income level relating mostly to the value of some basic needs. It is, however, being increasingly recognised that it has many expressions and many roots beyond income deprivation (Rahman and Sen, 1998: 1-1). Other causal factors of poverty like inadequate access to physical asset bases, preponderance of risks, uncertainties and vulnerabilities and spatial problems affecting livelihoods and crisis coping capacities do indeed originate from environmental foci and one can, therefore, find certain linkages between the two .

The more visible environmental problems are mostly associated with regenerative resources which are in 'danger of exhaustion from excessive use' (Dasgupta, 1993: 274). These resources include not only animal, bird, plant and fish populations but also land, water and air. They can complement other goods and services and can as well supplement income at time of stress. So depletion of some of these environmental resources can make some categories of people destitute even when an economy has been growing otherwise. That there is an intimate relationship between environmental degradation and an accentuation of destitution has not yet been fully appreciated by the economists and policy makers. Dasgupta (ibid), however, has specially focused on women and children as victims of environmental degradation and not necessarily polluters. They are mostly forced to face an adverse environment (e.g. shrinking

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opportunities of gathering water, inadequate access to local commons etc) with significant implications for deprivation. Their work load goes up and sources of cash saving 'income' dwindle. They then suffer from malnutrition and ill health with further impact on income erosion.

A degraded environment implies that less resources are available not only for the present and but for the future generations as well meaning greater risk of sustainability. It creates adverse impact on both production and consumption activities of the poor. Bangladesh is still an agrarian country and the livelihoods of the poor depend largely on agriculture, forests, and fisheries. Indeed around 80 per cent of the total population depend to some extent on the utilization of natural resources or on processing of the resultant products which can be categorized as environmental resources as defined earlier. So there is a need for striking a realistic balance between the existing livelihood requirements of its people and sound environmental resource management that can finally ensure sustainability. The issue of sustainability of these resources has become particularly very significant as new evidences are emerging indicating higher rates of their degradation:

- Depletion of fish stocks and deteriorating water quality due to arsenic and other pollution;
- Deforestation at a rate of 3 to 4 per cent per annum
- Over-exploitation of common property resources due to poverty and increased landlessness: 12.7 per cent of the rural population own no land at all.¹
- Industrial and vehicular pollution, unsustainable commercial exploitation of resources, coupled with market, policy and institutional failures.

In most cases as already indicated the poor become victims of these environmental hazards as they have either no significant command over most resources which could help them cope with crises or even if they have access to some resources they are invariably fragile. Indeed a mutually reinforcing cause and effect relationship exists between poverty and environment. So environment-poverty nexus is likely to complete a cycle incorporating some linkages in it. The objective of the present paper is to trace out these links to get a complete understanding of the nexus. Specifically we want to cover the following aspects:

- 1) A theoretical understanding of the nature of environmental resources including the 'market failure' and 'externality' aspects;
- 2) Understanding the nature of linkages between poverty and environment;

¹ UNDP, 1998, 'Bangladesh Human Development Report', UNDP, Bangladesh.

- 3) Identifying major environmental problems of Bangladesh and their impact on poverty;
- 4) Defining the objective of sustainable development in response to the emerging perspectives and
- 5) Sketching out a strategic outline to realize the objective of sustainable development

2. Theoretical Understanding of the Nature of Environmental Resources

The environment endows resources as input for productive purposes and at the same time acts as a sink for absorbing the residues of production and consumption activities.

We have indicated earlier that overuse of regenerative resources can lead to environmental problems with specific implications on the state of poverty of some groups of people. The speed of regeneration of the environmental resources depends upon, among other things, the consumption pattern, the current state of atmosphere and the nature of and the rate at which the pollutants are deposited. The regeneration rates of atmospheric quality are always complex and non linear in nature. As there is a great deal of synergism linked with the interaction of different types of pollutants in the atmospheric sink, it is difficult to grasp the problem through linear analytical indices.

There are some inherent properties in environmental resources which prevent them to be consumed at a Pareto optimal level. The market price of environmental resources is often nil, even though they are certainly of value. Why is it so? The answer lies in the environmental externalities arising out of incomplete property rights and inadequate information and transaction cost. All this lead to gross market failures for these resources. Again, the physical characteristics of environmental resources often restrict the imposition of property rights as they can not always be specified and enforced. Consequently markets for environmental resources generally may not exist and they are subject to malfunctions when they do exist.

There can be a significant loss to the environment if there develops a hidden understanding between different agents involved in 'marketing' the environmental resources. This has been nicely elucidated by Partha Dasgupta et al.² That deforestation in upland can inflict damages on low lands in watersheds has been

² Partha Dasgupta and Karl - Goran Maler, 1994. "Poverty, Institutions, and the Environmental Resource Base" World Bank environment paper 9. The World Bank, Washington D.C.

illustrated quite vividly by them. In this case, it has been reported that if the timber merchant could obtain a concession in the upland forest, he faces no obligation to compensate farmers in the low lands. If the farmers in the low land wish to reduce the risk of flood that may be promoted by deforestation in the upland will have to compensate the timber merchant to reduce the rate of logging. It would, however, have been fair if the timber merchant actually compensated the farmers. However, the existing political economy and lack of adequate institutional tools do not allow the realization of this compensation .

In most developing countries it is more often the rights of polluters are recognised by the state and not those of pollutees. This has grave consequences on the sustainability of the environmental resources. This is also true globally. For global warming, the nations which are mainly responsible for creating such hazards do hardly bear the cost. Even if they do, this is only minimal. Those who have been least responsible will probably have to bear a disproportionately higher cost. Despite a number of conventions and agreements, the fact remains that polluters pay the least.

Even if proper environmental laws are enacted, there would certainly be enforcement failures. Even if we judge it from the view point of Pareto efficiency it would be disastrous for environment if polluters are bestowed with rights of deforestation. As the private cost of logging being lower than its social cost, excessive deforestation is likely to occur with grave consequences for environment.

In the above section we have only indicated the likely implications where markets do not actually exist in the typical form in cases of environmental resources. In such cases the participating partners are unable to negotiate the efficient courses of actions as property rights are either incompletely specified or not substantially enforced. The link between property rights, transaction cost and the nature of resource allocations has been illustrated earlier by Coase (1960). He demonstrated the neutrality of the assignment of initial property rights on allocative efficiency provided transaction costs are nil. Though it has certain appeal but could not be applied adequately for its rigid and impractical assumptions.

Arrow (1971) showed why it is difficult to believe that competitive prices for externalities can form even when private property rights are well defined and enforceable.³ And the Pigovian concept of 'imposing tax on the producer of an externality in such a way that after the tax has been introduced the private cost, as perceived by the externality generating party is equal to the social cost of the activity' has some inherent limitations. It requires information on cost-benefit analysis which is hard to obtain. It also involves the government having to know about possible states of affair that are far removed from where the economy currently finds itself in.

³ Ibid, Partha Dasgupta, et. al. (1994)

In other words, till to-date the link between environment and the economic growth and development is yet to be well understood. A cohesive system to deal with the environmental resources optimally is yet to emerge. The tension between weakness of market solutions, on the one hand, and government intervention, on the other, is a recurrent theme in environmental economics. However, unless there is collective action, a common property is likely to be over exploited as the private cost of using the resources falls short of its shadow prices leading to a process what has generally been called as the 'Tragedy of Commons'. The only silver lining is that this fact is being acknowledged widely. As the new century is dawning a new perception is emerging about the reality. The global view which is gradually unfolding talks more about the interconnectedness of different systems and the need for multiple actors to work for environmental sustainability. Indeed, the community leaders, NGOs, the media, the government are all working hand in hand to reduce degradation of environment. Given this integrated ecological view of the world, we will below try to indicate a conceptual framework for understanding the interlinkages between poverty and environment or the vice-versa.

3. Conceptual Framework

The poor's exposure to environmental degradation is distinctive mainly for two reasons. First, the surroundings of the locations inhabited by the poor are often environmentally vulnerable or degraded. The areas where the poor can gain access are often fragile and hence the riskiest for health and income generation. Second, lack of strong resource base makes it difficult for the poor to opt out of the degraded environment and try to eke out living with alternative sources of livelihoods which are less degrading. In this sense they are more of victims rather than degraders of the environment. Thus there exists a two way relationship between poverty and environment in the developing countries. Poverty causes environmental degradation, and in turn, degradations of the environment exacerbates poverty. Again, poverty is itself a product of unequal resource distribution between groups and classes. Unless the developmental challenge is addressed from the perspective of equity the issue of environment will remain ill-focused.

Also in another succinct document on development and the environment (World Bank, 1992, Chapter 1) Kuznets showed that there is a relationship between gross domestic product (GDP) per head and concentration levels of industrial pollutants. Summarizing the historical experiences of OECD countries, he argued that concentration levels of a number of atmospheric pollutants (e.g. sulfur dioxide) are increasing functions of GDP when GDP per head is low, and are decreasing function when GDP per head is high. That is an inverted U-shaped curve establishes the

relationship between per capita GDP and environmental degradation. The high per capita GDP means high level of consumption and waste. This has direct consequences upon environmental management. And it supports the nexus quite strongly which we have indicated earlier.

The fact remains that the livelihood strategies in the developing countries for most part depend on natural resource based subsistence economies. The study of Falconer and Arnold (1989) based on Central Africa, reveals how vital are forest products to the lives of rural folk. And in Bangladesh, alike other developing countries, rural poor eke out the major portion of their living from products contributed directly by natural resources such as soil and its cover, water, forests and vegetation, animals and fisheries. Although they are forced to depend on environmental resources for their survival, the poor do have a lot of feeling for the surroundings in which they live in. They never would exploit these resources to a level so that the damage is irreversible. Only when the commercial interests of a few, mostly the rich, both inside and outside precede over their local considerations the environment tends to be degraded at a significant level.

In fact, depletion of the natural resource base or a deterioration in its quality also leads to a worsening of the condition of the rural poor on which they depend for living. Degradation of soil, forest and water resources thus hit their economic activities as well. For example, the commercialization of shrimp culture in coastal Bangladesh has been spearheaded by the rich causing irreversible harm to the local environment. This has greatly reduced the livelihood opportunities of the poor despite some national gains in export.

The well-off also damage the environment in many other ways (e.g. careless use of agro-chemicals, excessive use of irrigation water, and over exploitation of forests and fish stocks).

Again, this is also true that increasing population pressure on the limited land resources pushes them (mainly the poor) to often use marginal lands or compel them to over utilization of soil for their survival. In a country like Bangladesh densely dwelling population clear out the forest land for the purpose of cultivation. They also meet their fuel needs by cutting down trees, clearing forests. But as already noted earlier, while exploiting these resources they also care about their regenerative capacities.

Public policy, of course, plays a decisive role in determining the pattern and intensity of natural resources consumed by both poor and non-poor. The distribution of benefits from such use between these two groups and pinpointing the extent of environmental degradation resulting from such activity is yet to be fully operationalised by the policy makers. Despite such a lack of clarity in policy articulation it can still be claimed that

poverty and environment do have a nexus and/or strong causal relationship. Here we will try to explore the different dimensions of this relationship to examine how environmental degradation affects the poor and how the sources of poverty also affect environment in the context of Bangladesh.

4. Environment and Poverty Linkages: *Some empirical evidence*

It is perhaps now quite clear from the analytical discussions made so far that poverty and environmental degradation form a trap from which there is very a little chance of escape at least in the short run. This linkage between poverty and environmental degradation provides perhaps the clearest demonstration of the centrality of social, political and economic issues with regards to environment and development. It is on the environment in which the poor people live and from which they draw the sustenance.⁴ So the sustainable development has to focus on this interlinkage.

As mentioned earlier, the two-way causal relationship between environment and poverty is indeed very significant. We will, therefore, indicate a few areas of this interlinkages.

Pollution Damages the Health of the Poor

Different types of pollution have serious consequence on the health of the poor. Water and air pollutions, in order of severity have been creating significant health hazards for the poor. The poor are less protected from polluted waters than other income groups. Numerous country surveys demonstrate that there are significant differences in access to safe water and sanitation. The poor women and children suffer most for the lack of such an access.

Earlier stages of economic development are dominated by problems of biological contamination of water, with fecal contamination being the most important from health perspective. Over a dozen of diseases (diarrhoea, dysentery, cholera, helminthiases etc) related to microbiological contamination of water are prevalent in developing countries. Arsenic contamination in ground water, perhaps originating from excessive extraction of it, has become the latest environmental concern in many countries including Bangladesh. An overwhelming proportion of the arsenic victims are again poor. As industrial sectors develop, waterways become contaminated with industrial

⁴ Adams, W.M., 1990, 'Green Development: Environment and Sustainability in the Third World'. London: Routledge.

and toxic wastes with significant consequences on the quality of water, capturing of open water fishes. The livelihood of poor get affected in the process.

The Table 1 shows the trends in access to safe drinking water and sanitation.

Table 1
Trends in Access to safe Drinking Water and Sanitation

	Safe Drinking Water ^{a/}				Sanitation ^{b/}			
	1975	1980	1985	1988	1975	1980	1985	1988
Access (% of Population:								
Developing Countries ^{c/}								
Urban	74	76	75	78	50	56	59	66
Rural	20	31	42	46	11	14	16	17
Total	n.a.	46	54	57	n.a.	28	33	34
Developing Countries ^{c/}	-	1251	1204	1210	-	1668	1753	1858

Source: Stephen D. Mink, 'Poverty, Population and the Environment', World Bank Discussion Papers, the World Bank, Washington, D.C., 1993.

^{a/} WHO definition of access to safe drinking water in urban areas is access to a piped water of a public standpipe within 200 meters of a dwelling. In rural areas access implies that a family member need not spend a disproportionate part of each day fetching water. Water considered safe includes treated surface water and untreated water from protected springs, boreholes, and sanitary wells.

^{b/} Urban and rural populations have access if they are connected to a public sewerage system, or have adequate disposal including pit privies, septic tanks, communal toilets, and other such facilities.

^{c/} Excludes China.

The rural poor who mainly rely on bio-mass fuels (crop residues, wood, dung etc.), they are more vulnerable to air pollution as they produce many combustion pollutants. Poorer households cannot afford the fuels like kerosene, LPG, electricity, nor they are able to invest in housing improvements that permit biomass fuel to be used more safely. Again cooking in Bangladesh and most cultures in developing countries is

done almost exclusively by women, they therefore face higher health risks from indoor pollution, as do infants and children who accompany their mothers during cooking. The problem is not exclusively rural, urban poor as well suffer disproportionately because of greater sources - vehicles, power plants and industries. The overwhelming presence of two-stroke engined vehicles and use of leaded petrol are two key areas of concern for air pollution in urban Bangladesh. Health effects from high levels of ambient air pollution are often concentrated among those who already have asthma or other chronic respiratory diseases. Low quality of housing, and low nutritional status increases vulnerability to diseases. In addition less access to health care creates more severity for the poor.

Poor's Productivity is Reduced by Environmental Degradation

Environmental degradation depresses ability of the poor to generate income through two channels.⁵ First it requires the poor to divert an increasing share of their labor to routine household tasks such as fuel wood collection; and second, it also decreases the productivity of those natural resources from which the poor wrest their livelihood.

Diverting Labor: Environmental degradation can lower the labor productivity, even when they are healthy. For example, as fuel wood becomes scarce, poor households must spend an increasing amount of time collecting it. A study of Center for Science and Environment (Agarwal,1985; Barnes, 1990) of life in a micro-watershed of the Alakanda river in the Central Himalayas reports that, of the total number of hours worked by the villagers sampled, 30% was devoted to cultivation, 20% to fodder collection, and about 25% was spread evenly between fuel collection, animal care and grazing, 20% on household chores and 5% on others. Thus where family labor is not abundant, greater time is spent on, for example, for fuel collection. Time taken away from other productive activities has an opportunity cost and can result in lower incomes. Further it is shown that families are not able to compensate for this diversion of labor resulting in a reduction in household income from agriculture and a deterioration in food consumption levels and nutritional status. All this have implications for the poor.

Reducing Productivity of the Poor's Natural Resources: Where the poor depend on biomass fuel and confront increasing fuel-wood scarcity, they often shift to using animal dung, fodder, and crop residues for fuel. Since reduced quantities of these materials are returned to the soil, its fertility declines. Growth in rural population can put extra pressure on land resources resulting in shortening of fallow in the process.

⁵ Ibid, Stephen D. Mink (1993).

⁶ Ibid, Stephen D. Mink (1993).

This can have negative impact on the health of the soil and hence its productivity. Poverty may also constrain farmers' ability to maintain soil productivity through more intense application of variable inputs.⁶

Impact of Poverty on Resource Management: The very poor who are struggling at the edge of subsistence levels of consumption are preoccupied with survival strategies on a day-to-day basis. Their ability to plan ahead is often restricted to a critically short time horizon, measured in days or weeks. But these short time horizons should not be viewed as an innate characteristics of the poor. Rather this should be seen as a consequence of complex interactions among policy, institutional and social failures.⁷

The horizon of the poor is short partly as a result of their high rate of pure time preference which declines as income rises. They have less ability to forego consumption today by using savings previously put aside for later consumption purposes. As a result they cannot opt for investment in natural resources which is likely to give return in the medium and long terms. A high subjective discount rate implies rapid resource extraction to meet present income or consumption needs, and low investment in natural resources to improve future returns. This has dynamic implication for growth and subsequently on poverty eradication.

Higher Risks Faced by Poor: Normally higher levels of risk are faced by the poor rural households than their rich counterparts from different sources. Some of these risks are attributable to poorly conceived or implemented policies. The poor farmers may perceive their access to land as tenuous because of conflicts inherent in it. With other claimants or overlap of different land rights, the poor are mostly marginalised. Better-off rural families are more likely to be able to establish firm claims to land where a transition is occurring from common property to private property systems, or where there are lengthy and costly administrative procedures for establishing legal title to land. Under such circumstances, the poor peasant's interest in longer term investments in the productive capacity of land is likely to be severely diminished. Common property resource often serves as a form of insurance that poor rural residents can turn to if they face set backs in their primary income generating activities. A degrading environment significantly affects the access to this natural insurance of the poor.

Poor's constraints to Manage Risk Contribute to Resource Degradation: Poor households who are mostly at risk of falling below the subsistence levels of consumption will treat available natural resources as an asset to be drawn down in times of emergency. The options for managing the resources are often limited or unavailable to the poor. Their assets and agricultural stores are minimal and quickly

⁷ Ibid, Stephen D. Mink (1993).

depleted. Credit and insurance markets for the hard core poor are frequently fragmented or non-existent. Again, women, who play a significant role in managing natural resources are frequently under-served by agricultural and forestry extension services. All this mean higher level of uncertainties and insecurities with implications on the management of environmental resources.

Indirect Linkages between Poverty and Environment: In the above we have acquainted ourselves with the direct poverty environment linkages. Some indirect linkages which come through different policy regulations also aid to this nexus. In this connection we can remind that poverty has basically two dimensions - 'state' and 'process'. The dimension of "process" i.e. by which people remain or become poor are related with some regulations like tenancy arrangement, wage contract and crisis coping capacity. All of this are affected by public policies. The interface of public policies with poverty and environment provides the framework for indirect linkages between the two. For example, the structural adjustment policies of the government encouraged by multilateral agencies have placed the poor, especially the hard core ones in a vulnerable situation to the extent that they are not always within the domain of regular market mechanism and at the same time seldom have any asset except their labor to participate in the market. Their vulnerabilities have been rather increased due to greater exposure to the market because of certain public polices.

Bangladesh with one of the highest density of population (935 per square kilometer) and with majority of the farmers having less than 0.5 hectare of land has about 42% of the population living below the poverty line. Due to pervasive poverty, people are compelled to adopt a number of survival strategies and crisis coping activities which have impact on environment. Overuse of limited farm land, lack of crop rotation and other scientific methods have been depleting the productivity of land. Due to low access to credit, high prices of pesticides, fertilizer, the poor and marginal farmers cannot use the land in an environment friendly way. Below we try to illustrate poverty-environment linkages focusing on the productivity issue (CIRDAP, 1994: 17).

Table 2
Poverty-Environment Productivity Linkages

Major Environmental Issues	Areas	Reasons/Explanations
1. Erosion of soil is present	1. River Char Land 2. Coastal Char land	3. River current 4. Tidal bore/cyclone
2. Salinity in soil	1. Sundarban 2. Coastal Char Land	1. Proximity to sea and its channels 2. Tidal bore/cyclone
3. Nutrient loss of soil	1. River Char Land 2. Sundarban 3. Coastal Char Land	1. Over-use of farm land 2. Lack of use of balanced chemical fertilizer 3. Inability to buy chemical fertilizer due to high price 4. Lack of access to organic manure
4. Use of chemical fertilizer led to decrease in fish and resulted in incidence of human disease e.g. stomach problem	1. River Char Land 2. Coastal Char Land	1. Water pollution 2. Destruction of natural habitat of fishes
5. Deforestation	1. River Char Land 2. Sundarban 3. River Plain Area 4. Coastal Char Land	1. Scarcity of fuel and use of wood as fuel 2. Selling of trees by the poor for survival

Source: 'Environmental and Ecological Aspects of Poverty and Implications of Sustainable Development in Bangladesh', Mohammed Ali Rashid et. al. (P. 17) CIRDAP, December, 1994.

Note: A detailed survey was carried out under this study of CIRDAP in 1994 in four agro-ecological zones namely: River char land; Sundarban; River Flood Plain Area; Coastal char Land in Bangladesh.

As indicated in the Table 2 soil erosion and salinity, two important natural factors do as well reduce land productivity. Natural disasters like flood, cyclone and tidal bore destroy a substantial amount of crops every year leading to a process of massive pauperisation of the rural people. The flood, however, if not prolonged can have some beneficial impact on the agricultural growth. This shows the direct impact of environment on the poverty situation of the rural areas. The picture of linkage between ecological vulnerability and chronic poverty can be better understood from the box 1 given below. That the area prone to river bank erosion has been historically the seat of chronic poverty becomes quite clear from this box.

The main point which emerges from the above discussion is that there is a need to integrate environmental conservation into national poverty alleviation strategies. In Bangladesh, given a large number of environmental problems across various ecological zones, some target groups of people are always at high risk of exposure to poverty and environmental degradation. They should first be identified clearly. The nexus among poverty and environment as well as with development and population policies should then be understood in a holistic manner. Isolated poverty alleviation strategies will not be effective if they are not environmentally sound, participatory in nature and focused on building local and national capacities for self-reliance.

Box -1 : Vulnerable Ecology and Chronic Poverty

Historically, the river erosion areas were the pockets of persistent poverty. In severely flood-affected years they are susceptible to widespread starvation, often resulting in dramatic drops in exchange entitlement leading to famines (Sen 1981). This has been the case in 1974 famine which struck severely the villages located in river erosion belts along the two sides of Brahmaputra. These are economically most depressed thanas and unions of the districts of Kurigram, Lalmonirhat, Gaibandha and Jamalpur (belong to "old" districts of Rangpur and Mymensingh in Sen's study). These pockets topped the list of most vulnerable areas during the massive floods of 1988 and 1998, though the extreme expressions of destitution-susceptibility to famine - has declined. The risks of famine in 1998 were minimised by the highly pro-active role of government and NGOs in the large-scale distribution of foodgrains via Vulnerable Group Feeding (VGF) programme, Cash-for-Works and a variety of lean-season food-assisted programs in the presence of an active political opposition and the freedom of press, factors emphasised by Amartya Sen in his famine-related writings. The presence of NGOs played an important role in sensitising issues and providing initial help to the most needy, specially in resource-poor areas. This process was facilitated by greater resilience capacity of the rural economy as well as more favourable aid climate compared to the situation prevailing in 1974.

While vulnerability is the general phenomenon which cuts across all the sections, small landowners and agricultural labour households represent the most vulnerable social segment in these areas living at a very high level of nutritional risks and hunger. Indeed, the poorest located in poor areas such as the river erosion belts are in much more disadvantageous situation than the same located in rich areas. This is because options such as micro-credit, access to non-farm employment in general tend to be very limited in supply in the distress pockets than in other areas with better infrastructure access and less risky environment. Even the option of migration is circumscribed by the relatively high cost of migration because of severe credit constraints. The other option of dissaving and disinvestment is also limited because of poor asset endowments. Because of the covariate nature of the crisis, credit and asset markets failures are expected, further aggravating the plight of the poor. In short, the poor and the poorest living in these areas deserve priority attention during the time of distress. They should get higher allocations of food to meet their short-term consumption needs as well as other assistance on a priority basis such as re-building of shelters, roads, culverts, schools and clinics damaged by the flood. The evidence also suggests that financing of seasonal migration of the poor should be considered as an equally important "activity" in the agenda of micro-credit providing agencies as the other income-generating projects, given the widespread credit and insurance market failures. What would be the strategy of poverty eradication in these areas in the long-term? Can environmentally sustainable way of "living with floods" be devised for these areas? Or, should the policies be directed towards re-settlement? These questions remain still unanswered.

The problem with the resettlement approach is that it is not easy to change the way of life of a large community. Besides, the problem is one of fluctuation of economic circumstances between normal and flood-affected years rather than of a collapse of the economic potential of the area in general. Since the source of the problem is variability rather than secular decline, it is useful to think in terms of insurance arrangements. The problem is aggravated by at least partial breakdown of the traditional methods of insurance. In contrast, private insurance rarely exists in poor countries. Thus, the public sector needs to play a major role in the task of guaranteeing food to the vulnerable sections, though the exact forms in which interventions should take place need to be ascertained in close consultation with the beneficiaries themselves.

Is the cost of serving the poorest pockets too high? The answer must be given in negative. Out of a total of 484 thanas of the country, the number of areas representing the river-erosion belts in three most vulnerable districts of Kurigram, Gaibandha and Jamalpur — as evidenced from the 1998 flood — does not exceed 15. Surely it is possible to eradicate, at least reduce, the severity of poverty and hunger in these pockets provided there is credible commitment.

Source: Box 4 in Sen and Rahman (1998: 95).

5. Major Environmental Issues of Bangladesh and Its Impact on Poverty

The economic viability of Bangladesh as a nation has long been in question mainly because of its over population, poor natural resource base, vulnerability to natural disasters and undiversified economy dependent on the production of two crops, rice and jute. The following country profile of Bangladesh containing different socio-economic and environmental indicator will be helpful to assimilate the current state.

COUNTRY PROFILE OF BANGLADESH

A. Population Data		B. Socio-economic Indicators	
Population (1st July 1997)	124.3 m	Ratio of income of highest 20% to lowest 20% of households (1996)	8.8
Land Area	14570 sq. kms.	% of people below poverty line per capita Cal. Intake < 2122 K.Cal. (1996)	
Forests and wood land of total land area	17%	National	47.5
Population density (1997) (per sq. km.)	842	Rural	47.1
Population natural growth rate (1997)	1.68	Urban	49.7
Dependency Ratio	90	Gini co-efficient National (1996)	0.43
Urban (% of Population, 1997)	21.6	Gini Co-efficient (Rural) (1996)	0.38
Growth of Urban Population (1996)	6.03%	Gini Co-efficient (Urban) (1996)	0.44
Income per capita GDP US \$, 1997)	264	Share of Agriculture in GDP	8.43%

Source: Research Proposal on "Relationship between Poverty Alleviation and Sustainable Environment Friendly Development: A case study of some selected areas of Nilphamary district of Bangladesh" by Abdul Hamid Chowdhury, Secretary, Planning Division, Ministry of Planning.

Thus the economic and social consequence of natural degradation have been immense, especially when 60% of the population live below the poverty threshold and they are naturally vulnerable to the slightest change in environment. It includes damage to human resources, agriculture, fisheries, forestry, livestock. Here we will try to address the major environmental problems of Bangladesh (both man-made and natural) and their impact on poverty.

Land Degradation

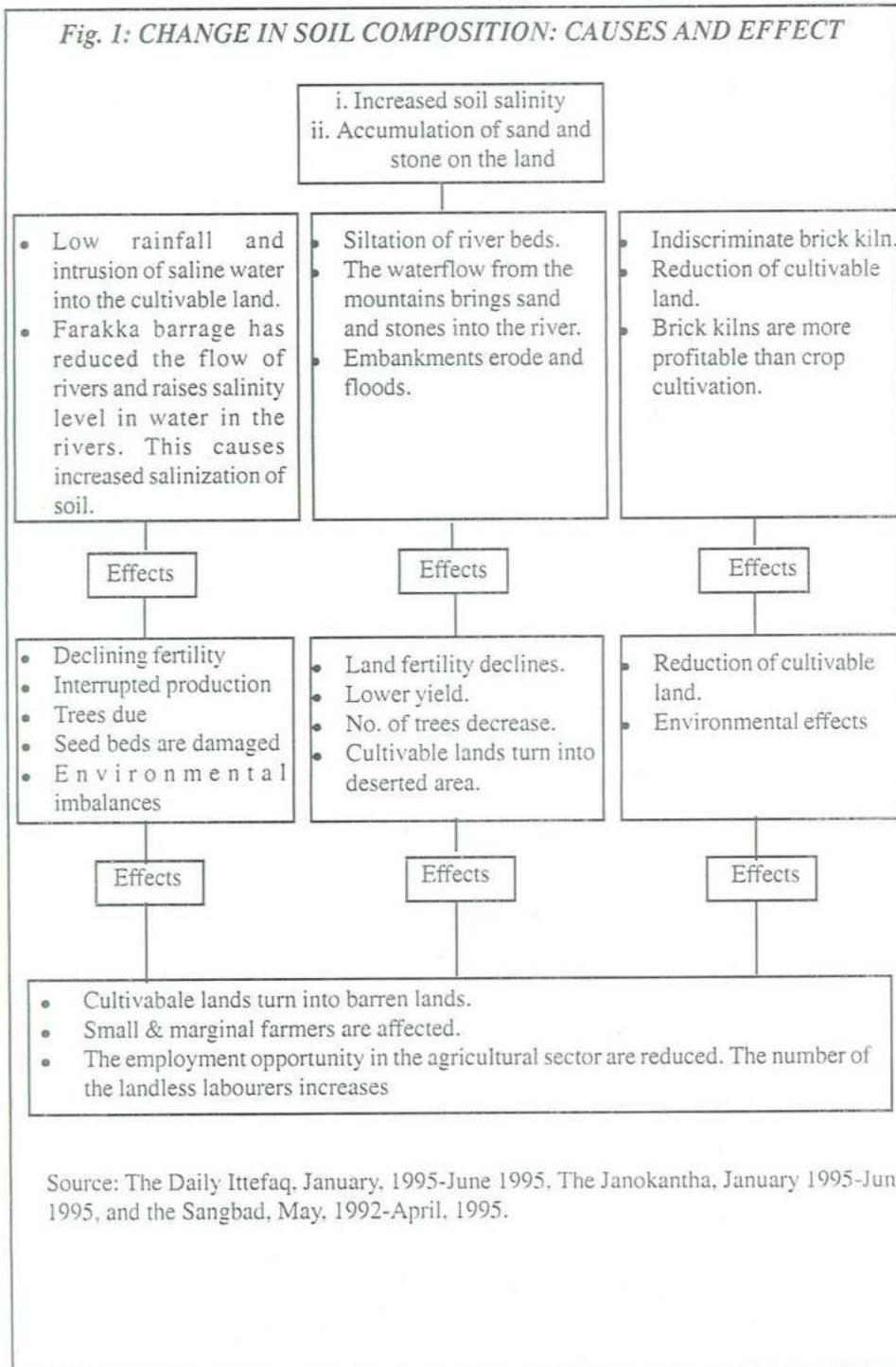
Land is the most prominent environmental resource for us as the majority of population live on agriculture. But the soil of our land is in a severe threat of degradation. Desertification, erosion and salinization are three types of land degradation which are commonly reported in the national dailies of Bangladesh. A process of gradual change in basic soil composition has already been set in many parts of the country. Though this is a part of a long term process, its impact has already started to be felt. The process has displaced many small and marginal farmers. There are three means through which this can happen: (1) an increase in salinization of soil, (2) accumulation of sediments of sand and stone and (3) brick kilns on cultivable land. A fourth reason for degradation of soil quality may be an application of chemical fertilizers whose time limit of use has already been expired.

Increase in salinization may arise from (1) increased shrimp cultivation as discussed earlier, (2) an intrusion of salinized sea water into main land due to decrease in normal river flow because of low rainfall, and (3) the side-effect of Farakka barrage built in India which has been causing desertification in some parts of Bangladesh. However, situation has been improving since the signing of the Ganges Water-Sharing Agreement and subsequent availability of much needed water in the dry season. The salinization of soil has not only been affecting its fertility but also making the availability of fodder difficult. As a result the traditional ecological balance has been disrupted. A survey of newspapers reveal that about two hundred thousand acres of land have already lost fertility to a significant extent due to salinization.

Degradation of land is reflected in the decline of land productivity due to losses of vegetation, exposure of the soil erosion, reduction of the organic and nutrient content of the soil and deterioration of soil structure and its capacity to retain water. The severe arsenic contamination an emerging environmental disaster in some parts of Bangladesh, is thought to be an outcome of changing land composition. The process of desertification is preceding many natural calamities (frequent and prolonged draughts) as well as man-made hazards (large scale deforestation, overgrazing, over-cultivation of marginal lands). The gradual deterioration of agricultural soils, particularly in dry season is considered to be more menacing than desertification. A study reveals that 1.2 million hectares of land in Bangladesh suffer from sulfur deficiency, about 1.6 million hectares from zinc deficiency and about 60% of agricultural land contains less than 2% of organic matters (CIRDAP, 1994 P. 29).⁸

⁸ Ibid, Mohammad Ali Rashid et. al. CIRDAP (1994).

Fig. 1: CHANGE IN SOIL COMPOSITION: CAUSES AND EFFECT



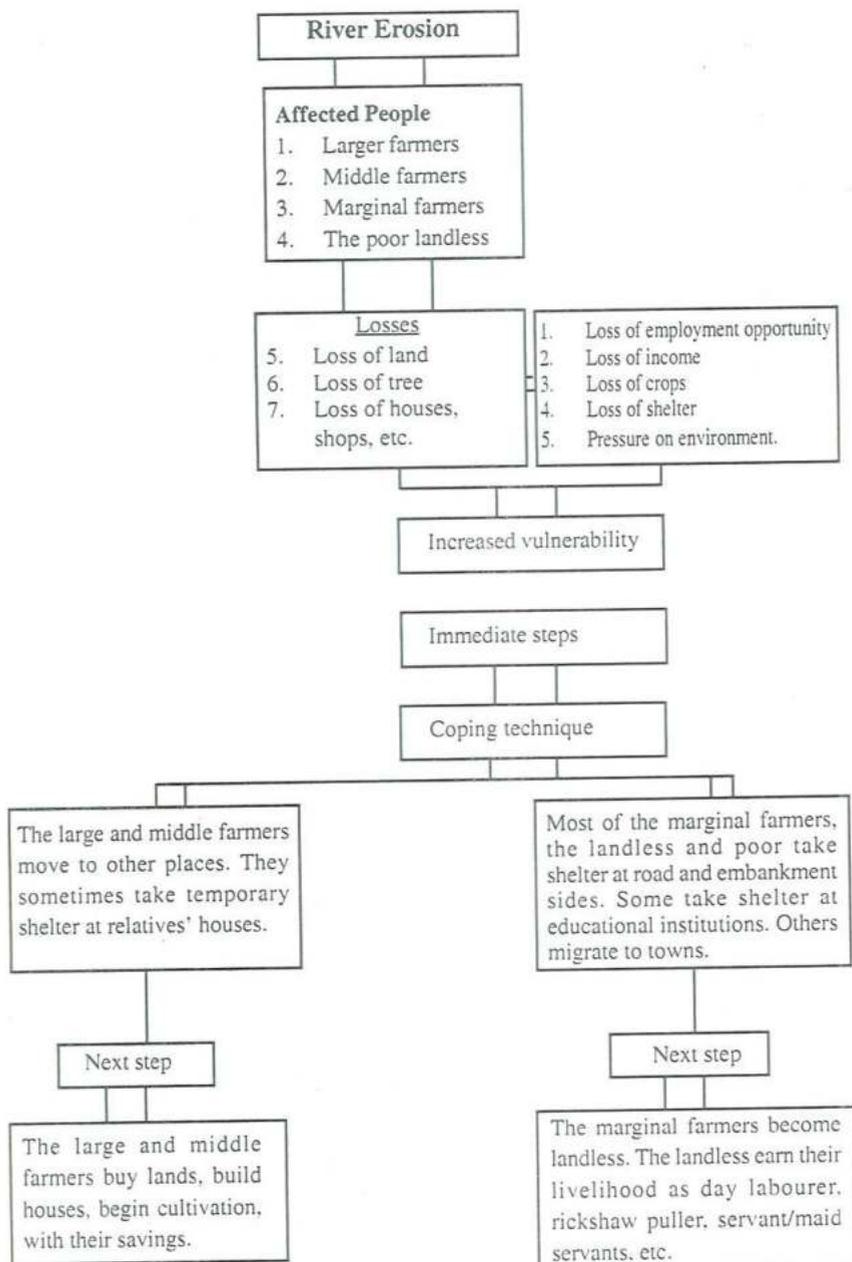
Effects of River Bank Erosion

The incidences of loss of cultivable and non-cultivable land in Bangladesh due to river bank erosion are being reported regularly in the dailies. There are also ample evidences of well-to-do families losing their inherited land because of river bank erosion. There are two-fold effects of this destructive activities of the river: a direct loss of land and sudden onset of poverty. The component of Task Force Report on Poverty Alleviation led by M. Hossain, (constituted by Professor Rehman Sobhan in 1991) under the auspices of the then Caretaker Government of Justice Shahabuddin Ahmed, also found concentration of the poverty in areas where erosion of river bank is more acute. The end result of these twin processes is mostly migration out of the area where people and their forefathers have been living for ages (see Table 3 for incidences of landless due to river bank erosion during 1992-95 as reported in three newspapers). It should be noted here that all the reports published in the newspapers did not cite the exact figures of loss of land or migration of households. So there appears some discrepancies in the numbers of houses, people and total devoured area in relation to numbers of incidents, affected villages and families. The table however, helps understand the trend rather than computing the numbers. These figures should, therefore, be taken cautiously.

Over the years thousands of rural people have migrated to urban areas not because they were fascinated by the glitters of urban life but mainly for not having any other option to keep themselves alive in the rural setting. The post-erosion rehabilitation of the affected families is another sad story. Table 4 summarizes the immediate effects of erosion on the affected families.

According to informal reports and features published in the newspapers the relatively affluent ones among the affected families have been able to relocate their shelters temporarily in the houses of their relatives. They live on their past savings and move back to a lower life style. The small, marginal and the landless households normally take shelter in open roads and sides of embankments. Most of these people later migrate to urban centres. They live in slums and take the least paid jobs in the informal sectors in the cities living like insects.

Fig. 2: RIVER EROSION, ITS EFFECTS ON PEOPLE AND THEIR COPING TECHNIQUES



Source: The Daily Ittefaq, January, 1995-June, 1995, the Jonokantha, January, 1995-June, 1995 and the Sangbad, May, 1992-April, 1995

Table 3
River Erosion and Landlessness

Affected items reported in the newspaper	Meghna and its branch rivers	Padma and its branch rivers	Tista, Jamuna and Brahmaputra	Other rivers	Total
Number of incidents	8	18	31	21	76
Number of villages	110 (12.7)	152 (17.6)	568 (65.7)	35 (4.0)	865 (100)
Number of families	3000 (3.6)	21590 (26.1)	48210 (58.4)	9785 (11.8)	82585 (100)
Number of houses	900 (4.4)	11044 (54.0)	7650 (37.4)	850 (4.2)	20444 (100)
Number of people	195000 (38.6)	235000 (46.5)	70000 (13.8)	5650 (1.1)	505650 (100)
Cultivable land (acre)	- -	72420 (45.8)	69150 (43.8)	16400 (10.4)	187970 (100)

Source: *The Sangbad* : 05/06/92 - 09/04/95
The Ittefaq : 25/01/95 - 06/06/95
The Janakantha : 04/01/95 - 06/06/95

Note: Figures in parentheses indicate percentages

Table 4
Resettlement of Affected People

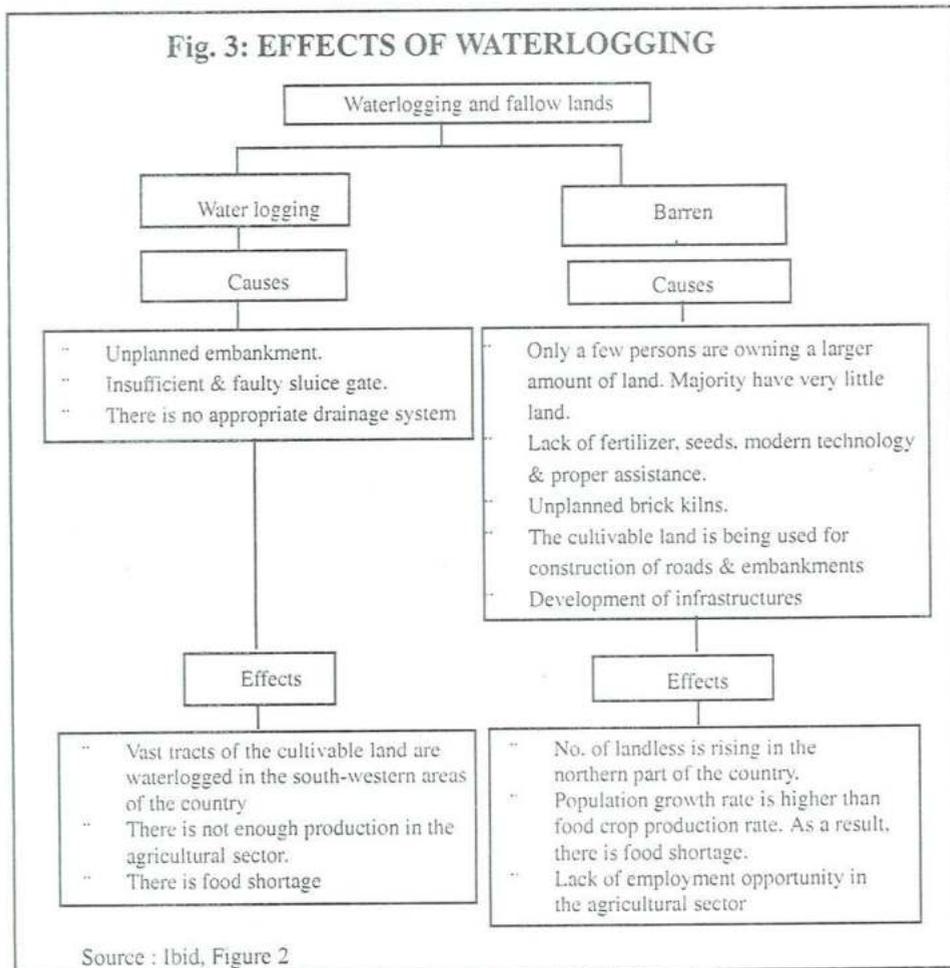
Name of eroding rivers	Name of incidents	Emergency shelters of the affected people					Resettlement of the affected people				
		On the roads & embankments	In other villages	Under open sky	In educational institutions	Not mentioned	In Dhaka city	In other cities	Ports & market places	On the embankments	Not mentioned
Tista, Jamuna & Brahmaputra	31 (100)	8 (25.8)	1 (3.2)	2 (6.5)	1 (3.2)	19 (61.3)	2 (6.2)	1 (3.2)	2 (6.5)	1 (3.2)	25 (80.6)
Padma & The branch rivers	18 (100)	8 (44.4)	1 (5.6)	4 (22.2)	1 (5.6)	4 (22.2)	1 (5.6)	4 (22.2)	1 (5.6)	1 (5.6)	11 (61.1)
Other Rivers and the sea	29 (100)	5 (34.93)	5 (27.00)	2 (10.75)	1 (16.70)	16 (76.2)	3 (19.1)	4 (29.53)	2 (10.75)	2 (33.35)	18 (85.7)
Total	78 (100)	21 (26.9)	7 (9.0)	8 (10.3)	3 (3.8)	39 (50.0)	6 (7.7)	9 (11.5)	5 (6.4)	4 (5.1)	54 (69.2)

Source: Ibid(table3)

Note: Figures in parentheses indicate percentages

Waterlogging and Poverty

Land degradation also arises from water logging and salinization. This arises mainly because of construction of unplanned embankments, inadequate and faulty construction of sluice gates and lack of suitable drainage facilities. A survey of newspapers has revealed that a substantial amount of land has been made uncultivable due to such waterlogging (see Fig. 3). Beel Dakatia, an empoldered marshy land in coastal area of Southern Bangladesh is a tragic example of how an infrastructure development could lead to an environmental disaster. The prolonged water logging has not only displaced thousands of families from the affected area but also affected the vegetation and other species. All this had direct consequences upon poverty (Rahman, 1995). The author made a survey in 1995 in the Beel Dakatia area and demonstrated a clear linkage between waterlogging and poverty.



Box 2: Waterlogging and Poverty: The Case of Beel Dakatia

Beel Dakatia is one of many victims of coastal embankment projects in Bangladesh. The area stretches to 30 villages of 8 unions under Dumuria, Phultala and Daulatpur thanas of Khulna district. The Beel (saucer like land formation, a depression) was once very deep and people were happy to live there with abundance of natural resources like fish. But with accumulation of sands and silts the depth of the Beel elevated and at some point of time the major elevated portion of the Beel became cultivable. But over many years, saline water intruded the Beel through the criss-crossed tributaries and distributory rivers and caused severe damage to the crop. People were living with damages caused by natural calamities. In the early sixties (1961) the then government started building embankments and by 1967 the work was completed. A modern irrigation system was introduced in the raised area of the Beel once the embankments were completed. But lack of well maintenance of drainage and promised dredging of canals on the sluice gates started causing siltation in the canal beds and the gravity of the drainage reserved in course of time. The cloaked drainage caused twin impacts on Beel environment. Firstly, stoppage of the flow of water prevented the deposition of sediment on the hollow parts of the Beel. Secondly, rain water accumulating in the polder during monsoon dissipated slowly or not at all, causing prolonged inundation of farm lands, homesteads and the internal communication networks. The area remained inundated for 10 years or so. Once agricultural activities had been suspended due to waterlogging since the early 1980s the economic base of the people was suddenly ruptured. Many surplus farmers became fishermen or petty traders or shifted to slums in the nearby cities. Water congestion started in 1982. The government requested the Asian Development Bank in 1984 to investigate the possibility of rehabilitating about 400,000 hectares of land originally enclosed by the coastal embankment project in Khulna region. On the basis of an assessment study the ADB approved the Khulna Embankment Rehabilitation Project (KERP-II) and Coastal Embankment Rehabilitation Project (CERP-II) to solve the congestion problem of an area of 31,900 and 6,000 hectares respectively.

Frustrated for a long time by the negative impacts on their livelihoods people started agitation against the CERP-II project, which the government suspended in 1990. Not only agitated people also cut the embankment at some places in 1990 to restore natural flow of water quality. Those who were interested in shrimp culture got an opportunity to do so. For the owners of the low lying land near the cuts it was an opportunity to encourage sediment deposition on their low lying land, thereby raising the land elevation. The cuts in the embankment have, however, further aggravated flooding and salinity intrusion within the polder. Over time the stagnation of water in Beel Dakatia has caused serious damages to agriculture, forestry, fisheries, livestock and social infrastructure. An unwise development intervention thus lowered the standard of living instead of improving.

Though the Bangladesh Water Development Board has undertaken various programmes in 1994 such as, to pump out the water from the Beel, rehabilitate the existing sluice gates, re-excavation of Shalua river and cut new canals, the factors affecting the environment are still active and in a way have compounded the problems of livelihood for many.

Source: Rahman et al., 1997a

There are ample evidence of deteriorating living condition of farmers despite owning a sizeable amount of land due to waterlogging. The case of *Beel Dakatia* can be illustrated here. It was found that with the change of principal occupation and main source of income the people in the villages affected by prolonged water-logging in Beel Dakatia were entrapped in the clutches of poverty. In the affected villages 77% of the population were below the hard core poverty line. Their per capita monthly income was recorded as Tk. 206 in 1997 (See Rahman, *etal.*, 1997). In the non-affected villages it was 70% and Tk. 227 respectively. The hard core poverty line was drawn on the monthly average per capita earning of Tk. 388. Those who were above the line in the affected villages had monthly income of Tk. 561. In the non-affected villages the corresponding figure was Tk. 661.

There is not significant difference between the two sets of the villages, although the poverty has deepened in both the areas. It also indicates that declining environment has also affected the adjoining villages of Beel Dakatia.

Similarly 87% in the affected villages were below the absolute poverty line (i.e., Tk. 474). Their income was Tk. 232. In the non-affected villages the percentage was 80% and the amount was Tk. 253. Here, also, the difference is not significant. Those who were above the absolute poverty line had their monthly incomes of Tk. 668 and Tk. 775 in the affected and non-affected villages respectively.

Table 5
Poverty Situation in the Area

Village Type	Hard Core Poverty Line (Tk. 388) in Nov. 1993		Absolute Poverty Line (Tk. 474) in Nov. 1993	
	Above	Below	Above	Below
Affected Village	23% (Tk. 561)	77% (Tk. 206)	13% (Tk. 668)	87% (Tk. 232)
Non-affected Villages	30% (Tk. 661)	70% (Tk. 227)	20% (Tk. 775)	80% (Tk. 253)

Source: HES Survey, 1988-89, Bangladesh Bureau of Statistics, Economic Trends, November, 1994, Bangladesh bank.

A previous study (Rahman, 1995) found that while 38% of the household heads in the non-affected area perceived themselves as extremely poor as many as 78% of the household heads in the affected area categorized themselves as extremely poor. Only 19% of the household heads in the project area perceived themselves as extremely poor before waterlogging.⁹

These findings clearly show that there has been a major slide in the poverty situation in the affected villages. This fact is also endorsed by another finding. The number of average earning members in 95% of the households of the affected villages was 1.6 in 1997. In the non-affected villages it was 1.7 in 93% of the households. Many students in the affected villages abandoned schools and colleges and joined the earning activities to replenish plummeted income of their families.

Loss of Water Resources and Poverty

Excessive water withdrawn to meet increasing demand for irrigation and industrial use causes environmental problems as well. Damming rivers for reservoirs displace people, floods farm lands, alters the mix of fresh and salt water in estuaries, and influence coastal stability by affecting sedimentation.

The poor are the worst victims of water pollution irrespective of the type of pollution. The 49 out of 64 districts in Bangladesh are at present under the threat of arsenic contamination. The rural poor are more likely to rely directly on rivers and unprotected shallow tubewells for water needs. The urban poor are also under severe threat of water pollution.

When ground water is lifted at a rate more than the rate of recharging, the water level falls and cost of pumping water increases. Coastal aquifers become saline and underground aquifers lose their capacity to recharge themselves. Arsenic consumption is most likely outcome of these practices.

The controversy of water sharing issue between Bangladesh and India also created a lot of environmental problems for us. Agriculture in the northern and north western regions of Bangladesh has been affected by the reduced availability of water for irrigation. River transport has also been hindered. Mangrove forests have also been adversely affected by salinization in the coastal region.

Degradation and scarcity of water resources also make the poor suffer from ill health through water pollution. A large portion of the villagers depend on water bodies for the supply of drinking water. But most of these water bodies get polluted due to herbicides, pesticides, chemical fertilizers as well as human and animal waste. They

⁹ Rahman, Atiur, et.al.,op. cit. P. 22.(1997a)

are mixed in water bodies through run-off. Industrial pollutants and sewage flow directly into rivers in the urban areas. The water pollution in the rivers like Buriganga and Turag which flow by Dhaka is being regularly reported in the national dailies. Diseases caused by microbial pollution of water and related to inadequate sanitation are widespread. The victims are mostly the poorest.

Contamination of water also reduces the capacity of rivers to support aquatic life. Pollutants decomposing into water lowers the oxygen content dissolved in water which tends to endanger the fish population, the main source of protein for many in Bangladesh.

The declining availability of fish from the internal sources of country over the years can be ascribed to the inadequate levels of dissolved oxygen caused by the agro-industrial effluents in the rivers.

Jalmahal and the Condition of the Fisherman

Earlier the government policy envisaged that *Jalmahal* (water bodies) can only be leased to registered landless fishermen's *Samabay Samity* (cooperative). The policy stated that people who do not earn their living from fishing were not eligible to take

Table 6

Trend in Average Fish Yield by Types of Fishery

Fishery Type	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	Growth
Inland Capture	117	114	109	106	105	105	105	110	119	132	0.82%
River and Estuaries	209	213	200	195	186	176	168	131	121	135	-6.36%
Floodlands	71	69	66	65	64	66	68	88	104	116	5.39%
<i>Beels</i>	450	402	396	369	399	412	408	420	431	464	0.84%
Kaptai Lake	59	39	35	58	59	50	54	64	61	60	3.59%
Inland Culture	573	572	604	693	714	704	739	809	870	912	5.31%
Ponds	735	760	843	973	1017	1055	1115	1232	1328	1376	7.21%
<i>Buors</i>	157	175	176	214	228	241	247	281	306	329	8.12%
Shrimp farms	159	176	229	253	269	251	254	263	278	312	6.00%
Inland Total	138	138	137	139	140	141	143	152	164	179	2.52%

Source: World Bank (1991): Statistical Yearbooks of Bangladesh and DOF/BFRSS (1995).

Note: Figures are in kg/ha. River and estuaries include Sunderban, *Beel* include *haors*

lease of *Jalmahal*. Although this policy was quite forward looking, it has not helped much in arresting the deteriorating economic condition of the fishermen. A group of corrupt officials have been appropriating the benefits from leasing of *Jalmahal*. This has displaced many real landless fishermen from their age-old rights over common water bodies.

Table 7 shows that 66.7% of the *khas Jalmahals* belong to supporters of the ruling party. According to news published in leading newspapers, members or supporters of the ruling party were involved in 50% of the incidents concerning *Jalmahals*. In most cases, the affected fishermen complained about the anomalies in the steps taken by the district administration. As reported by the press, the administration has always taken the side of the influential quarters. In this process the landless fishermen lost control over water bodies and at one stage had to change their age-old occupation. Many of them have now become agricultural wage labourers.

In order to stop this process of pauperization of the fishermen, the government has recently abolished all kinds of leasing of open water bodies. The Government of Bangladesh issued an executive order on 4th of September, 1995 abolishing the existing system of leasing of open water bodies including river, *khal* (canals) and others. This order was planned to be executed immediately in all the open water bodies which were not currently under leasing arrangement.

Table 7

Jalmahal and the Condition of Landless Fishermen

Items	Total Number (%)	Influential Non-fishermen as Leaseholders	Influential Fishermen but not Landless as Leaseholders	Influential Quarters	Supporters of Ruling Party
Number of incidents	10 (100)	3 (30)	1 (10)	1 (10)	5 (50)
Number of <i>Jalmahals</i>	9 (100)	2 (22.2)	1 (11.1)	-	6 (66.7)
Amount of <i>Jalmahal</i> in acre	262 (100)	42 (16)	93 (35.5)	-	127 (48.5)
Number of Landless Fishermen	11828 (100)	1500 (12.7)	144 (1.2)	10000 (84.6)	184 (1.6)

Source: Rahman, Atiur, "A Study on Land and Landlessness in Bangladesh," 1997b

Note: Figures in parentheses indicate percentages.

Air Pollution

Air pollution is also a serious environmental hazard for us. Mainly energy use, vehicular emissions and industrial production are responsible for air pollution.

The most serious health risks arise from exposure to suspended particulate matters (SPM), indoor air pollution and lead concentration. The use of high sulfur fuel is also a contributing factor to air pollution.

Box - 3: Air Pollution and Health Hazard

The citizens have a number of health problems. But there is a pattern in them: the diseases are much the same: Headache, cold and cough, burning in eyes, asthma, lung cancer, tuberculosis, anemia and asphyxia. Children suffer most from asphyxia. A report from Chest Diseases Hospital says that three-fourths of the children admitted in Child Hospital complained of breathing troubles. The doctors and statisticians of Chest Diseases hospital confirm that the number of asthma and asphyxial patients is on the rise. Same is the trend in the outdoor department. They attribute this to air pollution. Says Dr. Ali Husain of Chest Diseases Hospital, "air Pollution may not be the only cause, but definitely important cause of asthma". Unfortunately, the statisticians here could not provide desegregated data.

No research has been done in this country on the actual impact of pollution on the body. But knowing that excessive level of lead in the body brings diseases, Dr. Nila Zaman of Children's Hospital took blood sample of a few children to measure its lead level. Though the WHO standard of lead level is 25 Mcg/deciliter, she found all her samples had 90-200 mcg/deciliter. In her article, published in the Daily Star, she says, "the worst lead affected children are also victims of malnutrition. They are slum-dwellers. Lead retards the physical and mental growth of children. They suffer from neurotic diseases. They lose memory. As lead prevents RBC formation, children suffer from anemia. A pregnant woman with high lead level may deliver baby with defective undeveloped brain and nervous system.

Grown-ups may also have lead project diseases. In a consultation meeting between the world Bank and environment Department, Dr. M.T. Rahman announced this, Dr. Rahman measured the lead level of 39 people in Dhaka. Among them were drivers, labourers, traffic police, service-holders, house-wives rickshaw pullers baby-taxi drivers and students. He found in them an average lead level of 500 mcg. Drivers and traffic police had the highest: 1,350 mcg. In the same meeting, Dr. Khalequzzaman of A.E.C. opined that once in the body, the lead is deposited in the bones and teeth. He said that it takes 27 years to expel half the amount of our daily intake of lead through breath. Lead intake leads to weakness, constipation, anemia, tiredness, etc.

Source: Ecofile, Volume 3 issue 1, 1988, PP. 13-14.

Poor health and nutrition in rural areas make these people more susceptible to the effects of air pollution. Different studies found that bio-mass smoke in household kitchens in rural poor areas contain more SPM levels that exceed the safe levels of WHO in several orders of magnitude. Women and children are more exposed to this hazard. The vulnerabilities of the urban poor to air pollution adds more dimensions with emissions of vehicle and industry.¹⁰

Deforestation and Poverty

Deforestation is a major cause that damages environment in different ways. The causes of deforestation are many. It is caused by farmers engaged in expanding agricultural production, by logging companies, and big fuelwood collectors. It is revealed that fuel-wood and charcoal supply is 75% of our energy needs.

Forests are not just a source of fuel-wood and timber. They also perform a wide range of social and ecological functions. It provides livelihood and cultural integrity to forest dwellers and a habitat for plants and animals. It protects and enriches soils, provides natural regulation of the hydrologic cycles that affect local and regional climate through evaporation, influences watershed flows of surface and ground water and helps stabilize the global climate by absorbing carbon as they grow.

In spite of these contributing functions of forest the pace of deforestation continues

Table 8
Type of Fuel Used for Food Preparation¹¹

Income Groups (in Taka Per Annum for Each Household)	Types of Fuels															
	Wood				Charcoal				Leaves				Kerosene			
	H	T	P	Ha	H	T	P	Ha	H	T	P	Ha	H	T	P	Ha
Upto 25000	95	80	36	65	-	2	30	9	-	15	20	17	5	3	14	12
25000-35000	90	90	38	73	-	-	18	7	-	10	18	19	10	-	26	2
35000-45000	95	95	42	67	-	-	25	9	-	2	15	13	5	3	18	11
45000-55000	-	90	35	59	-	-	21	12	-	-	6	15	-	10	38	13
55000-65000	-	80	50	58	-	-	2	13	-	-	2	14	-	20	46	14

Notes: a) Figures in the table are percentage of households.

b) H = Hill Area; T = Terrace Area; P = Peat Area; Ha = Haor Area

Source: Study Team Field Survey, 1994

¹⁰ Ibid. Mohammad Ali Rashid et. al. CIRDAP (1994).

¹¹ Ibid. Mohammad Ali Rashid et. al. CIRDAP (1994).

to be alarming. In 1960, the total forest area of Bangladesh was about 20% of the total landscape. In 1989, this came down to 15%.¹² While the desirable proportion of forestry in total land area of a country for ecological stability is 25 per cent, the figure continues to decline every year. Of course, there has been some improvement in the area of social forestry.

Biodiversity

Biodiversity is a key factor for our sustenance. It provides material wealth in the form of food, fibre, medicine and input for production. It also assists human communities

Table 9

Source of Fuel Used for Food Preparation¹³

Income Groups (in Taka Per Annum for Each Household)	Types of Fuels											
	Market				Crop Land				Forestry & Other CPRs			
	H	T	P	Ha	H	T	P	Ha	H	T	P	Ha
Upto 25000	-	52	26	64	-	14	72	22	100	34	14	14
25000-35000	-	50	32	67	-	27	66	18	100	23	13	16
35000-45000	-	59	31	67	20	21	59	14	80	20	4	10
45000-55000	-	80	41	69	-	11	55	15	-	9	-	15
55000-65000	-	77	45	72	-	17	56	10	-	6	-	18

Notes: Explanations same as in Table 4

Source: Study Team Field Survey, 1994

¹² Ibid, Mohammad Ali Rashid et. al. CIRDAP (1994).

¹³ Ibid, Mohammad Ali Rashid et. al. CIRDAP (1994).

to adapt to future and unforeseen environmental stresses. But in our country decline of forest area, transformation of inland water bodies (*beel, jheel, haor, baors* etc.) into agricultural land and degradation of other habitat (coastal and freshwater wet land, coral reefs) and extinction of many species of wild-life, birds and aquatic life have been affecting the composition of biodiversity significantly. Around the middle of this century the total number of identified wild animals species in Bangladesh was 130. The number has come down to 119 now.¹⁴ The endangered species are Royal Bengal Tiger, Elephant, Leopard, Bull Frogs, Python, Turtle and Tortoise.

The Natural Disasters and Poverty

Bangladesh is one of the most disaster prone countries of the world. Almost regularly, Bangladesh experiences different types of natural disaster both natural and man-made. These include flood, famine, cyclone, drought, tidal-bore, pest-attack and riverbank erosion. During the period of 1960-81, Bangladesh has been struck by at least 63 different types of natural disasters of various intensity. Among the various types flood is unquestionably the most recurrent and devastating kind of natural disaster in Bangladesh. Any abnormality in water level caused by excessive rainfall, may cause flood from normal to abnormal intensity. The annual flood effected areas usually varies between 25,000 sq. km. to 40,000 sq. km. The flood vulnerable area is however much larger. Experts estimate that out of the total of 1,42,777 sq. km., 82,088 sq. km. (i.e. 58%) area is flood vulnerable in Bangladesh. Another estimate says that the onrush of water from upstream drainage areas could create havoc by flooding about 80% of the country. In the last thirty five years since 1954, there were 28 occurrences of flood, out of which 11 were devastating and 5 most devastating. In recent years Bangladesh experienced two devastating floods in 1988 and 1998.

Besides flood, Bangladesh is also subject to several tropical cyclones which generally originate in the Bay of Bengal. Cyclone in Bangladesh occurs in April-May and October-November periods. Between 1960 and 1986, Bangladesh has been struck by 33 cyclones of which seven were most severe. Every year north-westerners also cause significant damage to life and crops in some pockets of Bangladesh. Lack of rainfall causes drought which affects normal agricultural operations. In recent years the earthquake has been recorded in some areas of Bangladesh. The recent earthquake (1999) in Maheshkhali area near Cox's Bazar has been a major source of environmental hazard as well. Pest attacks are infrequent but not rare. When there is pest attack, crops of thousands of acres of land are damaged putting the farmers in a helpless situation. It should also be mentioned that floods causes enormous shifts in river

¹⁴ Ibid, Mohammad Ali Rashid et. al. CIRDAP (1994).

course and widespread bank erosion causing dislocation to rural peasant population. It is estimated that annual riverbank erosion causes dislocation to an estimated one million population, many of whom permanently displaced. The demographic and socio-economic consequences of the problem are far reaching and often enormous.

Natural disasters not only bring immense suffering and miseries to millions of the affected people but also triggers a whole set of mechanism that affects the economic and social life of people in a variety of ways bringing many changes. These changes have both short and long term socio-economic implications which require in-depth analysis. The environmental consequences of these changes are yet to be adequately documented.

Table 10
Disaster and Death Toll

Date	Location	Disaster Type	Death Toll
1970	Bangladesh	Cyclone	300,000
		Earthquake	10,000
1971	Bangladesh	Civil Strife	200,000
	India	Cholera Epidemic	5,000
1974	Bangladesh	Flood	28,700
1978	Bangladesh	Civil Strife	6,150
1985	Bangladesh	Cyclone	10,000
1987	Bangladesh	Flood	800*
1991	Bangladesh	Cyclone	14,0000

Source: UNDP, *Disaster and Development: A Study in Institution Building*. (Vol. I & II, United Nations Development Programme, August, 1991.

Impact on the Poor:

When disasters hit vulnerable populations, the effects can be devastating. In Bangladesh, a cyclone in 1970 killed an estimated 300,000 people and another cyclone in 1985 killed 19,000. The 1987 and 1988 floods brought fewer deaths, but affected almost the whole country, and brought economic devastation. The 1998 flood was more prolonged and devastating for the poor.

It is usually the poor who suffer the most, because they lack the resources to overcome their economic losses. Their economic staying capacity is mostly low and cannot withstand the onslaught of such disasters. It is mostly emphasised that disasters result

more from the environmental changes and can be quite devastating if a community remains vulnerable to them.

In most cases, this vulnerability derives from poverty. Poor people are more likely to live in areas known to be disaster-prone since these are the least expensive sites. Poverty drives communities to move to steep hillsides in cities, which are vulnerable to landsliders, or in flood-prone areas along river valleys. This vulnerability is further exacerbated because the poor who are forced to live in these areas are not always aware of the danger or cannot afford to undertake measures to reduce the risk of natural disaster.

That the poor are affected more adversely by flood disaster has been noted during 1998 flood as well. Most of the flood shelters were occupied by the poor men and

Box - 4: Flood 1998

In 1998, a total number of 314 thanas (out of a total of thanas), located in 52 districts (out of a total of 64 districts) were affected by the floods. However, "normal" flooding took place in 65 thanas, whereas 125 and 124 thanas were subjected "moderate" and "severe" flooding respectively. Thus, 51% of total area of the country were flooded in 1998. The population living in these areas is about 31 million, i.e. 26% of total population of the country. The floods of 1998 which devastated the country during July to October coincided with the so called lean period and as a result accentuated an already precarious economic condition in the rural areas of Bangladesh.

Loss to agricultural employment due to crop damage by recent flood is estimated at around one million man years of which half a million man years is hired labour and the rest is family labour of the farm households in Bangladesh. Impact of crop damage on employment has been estimated by using the relevant coefficients of the Leontief Inverse Matrix of I-O Table for Bangladesh Economy, 1993-94 recently prepared by the BIDS. The hired labourers generally belong to the landless class. Only income they have is by selling their labour power. When the market for labour collapses, the entitlement to food through wage income also disappears. Hence, the prospect of starvation looms large for the landless labourers in a situation where suddenly they find themselves deprived of little job opportunity they usually have during the lean period. It is clear from the above discussion that a large proportion rural population will remain unemployed for a long period of time and hence face starvation. However, the timely initiatives of relief arrangement helped to avert a serious famine in 1998. Four million VGF cards were issued for distribution of 64,000 MTs of rice and wheat.

Source: Omar Haider Chowdhury, et. al., Flood 1998: A Rapid Economic Appraisal, BIDS January, 1999

women (See table 11). Of the 100 households who have been interviewed in a typical flood shelter in Dhaka, 70% were male headed. They were either day labourers or rickshaw pullers. The women were mostly maids in various households. Most of these poor men and women again migrated from high disaster prone areas, mainly because of economic hardship prevailing there. (See table 12). River bank erosion also played significant role in forcing these people to migrate out of the rural areas.

Table 11: Gender and Occupational Categories of Flood Affected Households,1998

HH Category Occupation	Day Labourer/ Worker	House Maid	Rickshaw Puller	Lowpaid Service man	Begger	Small Business- man	Unemp loyed	Total
Male Headed	25	-	32	3	-	6	5	71
Female Headed	7	19	-	1	2	-	-	29
Total N=100	32	19	32	4	2	6	5	100

Source: Socio Economic Survey on Flood '98 Affected HHs Sheltered in a Flood Shelter Centre (Goran Adarsho Girls High School, Dhaka) done by Unnayan Shamunnay, September, 1998.

Table 12 : Factors Affecting RUM with Special Reference to Disaster-Prone Area

Migrating factors Disaster proneness	Migrated from High Disaster prone Area	From Less Disaster proneness	Total
Unemployment/lack of work	38	23	61 (64.8)
Land/Assetlessness	9	10	19 (20.2)
Flood/River erosion	7	0	7 (7.5)
Social factors	6	1	7 (7.5)
Total	60 (63.7)	34 (36.3)	94 (100)

Note: Figures in the parenthesis represent percentages. Sample size is 100 (6 cases are non-migrant)

Source: Socio Economic Survey on Flood '98 Affected HHs Sheltered in a Flood Shelter Centre (Goran Adarsho Girls High School, Dhaka) done by Unnayan Shamunnay, September, 1998.

Macro Policies and the Environment

Both macro-economic and sectoral policies play a significant role in influencing the rate of depletion of natural resources and the level of environmental degradation. For example short-term demand management policies through expansionary financing practices lead to increased consumer prices. In an effort to absorb the effects of price change the poorest population often are forced into more environmentally fragile marginal lands, resulting in soil erosion and desertification. Increase of fuel price and reduced incomes also contribute to deforestation and reductions in soil fertility.

Contractionary aspects of stabilization measures that are likely to increase external competitiveness through devaluation may lead to increased extraction of timber or cultivation of export crops which are soil eroding or require heavy use of fertilizer and pesticides. And all this have adverse environmental impact. Most part of these policies usually benefit the rich and provide negative incentives to the poor. Trade and investment policies that lead to greater openness and liberalization may encourage more intensive exploitation of natural resources and exacerbate environmental pressures. Although there is counter argument that if the natural resources are not exploited for development, the state of underdevelopment will be more detrimental to the environment in the long run. It is on this argument that Bangladesh has embarked upon extraction of gas. Some experts think that this may have some long term environmental consequences as well. Though modifying trade policies to deal with environmental problems may worsen degradation.

Public expenditure which is the integral part of our structural adjustment policies (which are often funded by foreign aid) take very little account of the environmental considerations while designing project components on road, dam, sluice gate and other water system. provision of access to forest and wet lands not enough attention is paid to environmental considerations. The recent breach of some embankments (e.g. Gomti) has brought this issue into fore front. Considering environmental aspects based on cost-benefit analysis into decision making process may help reduce environmental damage and improve quality of natural resource base. This again has implication for poverty alleviation.

Sectoral policy failure in irrigation and water management may lead to environmental degradation as well. Under pricing of water or failure to levy water user charges may have effect of discouraging water construction practices. Elimination of water subsidies intensifies poverty among the small landholders for whom low water charges are essential for production support. Shrimp culture and its subsequent impact arises from such policy initiatives.

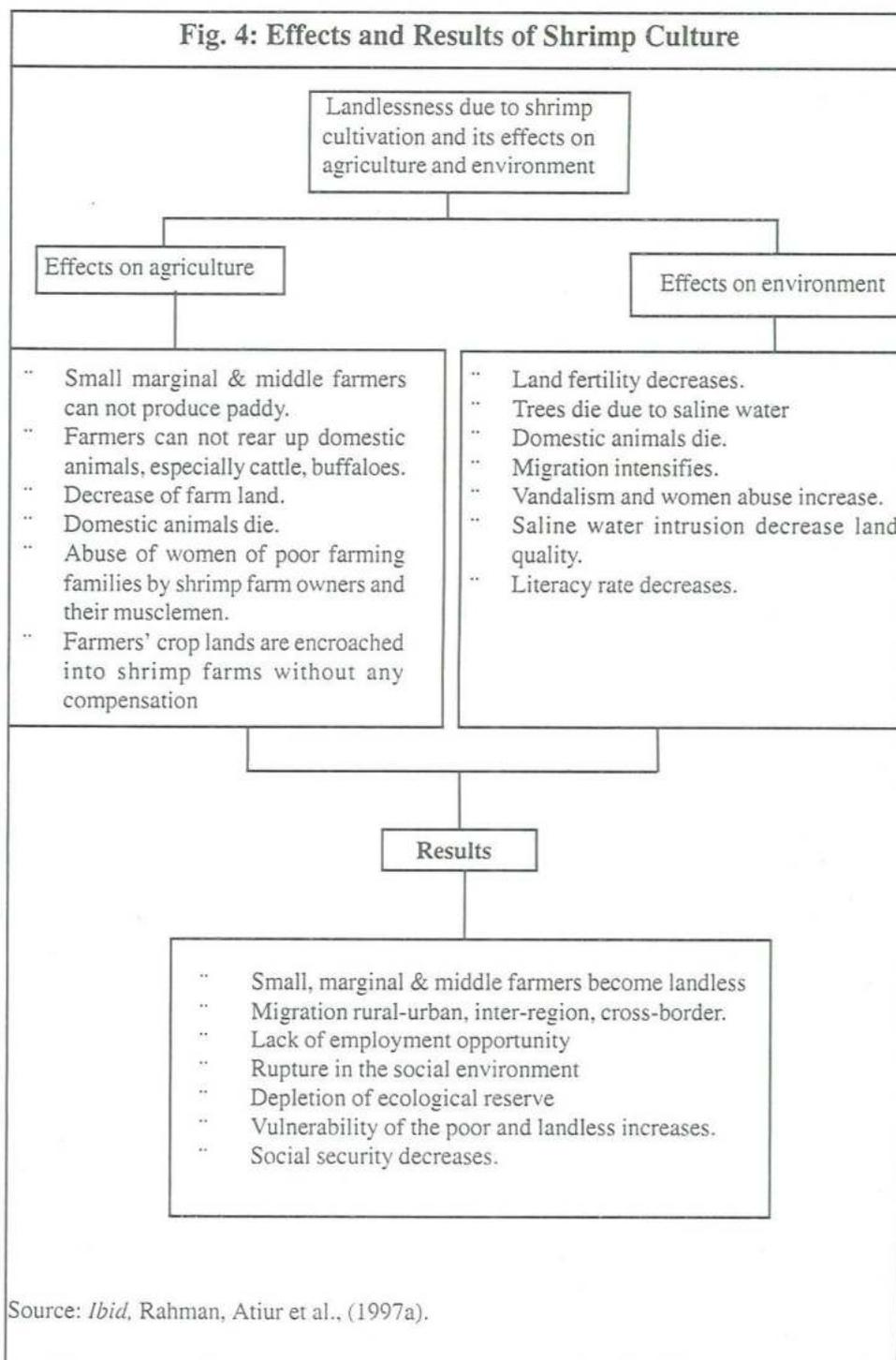
Shrimp Cultivation and Poverty¹⁵

The issue of shrimp culture may appear to be a paradox at the first sight. To many, this is a lucrative venture earning a lot of foreign exchange. But for many, particularly local farmers, that is a 'development disaster'. Concentrated in the southern districts of the country, most of the shrimp producing farms (controlled by rich people coming from outside of the locality) have taken away land from local farmers which could have been available for crop cultivation. Indeed if properly planned the local landowners could have done both shrimp farming and paddy cultivation. But in some cases outsiders have deprived them from such an option. There is no harm in an economic enterprise like shrimp farming if part of the profits from it were reinvested and the social fabric was left unharmed. But this has not happened in case of coastal Bangladesh. The greedy outsiders have not only deprived the local landowners from the profits of shrimp cultivation, they have also been destroying the local environment by flushing saline water into the crop lands and the homesteads of the local people.

Since 1980 the amount of export earning from shrimps has been on the rise. Unfortunately, this has not changed the lot of local people. Instead the owners of the shrimp *ghers* have been getting richer and stronger incidences exploitations and violence have also been increasing. This has displaced some of the local farmers and forced them to become landless. What is more alarmingly is that the young school children are now engaged in collecting shrimp fries from open water bodies to supplement the income generating efforts of their families which have become more impoverished due to shrimp farming. It is also observed that the most affected people are the Hindus. Being minorities they are already socially very weak and shrimp farming has further weakened their economic and social position. As a result, many of them have been forced to migrate out of their villages after being dispossessed of their crop land. Some have even left the country.

Besides creating a scarcity of cultivable paddy land, shrimp farming has also been destroying the fertility of the lands adjacent to the farms. Due to the seepage effects of increased salinization of the soils, the rice yield per acre of the lands adjacent to shrimp farms has been declining significantly. Whereas the per acre yield of Aman produced in these lands was in the neighborhood of 25 to 30 maunds before the start of shrimp cultivation, it has dropped to 3 to 4 maunds only in some cases. Again, this is true only for an area where the shrimp farming is unplanned without much social control of the local community. Besides salinization of the land, shrimp culture has also been limiting grazing-ground for the livestock. Raising of poultry birds has already become quite difficult. The availability of sweet water for drinking and other daily necessities has become scarce (see Rahman *et al* ,1997a ,for further details).

¹⁵ Rahman, Atiur,1997b "A Study on Land and Landlessness in Bangladesh" (mimeo), BIDS.



Moreover, the social environment has also been deteriorating in shrimp farming areas. There are increased evidences that some of the workers are not being paid enough, and in some instance, they are not paid at all. In fact, the local labourers are not encouraged to work in the *ghers* by external *gher* owners. They bring in their loyal labourers from outside causing loss of employment for the local labourers. The end result has been fast increase of landless households in an otherwise prosperous region. The policies governing shrimp cultivation are confusing and the local administration can surely be blamed for lack of enforcement of good policies for stopping violences, exploitations and hence fast dispossession of lands by many due to shrimp cultivation. In fact, the law enforcing agencies normally collude with the unscrupulous outsiders who normally share the profits with them.

We have touched a number of areas where environment and poverty interlinkages have been quite adequately illustrated. The challenge remains to focus our attention on the concept of sustainable development where the nexus between environment and poverty can indeed be broken.

The Need for Sustainable Development

The discussion on sustainable development in general and environment-poverty nexus in particular are usually conducted without proper references to epistemological issues. Indeed much of today's crisis in development paradigm emanates from this. In most cases, not only poverty has been persisting amidst growth and affluence, most Third World countries have also been facing ecological disasters following a development model based on western experiences. This has given rise to a widespread disillusion an 'erosion of the myth that development can create a just and humane society'.¹⁶ The arrogance of modernization theorists expounding the superiority of western knowledge system can in some way be made responsible for the 'loss of hope' which shadows the current development discourse. The 'modernizers' have been strongly criticized by Banuri for forcing "indigenous people to divert their energies from the *positive* pursuit, to the *negative* goal of resisting cultural, political and economic domination of the West".¹⁷

The scientific epistemology has an inherent bias towards impersonality postulate and finds personal relations inferior to impersonal relations. In this view, "valid knowledge derives only from the separation of the observer from the object of knowledge and the expansion of knowledge takes place through its division into separate self-contained

¹⁶ Banuri, T (1990), P. 31.

¹⁷ Ibid, Banuri, T (1990) P. 66.

divisions with cause and effect relations restricted to each subdivision".¹⁸ On the other hand, according to 'personal view', valid knowledge derives from relations between the observer and the observed. Feyerabend labels this knowledge system as 'historical tradition' and asserts that the objects already have a language of their own. The object of inquiry should, therefore, be understanding this language.

"In the course of time much of the knowledge possessed by people outside mainstream science especially in developing countries, becomes encoded in rituals, in religious observations and in cultural practices of every day life. In societies which make an easy separation between 'culture' and 'science' such practices can easily be ignored, although they are frequently the key to their way and environmental knowledge is used in small-scale rural societies."¹⁹

This should not, however, mean complete negation of impersonal knowledge system even when one is talking about Third World problems. Both impersonal and personal knowledge systems should be shared and adapted in view of the sovereignty of people's own approach and cultural sensitivity. It has been observed that people tend to accept alien forms of knowledge only in a situation of crisis but not in normal items. However, the interface of the two systems certainly brings in Synthesis. According to Banuri:

... There is the common observation that it is easy to build systems (e.g. factors, transport systems, other urban services) in the Third World but very difficult to maintain them. The first can be accepted as a temporary feature, but the second requires a radical shift in orientation which is difficult to bring about. The only solution is to cast the problem in the indigenous metaphor, whether of ritual or science. The idea behind this line of argument is that systems should be looked at in terms of their susceptibility to popular control. Rather than to technical efficiency or the like.²⁰

Abstracting from the above discussion we may arrive at two important conclusions:

- a. The universal application of western impersonal, 'scientific knowledge' is not always fruitful.
- b. Such an application has led to 'fragmentation' of the traditional knowledge in the Third World. This has also helped increasingly alienation of the same from the dominant scientific paradigm.

¹⁸ Ibid, Banuri,T (1990) P. 80.

¹⁹ Redclift, M (1992), P. 35.

²⁰ Ibid, Banuri,T (1990) P. 99.

The final result has been alienation of both the systems from the popular control. The technical efficiency has become the deciding factor. It is in this context that we are arguing for more effective decentralization of polity, economy and society so that people themselves can have better say over what is currently imposed on them in the name of development.

Only such a decentralization can help make indigenous grassroots institutions which have been persisting for a long time as the candidates for popular participation in decision-making. Such institutions are also vital for ensuring popular participation in designing and implementation of the development project. Foreign 'experts' may come and go. They have hardly any stake to the environment in which they want to superimpose their 'superior technical knowledge'. But the local people and communities do have the stake. They got to stay and survive. Hence, "if human agency and action in relation to locality are not seen as the central issue for planners and policy makers, debates about substantiality, development or the environment may well be only the armchair musings of those who hold economic and political power in different parts of the world".²¹

But if we mean sustainability of the local communities who are directly affected by any environmental change, they have to be empowered. Only then they can struggle and innovate practices to cope with the changing environment. For that matter we need to transcend grand abstract theories and debates and develop middle range explanatory framework to understand the social and environmental constraints which bar people from participation in everyday local action.

It is not fair to blame the poor for degrading environment. It is environmental degradation which actually perpetuates poverty. Degraded ecosystems mean diminishing yields to the poor inhabitants of a locality. With ecological degradation a self-propelling spiral of economic deprivation automatically sets in.

"In the rural Third World, human reliance on ecosystems goes unmediated by the long chains of commerce, industry and civil infrastructure that shape life in the rich countries. For the have-nots, food comes from the soil, water from the pasture, reeds to make mats from the stream bank, fruit from the trees around the hut. Poor people know that to endanger any of these things is to imperil themselves, and the lives of their offspring. The economy of the rural poor is measured in the fertility and productivity of their environment". [Daring, AB. (1989), PP. 40-41].

²¹ Friedmann J and H Rangan (1993), P. 20.

The poor definitely are more conscious about the fragile environment which provides them the sustenance. But this may not hold good if they somehow cross the threshold level. Once graduated into the category of non-poor, they probably will behave like any other person who does not have a stake in environment (Reddy, 1995). So it is imperative that the attitudes and awareness of all people towards environment are positively changed.

While incorporating people's knowledge, perception and attitudes in planning is vital for environmental friendly development. It is equally important that people are constantly reminded about the intricate linkage between environment and their sustenance.

Apparently, such a broad based eco-perception was missing while designing most of mega projects, particularly the water resource projects in Bangladesh. However, the contradiction between the two knowledge systems - the conventional 'scientific knowledge' and ecologically induced 'indigenous knowledge' still persists. While the former puts more emphasis on 'impersonal' postulates, the latter emphasizes a more balanced view between the 'impersonal' and 'relational' knowledge systems. The latter, of course, is a more humane and creative system especially in the context of a fragile environment. The establishment, often driven by donor interests and consultants vested interests and prejudice ignores indigenous knowledge base and imposes on the local people development projects which are not always sensitive to local environment. The environmental consequences of such projects can be indeed devastating.

Thus, the social and ecological aftermath of dominant pattern of global and national development raise fundamental questions about the meaning and content of development. It's been assumed by researchers on environment and development that programs and initiatives concerned with conservation and sustainable development will only succeed on any scale when they address the social factors influencing the people interact with the environment. That is the concept of sustainability should be addressed from the view point of economic, ecological and socio cultural aspect. The recent concept of SHD (sustainable human development) which is in fact the sum of the human development plus sustainable development²² is more illuminating in this field. SHD brings to the development agenda the need for special attention to social capital, i.e. voluntary forms of social regulation.

The on-going five year plan is apparently aware of the virtue of a people centred development. It not only emphasizes on participation at a greater length but also highlights sustainable development which is pro-poor.

²² Banuri, Tariq et al (1994) "Sustainable Human Development, From Ceoncept to Operation: A guide for the practitioner". UNDP, New York.

The Policy Options: A Strategic Outline

With a view to promote, nurture, protect and expand nature and natural resources and to link all development activities (where major imperative is poverty alleviation) with environment for improving the quality of life a strategic line of action is a matter of urgent policy consideration. The post-Rio **Agenda 21** which has drawn attention to the issue of poverty as a major problem in sustainable development and NEMAP (National Environment Management Action Plan) which gives us an idea of the environmental concerns of the people in Bangladesh at various levels of society is worthy to mention here. But some other specific actions must also flow from institutional arrangements, policy making, resource mobilization and initiatives by the society's major actors such as government at all levels, NGOs, business organizations and various civil society groups. This flow should, however, be within an interactive and dynamic framework which has the promotion of sustainable environment for all. Apparently, the environment policy of Bangladesh is well aware of this imperative as the central concern and the recently launched Sustainable Environment Management Programme funded by UNDP with participation of both government and civil society agencies is probably a step in the right direction towards desirable sustainable development. The ongoing participatory research on National Water Management Plan being conducted by BIDS for WARPO is also another step forward in this direction. All relevant stakeholders particularly the primary ones are being allowed here to participate in formulation of this plan.

The objectives in this process will be to maintain ecological balance and to ensure overall development of the environment through conservation, protection and improvement. To do this we have to regulate the activities that are likely to effect pollution and degradation. Initiatives to protect the country against natural disasters and to use the environmental resources in a long term sustainable way should be encouraged. And finally, the development activities must be environmentally sound both in designing and in implementation.

The strategies for reaching these objectives should be clearly defined. Cost benefit techniques to estimate the implications of different development strategies (for example structural adjustment policies as well other sectoral policies) can be attempted to reduce environmental damage in the growth process. Construction of an "Environmental Social Accounting Matrix (ESAM)" Embedded in "Computable General Equilibrium Model (CGE)" can be pursued in this regard as well.

Human Resource Development for including education and vocational training programmes, targeted nutrition programmes, agricultural price support policies, special credit programmes, extensive relief and rehabilitation programmes after natural disasters, development of physical infrastructure would help the poor to uplift the

poor from their dependence on natural resources and thereby reduce environmental degradation. Land redistribution, land reform, different input delivery systems and other supporting services should be introduced to ensure more access for the rural poor to environmental resources.

Market-friendly policies including (i) ensuring competitive market by removing market rigidities; (ii) clarifying property rights and (iii) pressing for equity even within the processes of marketisation will be helpful to pave the way for sustainable development. However, government should still play an important role particularly in the sphere of regulation, monitoring and evaluation in order to promote sustainable development. Indeed, IMED should encourage stronger EIA while evaluating any project. This should in fact be in-built in evaluation tools.

Some other policies like removal of subsidy that cause environmental damage by encouraging overuse of energy, fertilizers, pesticides, irrigation water will be very effective as it will earn both economic and environmental benefits.

Strengthening Communal rights over common property would be helpful for sound natural resource management. In fact, some useful attempts are being made under SEMP to improve the quality of some of their common properties.

Various charges like user charges, effluent charges, enforcement incentives, technology taxes and subsidies for fuel efficiency can also be adopted. These type of charges and taxes should be different in nature (progressive, for the rich and 'ability to pay' for the poor) in nature in the different context considering who is the major contributor, poor or rich. The national budget should be environment sensitive and pave ways for strengthening the eco-friendly development. The 1999-2000 budget of Bangladesh has made an initial attempt at incorporating some environmental measures.

Baseline information regarding (i) present state of environmental resources and degradation; (ii) causes and effects of environmental damage and analyze the costs and benefits of alternative measures should be collected and estimated to ensure the sustainable use of environment.

A clear legislative framework for environmental management that will give statutory powers and accountability to the policy implementing agencies would be effective.

Participation of the local people should be ensured in managing environmental problems. It should be very effective in the programs like social afforestation, soil conservation, wildlife protection, water management, sanitation, drainage and flood control. Facilitating the growth of local, community decision-making, particularly by those who use local resources and are aware of the ecology (e.g. poor women in a locality) can indeed facilitate the kind of environment friendly development we are arguing for.

A sound amalgamation of technological developments and indigenous knowledge should be a point to ponder to cope with the problems like land degradation, salinity etc. Agro-forestry, cropping varieties, terracing small holding, lowering intensity of tillage etc can be effective tool of land conservation.

A special effort should be made to identify the seriously degraded environmental zones (e.g. the adjoining areas of major river banks) as already mapped by World Food Programme and earlier indicated by the 1991 Task Force Report. Once identified special infrastructural development programmes and complementary poverty alleviating programmes (*a la* Kurigram integrated development programme) should then be aggressively pursued with sufficient resource support. These are the areas which were flagged as the most vulnerable pockets immediately after 1998 flood and gave lot of headache to disaster managers. The sources of such vulnerabilities can be removed if an integrated development planning approach can be pursued. The decentralized administration can play crucial role in this effort.

Alternative efficient energy generating mechanisms, communal and homestead forestry, switching from field crops to tree bush crops could be considered to arrest the depletion of forestry.

A host of 'macro-micro' and 'individual-local-national' initiatives is of important use for better natural resource management. The formulation of NEMAP and its reviewing initiatives has been an important step to outline a draft of environmental legislation. More environment-related projects should be implemented in the grassroot levels.

The policies must address two points: (i) remove and control the causes of crisis faced by the poor through protection, relief, rehabilitation for the poor in the disaster-prone areas providing them health and sanitation services to prevent the disease, and security of land tenure system through tenancy reform; and (ii) initiating different programs that will enhance social security of the poor. Rural industrialization, non-farm employment generation, ensuring communal right over common property can be effective measure in this regard.

The environmental mitigation measures should not be confined always within national boundaries. An effective regional cooperation (e.g. the cooperation of riparian countries for water management) can help reduce environmental refugees. Even bilateral cooperation like the Ganges waber sharnsg traty has played a sobering role in reducing the salinization caused by Farakka barrage in earlier years.

Not all natural disasters create environmental hazards. Indeed if we can learn to live with flood, this can as well be beneficial to the environment. The flood not only flushes the waste but also provides necessary fertility to the soil which helps achieve

bumper crops in most post-flood years. So a sustainable approach of living with flood can lead to an environment friendly development policy aimed at coping with natural disasters.

Concluding Remarks

Bangladesh too have been in the rat race of higher exploitation of natural resources, export-led growth, market-expansion, technological innovation under the shadow of globalization. Apparently, there is nothing wrong in pursuing this policy if the country can still maintain the ecological balance and avoid rapid destitution of its already poorer millions. However, the Human Development Report of UNDP, 1998 indicates higher income inequality and lower achievement in many areas of human development. This has happened despite sustained growth rates of 4 to 5 per cent over the last few years. It is, therefore, imperative that the public eye is focused on the condition of the poorest of the poor and efforts are made to tie economic environment and economics destitution within a holistic interconnected 'systems of life' or 'web of life' framework (Capra, 1998).

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Fate of Bangladesh Agriculture amidst Globalization: Some Critical Issues

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Abstract

Not much research work has so far been conducted on the possible impact of globalization on the agriculture sector and peasantry in Bangladesh. Keeping the dual essence of globalization in view, an attempt has been made in this paper to analyse the impact of globalization on some salient aspects of agriculture in Bangladesh. The areas delineated include consequences of hybrid seed on biodiversity and destruction of traditional seed preservation system, withdrawal of subsidies and removal of non-tariff controls on accentuation of marginalization, agrochemical's intervention on sustainable agriculture, free trade's negative impact on food security, biotechnology and genetic engineering's potential threat to natural eco-system, destruction of Ayurvedic system of treatment through depletion of medicinal plants, and confiscation of common property through globalization and annihilation of indigenous habitat. The authors conclude that globalization viewed from the essence of major agreements under the WTO will most likely increase our dependency on multinational's agribusiness and accelerate the pace of marginalization of peasantry in Bangladesh.

1. Globalization: Dual Essence

Globalization generally implies the meaning of freeing the forces of competition that help to channel the energies of people and the resources of countries into activities where they are likely to be most productive. Some proponents think that as a consequence of globalization the trend towards freer movement of goods, service, capital and technology is being strengthened. Many see globalization as threatening - as accelerating the pace of change to which they must adapt, and over which they

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seem to have less and less control. Governments also see it as undermining their policy sovereignty, not only vis-a-vis other governments but also vis-a-vis the market. It is a different kind of political economy that the globe ever experienced. The process is the new form of capitalisation that has been launched after and legitimised by the Uruguay Round talks and became operational with the start of the World Trade Organization (WTO).

The following excerpts from UN Secretary General, Kofi Annan's speech convey the essence of globalization, "We live in an era of realignment ... As is true of all transitional periods, very different expressions of the human predicament co-exist in uneasy tension today: globalization envelops the world even as fragmentation and the assertion of differences are on the rise; zones of peace expand while outbursts of horrific violence intensify; unprecedented wealth is being created but large pockets of poverty remain endemic; the will of the people and their integral rights are both celebrated and violated; science and technology enhance human life at the same time as their by-products threaten planetary life-support systems. It is not beyond the powers of political volition to tip the scale in this transition, towards a more secure and predictable peace, greater economic well-being, social justice and environmental sustainability. No country can achieve these global public goods on its own, however, just as none is exempt from the risks and costs of doing without them." (Renewal Amid Transition: Annual Report on the Work of the Organization, 3 September 1997 A/52/1)

The WTO consists of: 1) Multilateral Agreements on Trade in Goods; 2) General Agreement on Trade in Services; 3) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs); 4) Understanding on Rules and Procedures governing the Settlement of Disputes; 5) Plurilateral Trade Agreements and 6) Trade Policy Review Mechanism. Among others Multilateral Agreements of Trade in Goods include Agreement on Agriculture, viz., domestic subsidies, export subsidies, volume of subsidised exports, minimum market access commitment, domestic support, sanitary and phytosanitary measures (concerning food safety as also animal and plant health measures), food stocking and food air operations¹. Thus, Identification of the social, political and economic agents of globalization is important in understanding the impact of globalization on Bangladesh agriculture.

The process of globalization affects global labour markets and labour relations, migration, the use and control of resources, human rights, democracy, cultures and traditions and gender relations. Globalization manifests in changes in production,

¹ Sadasivan, C.R., International Economic Order and the Emergence of the World Trade Organisation published in *Vikalp Alternatives* Vol: VII/No.: 4-1999, Seattle and After Revisiting Globalisation. p.117.

technology, trade partners, international investment and finance, and the transmission of cultural values.

Globalization has historically been linked to the concentration and centralisation of capital, wealth and power. The driving force of globalization has been the co-operation and competition of the imperialist powers. Global trade and investment policies, agreements and institutions that undermine democratic process while ignoring labour, consumer, environmental, human rights, small business and local community development concerns. Globalization has a way of rearranging the economy of a country, which leads to a growth pattern that also perpetuates inequality and poverty. Liberalization and globalization appear to have been associated with rising levels of unemployment and underemployment, income inequality, and poverty in Bangladesh. The driving forces are centered in the hands of imperial states and the multi-national corporations and banks, backed by the international financial institutions. The technological changes, especially in communications (computer, fax, Internet, etc.) have been a prime factor in shaping the high velocity of movement of capital.

Globalization is removing all obstacles to the rule of the global elite and their corporations. The process keeps the majority of the world in poverty while allowing unsustainable consumption for the global elite and its allies. More than \$US400 billion annually flows from the poorer to the richer nations while health, housing, education and welfare budgets are cut for the marginalised within the rich as well as poor countries.

In fact, globalization refers to the more rapacious and rapid process of economic restructuring, take-over and control over production and resources by transitional corporations associated with the neo-liberal policies of privatization, deregulation and liberalization. The global crisis has burst the bubble of globalization. The issues have become more urgent, have become the life and death struggle of millions of people all over the world who have lost their jobs, homes, communities, livelihood and have been pushed to poverty and starvation by this crisis caused by the rapacity of Trans National Corporations (TNCs), by the inhumane greed of the elites and the active, open collusion of the governments.

Globalization argues for a universal incorporation to the world marketplace and the distribution of benefits among the wealthy creditors as well as the bankrupt debtors; super-rich speculators and impoverished unemployed workers; imperial states that direct international financial institutions and subordinate states to their dictates. But WTO guided globalization has introduced a new morality where the god is the dollar and a failure to maximize profit is a moral sin. Concepts of love, fairness, equity and social justice are given no value by the new morality.

Some of the key aspects, which characterize today's globalization, are the following² :

- a. The breaking down of national economic barriers, resulting in an acceleration of the international integration of finance, trade, and investments;
- b. Government must be failed to properly implement the national development policies if some of those policies contradict with the WTO policies;
- c. The internationalisation of production by TNCs and the unprecedented growth and concentration of the power of TNCs;
- d. The development and spread of technology which facilitates financial and economic globalization;
- e. The spread of production and consumption patterns, and consumer and product preferences, lifestyles, and cultural identities associated with the north;
- f. Erosion of national policy making and appropriation of this process by international agencies (IMF, WTO, WB, TNCs, etc.), resulting to the drastic reduction of the power, authority, and status of the state, political leaders, parliamentarians and bureaucrats; and
- g. The emergence of informal and formal global networks, alliance, and campaigns of people's organizations, citizens groups, and NGOs.

It would be very difficult, for a developing country member to change the WTO rules, or to avoid compliance of obligations. The disciplines of the WTO are legally binding on present and future governments. Once the WTO agreements come into force, it would be difficult for a present government to have economic policies relating to foreign trade, investment, sectoral policies in services and agriculture or technology policy (*vis-a-vis* intellectual property rights) that are in violation of WTO rules. Moreover, the rules are binding on future governments as well.

The main instrument of neoliberal globalization has been the structural adjustment program of the IMF and the development and restructuring programs of the World Bank. These have been redesigned by the "Washington Consensus" to include neoliberal prescriptions in their fiscal management programs. The WTO strengthened this process of trade liberalization through various agreements that ensured the opening of markets and provided unparalleled advantages and benefits for TNCs and developed countries. To complete the process is the Multilateral Agreement on Investment (MAI) which would have implemented maximum investment liberalization.

² Khor, Martin, "Some Critical Aspects of Globalization", Third World Network Briefing Paper, 1997.

The prescription of globalization is to open up economies through trade and investment liberalization, deregulation and privatization. In order for monopoly capital to survive its crisis and in order for globalization to succeed, it must continue to push for liberalization of markets to allow it to take over economies. Not unlike old imperialist plunder of colonial territories, TNCs simply intensify accumulation not only through cheap resources, labor, environment and other costs, but also plunder through manipulation of financial markets. The direct result is the devastation of economies, displacement of livelihood and employment, and the destruction of productive forces the world over.

It would be worthwhile to mention that in the last 30 years, the richest 20% of the world's population have increased their share of world income from 70% to 85%; the share captured by the poorest 20% has declined from 2.3% to 1.4%. Even the recently concluded Commonwealth Summit took serious note of this situation, and had this to say about globalization in its Fancourt Declaration: "On the positive side, globalization is creating unprecedented opportunities for wealth creation and for the betterment of the human condition. Reduced barriers to trade and enhanced capital flows are fueling economic growth. The revolution in communications technologies is shrinking the distance between nations, providing new opportunities for the transfer of knowledge and the development of skills-based industries. And technological advance globally offers great potential for the eradication of poverty. But the benefits of globalization are not shared equitably. Prosperity remains the preserve of the few. Despite the progress of the past fifty years, half the world's population lives on less than two US dollars per day. Many millions live in conditions of extreme deprivation. The poor are marginalized. Expanded capital flows have also brought with them the risk of greater financial instability, undermining the hope that a commitment to open markets can lift the developing world, especially the least developed countries, out of poverty and debt. The persistence of poverty and human deprivation diminishes us all. It also makes global peace and security fragile, limits the growth of markets, and forces millions to migrate in search of a better life. It constitutes a deep and fundamental structural flaw in the world economy. The greatest challenge therefore facing us today is how to channel the forces of globalization for the elimination of poverty and the empowerment of human beings to lead fulfilling lives³ .

2. Trading with Hunger and Poverty in Agriculture

In Bangladesh, one should not trade with food for maximizing profit because still around 60 million Bangladeshis cannot afford even 1,805 calories per day which is less than the prescribed daily minimum calorie intake. The burden is doubled for

³ Paranjape, S.M., Who Needs the Seattle Round of the WTO, *Vikalp Alternatives* Vol: VII/No.: 4-1999, Seattle and After Revisiting Globalisation, p.109.

women because they eat less and the least and they are much more malnourished than men are⁴.

Those that defend globalization do it expecting more production with better efficiency, so offering best prices and not leaving space for protectionism of any kind. However, ground experiences have shown differently because great dissimilarities between countries, in terms, for example, of production conditions, location and distances, environment, population and community profile, etc. This makes impossible the ideal globalization, not only the economic one but also the social, toward population equity, to benefit poorer communities and states throughout the world.

It has frequently been reported in the newspapers that peasants have filed cases being cheated using “*Suphola Bij*” (The brand name of BRAC marketed seeds) purchased from BRAC, ACI and Macdonald company⁵. They reported that although it was written on the package of “*Alok Suphola Bij*” (brand name of paddy seed) that the average yield from this seed would be 30-40 mounds (1 mound = around 37.5 kg.) in one acre but in reality they got 4-6 mounds per acre. In the same way the farmers got deprived when they tried to produce onion, tomato and other vegetables using hybrid seeds. The reported loss of using hybrid seed marketed by BRAC was Tk.15,000-Tk.35,000 per acre. Although the price of hybrid seed is 20-30 times higher than the indigenous seeds but hybrid seeds are capable of producing only 20%-30% more crop. Thus the farmers get deprived greatly using hybrid seeds. The endless profit making greed of the TNCs and some NGOs would certainly expedite the pauperization process of the marginalized farmers and aggravate poverty situation in Bangladesh.

TNCs are using the image of the poor and hungry people of Bangladesh to push a technology that is neither safe nor environmentally friendly, or economically beneficial to us.

Local food means not only better health and less wasteful packing and transportation, it means money staying in the community, and increase in biological diversity and the revitalisation of rural life.

3. Withdrawal of Subsidies in Agricultural and Marginalization of Peasantry

The marginalization of peasantry under globalization has been intensified by the agribusiness TNC's domination of world agriculture facilitated by the “Green

⁴ Barkat, A. and AKM Maksud, Impact of Globalization on Women in Bangladesh: An Exploratory Study, prepared for Bangladesh Nari Progati Sangha (BNPS), 2001.

⁵ For details see, Chinta (Fortnightly Journal), February 2000, Chinta June 2000 and Chinta, April 1999 and Trade Liberalization Bulletin 2 (Banijya Udarikaran Bulletin), April, 2000.

Revolution"; by the unequal liberalization of agricultural trade, including especially the European Union and the United States subsidy policies; by corporate monopoly of biotechnology; and by the withdrawal of government supports for agriculture and bias towards the industrial sector. The marginalisation of peasantry is further aggravated by governments' lack of political will to carry out genuine agrarian reform. The overall effects of these processes are the following: landlessness and joblessness, unviability of farms; poverty, indebtedness and destitution of peasants; loss or erosion of land rights, loss of on-farm decision-making, over-exploitation of natural resources; depletion of genetic resources; water-scarcity, and soil erosion.

Withdrawal of input subsidies and increasing imports have acted in concert to depress agricultural prices, raise costs of production, reduce profitability, and hence discourage investment in agriculture. The resultant stagnation of agricultural production has constrained labour absorption, leading to an increase in unemployment, underemployment, and poverty in this sector. Bangladesh Agricultural Development Corporation's activities had been weakened as a consequence of withdrawing subsidy in agricultural sector. Seed, fertilizer, pesticide and irrigation facilities had been privatised. Moreover, it is noted that per capita consumption strongly indicates a fall in real income of the poor in the 1990s. This suggests a shift in income distribution away from the poorest groups. As a consequence of low consumption, around 70 per cent of the Bangladeshi women are still suffering from malnutrition. Malnutrition causes numerous diseases and death, and the burden falls mainly on the women and children of poor families.

As for farm products, the European Union (through the Common Agricultural Policy), the USA and Japan subsidise agricultural production. This means farm-products imported from the South are less attractive. The EU and the USA have become net exporters of farm products to the rest of the world. Their subsidies to the agricultural sector (largely to agro-business) make their products more affordable in the Southern markets than some locally produced items⁶. In addition, the US has also been imposing import controls to protect its farmers.

4. Seed Marketing and Loss of Biodiversity

Many farmers and environmentalists are concerned that the Third World farmers will be disallowed the traditional practice of saving seed for the next season's plantation (if the seed used is under the intellectual property rights protection of a company and the farmers are forced to purchase the seeds). TNCs would like to abolish the right of seed preservation by the farmers (especially by the rural women). Because, if this

⁶ Toussaint, Eric. *Your money or your life! The Tyranny of Global Finance*, 1999, p.93

right to preserve seeds continues in the hand of villagers then it will hamper the greed of the TNCs of making endless profit in seed business sector to be fulfilled.

Wetzel⁷ (1998), points out that the first consequence of the economic globalization among the national seed companies of Brazil was the elimination of about 377 seed producers (34.6% of the total) classified as very small or small. Brazilian seed industry seems not to be prepared to enter in the new and difficult world of globalization, observes Wetzel (1998). Obviously, Hybrid and HYV seed marketing by the giant TNCs or native organization in collaboration with the TNC then the national inherited seed preservation systems as well as thousands of indigenous seed producers would disappear soon.

Marketing of Hybrid and HYV seeds in Bangladesh would inevitably lose a considerable number of species of paddy in Bangladesh. Similarly, Hybrid and HYV seed marketing of maize, millet, sunflower and pumpkin would cause loss of biodiversity. These initiatives would certainly destroy the seed stock of the indigenous Bangladeshi farmers and make these people dependent on Hybrid and HYV seed. Seed business would obviously be able to make billion dollars' of profit if a country like Bangladesh with a population of 130 million depend on TNC-backed companies for seeds. ACI and Monsanto in collaboration with BRAC are marketing hybrid seeds, which already cause loss of a large number of bio-diversity.

A new technique, nicknamed "Terminator Technology", that renders seeds sterile after one planting season is claimed by environmentalists that it would destroy the age-old practice of saving seeds. "Terminator Technology" self destructs after a period of time, stopping the 12,000 year tradition of farmers keeping seeds for their own use⁸. Such genetic engineering is not only unnatural, but it presents unknown risks – it is unsafe, it is unnecessary and it is certainly irreversible. Opportunities of genetically engineered foods say sterile seeds are inconsistent with Monsanto's 'feed the world' philosophy and would unfairly burden our farmers.

The main objective of introducing Hybrid seed is to destroy the seed preservation system of the indigenous farmers and to make these millions of indigenous farmers dependant on the TNCs for satisfying their greed of making unimagined profit. They introduced HYBRID and HYV in the name of global revolution. The TNCs are gradually capturing the seed market. If the TNCs become successful in replacing the indigenous seeds by the Hybrid and HYV seed then the farmers will be dependent on

⁷ Wetzel, C.T., Personal communication, Brasilia, October, 1998.

⁸ Rowell, Andrew, Globalization and the Struggle for the Environment, Paper Presented at the International Conference on "Alternative to Globalization", organized by IBON and BAYAN, Philippines, 1998.

the seeds marketed by the TNCs. To make the TNCs' mission in Bangladesh successful they have tagged this with micro-credit system. It is known that poor and illiterate people are the victims of induced purchasing by the micro-credit institutions.

Introduction of HYV and Hybrid seeds in agriculture incur remarkably higher cost in purchasing agricultural inputs (high cost HYV/Hybrid seed, fertilizer, pesticide, rent for irrigation by electric pumps, rent for tractor or power tiller) by the farmers. The HYV and Hybrid seeds require much more amount of fertilizer and pesticide than the indigenous varieties for the same area of land. Moreover, increasing amount of fertilizer and pesticide is needed to ensure production of the same amount of crop in the same area of land during the successive years. So, cost for purchasing agricultural inputs rises proportionately compared to agricultural yields. Thus farmers' rate of profit and production during the successive years decelerates. Farmers try hard to maximize production using micro-credit or loan from informal moneylenders to bear the cost for hybrid seed, fertilizer, pesticide, irrigation, tractor or power tiller but gradual loss in production make them pauper, landless and compel them to migrate in the urban slums. Thus, marginalized farmers get trapped and lose their land rights running after more production using hybrid seeds and agro-chemicals.

As a consequence of mono-culture in crop production, pisciculture, animal husbandry and food habit a large variety of biodiversity is getting depleted. In addition, monoculture in plantation causes depletion of some important medicinal plants. Obviously this depletion of medicinal plants as well as intellectual property rights and patent rights on life forms (flora and fauna) will inevitably increase the price of life saving drugs and consumer goods for the poor people of Bangladesh. In this context the conflict of patent right between India and American TNCs on Mango can be mentioned. If unchanged, this situation will certainly create crisis for the poor-friendly, low-cost, effective, culturally acceptable and 5000 years' old heritage of Ayurbhedic treatment systems in Bangladesh.

During the last 2 decades we have lost 25 thousand species of paddy. Though we have lost these species forever the genes of those species have been preserved by the developed countries' gene bank for making manifold profit in future by the TNCs.

Some NGOs and trading agencies have started importing seedlings of mango (*Amropalli*, *Mallika*, etc.) from the neighboring countries claiming that this varieties would yield more mango. Such initiatives will inevitably help lose the indigenous and tasty mango varieties like paddy.

5. Agro-chemical

One of the major reasons of death of the human beings as well as other living beings is agrochemicals. It has been proved that women are the worst victims of agrochemicals. Women work in agriculture throughout the world and are subject to occupational hazards such as exposure to biological and chemical agents. They can be found mixing, loading and applying pesticides, fertilizers, or herbicides, some of which are highly toxic and potentially carcinogenic. Pesticides exposure poses a considerable risks of cancer, neuropathy, neuro-behavioral effects, immune system abnormality, destruction of endocrine, hormone reproductive and nervous systems. It is also injurious to heart and kidneys. The Food and Agricultural Organization (FAO) through its integrated pest management strategy, advises for banning of use of such agro-chemicals which cause harm to living beings. But Novartis and other TNCs are marketing these poisons in agriculture. It should be mentioned that HYV, Hybrid seed and agro-chemicals were introduced to make the "Green Revolution" successful and at the same time, to counter "Red Revolution" in third world countries like Bangladesh. According to the World Health Organization (WHO) report, every year 500 thousand people die due to adverse effects of agro-chemicals used in agriculture⁹.

Most of the past governments of Bangladesh subsidized chemical fertilizers, pesticides and agricultural equipment rather than subsidizing indigenous and appropriate seeds production and marketing, environment-friendly organic fertilizer production and marketing, and purchase of bulls for the marginalized farmers. In the international arena it is now firmly accepted that use of agro-chemicals (fertilizers and pesticides) in agriculture does not help much in developing integrated agricultural production, rather these agro-chemicals largely destroy other life forms –crops, trees, fish species, cattle, goat, poultry, duck, etc. Use of agro-chemicals in agriculture is neither environmentally safe nor able to make remarkable profit in economic terms. Simple calculations may show that the economic value of the lost life forms (other crops, trees, fish species, cattle, goat, poultry, duck, etc.) and cost for health hazards due to use of agro-chemicals in agriculture are much higher than the price of increased amount of crop products produced using agro-chemicals.

The fertilizer industries in Bangladesh are constantly polluting their surrounding environment. Disposed wastes from the fertilizer factory cause damage to crops and trees, to fishes in the nearby rivers, canals and water bodies and public health. Reports show that the neighbouring people of the *Jamuna* fertilizer factory frequently complain about the adverse effects of fertilizer factory's wastes. If hybrid seed, fertilizer and pesticides had not been used in agriculture, the environment would not have deteriorated so badly in Bangladesh.

Chemical dependent agricultural practices depleting crops and seeds pose a real danger to the permanence of agriculture. Pollution and degradation of land and water sources threaten lives, health, future productivity of land. The river and sea resources have come under a similar threat.

Developed countries often reject foods exported by Third World countries on the grounds that they do not meet safety standards and could cause epidemics. At the same time, emphasis on trade encourages factory farming of poultry, meat and dairy animals, where they are stuffed with hormones, antibiotics and pesticides. Their products have high residues of these drugs and chemicals, which are hazardous to health.

6. Food Security

The future food security should not lie with the biotech industry that is dominated by just six companies that are declaredly interested in “feeding the world”, but in reality interested in maximizing profit. For example, in the last three years, Monsanto has bought up at least ten independent companies, worth nearly 5 billion pound sterling.

The agro-food industry operates in response to global markets not through the notion of basic human need for food. The relevant outcomes here are: the transformation of the agro-food system has broken into and disrupted the ‘natural’ cycle of renewal (resilience) which ties agriculture to the environment and create major environmental problems. Local consumption, principally in the developed world, is dependent on the global operation of business, which is oriented to profit and not to general or individual country welfare. In both these senses, the trade in food can be seen as promoting and extending inequality and illustrates the need for policy based on social justice.

The availability and distribution of food has historically been a national security consideration but under the process of global restructuring and industrialisation, the control has moved to global multinational industry. The agro-food companies have already started their operation for profit in Bangladesh. Such profit making approach would hamper the sustenance of the vulnerable groups in Bangladesh. Since 60 per cent of the Bangladeshi population are getting only 80 percent of their daily calorie requirement, so it can be assumed that the purchasing capacity of the people is at a very low level. Thus, food production for profit rather than subsistence may entail more hunger in our country.

⁹ Alim, Shiblee, Advertising Philosophy of Globalization, Ummochan (bimonthly journal), September-October, Dhaka, 2000, p.65

Consolidation of a transnational agriculture and food sector will reinforce social and economic dislocation within producing regions. More specifically, production for the globalized system will be increasingly detached from local competition of economic expansion and local food needs. Food self-sufficiency in developing countries will continue to decline and existing economic difficulties of family farm products in the developing world will not improve¹⁰.

Currently, in Bangladesh, thousands of acres of the most fertile land crops are cultivated not to feed our hungry poor people, but to produce raw materials for large TNCs. Especially, in Kushtia and Rangpur districts tobacco is produced for transnational and national tobacco companies; in the southern districts of Bangladesh shrimp is cultivated for export, and recently maize is being produced as poultry feeds instead of cultivating paddy or food crops in these fertile lands. Presently, BRAC is marketing maize seed in collaboration with Pacific International of Australia to make its beneficiaries produce maize in their lands instead of rice or cereals. BRAC imposes preconditions in receiving microcredit so that their beneficiaries get compelled to use hybrid seed in maize production instead of rice production. Intensification of cash crop production may aggravate food security situation of the peasantry¹¹.

Export oriented shrimp cultivation requires collection of fry. It has been estimated that to collect a young of *Bagda* shrimp one has to destroy 202 fries and fingerlings of other fishes while collecting. Approximately 205 billion *Bagda* shrimp fries are collected each year for export oriented shrimp cultivation. So, export oriented shrimp cultivation is responsible for destroying a large variety of other fish varieties. Consequently we are gradually facing severe protein deficiency due to lack of natural fish production in the rivers and bays.

International free trade of agricultural products changes food habit and weakens production system of indigenous foods. Large scale import of soybean oil from the developed countries in Bangladesh diminished mustard oil production. Even the greedy profit making importers propagate that mustard oil is not much beneficial or is injurious to health.

Third world countries as well as Bangladesh will also have to reduce domestic subsidies to farmers and remove non-tariff controls on agricultural products, converting these to tariffs and then progressively reducing these tariffs. This will impose uneven competition on the domestic farm sector. Farmers are unable to compete with cheaper imports and may not survive in the competition. Agricultural liberalization will also

¹⁰ Nascimento, Jose Calos. Agriculture Alternatives to Confront Globalization, Paper circulated at the international conference on "Alternatives to Globalization" organized by IBON and BANYAN, Philippines in November 1998.

¹¹ See, Chinta (fortnightly Journal), July 2001.

raise world food prices, which may benefit food exporters, but about 100 Third World food importer countries will face a higher food import bill and are likely to be among the biggest losers. The fact remains, “free market is never poor-friendly”.

Vandana Shiva has clearly condemned the “Green Revolution” as the project that upset the fragile balance the country had achieved over centuries. She says it is wrong to claim that traditional structures were and remain unable to fulfil the country’s food requirements. She has put forward well-supported arguments to the effect that the real problem in the countries of the Third World is the distribution of land and wealth. In this vein, it is worth recalling that the Great Famine of Bengal in 1943 (between two and three million dead) was not caused by a lack of food but rather by an increase in the price of foodstuffs caused by inflation, itself caused by the war effort and speculation on food stocks. The agro-business industries of the North have imposed various seed varieties on countries like India. These varieties did produce favourable results in the short term, but over time have been disastrous in a number of ways. Firstly, they require ever greater purchases of inputs: chemical fertilisers, pesticides, herbicides and so forth, since these imposed varieties of the rice are genetically programmed to degenerate after a generation. Secondly, when the costs are added up, the performance of these varieties is no better than that of the varieties obtained through traditional selection and improvement techniques. Quite the contrary dependence, on the other hand, has grown enormously on machinery and fertilisers, all provided by the northern industries. Finally, the “Green Revolution” has produced a number of other harmful effects. It was carried out to the detriment of communal lands (forests, grazing lands). It has led to a severe impoverishment of bio-diversity, an increase in plant diseases (traditional varieties were more resistant), and soil exhaustion (intensive crops have removed certain vital microelements). It requires much greater irrigation than traditional crops (and this, in regions where there are real risks of drought). The massive use of inputs has salinated huge tracts of land. As a result, the ecological balance has been irremediably destroyed through the intensification of monoculture. The Green Revolution burdened the peasantry with debt, making them dependent. To produce 1000 units, peasants and small farmers are obliged to take on debts equivalent in value to 3000 units. They have to borrow to buy seeds (every year), fertiliser, pesticides, herbicides, tractors (which often have to be abandoned due to the lack of spare parts), and so on. They rarely produce enough to pay back their loans. After two growing seasons, they sell their land to the banks and big landowners, and go to swell the ranks of the urban slums. Vandana Shiva has noted as the “Green Revolution” has grown in strength, traditional community structures have become dependent on technology that they neither created nor control. To be sure, this so-called revolution has been a major boom to multinational corporations¹²

¹² Toussaint, Eric, *Your money or your life! The Tyranny of Global Finance*, 1999, p.93.

The move to global free trade policies in agriculture threatens small farm agriculture. It encourages imports of cheap food, by pushing down international market price below the cost of production. This has two negative effects on the small farmer. Firstly, it can drive the farmer off the land. Secondly, as crop prices stay low, profits per unit area stay low as well, and more and more hectares are needed to support a family, forcing smaller farmers to sell land to larger farmer. As farm incomes fall, farmers try to increase their production by ecologically inappropriate practices like plowing more land and increasing the use of agricultural chemicals. This has also led to more farmers being in debt.

7. Biotechnology and Genetic Engineering: Unknown Threat and Ethical Concern

The agricultural area in which the globalization has been present vigorously is in the high technology tracts such as biotechnology, genetic engineering and information technology.

The advance of biotechnology and genetic engineering together with the population growth, contributes to increased agricultural production, also accelerates the rates of unemployment principally in the countries where population is increasing at substantial rates. On the other hand, the promises and perils of biotechnology have developed a mystique of their own, and as expressed by Serageldin¹³ (1998), the world was soon buffled by conflicting stories on possible benefits of scientifically created superabundance and possible disasters that raised fears from Frankenstein's monster to Jurassic Park. More thoughtful concerns were expressed about the possible health or environmental effects of genetically modified organisms (GMS), in addition to the ethical concerns of tinkering with nature. The process, called genetic engineering, allows scientists to transfer a single gene from any organism – plant, animal or microbe – into a food crop so that it can withstand insects in herbicides, as well as last longer. Genetically engineered, or transgenic crops look and taste the same as conventional crops, and are not required to be labeled in the United States, unless they contain known allergens. There are more than 20 varieties of genetically altered food already in the market, including one-third of all US soybeans. Chemical giants like Monsanto and Du Pont are betting the farm that biotechnology will change the face of world's agriculture. But critics question the basic need for the product. Greenpeace says that 'Roundup Ready' soybeans bring no benefit to the consumer. 'They are not cheaper, tastier, or healthier'. Biotechnology research and application will be likely to accelerate biodiversity loss and could threaten natural ecosystem.

¹³ Serageldin I., *Development Challenges and Opportunities in the Global Village*, 1998.

8. Globalization: An Annihilating Process of Indigenous and Tribal Community

The drive for mineral or forest wealth leads to a vital confiscation of common property resources. The people are denied access to such resources i.e. to their own resources. It also means a displacement of large sections of the people from their traditional habitats. The 'relocations' are notorious failures. The real result is a dislocation of lives.

The commercialization of gene pools denies access to local communities to traditional resources critical for livelihood and survival. The indigenous people generally occupy areas that are home to rich mineral or forest resources or are necessary to harness and harvest other natural resources – water, land and power, for example. To keep pace with the global development “Kaptai Hydroelectric Station” was constructed in the fifties at the cost of evicting thousands of hill peoples from their habitats and cultivable lands. In 2000, now we need to evict thousands of “Khasias” to establish the “Eco-Park” at Moulvibazar. Environmentalists claim that the Eco-Park will attract numerous tourists and earn foreign currencies for the country, but such steps will cause the loss of 500,000 species of plants and animals.

Shrimp export is expanding in the cost of destroying the coastal forest and agriculture and ultimately evicting the indigenous farmers from their own agricultural land. Shrimp cultivation in the agricultural land not only influences the environment negatively and causes land degradation but also reduce indigenous people's food production and generate unemployment and poverty. It has given rise to a group of cheap women laborers.

As a consequence of global competition in agriculture hybrid seed, agro-chemicals and modern equipment have been introduced. This situation has made a large group of blacksmiths jobless. Since use of fertilizer and pesticide destroyed the natural rice-fish culture in Bangladesh so nobody goes for fishing in the paddy fields using fish hunting instrument (*Koch, teta etc.*) made by blacksmiths. Use of modern equipment for ploughing land almost ended the use of hand made iron plough. Thus, a large number of blacksmiths lost their traditional livelihood.

The intensified economic activity requires a great exploitation of these resources. The indigenous peoples are then evicted from their traditional and historical habitats, sometimes repeatedly and often with brutal force. The exploration and extraction of oil and gas would certainly affect the indigenous people severely.

The displacement of the indigenous people is quite different from the eviction and relocation of even the urban slum dwellers. The indigenous people are linked to their habitat. The indigenous people relate not only to individual patches of land on which

houses are built or agriculture practised but to the entire territory and the eco-system. The existence of the indigenous people is dependent on the territory. Displacement of such people then actually means a total dislocation of lives. They cannot be relocated elsewhere, even in 'model villages' with grants of some land or compensation. They are usually unable to survive there. So, globalization must negatively influence the matrimonial system as well as the women headed family system of the tribal areas if they are compelled to be evicted from their own land and have to live with the patrimonial system of Bangali community. The indigenous people thus face a threat of annihilation in the age of globalization.

9. Growth and Globalization

The era of globalization has seen an expansion of economic activities. Investment, production, productivity, trade, incomes of certain sections, growth rates of economies have all registered increases. The one area where no growth has been registered is that of employment. There has been on the contrary a decline in employment and an increase in the numbers of the unemployed people. The reasons for this development are integral to the nature of globalization.

The UNDP reports that the wealthiest 20 per cent of the world population receives 82.7 percent of the total world income. This means that 1 billion people live on \$ 1 a day and another 3 billion live on \$ 2 a day for sure. This situation has worsened several times over now, and that within globalization.

The 1996 Human Development Report also showed that over the past three decades only 15 countries enjoyed high growth whilst 89 percent of the countries were worse off than they were ten years ago. With the global depression there will be even fewer countries enjoying growth. The five types of growth listed below are perhaps inherent to the process of globalization:

- jobless growth (overall economy grows but no job)
- ruthless growth (economy grows but rich get richer and poor get nothing)
- voiceless growth (economy grows but democracy and empowerment of the majority do not keep pace)
- rootless growth (cultural identity is submerged or outlawed)
- futureless growth (present generations squander the resources needed by the future generations)

In Bangladesh perspective, all these sorts of growth cause joblessness, poverty, resourcelessness and voicelessness to the majority of rural populace.

10. Concluding Remarks

WTO-guided globalization has introduced a new morality where the god is the dollar and a failure to maximize profit is a moral sin. The process keeps the majority of the world in poverty while allowing unsustainable consumption for the global elite and its allies.

The UNDP's 1998 report calculated that a 4 percent tax on the assets of the world's 225 wealthiest people would bring in 40 billion dollars. This is the modest sum that would have to be invested annually in 'social spending' worldwide over a period of ten years in order to provide: universal access to clean water (1.3 billion people went without such access in 1997); universal access to basic education (one billion people are illiterate); universal access to basic health care (17 million children die annually of easily curable diseases); universal access to basic nutrition (two billion people suffer from anaemia); universal access to proper sewage and sanitation facilities; and universal access by women's basic gynecological and obstetric care. Meeting these ambitious targets would cost only 40 billion dollars annually worldwide over a period of ten years. The UNCTAD report compares these figures to some other types of spending which mankind could easily do without: in 1997, 17 billion dollars were spent on pet food in the USA and Europe; 50 billion dollars on cigarettes in Europe; 105 billion dollars were spent on alcoholic drinks in Europe; 400 billion dollars were spent on harmful drugs worldwide; there was 780 billion dollars in military spending worldwide; and one trillion (1,000 billion) dollars were spent on advertising¹⁴.

Once the WTO agreements come into full force, it would be difficult for our government to pursue economic policies relating to foreign trade, investment, sectoral policies in women development, services and agriculture or technology policy that are in violation of WTO rules. Moreover, such rules will be binding upon the future governments.

Globalization acts as a force to marginalize the peasantry. The marginalization has been intensified by the TNC dominated agribusiness of world agriculture facilitated by the "Green Revolution", by the unequal liberalization of agricultural trade, including especially European Union and the United States subsidy policies; by corporate monopoly of biotechnology; and by the withdrawal of government supports for agriculture. Moreover, this marginalization is accelerated by governments' lack of will to carry out genuine agrarian reform. The breakdown of rural economy in Bangladesh with its attendant massive rural unemployment, has also led to rural out migration and the displacement of communities beyond sectors; it has led to the loss of food security among rural and indigenous people. Withdrawal of government's

¹⁴ Toussaint, Eric. *Your money or your life! The Tyranny of Global Finance*, 1999, p.xx

necessary support for agriculture in Bangladesh and increasing monopoly of food production by the developed countries (the north) has already contributed largely in undermining food security of the citizens of Bangladesh. Withdrawal of input subsidies and increasing imports have acted in concert to depress agricultural prices, raise costs of production, reduce profitability, and hence discourage investment in agriculture. The resultant stagnation of agricultural production has constrained labour absorption, leading to an increase in unemployment, underemployment, and poverty in the sector. Seed, fertilizer, pesticide and irrigation facilities had been privatised. Moreover, it is noted that per capita consumption strongly indicates a fall in real income of the poor in the 1990s. This suggests a shift in income distribution away from the poorest groups. The overall effects of these processes are the following: landlessness and joblessness, unviability of farms, poverty, indebtedness and destitution of peasants, loss or erosion of land rights, loss of on-farm decision-making, over-exploitation of natural resources, depletion of genetic resources, water scarcity, and soil erosion. As a consequence of low consumption, around 70 per cent of the Bangladeshi women are still suffering from malnutrition. Malnutrition causes numerous diseases and death, and the burden falls mainly on the women and children of poor families.

Industrial agriculture has led to mechanization replacing human and animal energy, monocultures replacing genetic diversity, large replacing small land holdings, and the development of new seeds through systematic plant breeding programs—all in the name of science and efficiency...The combination of science and efficiency is now leading retailing particularly in the developed countries, sounding the death knell of the family farm and family farmer...One important reason for the continuance of the small farm is that it has always existed, in all cultures, in all environments, all over the world, developing crops and technologies to suit every environment and meet most needs. The most important reason for keeping the small farm, however, is its productivity...On the small farm, productive activities, labor mobilization, consumption patterns, ecological knowledge and common interests in long-term maintenance of the farm contribute to a stable and lasting economic and family-based enterprise, that makes for ecological stability, which is often socially reinforced by the community. While the large farm today is being presented as the model of 'efficiency' due to 'economies' of scale of operation, there is increasing evidence from all over the world that the larger the farm, the more 'inefficient' it becomes, both in terms of resource utilization as well in terms of productivity¹⁵.

Marketing of Hybrid seeds and HYV seeds through NGOs with microcredit and/or as a precondition of receiving micro-credit would inevitably lose a considerable number of species of paddy in Bangladesh. Similarly HYV seed marketing of maize, millet,

¹⁵ Ritchie, Mark and et. al. WTO and the Globalization of Food Security.

sunflower, pumpkin would cause loss of biodiversity and adversely affect the ecosystem. These initiatives would certainly destroy the seed stock of the indigenous Bangladeshi farmers and make these people dependent on ACI and other TNC-marketed Hybrid and HYV seeds. BRAC, Monsanto, ACI, Novartis etc. would obviously be able to make billion-dollar's profit if a country like Bangladesh with a population of 130 million depend on these companies for seeds. Such profit making approach would hamper the sustenance of the vulnerable groups in Bangladesh. Since 60 per cent of the Bangladeshi population are getting 80 per cent of their daily calorie requirement, so, it can be assumed that the purchasing capacity of the people is at a very low level. In this respect food production for profit rather than subsistence may entail more hunger in our country.

Agricultural production with HYV and Hybrid seeds requires more use of agrochemicals. It has been found that women are the worst victims of agrochemicals. Women work in agriculture throughout the year and are subject to occupational hazards due to exposure to biological and chemical agents. This will affect the health of the next generation.

It is TNCs that are promoting monoculture in crop cultivation, marketing and food habit and are the responsible for gradual unsustainable agricultural system and poor health.

Shrimp export is expanding at the cost of destroying the coastal forest and agriculture and ultimately evicting the indigenous farmers from their own agricultural land. Shrimp cultivation in the agricultural land not only influences the environment negatively but also reduces indigenous people's food production and generate unemployment and poverty. It has given rise to an army of a cheap women labour force.

Globalization necessitates eviction of thousands of "*Khasias*" to establish the "Eco-Park". Eco-Park will attract numerous tourists and earn foreign currencies for the country but such steps will cause the loss of 500,000 species of plants and animals and eviction of thousands of indigenous people. Displacement of such people then actually means a total dislocation of lives. They cannot be relocated elsewhere, even in 'model villages' with grants of some land or compensation. They will be unable to survive there. Globalization negatively influences the matrimonial system as well as the women headed family system of the tribal areas.

Globalization will not solve the problem of inequality. Nor will it feed, clothe, educate, and empower the majority of the people. On the contrary, it has been a major factor in making increasing numbers of the people hungry, homeless, destitute, illiterate and powerless in all areas of their life. What will empower people is their resistance to these processes and their participation in building viable political and economic

alternatives. Massive reforms are needed on people's welfare and ensuring full opportunities to life through human development rather than through policies favouring international capital.

Ultimately, we need to replace global imperialism with global democratic governance of the people of the world with social justice and social control of means of production. The foundation of the strategy should be democratic empowerment. Just as globalization disempowers the people, our responsibility would be to harness these displaced productive forces and to empower people by instituting a process of true human development, which is a freedom-mediated process.

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Some Basic Issues Relating to Investment Pattern and Policies in Information Technology Sector of Bangladesh

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Abstract

Investment in Information and Communication Technology (ICT) in Bangladesh has been a much-discussed issue in the recent years. The Globe is being changed by ICT. But, adaptation of ICT in Bangladesh is based on imported technology. Experience of local businesses in developing software and providing ICT enabled services varies from company to company. The data on ICT investment are inadequate to reflect the true nature of present status of ICT. Understanding of international ICT-services market, selling IT related products and providing skill thereof involve complex strategic issues. Telecommunication, Submarine Cables, and IT Parks are the major investment sub-sectors, which require huge capital investment. Poor telecommunications infrastructure is the main hindrance for ICT growth in Bangladesh. Our objective for investment in ICT is basically to gain foreign exchange, reduce trade gap, increase GDP, alleviate poverty, and retention of environment, social system, cultural systems and values. Technology management is the central issue for development. Infrastructure consists of common business services, messaging & information distribution, multimedia content & network publishing and information superhighway. Globalization requires careful management of ICT. Investment in ICT will enable the computer firms to export ICT enabled services; the technologies will inflow and there is more possibility of capital inflow in the form of direct foreign investment.

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1. Introduction

Investment in information technology sector in Bangladesh has been a much-discussed issue in the recent years. There, however, do not exist any authoritative data showing investment in this sector either in its totality or in a segmented form. The present paper intends to throw some light on this particular aspect, especially the trend and policy changes so far observed in our country. Investment in acquiring knowledge and enhancing learning-capabilities, research and development has been considered as the best investment since long. Knowledge and information are increasingly described as resource, power-base, asset, source of competitive advantage and strategic weapons, and so on. Information and Communication Technology (ICT) wave has reached Bangladesh since the 1980s. The amount of capital invested in information technology of Bangladesh has not been well-reported. Until now, adaptation of ICT is based on imported technology. The institutional capacity build-up for ICT education is not well-coordinated. Experience of local businesses in developing software and providing ICT enabled services varies from company to company. These companies produce software products and provide software services. But their experience in developing software and quality of their products may not be considered as of international standard. The quality of their products and services are important factors in order to ensure return of the money, which they have invested in this sector. However, the investment of these companies is only a part of the total ICT investment. Government, different organizations, universities, and institutions have also invested a huge amount of money in ICT. The modes of investment of different organizations vary because of their operational objectives. The statistical data on ICT investment are not available to reflect the true nature of present status of ICT sector. In a number of occasions, it has been observed that cheap publicity and popular comments have been made without adequate data support, which are published in the media. However, we have covered some related secondary data and text references from various publications in order to understand ICT investment that has already been made in our country. Understanding of international ICT-services market, selling IT related products and providing skill thereof involve complex strategic issues. These issues are to be brought to the attention of relevant authorities and be resolved with the help of Government Organizations. Fortunately, Government has taken several initiatives in the matters of tax, funds, policies, education, telecommunications, intellectual property rights' etc. Some of these measures have already gone into implementation stage. Government now prefers to put the private sector in the frontline for handling computer-related issues as well as giving proper incentives to this sector [Khan 2001]. The major question, however, is whether these policy measures are adequate. An adequate framework must guide initiatives and actions, especially in order to make investment in ICT. It is a case of priority from national point of view. Adequate investment with strategic objectives and guidelines may have fruitful results.

2. Conceptual Issues in ICT and Globalization

A clear understanding as to the meaning, scope and nature of ICT, telecommunications, opportunities that the technology offers, impact of ICT and meaning of globalization in relation to the information age is necessary in order to comprehend the ICT in global society. The British Advisory Council for Applied Research and Development has defined IT in its most comprehensive coverage, which includes the scientific, technological, engineering disciplines involved with IT, and also the management techniques used in information handling and processing along with their applications; computers and their interaction with men and other machines as well as associated social, economic and cultural matters. The most dominant areas of IT are, however, those of computing and communications which shows increasing integration, stemming from the technologies and their application to various social and organizational problems [Frank, 1988]. In its broadest sense, IT represents the technical perspective which includes telecommunications, computers and automation technologies of all sorts which enable the processing and flow of information as well as the technologies used in the physical processing for producing IT related products or provision of a service [Peppard, 1993].

Telecommunications includes telegraphy, telex, broadband data, packet-switched data, circuit-switched data, telemetry, text facsimile, facsimile, colour facsimile, electronic mail, tele-news paper, videotex, hifi-telephony, telephone-conference, video-conference, video Telephony, hifi-stereo sound, quadro-phony, colour TV, stereo television, High Definition television (HDTV), mobile telephony, mobile text, mobile facsimile, mobile data, mobile video text, paging, etc. [Peppard, 1993].

IT offers new management and business opportunities and can be applied strategically in at least four different ways, i.e. to gain a competitive advantage, to improve productivity and performance, to facilitate new ways of managing and organizing, and to develop new businesses [Earl, 1989]. It is generally emphasized on the strategic potential of IT, with the innovative exploitation of the opportunities to snatch an advantage over their competitors [Porter 1985]. The new digital technologies in IT sector have the potential to transform many aspects of modern life, which have tremendous implications for the economy [Samson 2001].

Information Technology transformed new civilization effecting a shift in social standard. The new digital technology requires: a) complementary tangible and intangible elements, b) changes of strategies and techniques for production and distribution, c) changes of individuals' work models and business model, and d) the support of new institutional and legal infrastructures [David,2001].

The world has now become a smaller place through globalization and economic evolution; most of the contribution coming through the technological development, also leading to slow infiltration of homogeneous nameless global culture [Asaf, 2000]

The gap between the developed and the developing countries of the world relating to socializing the gains from globalization has triggered instability in many developing countries with respect to IT, telecom and E-Commerce. A better understanding and insight into the potentials and opportunities provided by IT would certainly help reshaping of policies and strategies in pursuing our goals and objectives [Rahman 2001,p.9]. The new age of information and knowledge has been throwing new challenges as well as offering vast opportunities to existing businesses and enterprises across the globe. Third world countries are no exception to it [Salman, 2000,p.3].

3. Telecommunication, Submarine Cables, and IT Parks

Telecommunication, Submarine Cables, and IT Parks are the major investment sub-sectors, which require huge capital investment. ADB has a program to finance such infrastructure development. These investments are required to build up our capacity to absorb IT expansion.

Poor telecommunications infrastructure is the main hindrance to ICT growth in Bangladesh. This needs to be upgraded for the overall development of the ICT sector. Until March 2000, BTTB had a monopoly over VSAT. Early in 2000, Government changed its policy and ISPs are now free to purchase their own VSAT facilities from private companies.

Telecommunication is the main critical component of ICT infrastructure, a medium of providing services and income generation. The social, economic and political processes are increasingly becoming dependent on ICT. The new service-oriented world economy requires massive amount of data transmission between countries. The Government of Bangladesh has opened the telecommunications to private sector in 1991. As many as 7 private operators have been providing telephone, cellular service, paging, radio communications, etc. The government has approved NTP 1998 and also signed the WTO agreement on basic telecommunications. The Asia - pacific Tele-community (APT) has taken initiatives to implement several proposals for the development of telecom network in South Asia.[Ayub 1998,p.30]

A fast telephone system, which is a pre-requisite for Internet, can be made faster by the use of optical fiber. The existing telephone system in our country has low data transferring rate. A modernized telecommunication system is necessary for ICT enabled services and for meeting the consumers' needs. Telecommunication, however, is a main infrastructure for economic growth [Reza, 1998, p. 48].

The connections between computer sites in the Internet are essentially pipes of various sizes carrying the data streams from place to place. These pipes are made of optical fiber glass. These are the backbone providers, capable of moving packets around at speeds of millions of bps (bits per second). Bangladeshi local ISPs have smaller pipes before reaching the backbone. This requires to connect a satellite to land on one of these pipes in Singapore or Hong Kong, from where it then connects to North America via submarine cables to reach the major backbones [Islam 1998, p.35]. Submarine cable project will connect our ISPs directly to Hong Kong, and thus there will be no additional cost for satellite. The establishment of IT parks with updated knowledge and skill is essential. IT parks are the basic infrastructure for software business. IT parks will help to materialize our vision.

4. National Objectives in ICT

From our national, social, educational, economic, and technological perspectives, we need to focus on how trade imbalances can be minimized; GDP can be increased; equitable distribution of resources can be ensured through IT usage and business. Preconditions are: political stability, diffusion of technology and movement towards technologically advanced society, improved education in order to build an educated society, improved law & order situation, etc. Organizations and various institutions may become transparent, responsible, dynamic, efficient, and progressive by using IT. Developing telecommunication of LDCs may help IT growth as well as economic growth.

To keep ourselves associated with the international trend of IT development, we need various activities and programs. We need to ascertain the demand trends internationally. What segments of demand we are or will be able to satisfy? What will be the potential demand for our products and services? How shall we provide those products and services? These are especially important issues in the volatile nature of IT research, development and market.

Investment objectives: Our objective for investment in ICT is basically to gain foreign exchange, reduce trade gap, increase GDP, alleviate poverty, and retention of environment, social system, cultural systems and values.

Productivity and GDP growth: As productivity is the engine or driving force of economic growth, we shall enhance productivity through IT usage. GNP growth can be ensured through productivity growth. Output and productivity can be increased, by spending more on investment in new and more efficient technology, including IT enhanced facilities. The relationship of investment to GNP in various nations reveals that nations with the highest rate of fixed investment have the largest percentage increase in productivity [Hailstones and Mastrianna 1985, p.61].

The investment theory now focuses mainly on inter-linked problems of how much to invest (the optimal saving problem), where to invest (the investment allocation problem), and what techniques to employ (the choice of techniques problem) [Bhagawati 1991, p.41].

Referring to professor David's comment on the role of digital technology, it is well understood that in the short-term the effect on productivity growth may not only be significant but also in the long run structural adjustment, reorganization, and training in production centers are required [Samson 2001].

5. Technology Management

Technology adaptation requires huge capital investment. Any technology is innocent in itself. Only prudent management with consistent situational approach can help to build a nation in capitalizing on the technology and to seize opportunities. Electronic mail or Information Superhighway is now becoming popular mode of communication around the world for personal and business communications [Ferdous 1998,p.44].

Strategic role on the part of planners in technological development management is indispensable. Technology advancement is a crucial factor, which creates technology-driven international development paradigm. A nation which keeps pace with the latest technological developments has vastly improved its wealth and standard of living. Technological capacity building is an essential prerequisite for any developing country in order to survive in the competitive global economy. Technological innovation increases productivity, helps in gaining competitive advantage in the global marketplace and can help a developing nation reduce the resource gap. Technology management is the central issue for development [Sharif,2000,p.42].

A broader view of technology management, i.e. successful application of technology requires consideration of four primary technology components together. The Components are: (a) Physical facilities object-embodied form: this consists of equipment, machine and structure form, material transformation subsystems, and use of information processing subsystems; (b) Human abilities person-embodied form: this consists of creativity, experience and skill form, contact and support; (c) Recorded Information documents-embodied form: this consists of design, specification and theories from information, technology-specific information, human-specific information, and organization-specific information for connecting technology, human and organization; and (d) Organizational Framework institution-embodied form: this consists of groupings, linkages, organization, facilitation, evaluation, convention, autonomy, and modification of work[Kamal Uddin,2001,p.15].

The ICT management requires understanding technical mechanism of the network. The ICT network, on which the e-commerce rests, consists of infrastructure, e-commerce applications, technical standards and protocols, and public policy, where infrastructure consists of: (a) common business services, (b) messaging and information distribution, (c) multimedia content and network publishing, and (d) information superhighway. Information delivery / transport routes is a mix of many forms of high-speed network transport which consists of land-based telephone, air-based wireless, modem-based PCs, and satellite transmissions. Three major components that make up the information superhighway are (a) Global Information Distribution Networks (Backbone communications and Satellite Networks), (b) Local On-Ramps (Telecom-based infrastructure, Cable TV based infrastructure, Wireless infrastructure, and Commercial on-line infrastructure), and (c) Network Access Equipment (Consumer/Business premises equipment) [Kalakota and Whinston 2000, p.51]. All the above components, including installation of gateways (between various networks) and switching hardware and software (to move data over network) require a huge capital investment.

Derek Williams suggested a five-point plan with the goal of increasing commerce and economic growth with ICT. These are (a) a national ICT needs assessment, (b) community ICT infrastructure development, (c) community information access, (d) e-skills training, and (e) community-based content development.[Williams, 2001,p29].

Globalization requires a careful management of ICT. A developing country has the opportunity to capitalize on globalization and must seize the benefits that the process offers. A country in that case must manage challenges and risks of globalization. The ICT revolution can create opportunities for Asia to capture a large market for skill-intensive services. A developing country has to follow a growth model based on capital accumulation through innovation and institutional adaptation and should operate in a manner consistent with the opportunities and constraints of globalization. Support from telecommunications sector, a partnership between the public and private sectors, and transfer of technology from more industrialized economies are three other factors of ICT infrastructure, which are required to capitalize on globalization [ADB Review, July-September, 2001,p.19].

A framework for analyzing IT geared economic development will urgently require to consider critical success factors mainly: international IT-market, technological advancement, customer's business processes, needs, tastes, etc. Participation and intervention in IT international market, business process reengineering, and providing an appropriate framework should guide services to foreign customers. Also, there is a need to consider successive frameworks continuously as the international

economic IT conditions change over time. Such a dynamic strategic framework for managing IT international market should be developed in the hands of management experts. Therefore, we need more IT strategic management experts. The primary governing factors of ICT strategic management framework should be selling products, services, and skill in foreign markets. The focal point again is to earn foreign exchange. The main consideration will be developing software, services, skills and their export in foreign markets. Communication facility of international standard is a prerequisite to support the move towards international market operations. An understanding of products and services, need for the international market, development of such things and capacity to sell these should be the components of a strategic IT management approach.

The success of IT investment for bringing rapid growth in our country is dependent on a number of factors. These are: (a) the initial socio-economic and political conditions; (b) the role of Government in making appropriate economic policies, (c) the level of skill and knowledge in the society, (d) the existence of appropriate institutions [Chowdhury, 2000,p.2].

Bangladesh Bank can take a leading role in assessing and guiding investment through the member banks. It should take all initiatives to foster this sector, should provide equity as well as other types of financing and play the role of a catalyst. It should provide all sorts of real support to revolutionize and build up a base for development so that IT companies can be competitive and of international standard.

Although there are bad experiences of industrial financing, especially equity financing in Bangladesh, however, with the expectation of a better future we should ensure and continue financing ICT for the greater interest of the nation.

6. Investment Pattern

A crude form of idea about money involvement by the business community in Bangladesh in the traditional business can be derived from looking at the import data of relevant items for the past years. Over the years, traditional business of office hardware and equipment shows gradual rise to cope with the increased need and demand for sophisticated IT components and accessories.

Table-1
Import of Selected Commodities by Years

		(In Crore Taka)						
HSC	Commodities	92-93	93-94	94-95	95-96	96-97	97-98	98-99
8471	Auto data processing machine unit thereof	24	16	26	50	74	63	14
8472	Office machine & others	2	2	2	2	4	5	3
8473	Parts of typewriter calculating machine etc.	17	14	22	33	43	66	13

Monthly Statistical Bulletin, Bangladesh Bureau of Statistics, Bangladesh, July 2000, p.144.

HSC= Harmonized Commodity Description and Coding System.

Direct involvement of businessmen in terms of money involved for importing computers and accessories would give us a general idea about the rapid increase of investment in this sector. The rise over a span of five years is almost 20 times.

Table-2

Value of Letters of Credit Settlement (Computer, its Accessories & Spares) by Years

(In Crore Taka)					
1995-96	1996-97	1997-98	1998-99	1999-2000	2000-2001
	30	52	57	207	329 609*

*July 2000 to December 2000 actual is Taka 305 crores. From January 2001 to June 2001 the figure is estimated.

Sources: Chamber News, Metropolitan Chamber of Commerce and Industry, Dhaka, Issues (1995-2001).

There is an absence of clear statistical evidence of investment in IT (telecommunications and information processing) in our country. The collected data and presented above are only related to tangible parts of IT (Computer hardware &

peripherals) and may be that these data reflect only a partial picture of tangible hardware as well. Investment in IT includes intangible elements, e.g. (a) the appropriate programs of education, (b) retraining of workers, managers, (c) human capital forming activities, and (d) different kinds of software, imported and locally produced.

The increasing demand for computer, its accessories and spares in Bangladesh as evident from the trend of letter of credit settlement from 1994-95 to 2000-2001 will continue in the years to come. In 1995-96, the settlement amount was Taka 30 crore which became Taka 52 crore in next year (1996-97) and Taka 57 crore in 1997-98. But from 1997-98 to 1998-99 the rise has been a remarkable one. In the last four years, approximately 2,00,000 PCs have been bought for business, academic and home use from the business houses in Bangladesh [Kamal, *The Daily Star*, March 28, 2001.p.8].

7. National IT Investment Framework

Looking at the broad sphere of IT investment, one would be bogged with its dimension and various heads it should cover. The following analysis by us would give a reader an idea about the sectors and sub-sectors that IT investment discussion should cover.

Table-3
IT Investment Framework
 Investment Sub Sectors of Information Technology

Activities	Education, Training & Research	Telecommunications & Networks	Computer hardware (HW) & Peripherals	Computer Software (SW)	Software Development & Export	IT Services & Skill Export
Input	Skilled teachers, HW, SW, Facilities	Telephone lines, Microwave, HW, SW, Skill	HW, SW, Skill, Facilities	SW, Skill, Facilities	SW, Skill, Facilities	HW, SW, Skill, Facilities
Processing	Teaching, Learning	Linking, Connecting, Transmitting	Computing, Logic	Instructing, Organizing	Analysis, Design, Test, Implement	Informing, Receiving, Recording, Providing
Output	Students, Knowledge workers	Transmission services	Information, computing	Information, computing	SW develop., SW products, SW modify, Web page design, multimedia	Data entry, Data process, Medical transcript, Call centers,
Problem	Inadequate planning, of teachers, Shortage Facilities, Produced very few programmers and system analysts	Imported; below grade Few private companies; Inadequate transmit; Absence of quality data connection	Government controlled; machine; No allocation of fund	Imported, pirated, Local SW adaptation problem	Shortage of skilled system analysts and programmers	Services are not properly identified. planned & formulated; Foreign liaisons are needed
Organization involved	Universities, Colleges, Schools, Institutions, Training centers	BTTB, Private telephone & ISP companies	Importer, Traders, Servicing companies	Importer, Traders, Servicing companies	Local firms, individual, Joint venture companies, Organization themselves	Individual, computer firms
Entrepreneurs main objective (intention of computer companies)	Training, Young people wish to enter IT Business	Requesting for strong transmission line; Privatization of telephone lines	-	Resisting pirated SW use and export	Develop SW for local	Creation of IT enabled services and skill export; Young people are taking up IT jobs outside the country
Government's main support	Organizing education at slow pace	Formulating IT policy; New Bill for telecom	Tax exemption	Commitment towards rapid growth of IT industry	Intellectual Property Act; Allocate Tk. 100 Crore for equity fund; Thrust sector	IT products are exempted from duty & VAT

(Source: Authors' own compilation.)

The investment framework shown above highlights the investment needed in different sectors and sub-sectors to accomplish IT products and services. It views national IT investment as a matrix of activities and investment in various IT sub-sectors to produce IT products and services.

This framework considered basic features of general system theory (Column Activities: Input, Process, and Output). Various subsectors are considered as individual sub-systems, when combined together to form the whole of IT sector.

The investment in education, training and research are of very long term in nature and directly contributes to the IT capacity building of a nation. Huge investment on the part of Government in this regard is needed. The investment need cannot be met from revenue budget. Existing physical facilities in some other sectors may also need additional investment to complement the IT sector. The investments in telecommunications and networks are such long-term efforts, which have a long-term positive impact.

8. Advantages / Benefits of Investment in ICT

Investment in ICT would definitely have a positive impact on our socio-cultural and economic life. Research, education, and training in school, college, and universities will be improved and more productive knowledge workers will be created. Trade, commerce, and industry will be benefited through using automated information systems, automated manufacturing systems, automated communication systems and e-commerce facilities. Internet as a media of communication has by now become an essential feature of international business. The networks have now impact on the entire planet, especially due to their ability to encourage the establishment of new trading links, from which each country is able to profit.

Speed, accuracy, automation, and qualitative improvements like better clarity are the visible benefits of digital technology. The digital technology can handle arithmetic operations, logical operations, fuzzy logic and complex sequencing and scheduling algorithms. It provides human-computer interactivity, programmability, voice recognition, and data storage. The digital technology has already been applied in household appliances, and all communication media. Financial systems of the country will be able to provide more services. ICT will enable government to reform administration towards e-governance that will result in administrative productivity and more service to the people. E-governance can bring transparency to the workflow and process chain in government functionaries resulting in increase of productivity and also growth opportunities and providing benefits to the poor. In 2001-2002 National Budget speech, the government declared for initiating e-governance in administration for ensuring mobility and transparency. Government is discovering

that the Internet can improve efficiency, save money and put it in closer touch with citizens. The government may use this technology to improve access to and delivery of public services to citizens, business partners, suppliers, and to those working in the public sectors. ICT may be used in administrative functions, especially in the fields of tax administration, tariff system, trade statistics, census of manufacturing industries, voter identity card, and national statistics for exchanging information. ICT can provide for reliability of information, fast processing and transmitting of data, sharing of information and transparency.

Software production and export will increase. Investment in ICT will enable the computer firms to export ICT enabled services. Skilled manpower would get jobs abroad. With investment in ICT, the technologies will flow in and there is greater possibility of capital inflow in the form of direct foreign investment.

With the globalization through ICT, solution of problems will be peaceful and enforcement of laws should be smooth and faster.

Since, internet technology is value neutral, it can be utilized for any form of social system. Fundamental principles relating to social and economic justice, objectives, democracy, etc., are some of the main issues for which the technology should be used. However, as the internet is a media for trade, exchange of information and sources of knowledge, it has also become the instrument for mass learning sources [Syed 2000,p.7].

Information and communication technology has now created a new civilization. An ability to make right decision at the right time is the greatest achievement of technology today. The focus of it has now to be on the increase of literacy in the rural and urban areas of Bangladesh. In business, there will be no middleman or agent, especially for import and export business in coming years. There is a possibility of decreasing use of plain papers in teaching profession and also in office administration. Due to internet use, public participation will increase in the government decision making. Requirement of printing presses will also decrease. There is no doubt that private and government organizations are now benefiting from use of computers by reducing waste, increasing efficiency, and transparency in services.

9. Conclusions

Investment of substantial amounts in ICT is a priority for Bangladesh. To gain most out of modern developments and in order to keep pace with the global trend, there is no alternative to ICT investment. We must remove structural resistances embedded in our social, economic, political and cultural segment in order to achieve progress and success. Our expectation and performance may still be slow, but we must

continue our investment efforts optimistically in the coming years. We must be able to achieve our IT objectives in order to have productivity growth. We must invest in IT based productivity throughout the economy to materialize our objectives and safeguard our national interest. As IT revolution has a big impact on overall efficiency and productivity, especially on labor productivity, we should reorganize our position in this regard and follow an appropriate strategy. Our government should create and / or establish optical fiber cable network in all areas of the country for high-speed data transmission.

Bangladesh is now pursuing a development policy led by private sector. Liberal economic approach and export-oriented operations are gradually transforming our assembling and manufacturing sector towards rapid expansion. There is a probability of growth of the service sector through joint venture and foreign direct investment. In recent years, several reforms, deregulation and economic liberalization plans have been carried out as a part of long-term policies. This is in line with the aim of facing globalization challenges in the coming years for the economy. Investment in ICT is definitely going to bring rewards for Bangladesh as it did for many neighboring countries. It is high time that we understand the importance of heavy investments in ICT, without which we as a nation may remain as poor as we had been in the past.

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বিশ্বায়ন ও তথ্য প্রযুক্তি: নয়া অর্থনীতিতে বাংলাদেশ

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"The cost of transmitting a trillion bits of information from Boston to Los Angeles has fallen from \$1,50,000 in 1970 to 12 cents today." (World Bank)

"In 2001 more information can be sent over a single cable in a second than in 1997 was sent over the entire Internet in a month." (UNDP)

১. ভূমিকা

একুশ শতক নানাভাবে আমাদের সম্ভাবনার দুয়ার খুলে দিচ্ছে। তথ্য প্রযুক্তি ও জীবপ্রযুক্তির বিস্ময়কর উন্নয়নের মাধ্যমে এই শতক উৎপাদনশীলতা ও জীবনের মান-উন্নয়নেও অপ্রত্যাশিত সব সুযোগ সৃষ্টি করেছে। বহুদিন পরে মনে হয়েছে এই শতকেই হয়তোবা দারিদ্র্য নামের ভূতটিকে আমরা আমাদের ঘাড় থেকে নামাতে সক্ষম হবো। সম্ভাবনার পাশাপাশি নয়া শতাব্দীতে অনেক চ্যালেঞ্জেরও সম্মুখীন আমরা। বিশেষ করে প্রশ্ন উঠছে, নয়া অর্থনীতির নয়া সুযোগগুলো কি সকলের কাছে পৌঁছানো সম্ভব? তথ্য প্রযুক্তির সুফল বন্টনকে ঘিরে এই প্রশ্নটি আরো জোরালো হচ্ছে। "Who will be included, and who will be left out in the IT race? Who will be the winners and the losers? And what will happen to the people of the developing countries (80 percent of the world's population) as global patterns of production, power and wealth shift?"^{*} এসব চ্যালেঞ্জ সত্ত্বেও এ কথা আমাদের মানতেই হবে, আজকের যে তথ্য প্রযুক্তির বিপ্লব, তা পৃথিবীর চেহারা আমূল বদলে দিতে পারে। সত্যি বলতে কি, পরিবর্তনের হাওয়া এরই মধ্যে বইতে শুরু করেছে। এখন প্রশ্ন, পরিবর্তনের এই হাওয়ার সাথে আমরা তাল মেলাতে পারবো তো? ড. মুহম্মদ ইউনুসের ভাষায়, "Can Bangladesh take

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** বিআইডিএস-এ জুনিয়র কনসালট্যান্ট হিসাবে কর্মরত

advantage of the coming IT revolution? Of course we can. We can take full advantage of this IT revolution and pull ourselves out of poverty, illiteracy, poor health and poor education, if we prepare ourselves right now to ride the wave of this revolution.”¹⁴ এমন আশাবাদী দৃষ্টিভঙ্গির পেছনে কারণগুলোও সুস্পষ্ট। যদিও গোড়াতে তথ্য-প্রযুক্তি একটি উচ্চ-প্রযুক্তি নির্ভর শিল্প, এর বিস্তৃতিতে দরকার হবে নিম্ন-প্রযুক্তি নির্ভর কর্মকাণ্ডে জড়িত বিশাল জনগোষ্ঠীর সমর্থন। আর এখানেই বাংলাদেশ এগিয়ে রয়েছে অন্যদের চেয়ে। তাছাড়া, তথ্য-প্রযুক্তির মূল কর্মকাণ্ডে বাংলাদেশের অংশ নিতে না পারার কোন কারণ আছে বলে মনে হয় না। আসলে, তথ্য-প্রযুক্তি এমন একটি শিল্পক্ষেত্র যেখানে প্রকৃত সাফল্য নির্ভর করে উদ্ভাবনশীল চিন্তাভাবনার ওপর, বিশাল বিনিয়োগের ওপর নয়। এক্ষেত্রেও বাংলাদেশের রয়েছে দারুণ সুযোগ। তথ্য প্রযুক্তি বিষয়ে তরুণ প্রজন্মের দারুণ উৎসাহ এবং নয়া উদ্যোক্তাদের এই খাতে বিনিয়োগের আগ্রহ এই আশাবাদ তৈরিতে সাহায্য করে চলেছে।

কিন্তু এসব সুযোগ গ্রহণ করতে আর চ্যালেঞ্জগুলো মোকাবেলা করতে আমরা কি যথাযথ প্রস্তুতি গ্রহণ করছি? আমরা কি সঠিক পথে এগুচ্ছি? এর উত্তর বোধ করি খুব একটা ইতিবাচক নয়। ড. মুহম্মদ ইউনুসের ভাষায় আবার বলতে হয়, “Bangladesh is still sitting by the window, and perhaps, not even watching the big march to go by. What is stopping us from getting out and joining the march?”¹⁵ উত্তর যা-ই হোক, খুব সহজ বলে মনে হয় না। সে উত্তর খোঁজাও এ প্রবন্ধের উদ্দেশ্য নয়। তথ্য-প্রযুক্তির দৌড়ে বাংলাদেশ কতটা প্রস্তুত আর কিভাবেই বা প্রস্তুতি নিচ্ছে, সে সম্পর্কে একটু খোঁজ-খবর দেয়াই এ প্রবন্ধের উদ্দেশ্য। বাংলাদেশের প্রস্তুতি সম্পর্কে বলতে গেলে যে দুটি বিষয় সবচেয়ে প্রাসঙ্গিক মনে করছি, তা হচ্ছে শিক্ষা ও সুশাসন। এই দুটো বিষয়ের ওপর আলো ফেললেই নয়া অর্থনীতির নয়া সম্ভাবনাকে কী করে রূপায়ন করা যায় তার পথ হয়তো বা খুঁজে পাওয়া যাবে।

২. একশ শতকের শিক্ষা ও তথ্য-প্রযুক্তি

বক্স ১: ডিজিটাল ডিভাইড

- ডিজিটাল বিভেদ যতটা না তথ্য প্রযুক্তির ক্ষেত্রে প্রবেশ অধিকার, স্বত্ব বা সুযোগের বিষয়, তার চেয়ে বেশি শিক্ষা সংশ্লিষ্ট।
- একজন ইন্টারনেট পন্ডিত এসুথর ডাইসন যেমনটি বলেছেন, “কোন কমিউনিটি সেন্টারে কম্পিউটারের ব্যবস্থা করা হলে সেখানে গুণু শিক্ষিত ব্যক্তিরাই তা ব্যবহার করতে যাবে।”
- আর তাই প্রযুক্তির এই সুবিধা সেখানেই পৌঁছবে যেখানে ঘাসগুলো আগে থেকেই সবুজ, সতেজ। বিবর্ণ হলুদ ঘাসেরা এর সুযোগ থেকে হবে বঞ্চিত।
- বিশ্ব কর্ম সংস্থান রিপোর্ট ২০০১-এ আন্তর্জাতিক শ্রম সংস্থা (আইএলও) বলেছে, তথ্য ও যোগাযোগ প্রযুক্তি (আইসিটি) বিপ্লবের কারণে বিশ্বে ধনী ও দরিদ্র দেশগুলোর মধ্যে ডিজিটাল বিভক্তি বেড়েছে। যদিও আইসিটি বিপ্লব প্রকৃত সুযোগ এনে দিয়েছে। কিন্তু সেইসঙ্গে বিশ্বের একটি উল্লেখযোগ্য অংশ এর ফলে বঞ্চিত হওয়ার ঝুঁকির মধ্যে পড়েছে।**
- অথচ এটাও ঠিক যে, জনগণ যদি অন লাইনে তাদের কাজে লাগার মত কল্যাণধর্মী উপকারের সুবিধাটা বুঝে যায়, পাওয়ার নিশ্চয়তা পায় এবং সবশেষে সুবিধাটা পেতে থাকে সহজেই এবং এ রকম অবস্থা সৃষ্টিতে সরকার সহায়ক ভূমিকা পালন করে তাহলে জনগণ, অনেক জনগণ যারা কখনোই ভাবে নি ওয়েব প্রযুক্তি ব্যবহারের কথা, অবশ্যই তারা তা ব্যবহার করবে। *

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** World Employment Report, ২০০১

¹⁴ Shamika Sirimanne, *Information Technology Revolution: What about the Developing Countries*. Edited version of the paper on the website of Canadian International Development Agency (CIDA).

একুশ শতকের অর্থনীতির মূল সম্পদ জ্ঞান। জ্ঞানকর্মীরাই তৈরি করবেন এই নয়া সম্পদ। সেই দিক থেকে চিন্তা করলে বলা যায় বাংলাদেশের ভবিষ্যত এই মুহূর্তে নির্ধারিত হয়েছে আমাদের বিদ্যায়তনগুলোতে। অবশ্যি, সেখানে কী পড়ানো হয়েছে, আমাদের ভবিষ্যৎ নাগরিকদের মনের তালা ভেঙ্গে কারা অনুপ্রবেশ করছেন, চারদিকের সম্ভাবনার পরশ আদৌ তাদের গায়ে লাগছে কিনা সে খবর আমরা খুব সামান্যই রাখি। পরীক্ষায় নকলের প্লাবন কিংবা ফলাফল প্রকাশের সময় মহামন্দা দেখে খানিকটা হাল্হতাশ করেই আবার আমরা যে কে সেই হয়ে যাই। আমরা আবার ‘business as usual’ এর সনাতনী পথে ফিরে আসি। স্বার্থপরতা, সুবিধাবাদিতার ইঁদুর দৌড়ে আমরা আবার ব্যস্ত হয়ে পড়ি। শিক্ষাঙ্গণে নিরন্তর রক্তক্ষরণ, মূল্যবোধের অবক্ষয়, তারুণ্যের অপচয়, মধ্যযুগীয় তাভব, শুভশক্তির পরাজয়, অন্ধকারের জীবদের ঘন ঘন আনাগোনা দেখে দেখে আমরা এতোটাই অভ্যস্ত হয়ে পড়েছি যে আমাদের বিবেককে এখন আর তেমনভাবে নাড়া দেয়না। অভিজ্ঞদের ছেলেমেয়েরা দেশে বিদেশে ভালো স্কুলে পড়ছে বলেই হয়তো তাদের তেমন দুঃশ্চিন্তা নেই। কিন্তু শিক্ষাক্ষেত্রে যে বৈষম্য, সন্তাস, অবক্ষয় দেখা দিয়েছে এর নেতিবাচক প্রভাব আগামী দিনের বাংলাদেশের সকল সম্ভাবনাকে গিলে খেতে চাইবে। পুরো সমাজকে করবে দিশেহারা। জাতির ভবিষ্যতকে করবে বিপন্ন। অথচ গণপ্রজাতন্ত্রী বাংলাদেশের সংবিধানের ১৭(খ) ধারায় সুস্পষ্টভাবে বলা হয়েছে যে, রাষ্ট্র সমাজের প্রয়োজনের সাথে সংগতিপূর্ণ করার লক্ষ্যে পদক্ষেপ নেবে। যুগের সঙ্গে তাল মিলিয়ে বৃহত্তর জনগোষ্ঠীকে যথাযথ প্রশিক্ষণ ও সদিচ্ছা প্রণোদিত নাগরিক হিসেবে গড়ে তোলার জন্যে সুষম শিক্ষা ব্যবস্থা চালু করার প্রত্যয় সংবিধানে স্থান পেলেও বাস্তবে আমরা প্রত্যাশিত সেই শিক্ষা থেকে এখনও বহুদূরে। আজো বর্তমান শিক্ষা ব্যবস্থা ঔপনিবেশিক শিক্ষাব্যবস্থারই চলমান এক অংশ হিসেবেই রয়ে গেছে। অভিজ্ঞেরা নগদ দামে তাদের ছেলেমেয়েদের জন্যে ভালো শিক্ষা কিনতে পারছেন। কিন্তু অভাজনদের কপালে জুটেছে খুবই নিম্নমানের শিক্ষা। এই শিক্ষার মাধ্যমে জ্ঞানকর্মী হবার সুযোগ তাদের নেই বললেই চলে। মনে রাখতে হবে পাঁচ-পাঁচটি পঞ্চবার্ষিকী পরিকল্পনা শেষে আমরা এই হতাশা প্রকাশ করছি। শিক্ষাখাতে কম অর্থ বরাদ্দ হয়নি। কিন্তু সাধারণ মানুষের সন্তানেরা উপযুক্ত শিক্ষা থেকে বঞ্চিত থেকে গেছে। গ্রামীণ ক্ষমতা কাঠামোর উচ্চ স্তরের মানুষের তথাকথিত শিক্ষিত সন্তানেরাই গ্রামের স্কুল কলেজের শিক্ষকতার মতো মহান পেশাকে কজা করেছে এবং নিজেদের স্বার্থ হাসিল করে চলেছে। স্কুলের দালান কোঠা নির্মাণেও ধনিক শ্রেণীর সুবিধা কম হয়নি। ফলে শুধু শিক্ষার সুযোগ ব্যবহার করে বৈষম্যের মাত্রা বেড়েই চলেছে।

বৈষম্য ছাড়াও বর্তমান শিক্ষাব্যবস্থা আমাদের যুগপোযোগী মানবসম্পদ সৃষ্টি করতে পারছে না। আজকের দিনে জ্ঞানকর্মী সৃষ্টিই হওয়া উচিত শিক্ষার পয়লা লক্ষ্য। সেক্ষেত্রে শিক্ষায় তথ্যপ্রযুক্তির ভূমিকা হতে হবে খুবই গুরুত্বপূর্ণ। জাপান শিক্ষায় এতটা উন্নত হওয়া সত্ত্বেও সম্প্রতি নতুন শিক্ষা কমিশন বসিয়েছে। কী করে তথ্যপ্রযুক্তিকে শিক্ষার অঙ্গ করা যায় সেটিই হচ্ছে এই কমিশনের পয়লা নম্বরের লক্ষ্য। শিক্ষাকে সময়ের সঙ্গে তালমিলিয়ে বিকশিত করার এই জাপানী উদ্যোগ থেকে আমাদের অনেক কিছুই শেখার আছে। সিঙ্গাপুরের শিক্ষা ব্যবস্থাতেও তথ্যপ্রযুক্তির পর্যাপ্ত ব্যবহার লক্ষ্যণীয়।

এই প্রেক্ষাপট মনে রেখেই আমরা এই প্রবন্ধে শিক্ষা ও প্রযুক্তির ব্যবহারে গরিবদের হিস্যা এবং নয়া ধাঁচের শিক্ষা প্রসারে একুশ শতকের চ্যালেঞ্জ মোকবেলা করতে হলে সুনির্দিষ্টভাবে আমাদের করণীয় কি কি সেসবের ওপর আলোকপাত করতে চাই।

২.১. চাই গরিবহিতৈষী শিক্ষা ও প্রযুক্তি

বক্স ২: অসমতা, দারিদ্র্য ও তথ্য প্রযুক্তি

- বাংলাদেশে গত চার বছরে (১৯৯৬ থেকে ২০০১) সার্বিক দারিদ্র্য হার ৪৭ থেকে ৪৪ শতাংশে পৌঁছলেও এ হার কমান ক্ষেত্রে প্রবৃদ্ধির প্রভাব যতটা হওয়া উচিত ততটা না হওয়ার অন্যতম বাধা ক্রমবর্ধমান অসমতা (ডেউজ, ২০০০/০১, বক্স ৩.৪ দ্রষ্টব্য)।
- অসমতা না বাড়লে দারিদ্র্য কমান হার দ্রুত হত (৭-১০ শতাংশ হারে) (রনরফ)।
- কারণ দ্রুত প্রবৃদ্ধি মানে দ্রুত দারিদ্র্য বিমোচন।
- সরল হিসেবে দারিদ্র্য পরিস্থিতির ওপর প্রবৃদ্ধির নীট ফলাফল ধনাত্মক।
- কিন্তু প্রবৃদ্ধির ফল লাভে ব্যর্থ হয় অনেক পকেট এলাকা যেখানে দরিদ্র মানুষের ঘন বসতি (রনরফ)।
- অথচ শিল্পোন্নত দেশসমূহ ও উন্নয়নশীল দেশসমূহের মধ্যে তথ্যপ্রযুক্তি যে ডিজিটাল বিভক্তি তৈরি করেছে তাতে একদিকে থাকবে ইংরেজি ভাষী ইন্টারনেট প্রিয় অভিজ্ঞ শ্রেণী অন্যদিকে দরিদ্র অভাজন। শিক্ষা ব্যবস্থার রয়েছে সেখানে গুরুত্বপূর্ণ ভূমিকা। এই ব্যবধান বিস্তৃত হচ্ছে দ্রুত।
- আর এই ব্যবধানই বৈষম্যের, অসাম্যের সৃষ্টি করেছে এবং করতেই থাকবে (প্রয়োজনীয় নিরাপত্তা কর্মসূচী না নেওয়া পর্যন্ত) যার ফলে এই অসমতা আবার দারিদ্র্যের ওপর প্রবৃদ্ধির চমৎকার অংকগুলোর প্রভাবকে করবে সীমিত। তার মানে দারিদ্র্যের দুই চক্রে বাধা থাকবে অনেক দরিদ্র মানুষ।
- বিশ্বায়নের বেদীতে তথ্য ও যোগাযোগ প্রযুক্তির অর্থা মিলে যে নিউ ইকোনমি তাতে দরিদ্র মানুষেরা হুমকীর সম্মুখীন

ছোটবেলা থেকেই আমাদের শেখানো হয়েছে যে শিক্ষাই জাতির মেরুদণ্ড। শিক্ষার যে আদল আমরা দেখলাম তাতে বুঝতে অসুবিধা হয় না আমাদের জাতির মেরুদণ্ড কতটা সুদৃঢ়। আমাদের জীবনের চাহিদা অনেক বদলেছে। বাইরে থেকে নানা ধরনের পরিবর্তন আমাদের ঘাড়ে এসে পড়ছে। মেরুদণ্ড দুর্বল বলে আমরা প্রায়ই বাইরের চাপের সামনে সোজা হয়ে দাঁড়াতে পারি না। ন্যূনতম শিক্ষা আমাদের সংবিধানে মৌলিক অধিকার হিসেবে স্বীকৃত। কিন্তু বাস্তবে এই শিক্ষা এখন পণ্য। শহরের মুষ্টিমেয় ধনী মানুষই উঁচু দামের এই পণ্য কিনতে পারেন। গ্রামের স্বচ্ছমাও সন্তানদের দূরের বিদ্যালয়ে পাঠিয়েছেন ভালো শিক্ষা অর্জনের লক্ষ্যে। পাঠ্যক্রম ও শিক্ষাপদ্ধতি এখনো সনাতন। সর্বোচ্চ শিক্ষায় শিক্ষিত মানুষের পক্ষেও প্রযুক্তির ব্যবহার নিশ্চিত করা যাচ্ছে না। সমকালীন বিশ্বের সঙ্গে তাল মিলিয়ে চলতে হলে যে ধরনের প্রযুক্তি ব্যবহার সক্ষম শিক্ষার প্রয়োজন সেটা আমাদের শিক্ষা ব্যবস্থা নিশ্চিত করতে পারছে না। আর যারা পারছে তারা মুষ্টিমেয়। তাদের অপর মেরুদণ্ডে থাকছে গরিষ্ঠরা, তারা “পারছে না”-র দলে। সেই ঐধাব আর ঐধাব হড়ঃ অবস্থাও সৃষ্টি করেছে ডিজিটাল ডিভাইড। (বক্স ১,২)

বর্তমান সময়ে শিক্ষার ক্ষেত্রে একটি দৃষ্টিভঙ্গি কাজ করেছে ইংরেজী শিক্ষায় শিক্ষিত না হলে নাকি আমাদের উন্নতি সম্ভব নয়। এটি নিঃসন্দেহে একটি বিতর্কিত বিষয়। আমরা এতে ভিন্নমত পোষণ করি। আমরা বিশ্বাস করি, জ্ঞানের কোন ভাষা থাকতে পারে না, যে কোন ভাষায়ই তা আহরণ করা যেতে পারে। যুক্তি দেখানো যেতে পারে, আমাদের ভাষায় উচ্চশিক্ষা বা প্রযুক্তিগত শিক্ষার জন্য যথেষ্ট ভাল বই নেই। এই যুক্তির সত্যতা স্বীকার করেও বলা যেতে পারে এ জন্যে সমগ্র জাতিকে ইংরেজী শিক্ষায় শিক্ষিত হতে হবে এটিই একমাত্র বিকল্প নয়। যারা বিভিন্ন বিষয়ে দেশ এবং বিদেশের সর্বোচ্চ শিক্ষায় শিক্ষিত হবার সৌভাগ্য লাভ করেছেন তাঁরা যদি তাঁদের জ্ঞানকে স্বভাষায় সাধারণের জন্য উপহার দিতে পারতেন তাহলে অধিক সংখ্যক মানুষ নিজ ভাষাতেই তাঁদের প্রায় সম পরিমাণ শিক্ষিত হবার সুযোগ পেতেন। প্রয়োজনীয় বইগুলির সহজ ও সাবলীল অনুবাদ এ'ক্ষেত্রে উল্লেখযোগ্য ভূমিকা রাখতে পারত। হতাশা এবং পরিতাপের বিষয় সে ধরনের অনুবাদের চেয়ে সর্বদেশে সর্বকালীন স্বীকৃত বৈজ্ঞানিক নাম বা টার্মগুলিকে (scientific terminology) বাংলায় অনুবাদ করে (যেমন, কার্বন ডাই অক্সাইড - অঙ্গারদ্বিম্বজ) বাংলাভাষী পাঠককে বিভ্রান্ত ও বীতশ্রদ্ধ করা হয়েছে।

প্রসঙ্গক্রমে উল্লেখ করা যেতে পারে, জাপান, চীন, কোরিয়া প্রভৃতি দেশগুলির শতকরা ৯৯ জন লোকই ইংরেজী জানেন না। তাতে করে জ্ঞান, গরিমা বা অর্থনৈতিক দিক দিয়ে উন্নতি করতে তাদের কোন অসুবিধা হয়নি। বাস্তব এই যে মাতৃভাষায় দেশের বৃহত্তর জনগোষ্ঠীকে সাধারণ ও প্রযুক্তিগত শিক্ষায় শিক্ষিত করা যতগুণ সহজ, বিজাতীয় ভাষায় তা ততগুণ কঠিন। এই সহজ সত্যটি উপলব্ধি করতে পারলে বিকল্প শিক্ষাক্রম ও শিক্ষা ব্যবস্থা নিয়ে আমরা ভাবতে পারি। তার মানে এই নয় যে, আমরা ইংরেজী শেখার ওপর গুরুত্ব কমিয়ে দেব। আজকের দিনে ইংরেজী শেখার ওপর জোর দিয়েও মাতৃভাষায় শিক্ষা প্রসার করা সম্ভব। বিশেষ করে তথ্য প্রযুক্তির এই যুগে ইংরেজীর মতো সার্বজনীন ভাষার গুরুত্ব খাটো করে দেখার উপায় নেই। তা সত্ত্বেও মাতৃভাষাকে তথ্য প্রযুক্তির বাহন করার বিষয়টি এড়িয়ে চলা সম্ভব কি?

বক্স ৩ : ইন্টারনেট সাম্রাজ্যে প্রবেশের বাধা

বিশ্বজুড়ে অসংখ্য জরীপ থেকে এটা স্পষ্ট জানা যায় যে, ইন্টারনেট জগতে প্রবেশের অন্যতম বাধা হলো ভয়।

- প্রথম ভয় : এটা অত্যন্ত ব্যয়বহুল
- দ্বিতীয়ত: কম্পিউটার খুব জটিল কিছু
- এবং শেষত এটা কাজের কিছু নয় - অযথাই।

তবে আশার কথা হলো মনের গহন গভীরে গেঁথে থাকা এই ভয় ভাঙ্গছে দ্রুতই, একের পর এক, প্রতিনিয়ত।

সূত্র: দি ইকোনমিস্ট, জুন ২৪-৩০, ২০০০

শিক্ষা ও প্রযুক্তি একটি অপরটির সম্পাদক। শুধুমাত্র প্রযুক্তিগত শিক্ষা নয়, শিক্ষাদানেও প্রযুক্তির ব্যবহার সমকালীন সময়ে অপরিহার্য। আমাদের দেশেও তা ব্যবহারের চেষ্টা চলছে। কিন্তু সুচিন্তিত পরিকল্পনা এবং উপযুক্ত টুলসের (tools) অভাবে আমরা শিক্ষায় প্রযুক্তির ব্যবহার গণমুখী করতে পারছি না। বর্তমান বিশ্বে সর্বাধিক উচ্চারিত এবং প্রযুক্তিগত বিপ্লব যন্ত্র 'কম্পিউটার' শব্দটির সাথে আজ আমাদের দেশের সাধারণ জনগোষ্ঠীও ব্যাপকভাবে পরিচিত। সরকারি বা বিভিন্ন বেসরকারি প্রচেষ্টায় আজ তা অনেক স্কুল প্রোগ্রামেও অন্তর্ভুক্ত। কিন্তু দুর্ভাগ্যজনকভাবে আমাদের বেশির ভাগেরই ধারণা ভালোভাবে ইংরেজী না জানলে এই মেশিনটির সার্থক ব্যবহার সম্ভব নয়। এই অমূলক বিশ্বাসের একমাত্র কারণ সর্বোচ্চ শিক্ষায় শিক্ষিত হয়েও, ঘরে এবং কর্মক্ষেত্রে একাধিক কম্পিউটার ব্যবহার করলেও এই মেশিনটিতে আমরা আমাদের মাতৃভাষাটি লিখতে পারি না। দেশে কম্পিউটার প্রযুক্তি ব্যবহারের দুই দশক অতিক্রান্ত হয়ে আজ এই একবিংশ শতাব্দীতে এসে সবাই চাইলেই কম্পিউটারে সহজে বাংলা লিখতে পারেন এমন কোন টুল আমরা তৈরি করতে পারিনি। এমনকি পেশাদার বা অতীত সৌখিন কোন কোন কম্পিউটার ব্যবহারকারীর কষ্টসাধ্য সৃষ্টি কোন বাংলা ডকুমেন্ট যেকোন কম্পিউটারে পড়া যেতে পারে তার প্রাথমিক শর্ত হিসেবে একটি সর্বসম্মত এবং আন্তর্জাতিকভাবে স্বীকৃত কোন বাংলা ফন্টও এখনো আমরা নিশ্চিত করতে পারিনি।

এই অন্তরায় দূর করার প্রচেষ্টা রাষ্ট্রীয় পর্যায়েই করা উচিত ছিল। কিন্তু ঐতিহ্যবাহী আমলাতান্ত্রিক জটিলতায় আমাদের এই সদিচ্ছাটিও আটকে রয়েছে। ব্যক্তি পর্যায়ে দুই একজন দেশপ্রেমিক উৎসাহী মানুষ এই অন্তরায় দূতে এগিয়ে এসেছেন জেনে খুশি হয়েছি। একজন প্রবাসী বাঙালি ডাক্তার খুব খেটেখুটে কম্পিউটারে সহজে বাংলা ব্যবহারের উপযোগী কয়েকটি সফটওয়্যার তৈরি করেছেন। ৬ তাঁর উদ্ভাবিত এই সফটওয়্যার সরকারি পৃষ্ঠপোষকতা পেলে বিশেষ করে ই-গভর্নেন্স প্রসারে সরকারের সদিচ্ছা থাকলে প্রযুক্তিনির্ভর শিক্ষা এবং দেশবিদেশে বাংলায় তথ্য সংরক্ষণে বড় ধরনের অগ্রগতি হতে পারতো।

এ ধরনের আরো উদ্যোগ নিশ্চয় আমাদের সৃজনশীল তরুণেরা এখানে সেখানে নিয়েছেন। তথ্য প্রযুক্তি ক্ষেত্রে বাংলার ব্যবহার এবং মায়ের ভাষাকে টেকসই করার স্বার্থেই এ ধরনের সৃজনশীল কর্মকাণ্ডের দিকে আমাদের নৈতিক সমর্থন জোরদার করা উচিত। বাংলায় কম্পিউটার ব্যবহার প্রসারে আমাদের আরো বেশি সচেতন হওয়া উচিত। বিশেষ করে যারা তথ্য প্রযুক্তি নীতি প্রণয়ন ও রূপায়ণের সঙ্গে জড়িত তাদের এই বিষয়টি নিয়ে আরো মাথা ঘামানো উচিত বলে আমি মনে করি। অন্যদিকে ইন্টারনেট সাম্রাজ্যে প্রবেশে বেশ কিছু ভয় কাজ করে শিক্ষার্থীদের মাঝে। বড়দের মনে ভয়টি আরো বেশি। তবে আশার কথা, ধীরে ধীরে এই ভয় কাটতে শুরু করেছে।

২.২. শিক্ষায় তথ্য প্রযুক্তি

তাছাড়া শিক্ষাক্ষেত্রে তথ্য প্রযুক্তির ব্যবহার এবং প্রসারে আরো কিছু সুনির্দিষ্ট প্রস্তাব করতে চাইঃ

১. শিক্ষাক্ষেত্রে কম্পিউটার ব্যবহারের পাশাপাশি ইন্টারনেট ব্যবহারের খরচ বিপুলভাবে কমাতে হবে। প্রতি মিনিটে এর খরচ কোনো ক্রমেই পঁচিশ পয়সার বেশি হওয়া উচিত নয়।
২. গ্রাম ও শহরের প্রতিটি স্কুল যাতে খুব শিগগিরই কম্পিউটার আর ইন্টারনেট সংযোগ পায় সে লক্ষ্য সামনে রেখে নীতিনির্ধারকদের কাজ করে যেতে হবে। প্রধানমন্ত্রীর নেতৃত্বে আইটি সম্পর্কিত যে টাস্কফোর্স গঠিত হয়েছে তার অন্যতম কাজই হওয়া উচিত কী করে সকল শিক্ষাগণে ইন্টারনেট সংযোগ সম্প্রসারণ করা যায়।
৩. ঐচ্ছিক বিষয় হিসেবে নয়, বরং আবশ্যিক বিষয় হিসেবে তথ্য প্রযুক্তি বিষয়ে একটি কোর্স চালু করা চাই। পাশাপাশি বছর বছর সিলেবাস আপডেড করা এবং ইন্টারনেট থেকে শিক্ষা উপকরণ ডাউনলোড করার সুযোগ তৈরি করতে হবে।
৪. সারাদেশে ই-লার্নিং চালু করার মতো টেলিযোগাযোগ অবকাঠামো এবং শিক্ষা অবকাঠামো গড়ে তুলতে হবে। উন্মুক্ত বিশ্ববিদ্যালয়ের আদলে এই ই-লার্নিং শিক্ষা ব্যবস্থা গড়ে তোলা সম্ভব। গ্রামাঞ্চ ফোন রেলওয়ের ফাইবার অপটিক লাইন লিজ নিয়ে মোবাইল ফোনের ব্যবসা করছে। এই লাইনটি সহজেই ই-শিক্ষাতেও ব্যবহার করা যায়। আর এটা করতে পারলে ধনী-দরিদ্র নির্বিশেষে সবাইকে আধুনিক শিক্ষার আওতায় নিয়ে আসা সম্ভব হবে।
৫. স্কুল এবং কলেজগুলোতে কম্পিউটার ল্যাব দরকার। আমাদের শিক্ষা ব্যবস্থায় ব্যবহারিক কার্যক্রমের চেয়ে তাত্ত্বিক অংশ বেশি প্রাধান্য পায়। অথচ তথ্য প্রযুক্তিতে প্র্যাকটিক্যাল অংশ মূখ্য হিসেবে বিবেচ্য। প্রতিটি স্কুল এবং কলেজে উন্নত কম্পিউটার ল্যাব করা সরকারের পক্ষে সম্ভব নাও হতে পারে। বিকল্প হিসেবে প্রবাসীদেরকে এবং স্থানীয় বিত্তবানদেরকে নিজ নিজ এলাকার স্কুল, কলেজে কম্পিউটার ল্যাব করে দেয়ার জন্য সরকার উৎসাহিত করতে পারে। যে ব্যক্তি বা প্রতিষ্ঠান এই ল্যাব করে দিবে তার নাম অনুসারে ল্যাবের নামকরণ করা যেতে পারে। একটি দশ বা বিশ কম্পিউটার বিশিষ্ট ল্যাব করতে বড় জোর তিন থেকে ছয় লাখ টাকা প্রয়োজন। প্রবাসী বা স্থানীয় অনেক বিত্তবান লোককেই পাওয়া যাবে যারা এ ব্যাপারে এগিয়ে আসবে। স্থানীয় প্রশাসনের মাধ্যমে সরকার স্থানীয় এলাকার বিত্তবানদের সাথে যোগাযোগ করে তাদেরকে গণমাধ্যমে সাক্ষাৎকার বা পরিচয় পর্বের মাধ্যমে দেশের লোকদের মাঝে বিপুল উৎসাহের জন্ম দেয়া সম্ভব।

৪ দেখুন, আব্দুস শাকিল, "কম্পিউটারে বাংলা ব্যবহার: বাস্তবতা, অন্তরায় এবং সম্ভাব্য সমাধান, www.bornosoft.com.

৬. তথ্য প্রযুক্তি বিষয়ক যে সিলেবাস সরকার (জাতীয় পাঠ্যক্রম ও পাঠ্যপুস্তক বোর্ড) প্রণয়ন করছে, বিশেষ করে মাধ্যমিক ও উচ্চ মাধ্যমিক শিক্ষার্থীদের জন্য, তা আরও যুগোপযোগী করতে হবে। এই সিলেবাস প্রণয়নের এবং স্কুল ও কলেজের তথ্য প্রযুক্তি বিষয়ক শিক্ষা ব্যবস্থাকে নিয়ন্ত্রণ করার দায়িত্ব বুয়েট এবং শাহজালাল বিশ্ববিদ্যালয়ের কম্পিউটার সায়েন্স ডিপার্টমেন্টকে দেয়া যেতে পারে।

৭. প্রতিটি স্কুল এবং কলেজে তথ্য প্রযুক্তি বিষয়ক পৃথক বিভাগ করা দরকার। স্কুলগুলোতে পলিটেকনিক (সরকারি/বেসরকারি) থেকে পাশ করা ডিপ্লোমা ইন কম্পিউটার ইঞ্জিনিয়ারদের বিশেষ ট্রেনিং দিয়ে নিয়োগ দেয়া দরকার এবং কলেজগুলোতে বিভিন্ন বিশ্ববিদ্যালয় থেকে কম্পিউটার বিজ্ঞানে পাশ করা লোকদের নিয়োগ দেয়া দরকার। এদের বেতন এবং সুযোগ-সুবিধা অবশ্যই বেশি থাকতে হবে।

গণিত ও পদার্থ বিজ্ঞানের শিক্ষকদের (নট্র্যামস-এ) সামান্য ট্রেনিং দিয়ে কম্পিউটার শিক্ষার শিক্ষক হিসেবে নিযুক্ত করা বন্ধ করতে হবে। কমপক্ষে তিন বছরের ডিপ্লোমা কোর্স করা না থাকলে বা সমমানের প্রশিক্ষণ না থাকলে স্কুলগুলোতে কম্পিউটার বিজ্ঞানের শিক্ষক হতে পারবে না এ-ধরনের নীতি বাস্তবায়ন করতে হবে।

৮. স্কুল কলেজের শিক্ষা ব্যবস্থায় কারিগরি শিক্ষাকে অর্থাৎ তথ্য প্রযুক্তি বিষয়কে প্রাধান্য দিতে হবে। একটি শিশু যখন 'অ-আ-ক-খ' শিখে তখন থেকেই সে যেন কম্পিউটার কী, কেন দরকার, এ সম্পর্কে বুঝতে পারে।

৯. উচ্চ মাধ্যমিক পর্যন্ত পড়তে পারে এ ধরনের শিক্ষার্থীদের সংখ্যা খুব বেশি নয়। অনেক শিক্ষার্থীই এস.এস.সি পরীক্ষা দেয়ার পর পরই লেখা-পড়া বন্ধ করে দিতে বাধ্য হয়। এই বিপুল শিক্ষার্থীদেরকে সরকার পলিটেকনিক শিক্ষায় উৎসাহিত করতে পারেন। সেজন্য প্রাইমারী শিক্ষা শেষ করার পর পরই দু'টি বিকল্প থাকতে পারে। একটি হচ্ছে যারা সম্মান পড়বে, আরেকটি হচ্ছে যারা ডিপ্লোমা পড়বে। প্রাইমারী শিক্ষার পরপরই এই দুই ভাগের শিক্ষা পদ্ধতি প্রবর্তন করতে হবে। দুই দিকে দুই দল চলে যাবে। অর্থাৎ যারা ডিপ্লোমা পড়বে তাদের কারিগরি শিক্ষা ষষ্ঠ শ্রেণী থেকেই শুরু হবে, যাতে করে একটি ছেলে অষ্টম বা নবম শ্রেণীতে উঠেই নিজে কিছু রোজগার করতে পারে। সিংগাপুরে এ ধরনের শিক্ষা ব্যবস্থা চালু করে ভালো ফল পাওয়া গেছে।

১০. বিশ্ববিদ্যালয়গুলোতে কম্পিউটার, টেলি কমিউনিকেশন ইত্যাদি বিষয়গুলোর আসন সংখ্যা বাড়তেই হবে এমন নয়। বরং যারা আইটি বাদে অন্য বিষয়ে পড়ছে তাদের কোর্সগুলোতে আইটি এক বড় অংশ হিসেবে যুক্ত হতে পারে। যেমন যারা বাংলা, ইতিহাস বা বাণিজ্য পড়ছে তাদের এক বা দেড় বছরের একটি Multimedia Engineering কোর্স থাকতে পারে। যারা সিভিল বা কেমিক্যাল পড়ছে, তাদের বিষয়ে Database Programming-এর এক বছরের একটি কোর্স যোগ করা যায়। বিশ্ববিদ্যালয় লেভেলে সিঙ্গাপুরের ন্যাশনাল কম্পিউটার বোর্ড মেকানিক্যাল ও ইলেকট্রনিক্সের সমন্বয়ে মেকট্রনিক্স নামে নতুন এক বিষয় চালু করেছে।

গুণু প্রাতিষ্ঠানিক শিক্ষা নয়, অপ্রাতিষ্ঠানিক পর্যায়েও যাতে তথ্য প্রযুক্তির প্রসার, বিশেষ করে ব্যবসা-বাণিজ্যের ক্ষেত্রে তার প্রাধান্য বাড়ে সেজন্যে সহায়ক নীতি সমর্থন দিয়ে যেতে হবে।

এখন অসংখ্য প্রোগ্রামার ও সফটওয়্যারের প্রয়োজন হবে। এভাবে দেশীয় সফটওয়্যার ফার্মগুলোতে কাজের সুযোগ প্রসারিত হবে। এর প্রভাব গিয়ে শিক্ষার ওপর পড়বে। অনেক সাধারণ ঘরের ছেলেমেয়েরাও তখন ই-শিক্ষায় শিক্ষিত হবার উদ্যোগ নেবে।

এতোক্ষণ ধরে তথ্য প্রযুক্তি সহায়ক শিক্ষার কথা বললাম। কিন্তু শিক্ষা ব্যবস্থায় বৈষম্য বিরাজমান থাকলে গরিব হিতৈষী কার্যক্রমের প্রসারে এই শিক্ষা বরং অন্তরায় হিসেবেই কাজ করবে। সে কারণেই শিক্ষা ক্ষেত্রে বৈষম্য দূর করার লক্ষ্যে একই ধরনের প্রাথমিক ও মাধ্যমিক শিক্ষার সুযোগ সৃষ্টি করতে হবে। এই পর্যায়ে দেশ, সংস্কৃতি ও ঐতিহ্যের প্রতি বিশ্বস্ত থেকে প্রযুক্তি-সহায়ক আধুনিক সুশ্রম শিক্ষার কোনো বিকল্প নেই। রাষ্ট্র একা এ ধরনের শিক্ষা নিশ্চিত করতে পারবে বলে মনে হয় না। তবে নেতৃত্ব তার হাতেই থাকতে হবে। প্রাথমিক শিক্ষার মতো সামাজিক পণ্য মূলত: রাষ্ট্রকেই নিশ্চিত করতে হবে। এজন্য তথ্য প্রযুক্তি সহায়ক সকল ধরনের অবকাঠামো উন্নয়নে রাষ্ট্রকেই আরো বেশি তৎপর হতে হবে। ভারতের অন্ধ্র প্রদেশ বা মহারাষ্ট্রের সরকারী ভূমিকা লক্ষ করলেই এ বিষয়টি আরো স্পষ্ট হবে। পাশাপাশি ব্যক্তি ও অলাভজনক খাতকেও সহযোগিতার হাত বাড়িয়ে দিতে হবে। তাছাড়া শিক্ষাঙ্গণে যে অব্যবস্থাপনা ও অরাজকতা বিরাজ করছে তার মোকাবেলাও সমাজকেই করতে হবে। রাষ্ট্র একা তা করতে পারবে না।

“.... The education process can scarcely be reduced to a phenomenon subject to the surveillance of the forces of law and order. Only social pressure can stop undesirable and unethical practices with injurious consequences for the education system. Neither legislation nor oratory urgings on the part of the government would be of much help here.” (Ashok Mitra as quoted in Singh 1993, pp.1509-10).

৪. একুশ শতকের চ্যালেঞ্জ মোকাবেলায় শিক্ষা : চাই নয়া ভাবনা নয়া উদ্যোগ

একুশ শতকের চ্যালেঞ্জ মোকাবেলার জন্য শিক্ষাকে উন্নয়নের হাতিয়ার করতে চাইলে বেশ কিছু সুনির্দিষ্ট পদক্ষেপ নিতে হবে:

১. জনসংখ্যার বিশালত্ব ও ব্যাপক দারিদ্র্য পরিস্থিতির কথা মাথায় রেখে বাংলাদেশের প্রাথমিক শিক্ষা নিশ্চিতকরণে সর্বাধিক গুরুত্ব দিতে হবে।
২. প্রাথমিক শিক্ষার পরপরই মাধ্যমিক শিক্ষাকে বিবেচনা করা দরকার। এ ক্ষেত্রে শিক্ষাসূচির আমূল পরিবর্তন কাম্য, যা জ্ঞান, দক্ষতা ও মৌলিক উৎকর্ষকে উৎসারিত করবে। এই পর্যায়ে তথ্য প্রযুক্তি নির্ভর শিক্ষাকে সর্বোচ্চ গুরুত্ব দিতে হবে। কারণ, মাধ্যমিক শিক্ষায় শিক্ষিত তরুণ তরুণীই বেশি করে জ্ঞান কর্মী হিসেবে শ্রম বাজারে প্রবেশ করবে।
৩. বিশ্ববিদ্যালয়ের শিক্ষা কিছু অনাকাঙ্ক্ষিত সমস্যায় জর্জরিত। ছাত্র-রাজনীতি, সন্ত্রাস, শিক্ষকের রাজনীতিতে সম্পৃক্ততা ইত্যাদিই এ ধরনের সমস্যাগুলোর মধ্যে প্রধান। ফলে শিক্ষা তার স্বকীয়তা হারাচ্ছে। ছাত্রছাত্রীদের তথ্যপ্রযুক্তির সঙ্গে অধিকতর অন্তর্ভুক্তি, বিশ্বের উন্নত বিশ্ববিদ্যালয়সমূহ থেকে বিশেষজ্ঞ শিক্ষক এনে বিষয়ভিত্তিক লেকচার প্রদান, বিশ্ববিদ্যালয়ে অধ্যয়নরতদের পৃথিবীব্যাপী বিভিন্ন মাল্টিম্যাশনাল প্রতিষ্ঠানসমূহে কাজের সুবিধা ইত্যাদি বিভিন্ন সময়োপযোগী পদক্ষেপ গ্রহণের মাধ্যমে আমাদের উচ্চশিক্ষার সুনাম পুনঃপ্রতিষ্ঠার চেষ্টা করতে হবে। নতুন শতাব্দীর চ্যালেঞ্জ মোকাবিলার লক্ষ্যে একটি সৃজনশীল উচ্চশিক্ষিত কর্মীবাহিনী গড়ে তোলার জন্যে সিঙ্গাপুরের মতো Learning to think and thinking to learn' এই ধারার দিকে জোর দেয়া যেতে পারে। পাশাপাশি সামাজিক মূল্যবোধ ও নৈতিক উন্নয়নের ওপরও জোর দিতে হবে।

৪. জিডিপির ২/৩ শতাংশ শিক্ষা বরাদ্দ আমাদের কাঙ্ক্ষিত লক্ষ্য অর্জনের জন্যে যথেষ্ট নয়। এ হার ২০০৮ সাল নাগাদ কমপক্ষে ৪ শতাংশ করা উচিত। আর এই বরাদ্দের বড়ো অংশ ব্যয় করতে হবে তথ্য প্রযুক্তি নির্ভর শিক্ষা উপকরণ প্রসারে।

বক্স ৪: কেন ই-গভর্নেন্স?

সরকারি কাজে বা সরকারের সাথে যোগাযোগের ক্ষেত্রে ইন্টারনেট ব্যবহৃত হলে:

- এটা সময় বাঁচায়
- এটা তথ্য পাওয়ার সহজ উপায়
- সরকারের সাথে যোগাযোগে বা কাজ করতে নানা বিকল্প পছন্দ থাকে
- প্রভাবনার বা প্রভাবিত হবার সুযোগ কম থাকে।
- যোগাযোগকারীর বিস্তারিত তথ্যাদি অধিক নিরাপদ এবং গোপনীয় থাকে

সূত্র : *The Economist*, প্রাণ্ড, পৃ. ১৬

৫. পিতামাতার দারিদ্র্যের কারণে অনেক শিশুই স্কুলে যাওয়ার পরিবর্তে পরিবারের জন্য বাড়তি আয়ের উদ্দেশ্যে কাজে যেতে বাধ্য হচ্ছে। ঝরে পড়ার ক্ষেত্রেও এটি একটি উল্লেখযোগ্য কারণ। এসব দরিদ্র কর্মজীবী ছাত্রদের স্কুলের প্রতি আকৃষ্ট করা এবং তাদের স্কুলে ধরে রাখার জন্যে বিভিন্ন ধরনের আর্থিক সহযোগিতার ব্যবস্থা করা উচিত। স্থানীয় পর্যায়ে স্কুল পরিকল্পনার মাধ্যমে এসব সমস্যার কার্যকর সমাধান করা যেতে পারে এবং শিশুশ্রমের বিরুদ্ধে সামাজিক আন্দোলন গড়ে তোলা আবশ্যিক।
৬. বাংলাদেশে শিক্ষাক্ষেত্রে বিভিন্ন ধরনের সামাজিক, আঞ্চলিক এবং নারী-পুরুষ ভেদ বিরাজ করছে। এই বৈষম্যের সমস্যা সমাধানের জন্যে যেখান স্কুল নেই, সেখানে নতুন নতুন স্কুল স্থাপনের উদ্যোগ নিতে হবে।
৭. শিক্ষাঙ্গণে অস্থিরতা রোধে ও মানসম্মত শিক্ষা ব্যবস্থা গড়ে তোলার লক্ষ্যে লেজুডবৃত্তিক ছাত্র ও শিক্ষক রাজনীতি বন্ধ করা এবং এ জন্যে রাজনৈতিক দলসমূহের ঐক্যমত ও সদিচ্ছার বাস্তবায়ন একান্ত জরুরী।
৮. নারী-পুরুষের মধ্যে বৈষম্য দূরীকরণের জন্যে অধিক হারে মহিলা শিক্ষক নিয়োগের বর্তমান সরকারি পদক্ষেপকে আরো এগিয়ে নিয়ে যেতে হবে।
৯. তথ্যপ্রযুক্তির চলমান বিপ্লবের সঙ্গে আমাদের শিক্ষা ব্যবস্থাকে সংযুক্ত করার জন্যে আমাদের শিক্ষা ব্যবস্থায় আমূল সংস্কার প্রয়োজন। এদিক থেকে আমরা সিঙ্গাপুর থেকে অনেক শিক্ষা নিতে পারি। ভারতের শিক্ষা ব্যবস্থায় তথ্য প্রযুক্তি বিষয়ক নীতি সমর্থনের বিষয়টিও লক্ষ করা যেতে পারে।

শিক্ষা সুযোগের ন্যায়সঙ্গত বন্টন চাই। আধুনিক প্রযুক্তি নির্ভর শিক্ষা বিনির্মাণে শক্ত পাটাতন চাই। উৎপাদনমুখী দক্ষ মানুষ চাই। চাই সংস্কৃতিবান বাংলাদেশের মানুষ। এ আশা করা কি খুবই অন্যায হবে? সেই মানুষ তৈরি করতে চাই সামনের দিকে তাকিয়ে থাকা নেতৃত্ব। চাই বলিষ্ঠ রাজনৈতিক অঙ্গীকার। চাই শিক্ষাকে রাজনীতিমুক্ত রাখার জাতীয় ঐকমত্য। তবে এ ধরনের শিক্ষার প্রসারের পূর্বশর্ত হচ্ছে সুশাসন। আর এই সুশাসনকে কার্যকরী করতে হলে তথ্য প্রযুক্তির সহযোগিতা একান্ত কাম্য।

৩. সুশাসন ও তথ্য-প্রযুক্তি: ই-গভর্নেন্স

শিক্ষার পাশাপাশি তথ্য প্রযুক্তি নির্ভর শিল্পের দেশজ চাহিদা তৈরির ক্ষেত্রেও ই-গভর্নেন্সের কোনো বিকল্প নেই। দি ইকোনোমিস্ট-এর পূর্বাভাস: “Within the next five years it (e-government) will transform not only the way in which most public services are delivered, but also the fundamental relationship between government and citizen. After e-commerce and e-business, the next Internet revolution will be e-government.”⁵

ই-গভর্নেন্স আসলে কী? এটা কি শুধু সরকারী ওয়েবসাইট বা ই-মেইলের ব্যাপার? এর অর্থ কি শুধুই ইন্টারনেটের মাধ্যমে সেবা প্রদান? কিংবা এটা কি শুধু সরকারী তথ্য-প্রবাহে ডিজিটাল একসেস বা ইলেকট্রনিক আর্থিক আদান-প্রদানেরই ব্যাপার? না; এতটুকুর মধ্যেই সীমাবদ্ধ নয় ই-গভর্নেন্সের ভূমিকা। eis. “It will change how citizens relate to government as much as it changes how citizens relate to each other.”⁶

উন্নত বিশ্বে গত ৪০ বছরেরও বেশি সময় ধরে ব্যবহৃত হচ্ছে তথ্য-প্রযুক্তি। তাহলে ই-গভর্নেন্সে তাদের জন্য নতুন কী আছে? নতুন যা তা হচ্ছে, তথ্য-প্রযুক্তি থেকে তারা যাত্রা করেছে তথ্য ও যোগাযোগ প্রযুক্তি (Information and Communication Technology)-র দিকে এবং তথ্য-প্রযুক্তি থেকে তথ্য ব্যবস্থা (Information System)-এর দিকে। ফলাফল স্পষ্ট। রিচার্ড হীকস্-এর ভাষায়, “Overall, then, e-governance is the ICT-enabled route to achieving good governance. We might prefer to think of it as ‘I-governance’ – integrated governance – since it integrates both processing and the communication technologies; and since it integrates people, processes, information, and technology in the service of achieving governance objectives.”⁷

বক্স ৫: ই-গভর্নেন্সের সুফল

দক্ষতার প্রাপ্তি

- সীমিত ব্যয়ে সুশাসন
- বেশি আউটপুট সমৃদ্ধ সুশাসন
- দ্রুত গতি সম্পন্ন সুশাসন

কার্যকারিতার প্রাপ্তি

- অধিকতর কর্মপযোগী সুশাসন
- নতুন নতুন আউটপুটসহ দিতে সক্ষম উদ্ভাবনশীল সুশাসন

[Atiur Rahman & Taifur Rahman, *E-Governance in Bangladesh: Lessons for Bangladesh*, January 2002]

এ তো গেলো উন্নত বিশ্বের কথা। কিন্তু তৃতীয় বিশ্বের দেশগুলোর জন্য ই-গভর্নেন্স কী নিয়ে আসছে? সারা পৃথিবীর অনূনত দেশগুলো সম্পর্কে বলা হয় যে, এ সব দেশের সরকারসমূহ খরচ করে বেশি, কাজ করে কম এবং তারা রেসপন্সিভ বা জবাবদিহিমূলক নয়। সুশাসন সংস্কারের

⁵ The Economist, 24-30 June 2000

⁶ Blake Harris: quoted from “E-governance in Bangladesh,” by Dr. Ananya Raihan. The Economist, 24 June 2000.

⁷ Richard Heeks (2001), “Understanding e-Governance for Development”, Institute for Development Policy and Management, University of Manchester.

মাধ্যমে এ সীমাবদ্ধতাগুলোকে দূর করার চেষ্টা করা হয়। কিন্তু এ সব সংস্কার অনেক বছর ধরে চর্চা করার পরও এদের কার্যকারিতা প্রত্যাশার তুলনায় সীমাবদ্ধই থেকে গেছে। ই-গভর্নেন্স সুযোগ দিচ্ছে আরো এক ধাপ এগিয়ে যাবার। সুযোগ এসেছে সরকারি প্রক্রিয়াগুলোকে উন্নত করার, নাগরিকদের মধ্যে যোগাযোগ স্থাপনের, আর সুশীল সমাজের সাথে এবং তাদের মধ্যে পারস্পরিক সহযোগিতা গড়ে তোলার।

ই-গভর্নেন্স তথ্য ও যোগাযোগ প্রযুক্তির শক্তিকে ব্যবহার করে সুশাসনের ক্ষেত্রে অন্ততঃ তিনটি মৌলিক পরিবর্তনের সম্ভাবনা সৃষ্টি করেছে।

(এক) অটোমেশনের মাধ্যমে বর্তমানে প্রচলিত মানব-পরিচালিত প্রক্রিয়াগুলোকে রিপ্লেস করা।
উদাহরণ: বর্তমান করণীক কাজগুলোর অটোমেশন।

(দুই) তথ্যায়িতকরণের (Informatization) মাধ্যমে মানব-চালিত তথ্য-প্রক্রিয়াগুলোকে শক্তিশালীকরণ। উদাহরণ: সিদ্ধান্ত গ্রহণ, যোগাযোগ ও সিদ্ধান্ত বাস্তবায়নের প্রচলিত প্রক্রিয়াগুলোকে সমর্থন দেয়া।

(তিন) ট্রান্সফরমেশনের মাধ্যমে নতুন প্রযুক্তি চালিত তথ্য প্রক্রিয়া সৃষ্টি এবং মানব-চালিত নয়া তথ্য প্রক্রিয়াসমূহকে সমর্থন প্রদান। উদাহরণ: পাবলিক সার্ভিস ডেলিভারির নতুন কৌশল উদ্ভাবন।

ই-গভর্নেন্স প্রচলনের ক্ষেত্রে বাধাগুলোর কথাও আমাদের মনে রাখতে হবে। প্রথমত, যদি এ ব্যবস্থা ভেঙ্গে পড়ে তাহলে সবার সব তথ্য ফাঁস হয়ে যাবে। দ্বিতীয়ত, এ ব্যবস্থা খুবই নৈর্ব্যক্তিক (impersonal)। তৃতীয়ত, স্পর্শকাতর বিষয়গুলোর ক্ষেত্রে এটি খুব বেশি খোলামেলা (public)। চতুর্থত, এতে খরচ বেশি।

সুশাসনে তথ্য প্রযুক্তির ব্যবহার বা ই-গভর্নেন্সের ক্ষেত্রে অনেক দেশই লক্ষ্যণীয় সফলতা অর্জন করেছে। তথ্য ও যোগাযোগ প্রযুক্তিকে ব্যবহার করে দক্ষিণ আফ্রিকা তাদের কাউন্সিল ব্যবস্থাকে অনেক বেশি স্বচ্ছ করেছে, আর জবাবদিহিতা প্রতিষ্ঠা করতে সক্ষম হয়েছে। এ উদ্যোগে তারা এখন চেষ্টা করছে স্থানীয় সম্প্রদায় নেতৃত্বকে সম্পৃক্ত করতে। তাঞ্জানিয়ার সরকার তাদের ২৮,০০০ সরকারি চাকুরের জন্য একটি সমন্বিত স্বাস্থ্য নিবন্ধন ও পে-রোল ব্যবস্থা প্রবর্তন করেছে। এর ফলে ব্যবস্থাপনা উন্নত হয়েছে, ভুয়া কর্মীর সংখ্যা কমেছে, নিয়ন্ত্রণ ও যথাযথতা বৃদ্ধি পেয়েছে। সব মন্ত্রণালয়ের মধ্যে একটি সমন্বিত আর্থিক ব্যবস্থাপনা চালু করার ফলে আর্থিক ব্যবস্থাপনায় নিয়ন্ত্রন অনেক বৃদ্ধি পেয়েছে। সরকারি কাজে দুর্নীতি দূর করতে ফিলিপাইন ই-গভর্নেন্সের সফল প্রয়োগে সক্ষম হয়েছে।

বক্স -৬: ই-গভর্নেন্স খুব দ্রুত চালু করতে হবে

ই-সরকার ব্যবস্থা প্রবর্তনে যা করা দরকার : ৪ ধাপ

১. সরকারিভাবে একটি কেন্দ্রীয় ডাটাবেজ ও নিরাপদ ইন্টারনেট ব্যবস্থা প্রতিষ্ঠা
 - সকল মন্ত্রণালয়/বিভাগ/অধিদপ্তর এক সাথে কাজ করতে পারে
 - রাষ্ট্রীয় খাতের এজেন্সিসমূহ সহ স্থানীয় ও আঞ্চলিক সরকারগুলো সাথে একই সময়ে নানানমুখী যোগাযোগ রক্ষা করতে পারে সহজেই।
২. নাগরিকদের প্রয়োজনের সাথে সঙ্গতিপূর্ণ ভয়েব সেবা প্রদান
 - সহজ প্রবেশসাধ্য এবং নিরাপদ সরকার
 - নাগরিকদের পারস্পরিক যোগাযোগের ক্ষেত্রে একটি সার্বক্ষণিক উন্মুক্ত 'ওয়ান স্টপ পোর্টাল'/ উইন্ডো

৩. একটি রাষ্ট্রীয় ই-বাজার স্থাপন

- অধিদপ্তরগুলো যেখানে বিজ্ঞাপন দেবে তাদের প্রয়োজনীয়তার
- বিধিভুক্ত সরবরাহকারীরা উচ্চ মূল্যের সরকারি ক্রয়ের জন্য টেন্ডারে অংশগ্রহণ করবে
- সরকারি কর্মকর্তা/কর্মচারীগণ কেন্দ্রীয়ভাবে নির্ধারিত মূল্যে প্রয়োজনীয় দ্রব্যাদি ক্রয় করবে অত্যন্ত কম সময়ে এবং দক্ষতার সাথে কম দামী

৪. এবং ডিজিটাল গণতান্ত্রিক রাজনীতি

- সরকার, রাজনীতিবিদ সকলেই ওয়েব ব্যবহার করবে যাতে তারা ভোটারদের কাছে স্বচ্ছ ও দায়বদ্ধ থাকে।
- এভাবে নাগরিক-সরকার/রাজনীতিবিদ সংলাপের নতুন পদ্ধতিও তৈরি করা যাবে এবং পরে অনলাইনে ভোট প্রদান ব্যবস্থার প্রবর্তন করা যাবে

নোট : প্রধানমন্ত্রী বা রষ্ট্রেপতিকে 'জাভা' কোড বা ঙ++ ল্যাংগুয়েজ কিভাবে লিখতে হয় তা জানার দরকার নেই কিন্তু তাদের প্রতিদিনের জীবনের সাথে সম্পৃক্ত যে প্রযুক্তি কমপিউটার বা ইন্টারনেট থেকে আসছে সেগুলোর সাথে একটা সহজ পরিচয় তো থাকা চাই।

সূত্র : *The Economist*, শ্রাণ্ডজ, পৃ: ২৫

বাংলাদেশে অধ্যাপক জামিলুর রেজা চৌধুরীর নেতৃত্বে চালিত টাস্ক ফোর্স ই-গভার্নেন্স প্রয়োগের লক্ষ্যে পাঁচটি পদক্ষেপের কথা বলেছে।

পদক্ষেপ ১: সংযুক্তির পদ্ধতিতে সরকারি সুবিধাসমূহ প্রদানের জন্য দেশব্যাপি একটি ব্যবস্থা গড়ে তুলতে হবে।

পদক্ষেপ ২: সরকারি তথ্য ও সেবায় সমন্বিত ইলেকট্রনিক একসেস ব্যবস্থা গড়ে তুলতে হবে।

পদক্ষেপ ৩: জাতীয় আইন কার্যকরণ/জননিরাপত্তা নেটওয়ার্ক গড়ে তুলতে হবে। প্রাকৃতিক বা প্রযুক্তিগত কোনো বিপর্যয় ঘটলে সেসবের মোকাবেলার সময় আইন রক্ষাকারী এবং জননিরাপত্তা কর্মীরা যাতে সহজেই নিজেদের মধ্যে দক্ষতা ও নিরাপত্তা সহ কার্যকরী যোগাযোগ স্থাপন করতে পারি তার ব্যবস্থা গড়ে তুলতে হবে।

পদক্ষেপ ৪: সরকারের সকল পর্যায়ের সকল দপ্তরে ই-মেইল সংযোগ থাকা চাই। সরকারের এজেন্সির সংগে ব্যক্তি বা গ্রুপ বা অন্য এজেন্সি যাতে সহজেই ইলেকট্রনিক যোগাযোগ স্থাপন করতে পারে সে ব্যবস্থা করতে হবে। জটিল প্রকল্প ব্যবস্থাপনাকে সহজ করার জন্য তথ্য প্রযুক্তির ব্যবহার নিশ্চিত করতে হবে।

পদক্ষেপ ৫: সকলের কাছে সরকারী সেবা পৌঁছে দেবার নীতির আলোকে তথ্য সম্পদকে গহণযোগ্য মূল্যে নাগরিকদের কাছে পৌঁছে দেবার উদ্যোগ নিতে হবে। প্রয়োজন ইউনিয়ন পর্যায়ে Information Kiosk বা তথ্য বিপনন কেন্দ্র গড়ে তুলতে সরকারকে সহায়তার হাত বাড়িয়ে দিতে হবে।

৩.১. চাই তথ্য-প্রযুক্তি নির্ভর সুশাসন

- তথ্য ও যোগাযোগ প্রযুক্তির সব সুবিধা ডিরেগুলেট করতে হবে।
- সাব-মেরিন ফাইবার অপটিক অবকাঠামো ব্যক্তিগত হাতে ছেড়ে দিতে হবে। অথবা সরকারী-বেসরকারী যৌথ উদ্যোগে তা নির্মাণ করা যেতে পারে।

- জাতীয় ও স্থানীয় পর্যায়ে তথ্য-প্রযুক্তি ভিত্তি অবকাঠামো (IT backbone infrastructure) তৈরি করতে হবে।
- ইউনিয়ন পর্যায় পর্যন্ত তথ্য বিপন্ন কেন্দ্র গড়ে তুলতে হবে কম্পিউটার ও টেলিফোন ছাড়াই ইন্টারনেট সুবিধা প্রদানের জন্য।
- সাইবার ক্যাফেগুলোকে রাজস্ব সুবিধা দিতে হবে, যেমন: ভ্যাট মওকুফ, আয়কর, সহজ শর্তে ঋণ, আইটি পার্কগুলোকে সস্তায় ব্যবহারের সুযোগ ইত্যাদি।
- একটি নির্দিষ্ট লেভেলের উপর টেন্ডার জমাদান ইলেকট্রনিক উপায়ে বাধ্যতামূলক করার ব্যবস্থা করতে হবে।
- সব বিভাগের জন্য ফিড ব্যাক ইউনিটের ব্যবস্থা করতে হবে (সিঙ্গাপুরের দৃষ্টান্ত অনুসরণীয়)।
- বেতন প্রদানের জন্য সর্বত্র এটিএম কার্ডের ব্যবস্থা করতে হবে।
- আয়কর, মিউনিসিপ্যাল ট্যাক্স, ঋণের কিস্তি প্রদান ইত্যাদি ইলেকট্রনিক উপায়ে নিশ্চিত করতে হবে।
- ডিজিটাল স্বাক্ষর গ্রহণের ব্যবস্থা করতে হবে।
- ভিতরের ও বাইরের কাজের জন্য ইন্টার্যাক্টিভ ওয়েব সাইট ব্যবহারকারী সংগঠনগুলোর জন্য কর সুবিধা প্রদান করতে হবে।
- আলাপ-আলোচনা (conferencing), নীতি সিদ্ধান্ত গ্রহণ এবং প্রশাসনিক পদক্ষেপগুলোর জন্য তথ্য ও যোগাযোগ প্রযুক্তির ব্যবহার নিশ্চিত করতে হবে।
- সবগুলি বিশ্ববিদ্যালয়ের জন্য তথ্য-প্রযুক্তির সুবিধাদি প্রদান করতে হবে।
- সব কাগজ-পত্রকে যথাশিষ্ট সম্ভব 'ডিজিটাইজ' করতে হবে।
- ই-গভর্নেন্স সম্পর্কিত কাজকর্মের জন্য স্থানীয় আইটি ফার্মগুলোকে কাজে লাগাতে হবে।

৪. উপসংহারে: দরকার সুস্পষ্ট পদক্ষেপ, বড় বড় প্রতিশ্রুতি নয়

বিশ্বায়নের এই যুগে নয়া অর্থনীতির বিকাশে তথ্য প্রযুক্তির ভূমিকাই মূখ্য। এই অর্থনীতিকে সার্বজনীন সুফলধর্মী করতে হলে সুশিক্ষা ও সুশাসন নিশ্চিত করতে হবে। আর এই প্রক্রিয়ায় তথ্য প্রযুক্তিই সবচেয়ে বড়ো সহায়ক হতে পারে। তথ্য প্রযুক্তিকে গণমানুষের দোর গোড়ায় নেবার ক্ষেত্রে গণমাধ্যমগুলোর ভূমিকা খুবই তাৎপর্যপূর্ণ। বাংলাদেশে কম্পিউটারের প্রসারে সংবাদপত্র গুরুত্ব পূর্ণ ভূমিকা পালন করে চলেছে। এর পাশাপাশি টেলিভিশন চ্যানেলগুলোকে আরো আকর্ষণীয়ভাবে আই.টি বিষয়ক অনুষ্ঠান প্রচার করতে হবে। মানুষকে সহজবোধ্য ভাষায় আই.টি বান্ধব করে তুলতে হবে। আমাদের উচ্চ শিক্ষিত অনেক পেশাজীবীই (যেমন ডাক্তার) এখনও পর্যন্ত তথ্য প্রযুক্তিকে তেমন করে ব্যবহার করছেন না। চিকিৎসা ব্যবস্থায় ই-প্রযুক্তি ব্যবহারের যথেষ্ট সুযোগ রয়েছে। বিশেষ করে সারাদেশে ই-স্বাস্থ্য সুবিধে সম্প্রসারণ করতে পারলে দূরদুরান্ত থেকে গরিব মানুষকে বিশেষজ্ঞ চিকিৎসা নেবার জন্য কষ্টার্জিত বিপুল অর্থ ব্যয় করে ঢাকায় আসতে হবে না। একইভাবে ই-কমার্স প্রসারে বাংলাদেশ ব্যাংক এবং অন্যান্য ব্যাংকগুলোকে প্রয়োজনীয় নীতি সিদ্ধান্তগুলোদ্রুত নিতে হবে। এখনও পর্যন্ত খুব সহজেই ই-ব্যবসায় অর্থ

লেনদেন করার প্রাতিষ্ঠানিক সুযোগ সৃষ্টি করা সম্ভব হয়নি। দেশের আনাচে কানাচে গড়ে ওঠা অসংখ্য ই-প্রশিক্ষণ কেন্দ্রগুলোর মান নিয়ন্ত্রণে কমপিউটার কাউন্সিলকে আরো অগ্রণী ভূমিকা পালন করতে হবে। সম্ভব হলে এসব ট্রেনিং সেন্টারের সঙ্গে বিশ্ববিদ্যালয়গুলোর সম্পর্ক নিবিড় করা উচিত। বিশ্ববিদ্যালয়ের দেয়া কোর্সগুলো ঠিক মতো পড়ানো হচ্ছে কিনা তা দেখা উচিত। শাহজালাল বিশ্ববিদ্যালয় আই.টি শিক্ষা প্রসারে এবং পেশাদারী আই.টি কর্মী বানাতে যে ধরনের ভূমিকা পালন করেছে সে রকম শিক্ষা কার্যক্রম অন্যত্রও চালু করা যায় কিনা তাও সংশ্লিষ্টরা ভেবে দেখতে পারেন। সবশেষে, সরকার পরিচালনায় তথ্য প্রযুক্তির ব্যবহার সার্বিকভাবে বৃদ্ধি করা গেলে দেশের ভেতরে তথ্য প্রযুক্তিভিত্তিক শিক্ষা ও শিল্প উভয়ের প্রসার ঘটবে। তাই আজকের বাস্তবতা নয়, আগামী পাঁচ বছর পর বিশ্ব অর্থনীতি ও সমাজের চেহারা কী হবে তা ভেবে তথ্য প্রযুক্তি নীতি ও কার্যক্রম এখনই নির্ধারণ করতে হবে। আর এ প্রক্রিয়ায় সরকার ও সুশীল সমাজকে একযোগে কাজ করার জন্য প্রস্তুত থাকতে হবে।

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THE HUMAN TOLL OF GLOBALIZATION: Impacts on the Female Workers of RMG Sector in Bangladesh¹

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Abstract

The economic globalization process within the WTO structure has a human cost. In most cases, success or failure of an economic liberalization process is measured through different economic indicators affecting productivity, cost and profit, etc. Although, the social and environmental costs are now included in such analysis, the human cost is not always given adequate attention. This is also the case regarding the issues concerning WTO. To illustrate the human cost of the WTO initiated globalization process, the present paper takes the case of the process of MFA phasing out (under ATC) and builds a perspective of its costs and benefits based on the already manifested and potential impacts of the liberalization process on the lives of the female workers of the RMG sector in Bangladesh.

1. Background and Objectives:

The present paper is based on a study³ conducted by the researchers on the impacts of MFA phasing out on the livelihood security of the female RMG workers in Bangladesh. The paper also used some other relevant studies to put the findings of that study in a broader global context.

The major objective of this paper is not to provide an exact estimation of the human costs of MFA phasing out, rather to identify areas of impacts that need to be taken into consideration in estimating any such cost.

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³ INCIDIN Bangladesh for Action Aid Bangladesh, A Study on the Probable Impacts of Phasing-Out of MFA upon the Livelihood Security of the Female workers of RMG Sector in Bangladesh, September, 2001, Dhaka.

The importance of garment industry in national economy of Bangladesh has grown significantly over the last two decades. In 1998-99, the Ready Made Garments (RMG) exports accounted for 75.67 percent of the total exports of the country. There are about 3000 RMG manufacturing units employing about 1.5 million people. After two decades of phenomenal growth, the sector is destined to make a transition under phasing out of Multi Fiber Agreement (MFA) in 2004 through implementation of the Agreement on Textiles and Clothing (ATC).

The Multi-Fiber Arrangements refer to an international agreement entered in to by the governments of over forty countries to provide for special rules governing trade in textiles and garments made of cotton, wool and manmade fiber. This arrangement states a series of bilaterally negotiated quota restrictions on trade in textiles and clothing between individual developed country importers and developing country exporters. Under the quota, the exporter is allowed to supply a certain volume of textile and clothing products up to a specified ceiling, and it is up to the exporter to allocate the quota allowance among its domestic producers. Since 1974, world trade in textiles and apparel has been administered under the restraining rules of the MFA. The developed country signatories to this agreement were Australia, Canada, The European Union (EU), Finland, Norway, Switzerland and the United States. The MFA would be phased out through the implementation of the Agreement on Textiles and Clothing (ATC) in 2004 and will be governed by the general rules of the WTO.

The ATC is an attempt to put an end to the constant extensions of the MFA by agreeing a phase out plan, after which the textiles and clothing sectors will no longer be subject to quotas. Phasing out of the MFA protection system over a 10-year transition period was planned to be as follows:

- At the beginning of phase-I, on January 1st 1995, WTO members were to integrate into the World Trade Agreement (WTA) products accounting for no less than 16% of the volume of their 1990 imports of textiles and clothing. These products were to include yarns, fabrics, textile products and clothes (although proportions were not specified).
- At the beginning of phase-II, on January 1st 1998, WTO members were to integrate into the WTA at least 17% of the volume of their 1990 imports in the 4 categories mentioned above.
- In the third phase starting from January 1st 2002, WTO members were to integrate into the WTA at least 18% of the volume of their 1990 imports in the 4 categories mentioned above.
- The remaining 49% of 1990 imports will be integrated at the end of the transition period of 01 January 2005. On January 1st 2005 the MFA will be fully phased out and the textiles and clothing sector is to be fully integrated into the WTO whereupon the ATC ceases to apply.

At present quota is imposed on Bangladesh RMG exports⁴ by only the United States and Canada. A large proportion of the raw materials for RMG are imported from countries such as India, China and Thailand under back-to-back letter of credit facility. With the elimination of quota, Bangladesh is expected to lose the market share to the more efficient competitors like China, India, Republic of Korea, Thailand, Indonesia, Mexico, Turkey, Vietnam and the East European countries. On the other hand, the captive market in the EU countries with the help of the schemes like General Systems of Preference (GSP) would be at stake because of EU's compliance with the Rules Of Origin (ROO)⁵ requirements. Since Bangladesh's indigenous capacity in spinning is negligible (about 5% of total requirement), it is not possible to comply with the three stage criterion of ROO. With the quotas phasing out, and preferential treatment for exports coming under threat, the export-led RMG sector currently stands at an important crossroad⁶.

With the rapid expansion of RMG in the urban areas in the 1980s there has been a boost in independent migration by young women in Bangladesh. This gives us some perspective to the social mobility with the entry of women in the formal labor market and transition from the private to male dominated public sphere. However, not only the "pull" but also the "push" factors played determining role for this independent migration. Recent estimates suggest that between 85% and 90% of the garments industry is comprised of women. More than 90% of the garments factory workers are migrants from rural areas and the bulk of them (three quarters) migrated from landless families (Afsar, 2000).

A number of studies suggest that garments workers act as an important source of income for marginal families and households that are functionally landless, under-educated and without alternative means of generating wealth. The average family size of the woman workers was found to be between 4.1 and 5. Another study estimated that around 30% of women are the primary earners of their families while the others are secondary earners.

Although MFA phasing out process is yet to reach the stage of complete implementation of ATC, RMG export of Bangladesh is facing trouble due to lack of market access and discriminatory treatment in the US market. The situation has further

⁴ Bangladesh has exported RMG products to as many as 85 countries. The main destinations however, have been the U.S.A, Canada and EU countries. The average annual compound growth rate of exports from Bangladesh to the EU countries was 37.9 percent, while the same were 18.4 percent to the U.S.A and 30.4 percent to Canada.

⁵ Under the rules of origin's requirements, a two-stage transformation is required for woven RMG and, for knit RMG a three-stage transformation (cotton to yarn, yarn to fabric, fabric to RMG) is required.

⁶ Bhattacharya, Debapriya and Rahman, Mustafiz. 2000

aggravated after September 11th. A survey conducted by BGMEA, immediately after the terrorist attack of September 11th revealing the closure of 673⁷ production units didn't lead to any government measure as the major concern of the then caretaker government at that time was to hold a "free and fair election". However, the election promise of the newly elected party to set up a separate ministry for garments sector, coupled with a dearth of orders in the after-attack global political landscape motivated BGMEA to seek immediate government assistance to rally all out efforts to protect the RMG sector. The newly elected government, on the other hand, handicapped with the record low foreign exchange reserve, had to carry out a massive diplomatic push to get duty and quota-free access of RMG to the US market although in vain. Being the main export earning sector (76% of total export earnings in 1999-2000) for Bangladesh, the recent crisis of the RMG sector has also drawn the attention of the international agencies like EU, ADB and others. However, the concerns regarding the sector seldom include the concerns of its workforce.

The paper, in contrast, places the entire discussion on human ground; from the perspective of labor and livelihood security of those who supply labor. The paper defines the concept of livelihood security with both economic and non-economic components. It needs to be mentioned that the concept has evolved through the study process⁸ through interaction with the female RMG workers. The components of livelihood security includes:

- Economic security (wage, employment status, net income, consumption, savings);
- Control over resources;
- Skill development;
- Life options and planning (access and capacity);
- Empowerment in terms of decision-making ;
- Participation (access, ability and opportunity);
- Cultural transformation and acceptance;
- Access to institutions (both formal and informal);
- Access to infrastructure;
- Access to information ;
- Mobility;
- Contribution to family and community;

⁷ Another survey of BGMEA indicates that a total of 1200. RMG factories have been shutdown "Between" January 2001 to December 2001.

⁸ INCIDIN Bangladesh for Action Aid Bangladesh, *A Study on the Probable Impacts of Phasing-Out of MFA upon the Livelihood Security of the Female workers of RMG Sector in Bangladesh*, September 2001, Dhaka

- Position in family and community (self and community perception);
- Self identity and esteem;
- Physical, social, psychological and job safety.

This paper, therefore, does not treat the issue of livelihood security as a static phenomenon; rather it has considered the issue of livelihood security as both a process and outcome. More specifically, when it comes to the question of livelihood security, the paper identifies the changes that have come over to the life status of the female workforce as a result of their involvement in the RMG sector as well as the nature of those changes, the quality and consequences of those changes and sustainability and direction of those changes.

In an attempt to assess the overall change in the livelihood status across the female workers⁹ in relation to MFA phasing out, we may summarize that among other factor the degree of vulnerability varies with the income level and the number of earning members in the family.⁴

2. Components of costs on livelihood: Post MFA concerns

For this section, the human cost of globalization has been defined as the burden of liberalization imposed on the female workers of the RMG sector in Bangladesh. Given the assumption that around 80 percent of the RMG manufacturing units of the country will be wiped out with the implementation of ATC, we will identify the implications of unemployment in terms of livelihood security of these workers. These findings are estimated on the basis of the study mentioned earlier¹⁰.

2.1 A Farewell to Economic Empowerment

The average income for almost three-quarters (73.8%) of the helpers ranges between Tk.1000- 1500 and that for 89.6% operators ranges between Tk. 1500 and Tk.3000. In EPZ the nominal wage is comparatively higher; ranging from 1500-2000/ for helpers and up to 3500/ for operators. The regularity of earning, along with the visibility of their contribution to the family, no matter how small, has worked as the major stimuli to work. But solely the level of income should not measure this economic and social

⁹ For the previous study, the research team conducted 12 Focus Group Discussion (FGD) comprising 123 female workers, along with the in-depth follow-up of 15 female workers and their families to cross-check the information provided in FGDs. The study also included 123 structured interviews of female garments workers (Low Paid-67, High Paid-56).

¹⁰ *INCIDIN Bangladesh for Action Aid Bangladesh, A Study on the Probable Impacts of Phasing-Out of MFA upon the Livelihood Security of the Female workers of RMG Sector in Bangladesh. September 2001, Dhaka*

empowerment. Paid employment may be a necessary condition for challenging intra-household hierarchies, but it is not sufficient¹¹. In most of the cases the wages were pooled under household budget for the married workers or the workers residing with their families. The notion, on the part of the sample workers, was not to exercise the full or partial control in the economic decision making either. Moreover, the role of the rural women (who through migration joined the sector as workers) has tended to be underplayed both in the social recognition accorded to the RMG sector as well as in the distribution of *rewards* from the explosive growth of this sector (Sobhan, Rehman, 2000).

Even with all these limitations, two significant points need to be highlighted:

- The low-paid workers, who are with their family in Dhaka, pay all their money to their parents. In the case of those without family after paying the house rent and other expenses they virtually do not have any surplus money to contribute to their family residing in village. However, 46.6% of sample workers claim to contribute a significant part of their income to the families.
- Only 28.3% of the sample workers reported to have minimal savings and thus have not been able to invest in asset generations. 26.67% of the low-paid workers have been able to generate assets after joining this sector. Major form of asset is ornament apart from that include other investing in agricultural land or release from mortgage the previous one came as the most feasible option as far as productive asset generation is concerned. Almost all the *high paid workers* (85.7%) have been able to increase their asset. Almost all of them have bought some ornaments and some of them have bought land.

As such, although, the quality and extent of empowerment can be questioned, one cannot but recognize the economic power originating from the employment of the female workers in the RMG sector. If as projected in a study, ⁰35-⁰40 million of workers of the RMG sector becomes unemployed as a result of MFA phasing out, at least 1.6 million members of poverty stricken households face further economic hardship.

2.2. Loss of Acquired Identity

The female garments workers constitute a new urban workforce. Their very emergence led to moral and cultural transformation at family and societal spheres; working in the public domain, dominated by male colleagues has in general being accepted by their families. As the previous study revealed:¹²

¹¹ Kabeer, N. (p.50)

¹² INCIDIN Bangladesh –Action Aid Bangladesh, 2001

- Family members of almost 85% of the female workers have positive attitude towards work in the garments factories. The redefined role of the then economic liabilities was welcomed even at the cost of the social humiliation.
- In some cases the female employment changed gender relation and roles within family and marriage. One married respondent in Tejturi Bazar said, 'My husband cooks the food for me when I am busy at work'.
- Almost 90% of the respondents previously were unemployed or worked as family laborers where their labor was neither recognized nor measured in terms of cash. Only 10% of the respondents said that they were in other profession before, in farming activities and in housemaid's job. All of the respondents said that the small cash earnings worked as major stimuli to work even with all the unavoidable occupational hazards.
- Almost all of the respondents recognize the fact that there occurred a distinctive cultural transformation in their lives after coming to the Dhaka city. The respondents consider that their new productive role in the society have helped them to become more smart, intelligent, self-aware, free, concerned about the society, etc. '*Had we met in our villages, we never would have sat for discussion with some unknown men*', said one respondent in the FGD that took place in RMG worker's hostel in Pallabi. Many of the high paid workers who are in Dhaka for at least 3 years have visited the zoo and children's park.
- Most of the workers expressed caution about early marriage and early conceiving. They also ascribed importance of education and expressed their strong desire to provide support for their children or younger siblings.

The study¹³ further indicates that the female workforce of the RMG sectors is not primarily motivated to improve the quality of life; the employment in RMG sector is primarily viewed as a survival strategy. Given the nature of psychic cost associated with the entrance in the formal labor market, it is extremely difficult to assess whether the female workers have anyway improved their living standard. The salary structure and the dominance of family hierarchy in the economic decision making process also impeded the attainment of the basic requirements of the urban life.

Moreover, there is no easy means of measuring quality of the urban living. As for example, the female workers have displayed poor knowledge regarding legal rights while there exist several reports on violation of human rights of the garments workers.

¹³ INCIDIN Bangladesh –Action Aid Bangladesh, 2001

However, the female workers themselves have expressed satisfaction regarding different areas on which studies reveal dissatisfactions;

- Almost all the respondents claimed to be happy about their present housing.
- 95% of the respondents said that they have heard that the hooligans often harass RMG workers but they have not yet faced such things.
- Despite the time constraints resulting from the long working hours, some 30% of the respondents think that their mobility increased after joining the RMG sector. Interestingly, most of them were unmarried workers living away from their family. 'Our parents did not allow us to go here and there while we were in the villages', said some of the respondents in the FGD at RMG women workers, hostel in Pallabi.

The paper contends that it is not a major question whether the female workers of the RMG sector have gained a higher standard of life; the concern is whether the transformation of these women into industrial workforce will sustain over time. This is important when the economic necessity that initiated this transformation is taken into consideration.

2.3. Burden on the workers

Like any other reforms, MFA phasing out will create some losers (some even in the long run) and could exacerbate poverty, even if temporarily. If, trade reform leads to more or less complete changes in activities, there is a possibility that risk increases, as the new activity is riskier than the old one. Similarly, if a reform makes it more difficult for the poor to continue their traditional risk-coping strategies, it may increase their vulnerability to poverty even if it increases mean incomes.

In terms of livelihood security the prospect of alternative income sources needs to be looked into to have the answer regarding how big a burden the poor workers of the RMG sector need to shoulder. Given the nature of sector-specific skill requirement in RMG sector and the limited access to institutions and information, the possibility of alternate employment is restricted. Moreover the majority of the workers themselves are not aware of the options and are not taking any precaution as they lack awareness regarding the imminent risks associated with MFA phasing out.

In the previous study¹⁴, majority (64.2%) of the low paid female workers, do not have any idea what so ever about MFA phasing out. Those who have at least heard of it (49.6%), 75% came to know from the co-workers. The high-paid sample workers are more aware of it (66.1%), for whom neighbors (27%) and media(8.1%) came out

¹⁴ INCIDIN Bangladesh –Action Aid Bangladesh, 2001

as an additional source of information. Regarding the reason behind this phasing out, 86.5% of the high-paid workers failed to specify and 12.5% of the low-paid ones were misinformed.

The same study finds that there are not much options at hand of the workers as well. Tailoring, the most pronounced best alternative (25.0% of high-paid respondents) remains questionable given the division of labour existing in the RMG production sector. Deficient skill level, along with the hugely competitive urban strata, at best enables them to go for low-paid contractual jobs in the neighboring tailoring shops. Their vulnerability may be further increased with the projected high inflation as the aftermath of MFA phase-out.

12.5% of the high-paid respondents cited the options for poultry, fishery, dairy farms and other forms of agriculture as well. Their *good wishes* are constrained by the capital shortage and size of the rural economy, which compelled them for migration at the first place. Even being the breadwinner of the family, the ownership of the assets generated out of the respondents' earnings, shows a marked male dominance and the income generated from those assets may not provide the expected support to the respondents.

The female workers have univocally explained that they lack the required level of education and the time for skill-development in any other sector that may demand technical or educational base. The long work hours restrict the possibility of training at this stage and even after the job loss, it would be less likely for them to explore the very idea, unless they are provided with adequate government allowance for the training period. Another possible option and probably the easiest one was to look for the job of a house maid. However, only four of the low-paid ones consider this as a possibility. The huge trade-off with their apparently *independent* life-style possibly couldn't outweigh the allurements of the *secured* life as a house maid.

Loss of job in garments factory has also an implication regarding the geographic location of the redundant workforce. As the majority of the workers arrived as economic migrants to the city centers, loss of paid employment will take away the economic basis of urban address. This becomes clear when the option of shelter and support after unemployment is taken into consideration. From the findings of the earlier study¹⁵, it is seen that the perceived trend of re-ruralization is stronger for low-paid unmarried workers (62.7), as most of the married workers' husband is working in different sectors or have the higher probability of being employed immediately after the retrenchment. The re-ruralization will definitely aggravate the existing disguised unemployment in the rural sector. As most of the workers came

¹⁵ INCIDIN Bangladesh –Action Aid Bangladesh, 2001.

from hard-core poverty group, their return along with the loss of their income will hasten the process of economic recovery on the part of the family as a whole, even if the contribution is insignificant and the push factor can be stronger this time. Apart from that the displacement also has a high opportunity and psychic cost.

3. Toward a check-list for the policy makers

The connection between trade policy and poverty is manifestly a very complex topic with scope for only few generalizations. If trade liberalization and poverty were both easily measured, and if there were many historical instances in which liberalization could be identified as the main economic shock, it would be simple to derive simple empirical regularities linking the two. Unfortunately, none of these conditions is met, and so we are restricted to examining fragmentary evidence on small parts of the argument. The analysis above, however, does suggest some important questions that should be posed about any prospective trade reform.

Some of the major questions¹⁶ are posed below with brief discussion in relation to the MFA phasing out and its prospective impacts on the livelihood security of the female workforce of the sector. The underscored issues also indicate the areas which should be taken into consideration to formulate any cost function of MFA phasing out apart from purely economic considerations of efficiency.

3.1 Is MFA phasing out likely to destroy effective markets or create them Will it allow poor consumers to obtain new goods?

One of the most direct effect of trade reform on poverty is via the prices of goods/ services in which poor households have large net positions. MFA phasing out is going to generate a shock that completely undermines an important market; the market of urban female formal labour in RMG. Therefore, it is likely to have major poverty implications. Similarly, as there appears to be little scope of bringing new opportunities, goods or services to the poor, unemployed/would be unemployed workers that can greatly enhance welfare, the negative impact is likely to prolong.

3.2 Is MFA phasing out likely to affect different household members differently?

Within a household, claims on particular goods and endowments of particular assets (labour) are typically unevenly distributed. The loss of job of female earners can be expected to result in a loss of voice, increase subordination and further marginalization of the unemployed female workers. This may lead to further aggravation of discrimination against women at family and community levels.

¹⁶ "Is the WTO serious about reducing world Poverty?" Oxfam International, October 2001

3.3 *Will spillovers be concentrated on areas/activities of relevance to the poor?*

Sectors of an economy are interlinked and, if substitutability is high, a shock will be readily transmitted from one to another.

Projected Impact Box

Socio-economic Impact	Indicators
Unemployment	<ul style="list-style-type: none"> ● 0.35-0.4 million workers (in total) will be unemployed ● 0.31-0.36 million Female workers will lose job
Production	<ul style="list-style-type: none"> ● Closing of 1280 production units ● 40%-50% reduction in Cutting and Making price ● Abandoned machinery and equipment without any alternate use

Source: Projected values based on relevant research papers and news reports.

This may lead to a greater market recession resulting in further reduction in demand for cheap labor.

3.4 *What factors are used intensively in the most affected sectors? What is their elasticity of supply, and why?*

RMG sector is extensively using the cheap labor of female workers, more or less set at the subsistence level. If the prevailing wage is determined by subsistence levels, inter-sectoral mobility of workforce has no perceptible effect on poverty. If, on the other hand, the negatively trade-affected sector pays higher wages, displacement of workforce from that sector will aggravate poverty. Falling unskilled wages generate poverty only to the extent that the poor depend disproportionately on such wages. Based on this framework even if the displaced workforce is employed in other existing sector the poverty situation will aggravate due to loss of wage.

3.5 *Will the MFA phasing out actually affect government revenue strongly?*

One's immediate reaction is that cutting tariffs will reduce government revenue. While in the limit this is clearly true—zero tariffs entail zero revenue—many trade reforms actually have small or even positive revenue effects, especially if they convert NTBs into tariffs, remove exemptions and get tariff rates down to levels that significantly reduce smuggling. Even where revenue falls, it is not inevitable that expenditure on the poor will decline. That, ultimately, is a policy decision. However, for MFA phasing

out the discussion leads to conclusions that it will generate negative effect on government revenue, as RMG is a major portion of Bangladesh export.

Projected Impact Box

Area of Impact	Indicators
Macroeconomic	<ul style="list-style-type: none"> · Reduced export earnings (6.19% of total export earnings) · Low foreign exchange reserve (US \$ 1.06 billion) · Low export growth within the sector

Source: Projected values based on relevant research papers and news reports.

These macro economic implications may lead to widening gap of Government of Bangladesh's capacity to deal with poverty.

3.6 Will MFA phasing out lead to discontinuous switches in activities? If so, will the new activities be riskier than the old ones?

If within the present phase of trade liberalization Bangladesh had the option to combine 'national' and 'international' activities, it would most likely reduce risk. However, for Bangladesh the foreign markets are not likely to be less variable than domestic ones.

For this we need to assess if quota restriction (which will wither way through ATC) is beneficial for Bangladesh RMG export or not. This can be explained by comparing whether the European Union (with less quota support for Bangladesh) is a more competitive market than the United States. This can be assessed by the volatility of ranks of leading clothing exporters in the two markets measured with the help of the Kendall coefficient of Concordance (KCC). The concordance coefficient lies between zero and unity. If the ranks of leading exporters change little over time, the coefficient will be close to unity. On the other hand, if ranks of leading exporters change substantially, the coefficient will be close to zero, suggesting the existence of volatile comparative advantage or what Bhagwati and Dehejia(1994) called, "kaleidoscope comparative advantage" in clothing¹⁷.

¹⁷ Center for Policy Dialogue report-18: *The textile and clothing Industry of Bangladesh in a changing World economy*, December-1999.

A recent study has computed KCC for 17 years, covering the 1980-96 periods. The number of leading clothing exporting countries in the US, European Union, and the world market considered is twenty-five. It is striking to note that for the three SITC categories :outer garments (8429), men's shirts (8441), and knit undergarments (8461), which are dominant in clothing exports from Bangladesh, the European Union has lower KCC. This suggests that for categories of clothing in which Bangladesh now specializes; the European market is more competitive and volatile, compared to the US market. Among other factors, the greater competition in the European market can be attributed to the facts that this market is relatively less restricted by MFA quantitative measures, compared to the US market.¹⁸

If, however, trade reform leads to more or less complete changes in activities, there is a possibility that risk increases, as the new activity is riskier than the old one. Getting back to the case of the female workers, at home market this can be seen from the responses of the sample workers of a previous study¹⁹. The study shows that, despite the social barrier and uncertainties (such as risk of abuse and trafficking), the sample workers revealed their strong preference (73.1% & 53.6% of low-paid and high-paid ones respectively) for overseas employment. The opportunity of higher income (63.3%) and progress (24.1%) came along as the primal factors behind their choice.

3.7 Does the MFA phasing out depend upon or affect the ability of poor people to take risks?

The female RMG workers, being economically poor, cannot bear risk easily. As the consequences of even small negative shocks are so serious for the poor, they may be unwilling to take opportunities that increase their average income if they also increase the chance of losses. This might leave them with only the negative elements of a reform package. Similarly, if WTO-initiated reform makes it more difficult for the workers to continue their traditional risk-coping strategies, it may increase their vulnerability to poverty even if it increases mean incomes.

In the context of MFA phasing out, the female workers are exposed to a higher degree of uncertainty and risk factors, because of two aspects:

- In a recent study²⁰, it has been found that, the majority (64.2%) of the low paid female workers do not have any idea what so ever about MFA phasing out. Those who have at least heard of it (49.6%), 75% came to know from

¹⁸ Center for Policy Dialogue report-18: *The textile and clothing Industry of Bangladesh in a changing World economy*, December-1999.

¹⁹ INCIDIN Bangladesh-Action Aid Bangladesh, 2001

²⁰ INCIDIN Bangladesh-Action Aid Bangladesh, 2001

the co-workers. The highly-paid sample workers are more aware of it (66.1%), for whom neighbors (27%) and media (8.1%) came out as additional sources of information. Regarding the reason behind this phasing out, 86.5% of the highly-paid workers failed to specify and 12.5% of the lowly-paid ones were misinformed. Thus a large number of workers are either not aware of the risks or have poor quality of information regarding the risks. This decreases their capacity of coping with the changed scenario in post-MFA phase.

- The same study shows that among the sample workers, only three of the female workers have switched to brick breaking after joining RMG factory. Sector-specific skill development impedes the provision for alternate jobs in most of the cases. More importantly, the inter sectoral job mobility for the RMG female workers, is directed downward as far as wage and employment status are concerned.

It should also be noted that although riskier, an economically sensible option for the unemployed female workers of Bangladesh could be migration to countries where demand for their labor may expand. But this choice cannot be explored because of the restriction maintained on movement of natural persons. Although India and other developing countries have already placed the demand that in order to have increasing participation of developing countries in trade in services there is a need for greater freedom of movement of natural persons, particularly professionals, not much progress has been made. Under the General Agreement on Trade in Services (GATS) each participating country is required to accord "immediately and unconditionally" Most Favored Nation (MFN) treatment to services and service-suppliers of all participating countries. The preamble to the agreement speaks of facilitating "the increasing participation of developing countries in trade in services and the expansion of their service export". At the same time, however, the same agreement gives a participating country the right to "regulate the entry of natural persons into or their temporary stay in its territory". Clearly, when it comes to "the expansion of their service export", the developing countries do not enjoy the freedom of exporting their labor, be it skilled, semi-skilled or unskilled, even though these countries are well endowed labor-intensive services. By confining the movement of labor, the GATS agreement was evidently not being very serious when it spoke of facilitating the expansion of service export of the developing countries. Given this existing framework, option of migrations of female workers of Bangladesh does not appear to be feasible.

3.8 If the MFA phasing out is broad and systemic, will any growth it stimulates be particularly unequalizing?

Economic growth is the key to sustained poverty reduction. Only if it is very unequalizing, will it increase absolute poverty. At present this appears to be the case.

At global level there is 'playing ground' of the trading partners, which is not equal in any respect. The concept of achieving an level playing ground has also been identified as an impossibility. The world economic reality reveals an ever-increasing gap between the rich and poor countries. According to the World Banks Development Report (1988), the per capita Gross National Product (GNP) of the 20 richest countries was \$ 12,960 for 1986, with an annual growth rate of 2.3%. A simple calculation reveals a per capita income of \$ 298.08. The per capita GNP for the poorest 33 countries in that year was \$270, with an annual growth rate of 3.1%. Based on these statistics for these 30 countries to equal the \$298.08 of the developed economies an annual growth rate of 110.4% would be required.

Therefore, if the least developed economies strive to catch up with the developed economies they need to achieve a very high growth rate (i.e. 110.4%). Even if they can achieve this growth rate (the possibility of which is extremely slim), assuming the growth rate to be unchanged, the poor countries will require 127 years to reach the 1986 income level of the rich countries. Moreover, almost half a millennium (i.e. 497 years) will be required by the poor countries to overtake the rich countries. Thus given the present context of economic dualism, the concept of 'catching up' can hardly be considered feasible.

If global trade is considered as the means of economic progress, the prospect of the least developing economies is not also that bright; the LDCs with 10% world population, have only 0.3% of world trade – and this is half the proportion of two decades ago. Nevertheless, the least developed and developing economies are rapidly liberalizing their trade under WTO. This also has poverty implication at national level. The process of liberalization, which has become more or less the key word of the trade policy of the poorer economies, should be dealt with caution.

Therefore, MFA phasing out may generate unequal stimuli leading to widening the poverty gap not only between 'developed' and 'underdeveloped' economies but also among the 'underdeveloped' economies. This once again will have impact on wage and employment situation for a country like Bangladesh.

3.9 Does the MFA phasing out lead to a negative impact on identity and esteem of poor and marginal?

Our discussion regarding the prospective position of the female RMG workers does reflect that the identity of 'urban formal industrial workforce' acquired through RMG sector, may not sustain for the majority of the workers in the post MFA phase in Bangladesh. The female workers' identity and esteem of independent earners also face the same risk. The pain of lost dreams and agony of bygone esteem may be a difficult proposition to put in monetary terms, but cannot be excluded from analysis

in estimation of cost of reform in the RMG sector.

The paper leaves with a call towards the policy makers to consider these areas of concerns of human catastrophes while estimating cost-benefit of the WTO led liberalization process. The paper urges all to focus on the non-monetary costs; especially on the human toll of the liberalization process while assessing success and failure of any measures under WTO.

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