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Editor's Note

This volume (Vol. 28, No. 1) of Bangladesh Journal of Political Economy (BJPE) contains select papers presented at the Bangladesh Economic Association (BEA) 18th Biennial Conference held in 2012 and papers presented at the Regional Conferences organized by BEA during 2012-14 period in Chittagong, Kushtia, Mymensingh, and Rajshahi. In addition to these, this volume contains articles which are submitted to the Editor for publication mostly during the last one year. All the papers included in this volume were reviewed by both internal and external reviewers, and concurred by the Editorial Board for publication.

Let me express my indebtedness to the authors, the reviewers, and the members of the Editorial Board of the Journal. Special thanks are due to Prof. Ayubur Rahman Bhuyan and Prof. Toufic Ahmad Choudhury, who, as members of the Editorial board of the Journal, shouldered much more responsibilities than usual for a member.

(Abul Barkat)
Editor, Bangladesh Journal of Political Economy
President, Bangladesh Economic Association

বাংলাদেশ অর্থনীতি সমিতির ষান্মাসিক 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 মনোনীত করা হবে।

৪। 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।

৫। 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।

৬। জার্নালের footnoting এবং writing style এতদ্‌সঙ্গে সংযোজিত হলো (জার্নালের শেষাংশ)।

৭। দেশের অভ্যন্তরে অবস্থানকারী উপদেষ্টা কমিটির সদস্যদেরকে বছরে দু'বার সম্পাদনা পরিষদের সভায় আমন্ত্রণ জানানো হবে।

৮। ক) তিনটি কোটেশন সংগ্রহ করে সম্পাদনা পরিষদের সিদ্ধান্তক্রমে মুদ্রক প্রতিষ্ঠান নির্বাচন করা হবে।

খ) প্রথম proof প্রেস দেখবে, পরবর্তীতে softcopy তে প্রবন্ধকার ফাইনাল proof দেখে দেবেন।

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Bangladesh Economy in a Globalization World

M A JALIL*

Abstract *Today all the modern and developed and developing countries are more or less within the fold of globalization. Bangladesh with its expanding sway of exports and imports is no exception. Globalization is increasingly becoming more and more popular, because most of the countries see their better fortune in this arrangement. Globalization covers a wide range of issues, economic, political, cultural, etc. Since the issue of globalization is still more a dream than reality, an effort is made in this paper to make the readers more aware about the issue so that they take more interest in implementing the nobler ideas of globalization.*

Bangladesh has been trying to bring structural changes in her economy-expanding the contribution of industries in GDP, trade liberalization, boosting up exports, exporting more manpower, and attracting the foreign investors (both foreign and non-residents of Bangladesh). The country found the results encouraging and more efforts will be rewarding. Recently, Bangladesh has taken efforts to diversify her trade, find out new markets for her exports- both traditional and non-traditional items, to many countries, including the neighbors. Enhancing regional connectivity is under active consideration of various adjoining countries. Some agreements have already been made, and in some cases operations are underway that will create big opportunities for Bangladeshi products to enter the market in those countries. To reap the benefits, what is necessary for Bangladesh is to improve the quality of products and keep their prices lower.

Introduction

Globalization refers to the tendency of firms to extend their sales, ownership, and /or manufacturing to new markets abroad. In the past decades the rate of

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globalization has been striking. For example, the total value of US imports and exports almost tripled, from $907 billion in 1991 to $2.5 trillion in 2000.

The term Globalization has already become quite popular; it denotes an increase in economic integration among nations. Broadly speaking, the term "globalization" means integration of economies and societies through cross-country flows of information, ideas, technologies, goods, services, capital, finance and people. Today we see dramatic growth in the flow of goods, services and capital across national borders. Of course, cross border integration can have several dimensions- cultural, social, political and economic. Globalization is a process by which an activity or undertaking becomes world-wide in scope. One major component of globalization is the steady increase in the imports in the share of national output devoted to exports. One crude measure of the degree of the integration of the economy with the rest of the world is the ratio of its trade to GDP. For example, in India Export plus Import/GDP was13.5 percent in 1980-81, increased to 36.0 percent in 2007-08. Globalization via the development the spread of MNE (Multi- National Enterprises) through direct foreign investment is a recent phenomenon, which has both positive and negative impacts on host economies. For this reason, various neighboring countries are forming groups to protect their regional interests or mutually reap the economic benefits.

During the course of last three decades, many forces in the larger global economy have made it imperative for firms to go abroad. There are three main macro forces that propelled the globalization of firms in the last few decades: (1) globalization of capital markets (including the growth and volatility of currency markets and interest rates); (2) the declining cost of transportation and communication, and (3) the growth of regional and international trading arrangements. While discussing the impact of globalization, two issues need to be kept in mind- (1) domestic producers now compete with the producers from around the world in their prices and design decisions, and (2) globalization reflects an extension of specialization and division of labor to the entire world.

The Objectives of the Paper

The purpose of the first part of this study is to briefly present the issue of globalization, putting emphasis on its origin, the intentions of the protagonists and how much of those were hitherto realized. Is it only to serve the purposes of developed countries, or are the developing countries deriving any benefits? If so, to what extent. A short account of such observations on its successes and failures) is presented here in the global context, referring to the cases of both developed and developing countries.

The second part deals absolutely with Bangladesh's efforts to diversify her trade and boost exports to different countries, both globally and regionally, hurdles faced in such a move and how to overcome those hurdles. Along with trade in goods and services, we have tried to include discussion on the capital movement and the flow of foreign direct investment (FDI). Besides, there is a discussion on the movement of people from this country abroad and the receipt of foreign remittance.

The Origin and Expectations from Globalization

Globalization is purely the product of a chain of international trade agreements that began in 1947 with the General Agreement on Tariffs and Trade (GATT), abetted by the modern tele- communications. Similar to the treaty, GATT laid out 123 rules of reducing tariffs between 23 signatories. Later negotiations continued at regular intervals to decrease tariffs as the number of GATT signatories increased greatly. The latest series of talks, called Uruguay round, concluded in 1994, with the creation, in 1995, of the World Trade Organization (WTO) to succeed GATT. In the same year the North American Free Trade Agreement (NAFTA) went into effect, signed by Canada, Mexico and the US1.(Almanac of World History, p-326)

In the mean time, America and Europe see the threat of outsourcing; developing countries see the advanced countries tilting the global economic regime against them. There is much merit in these criticisms, but our main interest the economic consequences of globalization outpacing our ability to understand and is to highlight the economic consequences of globalization and possible ways to cope with these consequences through political processes. After all, reforming globalization is a matter of politics.

Globalization encompasses many things: the international flow of ideas and knowledge, the sharing of cultures, global civil society, and the environmental movement. However, our concern is mostly about economic globalization, which entails the closer economic integration of the countries of the world through the increased flow goods and services, capital, and even labor. The great hope of liberalization that it will raise living standards throughout the world, give poor countries access to overseas markets so that they can sell their goods, allow in foreign investment that will make new products available at cheaper prices, and open the borders so that people can travel abroad to be educated, work, and send home earnings to help their families and fund new businesses. In that way globalization has the potential to bring enormous benefits to those in both the

developing and the developed world. But, in the assessment of Joseph E. Stiglitz (2006) there is overwhelming evidence that it has failed to live up to potential. The problem is not with globalization itself but in the way globalization has been managed. Economics has been driving globalization, especially through the lowering of communication and transportation costs. But politics has shaped it. The rules of the game have been largely set by the advanced industrial countries, and, not surprisingly, they have shaped globalization to further their own interests. They have not sought to create a fair set of rules, let alone a set of rules that would promote the well-being of those in the poorer countries of the world.

Is 'Another World Possible'?

With the aim of materializing the slogan, "Another world is possible", the movers and shakers of the world attended various forums on invitation of various bodies at different places. Among those, the assembly at Mumbai (India) and Davos is worth mentioning. Those meetings were held in good places to take the pulse of the world's economic leaders. Although it was a gathering of white businessmen, supplemented by a roster of government officials and senior journalists, in recent years the invitation list has been expanded to include a number of artists, intellectuals, and NGO representatives.

At both Mumbai and Davos, there were discussions on 'reforms'. At Mumbai, the international community was asked to create a fairer form of globalization. At Davos, the developing countries were enjoined to rid themselves of their corruption, to liberalize their markets, and to open up to the multinational businesses so well represented at the meeting. But at both events there was an understanding that something had to be done. At Davos the responsibility was placed squarely on the developing countries; at Mumbai, it was on the entire international community.

Globalization—Achievement & Failure

In the early 1990s, globalization was greeted with euphoria. Capital flows to developing countries had increased six-fold in six years from 1990 to 1996. The establishment of the World Trade Organization in 1995—a goal that had been sought for half a century—was to bring the semblance of a rule of law to international commerce. Everyone was supposed to be winner— in both deve ofloped and developing world. Globalization was to bring unprecedented prosperity to all. Globalization had succeeded in unifying people from around the world—against globalization. Factory workers in the United States saw their jobs being threatened by the competition from China. Farmers in the developing

countries saw their jobs being threatened by the highly subsidized corn and other crops from the United States. Workers in Europe saw hard-fought-for job protections being assailed in the name of globalization. AIDS activists saw new trade agreements raising the prices of drugs to levels that were unaffordable in much of the world. Environmentalists felt that globalization undermined their decades-long struggle to establish regulations to preserve their national heritage. Those who wanted to protect and develop their own cultural heritage saw, too, intrusions of globalization. These protestors did not accept the argument that, economically at least, globalization would ultimately make everybody better off.

The current process of globalization is generating imbalanced outcomes, both between and within countries. Wealth is being created, but too many countries and people are not sharing its benefits. They also have little or no voice in shaping the process. Seen through the eyes of vast majority of women and men, globalization has not met their simple and legitimate aspirations for decent jobs and a better future for their children. Many of them live in the limbo of the informal economy without formal rights and in a swathe of poor countries that subsist precariously on the margins of the global economy. Even in economically successful countries some workers and communities have been adversely affected by globalization. Meanwhile the revolution in global communications heightens awareness of these disparities—- these global imbalances are morally unacceptable and politically unsustainable.

Globalization may have helped some countries—their GDP, the sum total of goods and services produced, may have increased—but it had not helped most of the people even in those countries. The worry was that globalization might be creating countries rich with poor people.

Of course, those who are discontented with economic globalization generally do not object to the greater access to global markets or to the spread of global knowledge, which allows the developing world to take advantage of the discoveries and innovations made in developed countries. Rather, they raise five concerns, the first being—the rules of the game that govern globalization are unfair, specially designed to benefit the advanced industrial countries (Stiglitz, 2006).

Globalization and poverty

Critics of globalization point to the growing numbers of people living in poverty. The world is in a race between economic growth and population growth and so far population growth is winning. Even as the percentage of the people living in poverty is falling, the absolute number is rising (Jalil, 2010)

Globalization has played a part both in the biggest successes and in some of the failures. China's economic growth, which was based on exports, has lifted several hundred million people out of poverty. But China managed globalization carefully: it was slow to open up its markets for imports, even today it does not allow the entry of hot speculative money. India's success in lifting millions of people from poverty is no less praiseworthy. On the other hand, historically Africa is the region most exploited by globalization: during the years of colonialism the world took its resources but gave back little in return. In recent years, Latin America and Russia have also been disappointed by globalization. They opened up their markets, but globalization did not deliver on its promises, especially to the poor. To say about poverty, in the words of a young woman in Jamaica, 'Poverty is like living in jail, living under bondage, waiting to be free".

Reforming Globalization

Making globalization work will not be easy. Those who benefit from the current system will resist change, and they are very powerful. But forces for change have already been set in motion. There will be reforms, even if they are piecemeal ones. A number of suggestions were given by experts, for how to make globalization work better. Some of these are small that must and should meet little resistance; others are big, and may not be implemented for years. There are many things that must be done in areas where the international community has recognized that some progress that has been made long distance is yet to go.

1) The pervasiveness of poverty

Poverty has, at last, become a global concern. The United Nations and multinational organizations such as World Bank have all begun focusing more on poverty reduction. In September 2000, some 150 heads of state or government attended the Millennium Summit at the United Nations in New York and signed the Millennium Development Goals, pledging to cut poverty by half by 2015.They recognized the many dimensions to poverty—not just inadequate income, but also, for instance, inadequate health care and access to water.

2) The need for foreign assistance and debt relief

Countries seeking foreign aid are typically asked to meet a large number of conditions; for example, a country may be told that it must quickly pass a piece of legislation or reform social security, bankruptcy, or other financial systems if it is to receive aid. The enormous number of conditions often obstructed

government to do from more vital tasks. Excessive conditionality was one of the major complains against the IMF and the World Bank. Of course, both the organizations admitted the allegations and they have actually greatly reduced conditionality.

3) The aspiration to make trade fair

Trade liberalization—opening up markets to the free flow of goods services—was supposed to lead to growth. The evidence is at best mixed. Part of the reason that international agreements have been so unsuccessful in promoting growth in poor countries is that they were often unbalanced: the advanced countries were allowed to levy duties on goods produced by developing countries, which were, on average, four times higher than those on goods produced by advanced industrial countries. While developing countries were forced to abandon subsidies designed to help their nascent industries, advanced industrial countries were allowed to continue with enormous agricultural subsidies, forcing down agricultural prices and undermining living standards in developing countries.

4) The limitations of liberalization

In the 1990s, when the policies of liberalization failed to produce the promised results, the focus was on what the developing countries had failed to do. If trade liberalization did not produce growth, it was because the countries had not liberalized enough, or because corruption created an unfavorable climate for business. Today, even among many of the advocates of globalization, there is more awareness of shared blame.

The most hotly contested policy issue of the 1990s was capital market liberalization, opening up markets to the free flow of short term, hot and speculative money. The IMF even tried to change its charter at its annual meeting in 1997, held in Hong Kong, to enable it to push countries to liberalize. By 2003, even the IMF had conceded that, at least for many developing countries, capital market liberalization had led not to more growth, but just to more instability.

5) Protecting the environment

A failure of environmental stability poses even a greater danger for the world in the long run. A decade ago, concern about the environment and globalization was limited only to environmental advocacy groups and experts. Today, it is almost universal. Unless we lessen environmental damage, conserve on our use of energy and other natural resources, any attempt to slow down global warming will fail.

Global warming has become a true challenge of globalization. The successes of development, especially in India and China, has provided these countries with economic benefits wherewithal to increase usage, but the world's environment simply cannot sustain such onslaught.

A flawed system of global governance

There is a consensus, at least outside the United States, that something is wrong with the decisions made in the global level; there is a consensus, in particular, on the dangers of unilateralism and on the "democratic deficit" in the international economic institutions. Both by structure and process, voices that ought to be heard are not available. Colonialism is dead, yet the developing countries do not have representation that they should.

There is a growing consensus that there is a problem of governance in the international public institutions like the IMF that shape globalization and that these problems contribute to their failure. At the very least, the democratic deficit in their governance has contributed to their lack of legitimacy, which has undermined their efficiency—especially when they speak on issues of democratic governance.

In the end we want to conclude on the issue of globalization with a few observations

The conventional wisdom that the United States' development was the result of unfettered capitalism is wrong. Even today, the US government, for instance, plays a central role in finance. It provides, guarantees for a significant fraction of all credit, with programs for mortgages, student loans, exports and imports, cooperatives and small businesses.

A change in the mindset will be essential if we want to change the way globalization is managed. Such a change is already under way. We have realized the positive potential of globalization: almost half of humanity—Asia, including China and India— is being integrated into the global economy.

China's average growth over the past three decades has been tripled. These successes are partly due to globalization. In manufacturing and services (particularly soft ware, business processing, etc), respectively, China and India have made huge strides internationally, and their acquisition of global companies has attracted considerable attention. Expansion of exports of labor-intensive manufacturers has nonetheless lifted many Chinese out of poverty. That is not true of India, where exports are still mainly skill- and capital-intensive. (Pranab

Bardhan-2011). But we have also seen the darker side of globalization: recessions and depressions that global instability has brought a continent, Africa, striped of its assets, its natural resources, and left a debt burden beyond its ability to pay.

Some say globalization is inevitable, that one has to simply accept it with its flaws. But as most of the world has come to live in democracies, and if globalization does not benefit most of the people they will eventually react.

Regional Cooperation, Connectivity and |Trade Diversification

Various countries of different regions have their schemes of regional cooperation in different names such as SAARC, ASEAN, EU etc. Although, the performances of all are not up to expectation, yet their inducting new members is on the increase. At one time, they will play their due role. Recently, a great expectation has emerged among countries like Bangladesh, India, Nepal, Bhutan, even Myanmar and China to boost regional connectivity. While commenting on a regional route to development, an analyst rightly pointed, "If Bangladesh and India act imaginatively, this region can be transformed from being a relatively underdeveloped periphery of the subcontinent as well as South-East Asia to being centre of a thriving and integrated economic region"(The Daily Star,11Oct, 2011).

In a labor surplus country like Bangladesh small and medium enterprises can play a substantial role in providing the impetus to the development of modern manufacturing sector and in the creation of jobs outside agriculture and informal services. Bangladesh is now vigorously putting efforts in finding markets in various countries including new ones and to reap the benefits of globalization, and regional connectivity, now in the offing, has opened a fresh hope of taking advantage of expanding her market in India, especially in North-Eastern Indian States.

Globalization and the recent development in regional connectivity, with Bangladesh at the hub, are creating a big opportunity to expand her product market both at the regional and global level. But what is essential is to develop her competency in producing quality goods at a competitive cost. Again, under the present day context technological advancement (also innovation of appropriate technology even at the regional level) and adequate facilities for financing SMEs can lead to the expansion of the regional remarket. Bangladesh could emerge as a transport hub for the sub-region comprising Bangladesh, Bhutan, Nepal and India. We need to include China and Myanmar in the framework of regional connectivity to reap the highest benefits.

A number of authors have highlighted the importance of better regional connectivity to foster and promote intra-regional trade and deepen economic cooperation among the regional countries. Rahmatullah (2010) points out in this connection that due to the lack of integration of the transport system in South Asia, logistic costs are very high and range between 13-14 per cent of GDP, compared to 8 per cent in the US.

Bangladesh Economy in the Global Context

Vision 2021 goal of Bangladesh is to attain a Middle Income Country (MIC) status by FY21. To achieve this, it the sets growth target to rise from 6.1 per cent in FY10 to 8 per cent in FY 15 and 10 per cent in FY 21. A review of Bangladesh's past growth experience tells a remarkably encouraging story. In order to understand the determinants of growth it is helpful to look at the sectoral composition of growth and ask how much structural change has taken place in the Bangladeshi economy. It is now well recognized that the growth dynamism is largely provided by modern manufacturing and service sectors. This transformation of a peasant agrarian economy to an organized manufacturing and services economy also provides the employment base for absorbing a growing labor force into productive and well paid jobs. Table-1 shows that Bangladesh the contribution of the industry sector to Bangladesh's gross domestic product (GDP) has been continuously increasing while the share of agriculture has been falling and that of services remained around 49- 50 percent throughout.

An analysis of sectoral growth, as seen in Table-2, shows that in FY 11 the industry sector registered an 8.16 percent growth, which is higher than the 6.49

Table 1: Share Broad Sectors in GDP and Growth Rate (at Constant Prices) (Base year: 1995-96)

Sector	1980-81	1985-86	1990-91	1995-96	2000-01	2005-6	2008-9	2009-10	2010-11
Agriculture	33.07	31.15	29.23	25.68	25.03	21.84	20.48	20.29	19.95
Industry	**17.31**	**19.13**	**21.04**	**24.87**	**26.20**	**29.03**	**29.86**	**29.93**	**30..33**
Service	49.62	49.73	49.73	49.45	48.77	49.14	49.66	49.78	49.72
Total	100	100	100	100	100	100	100	100	100
Average growth rate(percentage)									
Agriculture	3.31	3.31	2.23	3.10	3.14	4.94	4.12	5.24	4.96
Industry	5.13	6.72	5.57	6.98	7.45	9.74	6.46	6.49	8.16
Service	3.55	4.10	3.28	3.96	5.53	6.40	6.32	6.47	6.63
GDP (at producer prices)	3.74	3.34	3.24	4.47	5.41	7.02	5.90	6.22	6.75

Source: *Ministry of Finance, Bangladesh Economic Review, 2011, p-23 (Bangla Version)*

percent actual growth recorded in FY 10. Sub-sectoral growth and share in GDP increased for manufacturing, large and medium scale industries and construction sub-sectors in FY 11. Manufacturing sub-sector, the largest and the dominant part of overall industrial production, grew at 9.51 percent during FY 11 as against 6.5 percent in FY 10.

Export Performance of Bangladesh

Data on Bangladesh's exports presented in Table 3 reveals that export earnings increased by 41.5 percent to USD 22.92 billion during the FY 11. Although the

Table 2: Sub-sect oral growth and share in GDP of industry sector output (in percent)

	Sectoral/ sub-sectoral growth rate					Sectoral/sub- sectoral share in GDP				
	FY07	FY08	FY09	FY10	FY11(P)	FY07	FY08	FY09	FY10	FY11(p)
Industry Sector	8.38	6.78	6.46	6.49	8.16	29.45	29.7	29.86	29.93	30.33
Manufacturin	9.72	7.21	6.68	6.5	9.51	17.55	17.77	17.9	17.94	18.41
Large and Medium	9.74	7.26	6.58	5.98	10.41	12.47	12.63	12.71	12.68	13.12
Small scale	9.69	7.1	6.9	7.77	7.34	5.08	5.14	5.18	5.26	5.29
Mining and quarrying	8.33	8.94	9.84	8.8	4.85	1.18	1.21	1.25	1.29	1.26
Electricity, gas and water	2.1	6.77	5.91	7.28	5.96	1.57	1.59	1.59	1.6	1.59
Construction	7.01	5.68	5.7	6.01	6.37	9.15	9.13	9.12	9.1	9.07

Source: *BBS-2011, Quoted from Monetary Policy Statement (MPS) January-June, 2012, p14, p stands for provisional estimate of BBS.*

competitive strength of apparels and textile exports (to lower ends of the markets in advanced economies in North America and Europe) has kept overall export growth above 41 percent in FY11, the two major export items , namely woven garments and knitwear substantially contributed to this achievement by recording

Table 3: Quarterly exports and export growth rates

Quarters	Exports(in billion USD)		Growth rate
	FY 11	FY 10	(percent, y-o-y)
July-September	5.03	3.87	29.98
October-December	5.23	3.40	53.81
January-March	5.94	4.27	39.28
April-June	6.72	4.66	44.04
July-June	22.92	16.20	41.47

Source: *Export Promotion Bureau.*

4o.23 percent and 46.25 percent growth, respectively. In the agricultural product category, outstanding performance has been shown by raw jute and jute goods with 82.03 percent and 28.04 percent y-o-y growth, respectively, during FY11 over the previous fiscal year (Table-4).

Table- 5 shows that the export sector performed well throughout the 1990s. The table also shows that during the FY 1999-2000 to FY 2009-2010 this sector achieved a remarkable growth with the exception in FY 2001-2002 only. It may

Table 4: Commodity- wise exports (in million USD)

Products	Export value July-June 2010-2011	Export value July-June 2009-2010	Change during July-June of FY11 over FY10 (in percentage)
Raw Jute	457.28	196.27	82.03
Jute goods	757.65	591.72	28.04
Tea	3.2	5.65	-43.36
Frozen food	625.04	445.18	40.40
Leather	297.83	226.1	31.72
Woven garments	8432.4	6013.43	40.23
Knitwear	9482.06	6483.29	46.25
Chemical products:	104.76	102.87	1.84
Of which fertilizer	39.53	38.55	2.57
Agri. Products:	333.94	242.35	37.79
Engineering products	309.55	311.09	-0.50
Others	2181.14	1548.15	40.89
Total	22924.38	16204.65	41.47

Source: *Export Promotion Bureau.*

be noted here that the World Bank examined the 1990-2000 average trade-HDP ratio in Bangladesh and found that it rose from 19 percent to 35 percent during those 20 years.

Bangladesh's Exports to SAARC Countries

The South Asian Association for Regional Cooperation (SAARC) came into existence in 1985 to promote economic, technological, social and cultural development and achieve collective self-reliance

Table-6 shows that India accounted for the bulk(72%) of Bangladesh's total export to the SAARC countries. from Bangladesh. It may be pointed here that export to the SAARC countries in FY 2009-10 was only 3 percent of the total

Table 5: Performance of Exports during 1999-2010 (in million USD)

FY	EXPORT INCOME	Growth Rate in % (Y-O-Y)
1999-2000	5752.20	--
2000-2001	6767.00	+17.64
2001-2002	5986.00	-11.54
2002-2003	6548.00	+9.38
2003-2004	7602.99	+16.10
2004-2005	8654.52	+13.86
2005-2006	10526.16	+21.63
2006-2007	12177.86	+19.08
2007-2008	14110.80	+15.87
2008-2009	15565.19	+10.31
2009-2010	16204.65	+4.10

Source: *Bangladesh Bank*

Table 6: Exports from Bangladesh to SAARC countries (in million USD)

country	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
India	101.16	186.95	279.14	289.41	358.08	276.58	304.63
Pakistan	34.78	84.14	50.26	61.06	71.01	76.22	77.67
Sri Lanka	10.15	12.16	14.39	14.82	19.32	18.67	23.74
Afghanistan	6.07	0.51	0.88	0.75	2.77	3.68	2.74
Bhutan	3.99	3.35	1.65	1.40	1.35	0.61	2.24
Maldives	-	0.48	0.26	0.27	0.08	0.14	0.74
Nepal	1.27	0.47	0.83	0.85	6.71	8.06	8.79
Total	157.42	288.06	347.41	368.56	459.32	383.56	420.55

Source: *Export Promotion Bureau*

export of Bangladesh. The total export income was USD 16204.65 while export income from SAARC countries was only USD 420.55 in FY 2009-2010. But viewed from the situation that prevailed seven years back (2003-2004), the situation has been improving and increased by 167 percent in 2009-10.

BANGLADESH'S EXPORT OPPORTUNITIES IN INDIAN MARKET

India continues to remain one of the Bangladesh's major trading partners, accounting for 8.7 per cent of Bangladesh's global trade FY2008-09, a year when India was Bangladesh's fourth most important trading partner .Table -7 shows the export earning ,import payment situation with India for the period 2003-2004 to 2009-10. However, the situation has been improving (though irregularly). During the FY2010-11 Bangladesh export to India was only$ 512.5 million and import

from India was $ 4574.9 million. The deficit was $ 4062.4 million (with an import to export ratio 8.9 to 1). The increasing bilateral trade deficit and issues of trade barriers with India and the search for avenues to enhance Bangladesh's export opportunities in the growing Indian market have assumed high significance in related discourse in Bangladesh in recent time.

A number of studies have tried to identify potential opportunities for Bangladeshi sectors/products in Indian market. Bhuyan and Ray (2006) identified a set of potential exportable products from Bangladesh that could enjoy export potential in the Indian market. These were fish products (including shrimp), leather goods, cement, light engineering items, jute products, pharmaceuticals products, ceramic products and processed agro-products. Another study by Siriwardana and Yana (2007) estimated that a number of Bangladeshi items, including beverages and tobacco, fabricated metal products, textile and leather, petroleum and other minerals, food manufactures, vegetables and fruits , will gain substantially in the Indian market both in the short-run as well as long-run, if market duties are abolished by India .In a recent study, the World Bank(2006) said that the prospect for trade between Bangladesh and India, through bilateral FTA was rather limited. Analysis undertaken for a number of items including cement, light bulbs, cycle rickshaw tires and sugar indicate that if a bilateral FTA is signed with India it will be India which would be able to expand her exports to Bangladesh; Bangladesh's export potential to Indian market is rather limited.

Trade with different Countries of the World

Table-8 shows data on Bangladesh's exports, imports and trade balance for the last 11 years. This pronounced negative balance of trade has dragged our development efforts backward. The country could divert her resources spent for import payments for long term development goals. With higher growth of export

Table 7: Exports Earning and Import Payment to India(in million US$)

Fiscal Year	Export	Import	Balance	Ratio(Export vs. Import)
2003-2004	101.16	1602	-1500.84	1:15.83
2004-2005	186.95	2030	-1843.05	1:10.85
2005-2006	279.14	1868	-1588.86	1:6.69
2006-2007	289.41	2268	-1978.59	1:7.83
2007-2008	358.08	3393	-3034.92	1:9.47
2008-2009	276.58	2864	-2587.42	1:10.35
2009-2010	304.83	3214	-2909.37	1:10.55

Source: *Export Promotion Bureau & Bangladesh Bank*

income since 1991, the trade deficit situation has improved. To reduce the trade gap, the government has been trying to boost exports by aiding private exporters in different ways. Arrangement of trade fairs at home and abroad is one of the effective measures of promoting exports. The establishment of Export Processing Zone (EPZ) for encouraging foreign investors to produce exportable commodities is another measure. As a result of negotiations with different countries like, India, USA, Canada, Germany, etc. the exports to these countries have been increasing. The role of our missions in abroad can be important is to boost exports. The performance of Bangladeshi missions abroad should naturally be judged by their success in promoting exports, encouraging foreign investors to invest in Bangladesh and increasing employment of Bangladeshi migrant workers abroad. Recently, Bangladesh has been trying to diversify her trade relationship with various countries both neighboring and far-flung countries.

Strategic Policies for Manufacturing Exports in the Sixth Plan

In order to get maximum leverage out of the manufacturing sector and its competitiveness in the global marketplace, the Sixth Plan would focus on different strategic approaches.

Table 8: Bangladesh's Balance of Trade (in million USD)

Fiscal year	Export Income	Import Payment	Balance	Ratio (Export vs. Import)
1999-2000	5752.20	8374	-2621.80	1:1.46
2000-2001	6767.00	9335	-2568.00	1:1.38
2001-2002	5986.oo	8540	-2554.00	1:1.43
2002-2003	6548.00	9658	-3110.00	1:1.47
2003-2004	7602.99	10903	-3300.01	1:1.43
2004-2005	8654.52	13147	-4492.48	1:1.52
2005-2006	10526.16	14746	-4219.84	1:1.40
2006-2007	12177.86	17157	-7979.14	1:1.41
2007-2008	14110.80	21629	-7518.20	1:1.53
2008-2009	15565.19	22507	-6941.81	1:1.45
2009-2010	16204.65	23738	-7533.35	1:1.46

Source: *Bangladesh Bank, Export Promotion Bureau.*

Export diversification. Bangladesh experienced double digit export growth over the past two decades. Yet this superior performance masks the fact that the surge was limited to one product group—readymade garments—aided not the least by the MFA regime. With over three million jobs and 80% of export earnings from the RMG sector, too much of the nation's fortune depends on this one sector.

Export concentration in garments makes the economy, jobs and income, extremely vulnerable to external shocks arising from changes in global demand for RMG.

Export Restructuring in a Globalized Economy

Global production sharing has been a striking feature of world trade in recent years. It generally entails the breaking up of the production process into critically separate stages carried out in more than one country, involving both backward and forward linkages from the production stage in commodity chain. Analysts have pointed out that the superior export performance of East Asian countries can be partly attributed to their strategic use of cross-national production networks within a globalized production system. Both the types of commodity chains can be tried. These are: Production- driven commodity chains (PDCC) and Buyer-driven commodity chain (BDCC).

Working on Market Access Issue

Producing products of export interest and in accordance with Bangladesh's competitive advantage based on its factor endowments is only the first albeit the key step for export growth. Yet being competitive in exports is only a necessary condition for export success. Global trade is subject to various tariff and non-tariff measures that serve as barrier to market access, particularly for an LDC like Bangladesh seeking new export destinations and trying to widen the existing market.

RECENT GROWTH TRENDS IN EXPORT PERFORMANCE

Center for Policy Dialogue (CPD) has conducted a number of studies on Recent Growth Trends in export. In one study it says:

"A robust export growth of 40.9 per cent during the first ten months of FY2011 provided a welcome departure from low growth posted during the corresponding period of 2009-10 and gives some indication that the country's export sector has started to recover from the average of global financial crisis." The recovery was fairly broad based shared by both RMG non-RMG sectors such as raw jute, jute goods, foreign food and leather. It needs to be mentioned here that some of the Bangladesh's competitors in the global export market (e.g. China, Vietnam and Cambodia) have also been doing well.

The RMG industry contributes to the Bangladesh economy in a distinctive manner. Last 20 years witnessed unparalleled growth in this sector, which is also the largest exporting industry in Bangladesh. During 2008-09, RMG alone contributed 79.5 % of the total export of Bangladesh. The Non- RMG sector has gained added significance with the emergence of the RMG sector. Table -9 highlights the share of selected Non-RMG export items in total exports. After a gap of long years, export of jute manufactures has revived. Sixth Five Year Plan has emphasized the importance of a good number prospective industry for their, agro-processing, shipbuilding, electronic, steel and engineering, chemical (also

Table 9: Changes In The Share of Selected Non-RMG Export Items

Export Items	**Share in Non-RMG export in FY1999-00**	**Share in Non-RMG export in FY 2009-10**	**Changes in Share**
Engineering products	0.5	8.4	7.8
Home textile	6.9	10.9	4.0
Jute yarn & twine	7.9	10.7	2.9
Footwear	3.7	5.5	1.8
Tobacco	0.2	1.4	1.3
Frozen fish	1.5	2.4	0.9
Pharmacuceuticals	0.4	1.1	0.7
Fruits	0.0	0.5	0.5
Vessels	0.0	9.3	9.3
Vegetables	1.0	1.3	0.3
Raw jute	5.1	5.3	0.2
Glass & glass ware	0.0	0.2	0.2
Handicrafts	0.4	0.1	-0.3
PVC Bags	1.8	0.8	-1.0
Tea	1.3	0.2	-1.1
Specialized textiles	6.9	5.0	-1.9
Leather product	3.9	0.8	-3.1
Chemical fertilizer	4.3	1.0	-3.2
Leather	13.9	6.1	-7.8
Frozen food	24.6	12.0	-12.6
Frozen shrimps	23.1	9.4	-13.7
Share of non-RMGin total Exports	24.3	22.8	-1.5

Source: *Estimated from EPB data.intra RMG diversification*

thrust sector). As regards shipbuilding sector, according to informed source, the local shipbuilding industry has a potential to handle 8 to 10 percent of the global shipbuilding manufacturing market and this can fetch export of $40 billion a year (the daily Independent, March 15, 2012).

Foreign Direct Investment (FDI)

As a developing country, Bangladesh needs FDI for its development. The magnitude of FDI played a minor role in the economy of Bangladesh until 1980.The Government of Bangladesh (GOB) enacted the "Foreign Investment Promotion and Protection Act, 1980" in an attempt to attract DFI. Except five industries, which are reserved for public sector: defense equipment and machinery, nuclear energy, forestry in the reserved forestry area, security printing and minting, and railways, DFI is allowed in every sector of the economy. However, although Bangladesh enjoys a comparative advantage in labor-intensive manufacturing, has adopted investment friendly policies and regulations, established EPZs in the different suitable locations, FDI flows failed to accelerate. However, in 2005 substantial improvement has been achieved. But, during 2006 and 2007 FDI decreased, but in 2008 it reached highest record of 1086 and in recent years it is declining. In the midst of slow recovery of global economy from economic downturn, total inflow of FDI in Bangladesh decreased by 12.5 percent to USD 716 in the first eleven months of FY 11 as compared to inflow of corresponding period of FY 10. With the establishment of three Non- Resident Banks (NRBs) in Bangladesh with conditions that these would contribute to the economy by boosting up remittance inflows, we can a further boost up in remittance earning.

Remittances

Table-10 shows the trend of labor force working abroad since 2000. It has been recorded that expatriate labor force was 2.13 lakh in 2000, but slightly declined in 2001. An upward trend started from 2002 and this trend continued up to 2007. In 2007 the employment figure reached 9.81 lakh (the highest number). The downward trend started again in 2008. In 2011 expatriate employment was only 3.90 lakh. However, the trend of remittance showed upward movement, with the exception of only in 2001. The amount of remittance could be much more if we could keep upward trend of expatriates during recent years. Bangladesh Bank statistics showed that the remittance flows into the country maintained a steady growth for the past four months since December 2011.The volume of remittance in January 2012 was USD 1221.41 million, highest in a single month in

Table 10: Fluctuation of Remittances and Some Economic Variables since 2000

Year	Remittances (CroresTk.)	Remittances US$ (billion)	No. of Expatriate workers/ Employment Abroad(In lac)	GDP US$ (in billion))	Gross National Savings %of savings	Domestic Demand (000 Taka)	Domestic Investment (% of GDP)
2000	10266.00	1.95	2.13	47.048	22.74	11.546	23.06
2001	14390.19	1.88	1.95	47.194	22.942	11.937	23.118
2002	17719.58	2.50	2.51	49.56	24.189	12.246	23.28
2003	19872.39	3.06	2.77	54.476	25.171	12.598	23.73
2004	23646.97	3.37	2.50	59.12	25.654	12.824	24.29
2005	32274.60	3.85	2.91	61.127	26.81	13.147	24.59
2006	41298.50	4.80	5.64	65.204	28.198	13.629	24.55
2007	54293.24	5.98	9.81	73.969	29.494	14.336	24.33
2008	66674.87	7.91	6.50	84.462	29.874	14.932	24.29
2009	76010.96	9.69	4.27	94.733	29.182	15.609	24.68
2010	86210.00	10.99	3.90	104.919	26.668	16.10	25.24

Source: *Ministry of Finance*

Bangladesh history. A recent article (published in the daily Independent, 4 April, 2012) shows that Bangladesh received remittances $ 12.17 billion in 2012. It has been found out that in Bangladesh exports plus imports as percentage of GDP now stands 34%.

Concluding Remarks

With the wave of globalization, expansion in exports is taking place following international trade agreements signed among developing and developed countries. Many countries, both developing and mid-way developed countries are making brisk preparation to maximize their gains from the situation. Export and import of Bangladesh have been increasing over the last few years. The export sector achieved a remarkable growth during the last 10 years. It has been observed from our above discussion that the composition of export goods is changing. The share of primary commodities in the total export is gradually decreasing whereas the corresponding share of manufacturing commodities is gradually increasing. This is a good sign for our economy. Recently India has allowed duty free entry of Bangladeshi garment products in her market has opened big opportunity for us. Bangladesh should fully utilize the scope and try for more of such opportunity.

Bangladesh has been diversifying her traded goods and very recently goods like vegetables and fruits are exported to many countries. The export earnings of

Bangladesh have increased about 47 times (from US $ 5752.20 in FY 1999-2000 to US $ 16204.65 in FY 2009-10). We have a wide scope to export these goods, even perishable items to neighboring countries such as Nepal, Bhutan, Maldives, North-East Indian States etc. Needless to say, globalization has opened th door for entering into trade agreement with various countries of the world.

A number of initiatives could be taken to stimulate trade both bilateral with India, and other traditional countries and newly identified prospective countries. We have already achieved something—India has agreed to allow access of 46 items of RMG products duty free in their market. India could be persuaded to provide duty free market access to all export originating from Bangladesh. At the same time Bangladesh should put renewed emphasis on the diversification her export basket in the Indian market. But this should not mean that other activities not listed lack the potential for achieving export success. History has shown that neither RMG nor shipbuilding was expected to become high achievers but they did so under the current globalization production system. Where different stages of production can be fragmented, it is possible to locate these various stages in different countries in accordance with their comparative advantage and it is our task to determine export policy and execute them accordingly.

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Bangladesh's Exports Potential in the Global Market

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Abstract *Bangladesh has been pursuing export led growth strategy for quite some time. It is providing a range of fiscal and legal incentives to local, fully foreign and joint-venture export-oriented industries. The exports performance has also been improving, even though the country has witnessed the preponderance of RMG products in its exports basket. However, there are many 'behind the border' constraints, which are widely believed to have detrimental impact on export performance. This paper tries to explore whether and to what extent export potential has remained unrealized due to such constraints. It adopts a panel stochastic frontier gravity model for Bangladesh for 35 important destinations including South Asian countries. It reveals that on average 43 percent of the export potential in major destinations has remained unutilized due to such constraints.*

1. Introduction

Bangladesh has been pursuing export led growth strategy for quite some time. It provides a range of fiscal and legal incentives to local, fully foreign and joint-venture export-oriented industries. The reforms of the trade regime initiated in the early 1980s continued to be undertaken by successive governments for greater outward-orientation. These measures led to a remarkable decline in quantitative restrictions, opening up of trade in many restricted items, significant rationalization and diminution of import tariffs and complete liberalization of the foreign exchange regime on current account. Generous promotional measures were also taken for exports — export promotion schemes were adopted to provide

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exporters with an environment in which the previous anti-export bias could be reduced significantly. Important export incentive schemes include subsidized rates of interest on bank loans, duty free import of machinery and intermediate inputs, cash subsidies, and exemption from value-added and excise taxes.The export performance has also been improving, even though the country has witnessed a high specialization in Ready Made Garments (RMG) products in its exports basket (Hossain and Kabir, 2011). All other non-RMG major export items have had only a modest growth since the late-1980s. Though some new items have been added to the export basket the country's export base remains narrow and undiversified (Raihan and Razzaque, 2006).

Moreover, there are many impediments in Bangladesh in the form of internal constraints, which are widely believed to have detrimental impact on export performance. Domestic 'behind the border' or supply side constraints like infrastructure, communications, ports, capacity in implementing export incentive regime, functioning of export related institutions, governance of the external sector, etc., coupled with 'beyond the border' constraints, such as inadequate market access in the form of stringent rules of origin, environmental conditions, labor regulations, compliance, various anti-competitive measures and product quality have contributed to the highly concentrated export basket. It is widely believed that the export performance would have been much better if these constraints could be removed or at least minimized.

Given this backdrop, this paper tries to explore whether and to what extent export potential has remained unrealized due to such constraints. In doing so, it adopts an augmented stochastic frontier panel gravity model of Bangladesh's exports to understand the magnitude of untapped trade potential due to behind the border constraints. The rest of the paper is organized as follows. Section 2 describes various aspects of export performance of the country, *viz*., diversification, change in destinations, key indices, and nature of the constraints. Section 3 explains the empirical specification of the stochastic frontier gravity model and sources of data. The analyses of the results of gravity model and magnitude of untapped export potential are reported in Section 4. Finally, concluding remarks are made in Section 5.

2. Bangladesh's Exports Performance

Bangladesh undertook significant changes in economic and trade policies in the 1980s and 1990s, which included structural adjustment reforms and trade liberalization through considerable reduction of tariff and non-tariff barriers, and

incentives to exports. These initiatives subsequently resulted in an increased degree of integration with the global economy. Exports increased at an average annual rate of 7.8 percent in the 1970s. The subsequent changes in economic policies led to some improvement in export performance and it grew at an average annual rate of 9.1 percent in the 1980s. In order to reduce trade deficits, the government initiated trade liberalization policies in the 1980s, which enhanced the supply response, especially of the exportables.These policies also reduced the anti-export bias and buoyant world demand led to the rapid growth of exports. Exports grew at an annual average rate of 9.6 percent during the 2000s.

During the last decade Bangladesh's exports successfully overcame two major challenges: *first*, the dreaded landslide decline of RMG exports after the complete phase-out of the Multi-Fiber Arrangement (MFA) on 31 December 2004, and *second*, the possible export shock due to global financial meltdown especially in the later part of 2000s (Hossain and Kabir, 2012). RMG exports grew at around 42 percent in FY 2010-11 even in the midst of global financial crisis, which clearly indicates the country's emergence as one of the biggest players in the international market. However, in the first ten months of 2011-12 fiscal exports witnessed a rather dismal growth, at 8.4 percent which was due mainly to the re-emergence of global economic depression and lingering Euro Area crisis (Bangladesh Bank, 2012).

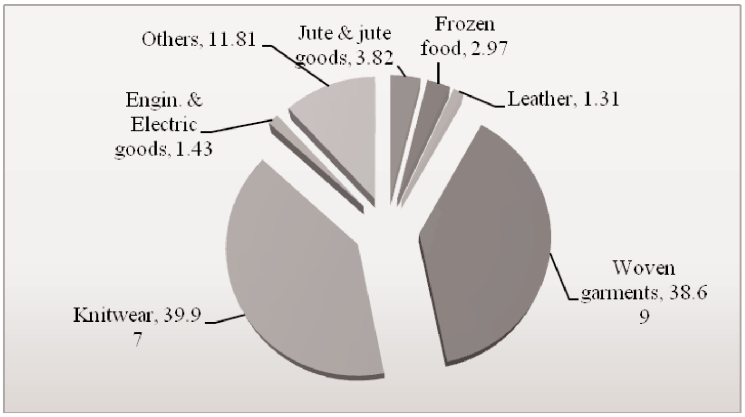
Table 1: Export Volume and Growth, 1972-2010

	1972-75	76-80	81-85	86-90	91-95	96-00	00-05	06-10
Volume (billion US$)	0.49	0.77	0.96	1.44	2.92	5.62	8.03	15.46
Growth (%)	5.46	13.86	10.22	9.37	18.00	9.92	9.03	13.20
Export-GDP Ratio (%)	4.70	5.79	5.01	5.60	8.63	12.72	15.18	19.38

Source: *World Development Indicators (www.worldbank.org).*

Besides robust growth of exports in terms of value, the ratio of exports to GDP has also increased significantly over time, from about 6 percent in 1990 to about 20 percent in 2008, although the ratio decreased a little bit in 2010 (Table1). It indicates that the country has successfully promoted its exports sector to respond to the demand in international market. It also led to greater specialization in the goods produced by its abundant factor, labor. The overwhelming dominance of RMG in the export basket over quite a long period of time (since mid-1990s) raised the issue of loss of product diversification. A consistently high diversification index (Table 2) indicates that the country has been specializing on

Figure 1: Composition of Exports Basket, Jul 2011-Jan 2012 (% of Total Exports)



Source: Bangladesh Bank, *Major Economic Indicators: Monthly Update* (April 2012).

Table 2: Export Diversification Index, 1995-2010

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
0.80	0.80	0.81	0.82	0.83	0.84	0.83	0.83	0.87	0.84	0.83	0.83	0.82	0.81	0.86	0.86

Source: *UNCTAD Statistics (www.unctad.org).*

few products. Conversely, significant diversification is taking place in the RMG but the other products are not coming out with prominence.

The composition of exports demonstrates significant changes in its pattern over time. The share of manufacturing sector remained nearly two-thirds up to the mid-1980s. The exports were dominated by natural resource intensive exports, such as raw jute, tea, frozen food, fish, and agricultural products in the primary group, and crude fertilizer, jute goods, and leather and leather products in the manufactured

Table 3: Changes in Composition of Exports, 1972-73 to 2009-10

	1972-73	75-76	81-82	85-86	90-91	95-96	2000-01	05-06	08-09	0910
Raw Jute	37.78	33.27	16.22	15.13	6.07	2.34	1.04	1.41	0.95	1.2
Primary Goods	42.27	42	32.25	36.63	17.82	12.26	7.49	7.34	6.52	5.32
Jute Manufacturing	56.82	55.88	56.56	43.46	16.91	8.47	3.56	3.43	1.73	3.25
RMG	0	0	1.12	16.05	44.6	65.61	75.16	75.06	79.33	75.29
Manufactured Goods	57.73	58	67.75	63.37	82.18	87.74	92.51	92.66	94.41	94.67

Source: *Hossain and Kabir (2012).*

group up to mid-1980s. The exports of primary goods experienced sharp decline after 1985-86 and it constituted a meager part of the export basket at around 5 percent during the 2000s (Table 3).

Besides, the shift in composition of commodity trade, destination of exports has also witnessed growing concentration and significant shift in regional composition. For example, only about one-fifth of total exports entered the EU market in 1980, while 10-15 percent of total exports went to developing Asia, the Middle East, Africa, and North America. Later on, EU emerged to be the largest destination of Bangladesh's exports followed by North America. These two markets accounted for around two-thirds of the total exports. The shift in export destination took place due to changes in the commodity composition; the EU and

Table 4: Destination of Exports (% of Total)

	1980	1990	2000	2008	2010
European Union	19.94	35.33	40.26	47.99	43.67
North America	15.15	32.23	33.71	24.58	23.78
Middle East	12.79	6.21	2.97	4.46	1.46
Africa	11.42	4.94	2.44	1.42	0.49
Developing Asia	10.41	3.3	0.58	0.64	
Others	30.29	17.98	20.03	20.9	

Source: *Calculated from IMF-DOTS.*

North America turned out to be dominant buyers of RMG products over time. This trend led to significant decline in the share of exports to developing Asia, the Middle East and Africa in total exports (Table 4). It implies that the country's export sector is susceptible to shock in the demand of the two regions.

The value index of exports demonstrates an impressive growth at an average 14.5 percent over the last three decades. From only 54.8 in 1980, it increased to 301.1 in 2010, which significantly exceeded the domestic consumer price index. It indicates that the external market has turned out to be considerably lucrative than the internal market for the same product in terms of value. However, the growth

Table 5: Indices of Exports (% of Total)

Indices	1980	1985	1990	1995	2000	2005	2010
Value index	11.85	15.61	26.12	54.80	100	145.52	301.12
Volume index	14.46	18.15	32.24	68.64	100	144.40	264.62
Unit value index	82	86	81	85	100	100.77	113.79

Source: *UNCTAD Statistics (www.unctad.org).*

of unit value index has been significantly low at an average 1.09 percent, which indicates that value addition remained meager (Kabir, 2012).

3. Model and Data

3.1 *Empirical Specification*

The stochastic frontier gravity model captures trade resistances beyond and behind the border by bifurcating the error term of an augmented gravity model. The inclusion of a non-negative unobservable term in this model helps capture unobservable and manmade resistances to trade and barriers. Kalirajan (2007) suggests that the stochastic frontier approach can be adopted in circumstances when the information on all restrictive policy-induced constraints in home and in partner countries is fully available.

Stochastic production frontier models, developed independently but simultaneously by Aigner*et al.* (1977) and Meeusen and van den Broeck (1977), are regarded to be the momentous contribution to econometric modelling of production function and estimating of technical efficiency of the production units involved in producing a particular output (Battese and Coelli, 1992; 1995). Examining the determinants of bilateral trade and calculating trade potential are also possible in this approach, as the trading process is subject to inefficiency due to various structural restraints such as political, social, infrastructural and institutional characteristics identified above along with exogenous shocks like business cycles.

To understand the nature of the stochastic frontier problem of Bangladesh's exports, suppose that the export function is $f(x_{ij,t}, \beta)$, where $x_{ij,t}$ is the vector of economic, geographic, social and institutional factors that influence exporters i and importers j at time t, and β is the vector of unknown parameters. In the absence of any error or inefficiency, countries ij would trade

$$y_{ij,t} = f\left(x_{ij,t}, \beta\right) \tag{1}$$

where $y_{ij,t}$ is the scalar of observed exports from home country i to destination j at time t. A fundamental building block of the stochastic frontier gravity model is that each country potentially exports lower due to a degree of inefficiency arising from 'behind the border' constraints, such that

$$y_{ij,t} = f[(x_{ij,t}, \beta).\tau_{ij,t}] \tag{2}$$

where $\tau_{ij,t}$ is the level of trade efficiency of the exporters and $0 \leq \tau_{ij,t} \leq 1$. $\tau_{ij,t} = 1$

1 The nature and functions of a variety of resistance have been identified in Armstrong (2007).

implies that the export is optimal with the technology embodied in $f(x_{ij,t}, \beta)$, while $\tau_{ij,t}<1$ indicates that the export is non-optimal due to inefficiency. In the case of $\tau_{ij,t}= 0$, the export is completely inefficient.

Assuming that export is subject to random shocks, the stochastic frontier gravity model in a general form can be written as

$$y_{ij,t} = f[(x_{ij,t}, \beta).\tau_{ij,t}.\exp(v_{ij,t})] \quad (3)$$

where the stochastic error term, $v_{ij,t}$, represents the random exogenous shocks to the exports processes. Although export is subject to different kind of shocks, the term is assumed to follow a common distributional pattern. Thus, $v_{ij,t}$ is a two-sided normally distributed variable. Assuming $\tau_{ij,t}$to be an exponential as $exp(-u_{ij,t})$, where$u_{ij,t}$ is a stochastic variable that follows a non-negative distribution, Equation (3) can be written in the following log-linear Cobb-Douglas form

$$\ln y_{ij,t} = \beta_0 + \sum_{k=1}^{m} \beta_k \ln x_{ij,t} + v_{ij,t} - u_{ij,t} \quad (4)$$

where the technical efficiency term $u_{ij,t}$ is time-varying. In the simplest specification, $u_{ij,t}$ is a time-invariant truncated normal random variable, and $u_{ij,t}$ and $v_{ij,t}$ are distributed independently.

As mentioned above, the stochastic frontier gravity model provides estimates of the trade potential that can be obtained if the bilateral trade operates at the frontier or maximum level when the trade resistances are at minimum or absent. Thus, the bilateral exports potential can be envisioned as the maximum possible exports which can take place if there is no resistance between them given the determinants (Kalirajan, 1999). As most of the export resistances cannot be quantified and thus remain unobserved, these together constitute the non-negative disturbance term.

Following Egger (2000, 2002), Baltagi *et al.* (2003), Serlenga and Shin (2007), and Kabir and Salim (2010), we adopt the following gravity equation to examine the potential of Bangladesh's exports in line with the functional form of the exports frontier:

$$\ln EXP_{ij,t} = \alpha_0 + \alpha_1 \ln TGDP_{ij,t} + \alpha_2 \ln RFE_{ij,t} + \alpha_3 SIM_{ij,t} + \alpha_4 \ln DIST_{ij} + \alpha_5 \ln RER_{ij,t} + \alpha_6 BOR_{ij} + \alpha_7 SAARC_{ij,t} + v_{ij,t} - u_{ij,t} \quad (5)$$

where, $EXP_{ij,t}$ is the value of exports of Bangladesh i (in US dollars) to country j at time t. Equation (1) $DIST_{ij}$ indicates the distance between i and j, and BOR_{ij} and $SAARC_{ij,t}$ imply common border (1 = if Bangladesh and j share border; 0 = otherwise) and membership in SAARC's preferential trading arrangement or free trade area (1 = if a country is a member; 0 = otherwise), respectively. Moreover,

$TGDP_{ij,t} = TGDP_{i,t} + TGDP_{j,t}$

RFE_{ij} takes a minimum of zero if both countries exhibit equal GDP or production. The range of *SIM* is given by, $0 \leq SIM_{ij} \leq 0.5$; where 0.5means 'equal' and zero implies 'absolute divergence' in country size. In a 'factor box representation' of trade model, *TGDP* can be related to the length of the diagonal of the box, *SIM* with the location of the consumption point along the diagonal, and *RFE* to indicate the distance between production and consumption points along the relative price line (Egger, 2000).

Egger (2000) and Baltagi et al. (2003) indicate that positive TGDP of local and destination countries and positive SIM imply increased intra-industry trade, *i.e.*, $\alpha_1>0$ and $\alpha_3>0$ support the New Trade Theory (NTT). Greater similarity with respect to GDP per capita implies increased similarity in size of the country-specific product diversity in the differentiated goods sector (Breuss and Egger, 1999). Due to variety in consumers' taste, increased similarity yields an increased trade volume and therefore $\alpha_3>0$.

The *Linder* hypothesis predicts that an increased difference between per capita GDP of source and destination countries will decrease trade of monopolistically competitive products under the assumption of differentiated tastes, and thus $\alpha_2<0$. Bergstrand (1990) reveals that within the developed world, bilateral trade is inversely related to the difference in *RFE* or positively related to the similarity in preferences, which supports the *Linder* hypothesis. Krugman (1981) shows that the nature of trade depends on similarity of countries in terms of factor endowment (which supports the *Linder* hypothesis), and trade between countries increasingly becomes intra-industry as they become more similar. Baltagi *et al.* (2003) observe that the Heckscher-Ohlin-Samuelson theorem implies that $\alpha_2>0$.

RER_{ij} stands for real exchange rate between two countries, which is calculated as the product of the nominal exchange rate and relative price levels in each country. Following Serlenga and Shin (2007), it is expressed as

where $P_{i,t}$ and $P_{j,t}$ are price levels of home and partner countries respectively. $ER_{ij,t}$ is the bilateral nominal exchange rate between the currencies of foreign country *j* and the home country *i*. Carrère (2006) and Serlenga and Shin (2007) argue that an increase in the bilateral real exchange rate reflects depreciation of

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2 Kumbhakar and Lovell (2000) provide a detailed version of this derivation.

3 The 2×2×2 trade model that is due to Helpman and Krugman (1985) and Helpman (1987) is comprised of two goods (differentiated and homogenous), two factors (capital and labour), and two countries (importer and exporter).

the importer's currency against that of the exporters. Thus, the coefficient of *RER* is expected to be positive in the exports panel.

3.2 *Data*

In order to construct the panel data of Bangladesh's exports for the period of 1980-2010, the sample countries are drawn from all the destination countries of Bangladesh's exports by posing a quantitative criterion? the countries should have 0.2 per cent of its total world exports to the individual partner country. This criterion has helped identify the major export destination.

The annual data on aggregate exports are gathered from the International Monetary Fund's (IMF) Direction of Trade Statistics (DOTS) and Export Promotion Bureau (EPB) of Bangladesh. Data on GDP and per capita GDP are collected from the WDI. The data on distance, common border and common official language come from the Centred' EtudesProspectives etd' Informations Internationales (CEPII).

Bilateral exchange rate data are not available in the standard secondary sources. Therefore, it is calculated from official exchange rates of individual countries, which are collected from the WDI. Brun *et al.* (2005) and Athokorala (2009) primarily use consumer price index (CPI) to represent the price level. We use the CPI as the price indicator, which are collected from the World Development Indicators. Data on the presence of a common border are taken from CEPII.

Table 6: Results of the Stochastic Frontier Gravity Model

	Coefficient	Standard Error (Robust)	P > |z|
$lnTGDP_{ij,t}$	2.643	0.167	0.000
$lnRFE_{ij,t}$	0.150	0.157	0.340
$SIM_{ij,t}$	13.009	1.365	0.000
$lnDIST_{ij}$	-1.691	0.724	0.020
$lnRFR_{ij,t}$	0.156	0.046	0.001
BOR_{ij}	-2.169	1.009	0.032
$SAARC_{ij,t}$	0.032	1.798	0.986
Constant	-41.418	7.140	0.000
Country: 35			
Time Period: 1980-2010			
Wald χ^2	445.25		
Prob> χ^2	0.000		
μ	-3.535	9.295	0.704
$ln(\sigma^2)$	2.721	1.140	0.017
$ilgt(\gamma)$	1.746	1.339	0.192
Log likelihood	1608.55		

4. Analyses and Results

4.1 *Results of the Gravity Model*

The Maximum Likelihood estimates of gravity equation (5) have been presented in Table 6 for Bangladesh's exports. *TGDP* turns out to be positive as expected. The positive but insignificant*RFE*indicates absence of *Linder* effect in exports of Bangladesh. However, positive and significant *SIM* indicates that the pattern of exports follows New Trade Theory if it performs at the frontier. The sign of *DIST* is negative and significant, which indicates that distance elasticity of exports is negative, *i.e.*, greater distance of destination country discourages exports from Bangladesh. It is negative and significant at 5 per cent level in the exports panel, which supports Kalirajan (1999, 2007) and Kalirajan and Singh (2008). *RER* takes the desirable sign, which indicates that a real depreciation increases exports. The variable *BOR* takes the unexpected sign indicating that common border with India decreases Bangladesh's exports in the long run.

Table 7: Bangladesh's Export to South Asia (% of Total)

	1980	1985	1990	1995	2000	2005	2011
Afghanistan						0.010	0.015
Bhutan			0.009	0.009	0.016	0.039	0.014
India	1.014	2.963	1.298	1.143	0.897	1.400	2.240
Maldives	0.000	0.013	0.000	0.001	0.000	0.000	0.152
Nepal	0.066	0.513	0.440	0.319	0.024	0.041	0.004
Pakistan	6.993	4.151	1.390	0.847	0.617	0.612	0.047
Sri Lanka	0.604	0.024	0.492	0.367	0.044	0.104	0.379
Total	8.677	7.664	3.629	2.686	1.598	2.205	2.851

Source: *Calculated from IMF DOTS and EPB.*

However, the coefficient of *SAARC* turns out to be positive but significant. It indicates that the exports of Bangladesh to SAARC countries have not increased significantly since inception. Data also supports this evidence. Table 7 shows that in 1985 the total export to SAARC countries was 7.7 percent of Bangladesh's exports to the world, it went down significantly to only 1.6 percent in 2000. However, this ratio increased a little bit later on, but it was roughly 2.9 percent in 2011.

4.2 *Export Potential*

Export potential measure provides useful insight to examine the scope of the highest possible expansion of exports between the bilateral partners. In the conventional gravity model, export potential or the performance of bilateral

export flow can be measured using the mean prediction (Baldwin, 1994). As opposed to such exercise, an estimate of the highest potential can be worked out from the linear predictions of the estimated regression coefficients of the export frontier from the augmented gravity model.

The focus of the stochastic frontier gravity model is to work out the impact of resistance to bilateral export flows with respect to potential. Kalirajan (1999) defines potential trade to be the maximum possible trade that can take place, given the determinants, when no (beyond and behind the border) constraints are imposed on trade between the two countries. This potential may be constantly changing as countries either increase or decrease the impediments on trade. Drawing heavily on his work, let us consider Equation (5) to conceptualise Bangladesh's export potential as follows.

Suppose that β_k are the estimates of parameters of the potential gravity function that yields the highest possible export from home to destination countries. The β_k coefficients are chosen to represent the export responses following minimum behind the border constraints by the trading partners. These can be obtained from among the individual response coefficients in the following way:

$$\beta_{k,t}=\max_j(\beta_{kj,t})\ j = 1, 2, \ldots,n;\ t = 1, 2, \ldots, T;\ k = 1, 2, \ldots, K \qquad (6)$$

If the response coefficients are selected using Equation (4.7), then the highest possible trade between trading partners i and j if they face fewer restriction on trade can be determined by the gravity equation (6).

Based on the regression estimates, export potential between countries, i and j, can be worked by the following ratio:

$$PE_{ij,t} = \frac{EXP_{ij,t}}{\exp(\ln EXP^{*}_{ij,t})} \qquad (7)$$

where is the realised exports and [*exp*] is the export predicted from the significant coefficients of Equation (5) that yields the maximum possible export following 'fewer' behind the border constraints. $PE_{ij,t}$ denotes the index of potential export that varies between 0 and 1. Equation (7) provides useful information about the realisation of actual export towards the highest possible export measured at the frontier. For example, $PE_{ij,2000} = 0.52$ suggests that the rate of realisation of the export potential is 52 per cent in the year 2000.

The trend of realisation of Bangladesh's export potential over time is displayed in Table 8. The realisation of Bangladesh's export potential has been on average 77 percent for the significant destinations, including South Asian countries in the

Table 8: Country Ranking in Realization of Export Potential

Country	% Unrealized	Sl.	Country	% Unrealized	Sl.	Country	% Unrealized
Greece	72	13.	South Africa	26	25.	UK	13
Bhutan	56	14.	Norway	25	26.	Sweden	12
Singapore	49	15.	Denmark	25	27.	USA	12
Korea	46	16.	Iran	24	28.	Italy	11
Japan	46	17.	Turkey	22	29.	Netherlands	9
Saudi Arabia	45	18.	Switzerland	18	30.	Pakistan	9
Ireland	31	19.	Germany	16	31.	Belgium	7
Austria	31	20.	Australia	16	32.	Mexico	6
Russia	30	21.	France	16	33.	Sri Lanka	4
Nepal	28	22.	India	15	34.	Brazil	1
Finland	28	23.	Spain	14	35.	Canada	1
Poland	26	24.	Hong Kong, China	14			

long run among all the sample countries. However, 43 percent export potential is unrealised in the first ten countries where export potential is highly unutilized. Amongst these countries Greece, Singapore, South Korea, Japan, Saudi Arabia, Ireland, Austria and Russia are big markets where Bangladesh can significantly expand its exports, varying from 30 to 72 percent. In the next 10 countries the untapped export potential is 23 percent. Thus, there is a significant avenue of export expansion for Bangladesh to its export destinations.

For the South Asian countries, the realization of export potential is 78percent. Bangladesh can expand its exports significantly to only two countries, Bhutan and Nepal. However, Bangladesh's volume of exports in these two countries is not of considerable amount; it was only US$3.1 and US$10.8 million in 2010, respectively, which could have been expanded up to 52 and 28 percent, respectively, in that year.

5. Concluding Remarks

This paper provides an account of the export performance and potential of Bangladesh by adopting an augmented stochastic frontier panel gravity model. It reveals that even though the country has registered significant growth of exports over the years due to a range of policy reforms and incentives to export sector, there have been structural changes of commodity composition and destinations. Also, there has been specialization in RMG products. However, a number of factors inhibit the growth and realizing the potentials of the country's export. Domestic behind the border or supply side constraints like infrastructure, communications, ports, capacity in implementing export incentive regime, functioning of export related institutions, governance of the external sector, etc., coupled with 'beyond the border' constraints, such as inadequate market access

have contributed to the highly concentrated export basket (Hossain and Kabir, 2011).

Liberalization has opened up export opportunities for the country. However, it has also increased the level of competition and the number of non-trade barriers deterring the export in some markets in the form of stringent rules of origin, environmental conditions, labor regulations, compliance, various anti-competitive measures and product quality. Razzaque and Raihan (2006) identified some behind the border constraints that restrain export performance of the country. These are lack of fund for investment and working capital, high rate of interest charged by financial institutions, shortage of skilled manpower, stringent regulatory regime, low standards and quality of products, lack of entrepreneurial and managerial skills, political tensions, occasional labor unrest in export oriented firms, institutional weakness/inefficiency, poor law and order situation, bribing, centralized decision making, power crisis, and inefficient ports and customs. Despite some recent initiatives of automation, the whole customs facility has remained comparatively inefficient.

The present paper reveals that due to behind the border constraints, significant potential of exports has remained untapped over the last three decades, which are mostly bigger markets and important destinations of the country's exports. There will be growing competition in the coming years and Bangladesh will gradually lose its current comfort in the international market due to, *inter alia*,increased wage, tariff rationalization in energy and other basis utilities, high cost of doing business, and medium income country status. Therefore, the country will need to address the above-mentioned constraints in order to realize the significant potential which already exists, and gradually secure a good standing amongst its competitors in the long run.

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An Empirical Inquiry into Macroeconomic Determinants of Remittances inflow in Bangladesh

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Abstract *Bangladesh is ranked 7th highest remittances receiving country of the world. Remittances have significant impacts on living standard of recipient households, easing national saving-investment and exports-imports gap, and building up of a better foreign exchange reserves. Reaping continuous benefits from remittances depend on addressing two issues, namely (i) increasing the number of remitters, particularly skilled and professionals; (ii) maintaining sustainability of remittances inflow. This paper analyzes macroeconomic determinants of remittances in Bangladesh and finds that home and host country income, exchange rate, financial sector development, and inflation rate have significantly affected remittance flows to Bangladesh. The paper also prescribes policies that would help promote remittance and contribute to achieving higher growth, generation of employment, and alleviation of poverty.*

JEL Classifications: *F16, F22, J61*

Key Words: *Remittances, Bangladesh.*

1. Introduction

Workers' remittance has emerged as the a source of foreign exchange earnings in Bangladesh like many other developing countries. The growth of remittance flows has already surpassed private capital flows (FDI) and Official Development Assistance (ODA). For some developing countries, remittance accounts for between 10 to 31.1 percent of GDP. These countries are highly dependent on

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remittances as means of poverty alleviation and financing development activities. Thanks to their growing volume and development potentials, policy makers both in developed and developing countries are showing greater interest in remittance inflows, their determinants, costs and benefits, and policy challenges in the coming years.

Bangladesh has emerged as one of the top remittance recipient countries in the world securing 7th position. She experienced phenomenal growth in remittance inflows from $1.8 billion in 2001 to $4.8 billion in 2006 and $10.73 billion in 2010 (Annexure-1). Overseas employment and remittances contribute significantly to the economy of Bangladesh through promotion of living standard of recipient households, easing national saving-investment and export-import gap, and building up a better foreign exchange reserves. The amount of remittances in terms of proportion of GDP, exports and imports stood at 10.9, 66.1 and 46.2 in 2010 (Annexure-II1). Obviously, the stability of remittances inflow has become an important policy issue due to its growing development potential to affect both micro and macro economy via current account financing and influencing liquidity of the banking system. So, assessing the dynamics of remittances has been imperative for the smooth conduct of monetary and exchange rate policy. The present research paper investigates the role of macroeconomic variables on remittance inflows in Bangladesh based on the time series data for the period 1981-2010. The objectives of the paper are to find out macroeconomic determinants affecting remittance inflow in Bangladesh and suggest policy options in maintaining its sustainability and ensuring its developmental role in country's the economy.

The organization of the rest of the paper is as follows. Section 2 describes stylized facts of remittance inflow in Bangladesh to have a better understanding of the context within which the determinants of remittances are analyzed. Section 3 reviews foreign and domestic literature on the determinants of workers remittances. Section 4 is devoted to presenting the data and methodology used in the paper. The results of the estimation and policy options are analyzed in Section 5. Finally, conclusions are included in the Section 6.

2. Stylized Facts of Workers Remittance Inflows in Bangladesh

- Bangladesh started to export manpower abroad particularly in the Middle Eastern (ME) countries following the oil price boom in the early 1970s. Because of labor shortage ME countries had to import foreign labor to gear

up huge development activities financed by surplus oil revenues. Since inception, exports of manpower and remittance inflows were increasing every year with little exception (Annexure-I &1I).

- Most of the expatriates are working in Middle Eastern countries. As a result, major share of remittances came from Middle Eastern countries (Annexure-1). The Kingdom of Saudi Arabia (KSA) is the top destination country of Non-resident Bangladeshis (NRBs) followed by UAE (the United Arab Emirates) and Kuwait. The other Middle Eastern countries that import Bangladeshi workers include: Qatar, Oman, Bahrain, Libya, Iran and Iraq. Besides Middle Eastern countries, some South-East Asian countries, namely Malaysia and Singapore are also importing Bangladeshi workers at considerable numbers. The other South-East and East Asian countries that import Bangladeshi workers are Brunei and Japan. The OECD countries like USA, UK and Italy are also emerging as significant sources of remittances.
- About 5.5 million Bangladeshi workers got overseas employment. Now 0.45 million Bangladeshi (on average) migrate every year for jobs. Among all migrants, the female are only 1 percent. Out of them, 4.08 percent are professional workers, 33.42 percent are skilled workers, 15.49 percent are semi-skilled workers and 47.01 percent are unskilled workers.
- Initially Government organs BMET and BOESL played leading role in recruiting manpower but now most overseas job seekers go through private recruiting agents under government license and individuals working abroad.
- Officially recorded remittances are channeled through the banking network. In this case, the role of Nationalised Commercial Banks (NCBs) is gradually decreasing while private banks are emerging as major players in channeling remittances. A study[1] conducted by the International Labor Organisation (ILO) reveals that "In Bangladesh, 46 percent of the total volume of remittance has been channeled through the official sources, around 40 percent through hundi, 4.61 percent through friends and relatives and about 8 percent of the total was hand carried by migrant workers themselves when they visited home. If all amounts of remittances were made through the official banking channel, the Current Account Balance (CAB) in the Balance of Payments would be dramatically changed and foreign exchange reserves position would have been better.

1 International Labor Organization (ILO) : A study conducted by the Refugee and Migratory Movements Research Unit, ILO, 2001.

- Now every year 0.45 million workers on average migrate, which helps cut the unemployment level. Moreover, remittance inflow has helped the country cut its poverty substantially. According to Global Economic Prospects for 2006, "Remittances have association with significant declines in poverty in several low income countries including six percent in Bangladesh, eleven percent in Uganda and five percent in Ghana."
- Remittance plays a vital role to bring sustainability in the current account balance. Current account balance has been turned positive in recent years (with some exceptions) following a steady remittance inflows.
- Remittances have contributed a lot to maintaining healthy foreign exchange reserves. Among major sources of foreign exchange, exports hold the top position followed by remittance. But if we take back-to-back imports into consideration used for RMG exports, remittances emerge as the single largest source of foreign exchange. The surge in remittances also contributes to reducing the dependency on conditional costly foreign borrowings.
- Financial sector development is being enhanced through increased inflows of remittances. This is reflected in the increasing number of clients, the expanding base of different products among beneficiary of remittances, and adoption of modern technology by the financial institutions.
- Remitters also create markets in the destination country for domestic products.
- Since Bangladesh is a labor surplus country, the adverse effect of brain drain is perhaps the minimum.

3. Review of Literature

The existing literature has recognized two types of determinants of Workers Remittances (Aydas, S. T. etal. 2004). The first category refers to microeconomic determinants such as socio demographic characteristics of migrants and their families; these include migrant income, gender, marital status, age, education level, duration level, migration costs, migrant's spouse, risk, HH income, wealth, shock and dependency ratio (Agarwal & horowitz 2002, Amudo-Doranttes & Pozo 2005, 2006, Holst and Schrooten 2006). The second type of determinants deals with macroeconomic variables such as the economic activity in host and home countries, exchange rates, relative interest rate, number of workers, wage rates and financial development. Since the scope of the research paper is confined to analyze the macroeconomic determinants of remittances inflow, it is beyond our scope to analyze the microeconomic determinants of remittances.

Major empirical macroeconomic papers focus that the economic activity in the migrant workers' host country is the most important factor because improved economic conditions in the host country allow migrants to increase their employment and earnings prospects, which in turn allow migrants to send more money home (Swamy 1981, Straubhaar 1986, Elbadawi and Rocha 1992, El-Sakka and Mcnabb 1999, Aydas, S. T. etal. 2004, IMF 2005).

The state of the economy in the migrants' home country is also important since negative shocks in the home country may increase the need for remittances to be sent, which may induce current migrants to send money or cause migration in the first place (IMF 2005). While most empirical papers that test altruistic motive to remit at the microeconomic level, Bouhga-Hagbe (2006) uses macroeconomic determinants to test altruism as a motive to remit. They use a measure of "hardship" (fall in domestic GDP) to test altruistic motives in Egypt, Jordan, Morocco, Pakistan and Tunisia and find that as hardship increases so do remittances.

Some macroeconomic papers also look at the investment motive of remitters by looking at the macro economic conditions for investment in both the home and host countries (Akkoyunlu & Kholodilin, 2006 and Schiopu & Siegried, 2006). When testing altruism versus investment at a macroeconomic level, Schiopu and Siegried (2006) find evidence for altruism, but little evidence for the investment motive.

Economic policies and institutions in the home country, like exchange rate restrictions and black market premiums, may discourage remittances from being sent and may also shift remittances from the formal to the informal sector (IMF, 2005 and El-Sakka & McNabb, 1999). Macroeconomic instability such as high inflation or real exchange rate hyperinflation may have a similar negative effect. On the other hand, financial sector development, which makes remittances easier and cheaper, should stimulate remittances (IMF, 2005).

Some studies like Chandavarkar (1980) and Aydas, S. T etal. (2004) reveal that exchange rate affects remittances flows. A few studies opine that neither interest rate differentials between the host and home countries, nor the variation in exchange rates have any effect on remittance flows (Swamy 1981 and Straubhaar 1986).

Wahba (1991) indicates that black market premium, interest rate differentials, political stability, consistency in government policies and financial intermediation all significantly affect the flow of remittances. However, while El-Sakka and Mcnabb (1999) and Elbadawi and Rocha (1992) agree on the negative effect of

the black market premium, they disagree on the effects of differential interest rate and domestic inflation. According to Elbadawi and Rocha (1992), differential between domestic and foreign interest rates has no significant effect on remittances, while El-Sakka and Mcnabb (1999) argue that it negatively affect the remittances. Moreoever, Elbadawi and Rocha (1992) find significant negative effect of inflation on WR flows, while El-Sakka and Mcnabb (1999) argue that it has a positive effect.

General risks in the home country such as political instability or low levels of law and order may deter remittances, since such an environment is not conducive for investment purposes (IMF, 2005). On the other hand, in such times there may be more need for remittances so more remittances may be sent. Investment opportunities in the home and host country may also have an effect on remittances. Greater potential return to assets in the host country (as opposed to the home country) may encourage migrants to invest in the host country and reduce remittances for investment purposes (IMF, 2005).

The contradictory findings reported in the literature may reflect the fact that the focus of some of these studies is often limited to only a few macroeconomic variables, ignoring key determinants such as the black market exchange rate. In addition, due to the lack of data, estimation periods of most of the studies are rather short. Also, in various studies (Elbadawi and Rocha [1992], El-Sakka and Mcnabb [1999]) the estimation is based on modeling remittances with the levels of potential determinant variables, while these variables are generally non-stationary.

Though there are many studies dealing with macroeconomic determinants of remittances in key recipient's countries (e.g Turkey, India, Pakistan, Kenya, Jordan, Greece, Egypts, Philippines, Mexico etc), surprisingly, few are available on the topic in Bangladesh. In this backdrop, the present research paper, dealing empirically with macroeconomic determinants of remittances in Bangladesh, would add new dimension to the existing literature on migration and remittances in Bangladesh.

4. Data Information & Methodology

Variables Definition and Data Information

Data employed in this research paper are secondary in nature. The main sources include Economic trend (Bangladesh Bank), Bangladesh Economic Survey (Ministry of Finance), Scheduled Banks Statistics (Bangladesh Bank),

International Financial Statistics (IFS) and World Bank Data Series. The sources and definition of data/variables used in the model are explained in detail below.

- Remittances inflow (REM): Remittances inflow represents the cash inflow of remittances in million US$ that comes from top ten Bangladeshi manpower importing counties – KSA, UAE, Kuwait, Oman, Qatar, Bahrain, Malaysia, USA, UK and Singapore. These countries account for more than 90 percent of total remittances. The other countries are excluded due to non-availability of data.
- GDP of Host country (GDPH): Ten countries with biggest stock of Bangladeshi workers are selected as host countries. We assign weights to each country according to the stock of Bangladeshi remitters and derive GDP index. Data are collected from World Bank Data Base.
- Domestic GDP at constant Price (GDPD): The paper uses the base, 1995-96 = 100, for GDP at constant price. This figure is used for calculating the GDP growth. The data for GDP at constant price in million Taka are collected from different issues of Monthly Economic Trend.
- The financial sector development (FSD) refers to (M2/GDPMP)*100. Data on GDP at current market price (GDPMP) in million Taka and Broad Money (M2) in million Taka have been collected from different issues of Monthly Economic Trend of Bangladesh Bank.
- Exchange Rate (ER): It refers to Taka/dollar exchange rate. The data for ER are collected from different issues of Monthly Economic Trend directly.
- Inflation (INF): It refers to % change in CPI index (base:1995-1996) which is gathered from Economic Trend, Bangladesh Bank.

Specification of the Model

After reviewing the existing literature and the salient features of remittances inflow in Bangladesh, the paper focuses a model to analyze the macroeconomic determinants of workers' remittances in the context of Bangladesh economy. In the light of previous studies cited in the literature review particularly, Aydas, S. T., etal (2004). Gupta, P. (2005) and Bouhga-Hagbe, (2006), the variables employed in the model are official cash remittances (REM), stock of workers abroad (NRB), domestic GDP of Bangladesh (GDPD), the GDP of host countries , exchange rate of Taka against US dollar (ER), domestic inflation (INF) and financial sector development (FSD). We use ordinary least square (OLS) method to estimate the

model for remittances inflow in Bangladesh using the data set from 1981 to 2006. In this context, we use statistical software E-views as a tool for estimation. Though Bangladesh started exporting manpower since 1976, the 1981-2007 period is selected due to non-availability of earlier data. Hence, the following model is estimated for the dependent variable remittances inflow (REM) for 1981-2007:

$$Log\ REM = log(GDPH) + log\ (GDPD) + log(ER) + log\ (FSD) + log(INF)$$

5. Findings, Statistical Analysis and Policy Options

Findings

In order to estimate the model for remittance inflow in Bangladesh based on the data set for 1981-2010, the research paper obtains the following regression results (Table-2) by using the statistical software e-views.

Using the findings we can estimate remittances inflow function as below:

Table 2: Regression Results (Dependent Variable: LOG (REM)

Explanatory Variables	Coefficients	Std. Error	t-statistic	Prob.
Log(GDPH)	1.354360	0.190150	7.122592	0.0001
Log(GDPD)	-0.350892	0.065886	-5.325760	0.0019
Log(ER)	0.771258	0.258763	2.980554	0.0066
Log(FSD)	0.623780	0.267680	2.330319	0.0151
Log(INF)	0.074275	0.059559	1.247065	0.2081
R-squared	0.976812			
Adjusted R-squared	0.972395			
F- Test	221.1560			0.0000
D-W Statistic	1.299586			

Log REM = 1.35log(GDPH) - 0.35log (GDPD) + 0.77log(ER) + 0.62log (FSD) + 0.o7log(INF)

Analysis of the findings

According to the second column of Table 2, we find the estimated coefficients of GDPH, GDPD, Exchange rate, FSD, and inflation. Now we shall explain the sign and magnitude of these coefficients and their implications one by one.

The estimated coefficient of host country GDP (GDPH) is positive (1.35) and highly statistically significant at less than 1 percent level of significance. The

values of t-statistic and the probability of rejecting the null hypothesis, H_0: $?_1$ = 0, are 7.12 and 0.0001 respectively. The positive coefficient suggests that an increase in host GDP increases remittances inflow in Bangladesh. This conforms to the findings of other studies (Swamy 1981, Straubhaar 1986, Elbadawi and Rocha 1992, El- Sakka and Mcnabb 1999, Aydas, S. T., etal. 2004, IMF 2005) implying that the expanded GDP of remittance-source countries enhances recruitments of Bangladeshi workers, and as a result, remittance flows go up. The greater than 1 percent coefficient of host GDP suggests that the level of economic activity in the host country is the most important among the variables of the model affecting the remittance inflows in Bangladesh.

The sign of the coefficient of Bangladeshi GDP (GDPD) is found negative and lower than unity (0.35). But the coefficient is statistically significant with less than 1 percent level of significance. The values of t-statistic and the probability of rejecting the null hypothesis, H_0: $?_2$ = 0, are 5.325760 and 0.0019 respectively. The negative effect of GDPD indicates that remittance inflow mainly smoothes consumption of recipient households to compensate for negative income shocks. However, it has multiplier effects on GDP. The results supported by other studies (Gupta, 2005 and Bouhga-Hagbe 2006) are also found in other countries. Remittances as share of personal consumption rose in response to financial crisis in Mexico in 1995, in Indonesia and Thailand in 1997. Remittances as share of personal consumption also went up in response to natural disaster in Bangladesh, Dominican Republic, Haiti and Honduras.

The elasticity of the remittances inflows with respect to exchange rate is 0.77, which is positive and lower than unity. The values of t-statistic and the probability of rejecting the null hypothesis, H_0: $?_3$ = 0, are 2.98 and 0.0066 (below 1%). The effect of exchange rate is significant at less than 1 percent level of significance. This indicates that currency depreciation promotes inward remittances in Bangladesh. A depreciation of currency (Taka against US$), as the regression results reveals, increases remittances sent through official channel. This is also consistent with the findings of Chandavarkar (1980). The depreciation of the home currency makes the citizen living abroad wealthier as it increases the purchasing power in the home country and provides incentives to buy goods, including residential real estate. This has also multiplier effects.

The sign of the coefficient of the financial sector development is positive, but the magnitude is less than one (0.62). But, it is statistically significant at 1.5 percent level of significance. The values of t-statistic and the probability of rejecting the null hypothesis, H_0: $?_4$ = 0, are 2.33 and 0.0151, respectively. The positive sign

indicates that the higher the degree of financial sector development, the more will be the remittances inflows. This is also supported by other studies (IMF, 2005).

The empirical evidence in this paper reveals that inflation (INF) does not significantly affect remittances inflow to Bangladesh. The issue of no relation of inflation with remittances or minimal relation between the two is also analyzed in some studies.

Considering the F-statistic (221.1560), we can say the model is overall significant, because the probability of rejecting the null hypothesis, H_0: $?_1 = ?_2 = ?_3 = ?_4 = 0$ is zero (0.0000). Besides, since the R^2 (0.972395) and adjusted R^2 (0.976812) are very high, the variables used in this model are able to explain the model significantly. In other words, the model is a good fitted one.

6. Policy Options and Conclusions

Based on the findings, the paper suggests the following measures to augment remittances inflows in Bangladesh.

1. Establishing hassle free sending infrastructure
2. Exploring new overseas markets
3. Making continuous improvement of formal channel of fund transfer
4. Creating real investment avenues for Non-resident Bangladeshis (NRBs)
5. Restrictions on holding of foreign currencies by NRBs or residents may be lifted altogether. The experience of the Philippines in this regard indicates that remittance inflow rather increased after withdrawal of restrictions in that country.
6. Alongside the other three bonds (Wage Earners' Development Bond, US $ Investment Bond and US $ Premium Bond), a special financial instrument named "Workers' Remittance Bond" with attractive returns in the pattern of Foreign Exchange Bearer Certificates may be introduced and sold to the NRBs through the overseas branches or correspondents of Bangladeshi banks, including exchange companies.
7. Government can issue sovereign bond to raise funds from Bangladeshi migrants/ foreigners for infrastructure financing. International Sukkuk bond based on Islamic Sharia'h may also be issued to tap foreign currencies.
8. Enactment of a "National Migration Policy" is a need of the hour to treat this sector as an industry and to establish formal smooth guidelines, transparency

and accountability in processing the overseas employment and welfare of the migrant workers.

9. Mexican experience suggests that introduction of 'matriculas consulers' have boosted up remittance flow to Mexico. Our foreign embassies and high commissions may also replicate this system to provide a legal identity to the NRBs spread over the world. This official recognition/identity of the NRBs whether they went there legally or illegally might help them to open bank accounts as well as sending remittances through the official channel.

10 Financial fairs may also be arranged by Bangladesh missions abroad in cooperation with the overseas country's concerned ministries or departments to inspire the NRBs to acquaint with the formal official arrangements for effecting remittance to the country. Drawing on the experience of Sri Lanka, commercial banks may be allowed to extend low-interest loan schemes to the beneficiaries of NRBs at home for purchasing land, flats, building houses or for investing in self-employment activities.

11. An effective and elaborate publicity drive should be undertaken by the embassies, consulate offices and the Bangladeshi bank branches abroad and their correspondents including exchange companies to familiarize the NRBs with the benefits and advantages of the package of facilities including investment facilities extended to them.

In Bangladesh, the stability of remittance inflow has become an important policy issue due to its growing impacts on employment generation, development financing, BOP stability and liquidity of the banking system. Following this policy perspective, the paper empirically examines the effect of various macroeconomic variables on remittance flows and found that for the 1981-2010 period, macroeconomic variables like economic activity of home country, economic condition of host country, financial development and exchange rate have significantly affected remittance flows. Based on these findings, the paper concludes that Bangladesh as a labor exporting country can influence the inflow of remittances by means of appropriate policies of building hassle free sending infrastructure, searching new overseas markets, further improvement of formal channel of fund transfer, and creating investment avenues for non-resident Bangladeshis.

As remittances are quid-pro-quo in nature and have no future repayment obligations like other forms of foreign capital and have exhibited resilience and stability, Bangladesh should pay topmost priority to tap huge amount of foreign exchange by exporting millions of unemployed youths to remove constraints of

financing development activities to make Bangladesh poverty free within 2020. In the backdrop of declining trend of ODA and fierce competition for FDI, massive remittance flows to Bangladesh would also curtail dependency on conditional foreign funds and enhance our policy sovereignty. Further rigorous research should be conducted to examine trends, determinants and policy options so that remittances can be a viable sustainable source of development finance in Bangladesh.

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Annexure 1: Countrywise Remittances inflows in Bangladesh

(In Million US$)

Year	KSA	UAE	Qatar	Oman	Bahrain	Kuwait	USA	UK	Malaysia	Singapore	Total10	Others	Grand Total
1981	83.88	65.59	13.67	5.91	1.26	19.09	32.99	104.9	0	0	327.3	53.89	381.2
1982	120.9	55.49	15.98	10.36	2.48	22.97	31.86	69.27	0	0	329.3	89.15	418.5
1983	199.7	78.68	28.99	12.65	3.68	44.94	39.52	84.55	0	4.04	496.8	122.7	619.5
1984	215.1	59.8	30.2	24.1	8.1	50.5	36.8	70.6	0	6.6	501.8	88.8	590.6
1985	153.7	42.1	22.1	27.5	6.8	37.6	32.4	50.9	0	3.4	376.5	65.1	441.6
1986	180.4	54	22.3	54.1	9.4	62.3	38.7	77.6	0	2.4	501.2	147.4	648.6
1987	216.3	60.9	38.4	53.4	11.3	101.3	43.2	92.8	0	2.6	620.2	77.25	697.5
1988	226.5	62.36	45.7	51.92	12.39	96.37	61.44	88.39	0	2.11	647.1	90.29	737.4
1989	219.4	61.23	44.84	45.31	13.25	96.41	83.96	67.39	0	2.09	633.9	137	770.8
1990	226.2	55.16	40.27	40.55	14.28	89.22	82.38	58.4	0	2.28	608.7	149.5	758.2
1991	264.9	78.13	59.5	49.69	16.48	9.01	60.15	68.83	0	2.16	608.9	155.2	764.0
1992	315.7	79.56	48.07	60.55	20.2	66.9	55.43	57.15	0	1.52	705.1	142.9	848.0
1993	398.4	80.22	53.83	60.08	22.36	124.1	68.06	48.44	4.22	2.53	862.3	81.75	944.0
1994	441.1	88.1	56.16	73.03	27.3	185.2	78.68	48.49	10.19	2.32	1010.6	78.21	1088.8
1995	476.9	81.34	72.18	81.27	33.71	174.7	102.23	47.02	10.19	2.32	1081.9	115.8	1197.6
1996	498.2	83.7	53.28	81.71	30.08	174.3	115.36	41.28	74.43	3.99	1156.3	60.76	1217.1
1997	587.2	89.64	53.16	94.45	31.52	211.5	157.39	56.2	94.51	6.66	1382.2	93.23	1475.4
1998	589.3	106.9	57.81	87.61	32.42	213.2	203.13	65.8	78.09	7.69	1441.9	83.57	1525.4
1999	685.5	125.3	63.94	91.93	38.94	230.2	239.43	54.04	67.52	13.07	1609.9	95.82	1705.7
2000	916	129.9	63.73	93.01	41.8	245	241.3	71.79	54.04	11.63	1868.2	81.14	1949.3
2001	919.6	144.3	63.44	83.66	44.05	247.4	225.62	55.7	30.6	7.84	1822.2	59.91	1882.1
2002	1148	233.5	90.6	103.27	54.12	285.8	356.24	103.3	46.85	14.26	2435.8	65.29	2501.1
2003	1254	327.4	113.55	114.06	63.72	338.6	458.05	220.2	41.4	31.06	2962.4	99.61	3062.0
2004	1386	373.5	113.64	118.53	61.11	361.2	467.81	297.5	37.06	32.37	3248.8	123.2	3372.0
2005	1510	442.2	136.41	131.32	67.18	406.8	557.71	375.8	25.51	47.69	3701.1	147.2	3848.3
2006	1697	561.4	175.64	165.25	67.33	494.4	760.69	555.7	20.82	68.84	4567.1	234.8	4801.9
2007	1735.0	805.0	233.0	196.0	80.0	681.0	930.0	887.0	12.0	80.0	5639.0	339.0	5978.0
2008	2324	1135	289.8	220.6	138.2	863.7	1380.1	896.1	92.44	130.1	7470.3	444.5	7914.8
2009	2859.1	1754.9	343.4	290.1	157.5	970.8	1575.2	789.7	282.2	165.1	9187.8	501.3	9689.2
2010	3427.1	1890.3	1019.2	170.1	193.5	587.1	349.1	360.9	827.5	1451.9	10276.6	453.9	10730.5

Source: Bangladesh Economic Review 2011, Ministry of Finance, Government of Bangladesh.

Annexure 2: Number of Bangladeshi Expatriates (1981-2006)

Year	KSA	UAE	Qatar	Oman	Bahrain	Kuwait	USA	UK	Malaysia	Singapore	Others	G10	Grand Total
1981	13384	6418	2268	7352	1392	5464	0	0	0	385	19124	92450	55787
1982	16294	6863	6252	8248	2037	7244	0	0	0	1083	14741	110783	62762
1983	12928	6615	7556	11110	2473	10283	0	0	0	331	7924	110516	59220
1984	20399	5185	2726	10448	2300	5627	0	0	0	178	9851	103577	56714
1985	37133	8336	4751	9218	2965	7384	0	0	0	718	7189	148199	77694
1986	27235	8790	4847	6255	2597	10286	0	0	0	792	7856	129460	68658
1987	39292	9953	5889	440	2055	9559	0	0	0	25	6804	141230	74017
1988	27622	13437	7390	2219	3268	6524	0	0	0	0	7661	128581	68121
1989	39949	15184	8462	15429	4830	12404	0	0	401	229	4836	198612	101724
1990	57486	8307	7672	13980	4563	5957	0	0	1385	776	3688	203940	103814
1991	75656	8583	3772	23087	3480	28574	0	0	1628	642	1709	292553	147131
1992	93132	12975	3251	25825	5804	34377	0	0	10537	313	1910	374338	188124
1993	106387	15810	2441	15866	5396	26407	0	0	67938	1739	2524	486492	244508
1994	91385	15051	624	6470	4233	14912	0	0	47826	391	5434	367218	186326
1995	84009	14686	71	20949	3004	17492	0	0	35174	3762	8396	366690	187543
1996	72734	23812	112	8691	3759	21042	0	0	66631	5304	9629	413799	211714
1997	106534	54719	1873	5985	5010	21126	0	0	2844	27401	5585	456569	231077
1998	158715	38796	6806	4779	7014	25444	0	0	551	21728	3834	531500	267667
1999	185739	32344	5611	4045	4639	22400	0	0	0	9596	3808	532556	268182
2000	144618	34034	1433	5258	4637	594	0	0	17237	11095	3780	441592	222686
2001	137248	16252	223	4561	4371	5341	0	0	4921	9615	6656	371720	188965
2002	163269	25462	552	3854	5421	15769	0	166	85	6856	4545	447413	225256
2003	162131	37346	94	4029	7482	26722	0	166	28	5304	11148	497752	254190
2004	139031	47012	1268	4435	9194	41108	0	2055	224	6948	25006	527556	272958
2005	80425	61978	2114	4827	10716	47029	0	2793	2911	9651	35165	480053	252702
2006	108671	129155	7662	8038	16301	35483	0	1597	20452	20077	40979	735851	381516
2007	204112	226392	15130	17478	16433	4212		972	273201	38324	68188	864442	832609
2008	132124	419355	25548	52896	13182	319		952	131762	56851	68836	901825	875055
2009	14666	258348	11672	41704	28426	10		1253	12402	39581	80141	488203	475278
2010	7069	203308		42641	21824	48		1253	919	39053	75840	391955	390702

Bangladesh Economic Review 2010, Ministry of Finance, Government of Bangladesh.

Annexure 3 : Remittances as % of Key Macroeconomic Variables

Year	REM%GDP	REM%EXPORTS	REM%IMPORTS	REM%FXRESEVES	REM%CAB	REM%BOP	REM%ODA	REM%FDI
1981	2.7	53.7						
1982	3.2	66.8	17.4	345.5	47.6	314.2	33.7	
1983	5.1	90.2	28.8	172.9	193.4	333.2	52.6	
1984	4.2	72.9	27.9	109.4	219.4	323.4	46.6	
1985	2.8	47.3	16.7	111.9	76.3	339.6	34.8	
1986	4.2	79.2	27.5	136.3	130.3	1066.2	49.7	
1987	4.0	64.9	26.6	97.5	153.8	1686.6	43.7	
1988	3.9	59.9	24.7	86.1	226.5	690.8	44.9	
1989	3.8	59.7	22.8	84.4	110.3	12196.2	46.2	
1990	3.4	49.7	20.2	145.8	97.8	324.6	41.9	
1991	2.5	44.5	21.8	86.8	525.3	255.4	44.1	
1992	2.7	42.5	24.0	52.7	407.4	145.2	52.6	
1993	3.0	39.7	23.3	44.6	522.5	161.7	56.5	
1994	3.2	43.0	26.0	39.5	391.2	153.9	69.9	
1995	3.2	34.5	20.5	39.0	653.8	264.0	68.9	
1996	3.0	31.3	17.6	59.7	130.9	153.1	84.3	
1997	3.5	33.4	20.6	85.8	1017.7	600.4	99.6	
1998	3.5	29.5	20.3	87.7	329.4	2824.1	121.9	
1999	3.8	32.1	21.3	112.0	357.7	883.9	111.1	862
2000	4.1	33.9	23.3	121.7	466.3	1088.8	122.7	509
2001	4.0	29.1	20.2	144.0	171.4	669.8	137.5	342
2002	5.3	41.8	29.3	158.0	1593.0	613.0	173.4	640
2003	5.9	46.8	31.7	124.0	1739.8	375.7	193.2	814
2004	6.0	44.4	30.9	124.7	1915.9	1971.9	326.4	1222
2005	6.4	44.5	29.3	131.3	690.8	5743.3	258.1	481
2006	7.7	45.6	32.6	137.8	839.5	1315.6	320.3	711
2007	8.7	49.1	34.8	117.7	627.9	400.4	366.7	754
2008	9.9	56.1	36.6	128.7	1163.8	2390.9	383.9	1058
2009	10.8	62.2	43.0	129.7	401.0	470.8	524.5	1512
2010	10.9	66.1	46.2	102.1	293.6	383.0	495.0	1202

Source: BOP Statistics, Bangladesh Bank and Bangladesh Economic Review (Various issues). Compiled by the author.

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Dollar Monopoly in International Currency System: Prospect of Asian Common Currency

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Abstract *Dollar is not only the legal tender of US economy but also used as the most dominant global transaction currency. True competition in international currency system rather than dollar monopoly can ensure improved global welfare and accelerate the globalization process. This paper is an attempt to assess the possibility of introducing Asian common currency as the third international currency after euro. At first, the study assesses the amount of US inflation tax collected from outside USA using a newly developed* ***cross border money demand function****. Secondly, it analyses the global financial crisis of 2008 along with global current account imbalances and the role of Asia behind its deepening. From lessons learnt from the financial crisis, it seems that two or three additional widely recognized international currencies along with similar number of vibrant reserve asset markets can improve the global welfare significantly and by which globalization can be railed again on the right track. This study proposes that Asian advanced economies, emerging economies or even Asia as a whole can enjoy the favorable opportunity supported by recent reserve surplus trend along with using their experiences on Chiang Mai Initiatives and Asian Clearing Union or ACU trade clearing mechanism.*

JEL Classification Number: *E-41, F-32, F-33 & F-34.*

Key Words: *money demand function, International currency, international reserve and debt flow, international financial institution.*

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1. Introduction

It is widely recognized that cross border financial activities are growing sharply that is supported by augmented globalization process and mass covering of information technology especially internet. Extended cross border human activities influence larger international financial transactions. Considering these significant changes and recent global financial crisis in 2008, it is expected to rethink about the nature of global currency and definition of money demand function covering international transaction demand. However, the ongoing globalization process has been stumbled by the recent global financial crisis in 2008. Though the first shock of the crisis was on the United States economy its recurrent shocks continue through Greece, Ireland and Portugal. Many studies have taken place to find out the causes of the crisis. Recently Cetorelli and Goldberg (2010) identified that global banks' conservative approach in local and cross border lending in emerging countries played a significant role in deepening the crisis during 2007-2009. The findings are more of a business explanation of the crisis. Similarly subprime effect, booming derivative markets, insufficient banking regulations are very common explanations from business point of view rather than economic policy analysis. As the crisis transmitted into the global financial system, the problem should be reviewed through global economic point of view. Dunaway (2009) points out that a combined effect of global current account imbalances among major developed economies and US favorable position as the primary issuer of reserve asset since 2000 resulted in the global financial crisis in 2008. Earlier Corden (2007) held the growing US current account imbalances responsible for the crisis.

The next question is how USA along with other affected countries is overcoming the crisis. Printing money is one of the major policy tools by which they paid their bailout expenses, especially USA. Inflation may be the ultimate result. However, Inflation tax or seigniorage gain is the positive consequence of printing money. Inflation tax is an unseen cost for the people and they cannot realize their losing income easily. However, US Inflation tax is not only collected from the American people but also from the global community (*see model estimation*) because of its internationally acceptable character. In the same way dollar's additional demand from international transactions strengthens it against other currencies. Because of this favorable position, during crisis and thereafter, US dollar has fallen but not at that level where it was supposed to be. As dollar is a widely established international currency, it is wise to review the financial crisis from global perspective, too. From global economic point of view, researchers have already

identified that the increasing trend of Asian surplus reserve flows into US reserve asset market made the crisis longer and bigger. The Asian influences were evident in the unusual economic policy tools, for example, lower interest rates prevail despite continual budget deficit during 2000 to 2007 in US. Thus, it cannot be denied that Asia was also responsible for the crisis. First, Asian countries continued to put their surplus reserve into US deficit financing under less visionary policy. Second, Asia was not able to create any platform in which they can invest their surplus reserve despite 1.35 trillion dollar external debt demanded (38 percent of global figure) within Asia (World Bank, 2011; see table-1). Not only the development supportive debt demand, Asia has experiences and initiatives such as Asian Clearing Union (ACU) of trade payment settlement mechanism and *Chiang Mai Initiatives* as a regional liquidity support system among ASEAN+3 (3 are Japan, China and South Korea) countries. Eight ACU member counties (mostly South Asian) also use Asian Monetary Unit (AMU) for their clearing. In 2009, total trade transaction among the ACU member countries was $14.07 billion, in which 41.08 percent was cleared by their ACU mechanism (ACU, 2010, p.142).

Therefore, main objectives of this paper are:

- Quantifying dollar's gained extra demand from outside USA and how much global community is paying inflation tax to US due to dollar monopoly in international currency system.
- Reviewing traditional money and money demand function to develop a cross border money demand function in line with the first objective.
- Justifying the potentiality and possibility of emergence of a third international currency to bring true competition among the international currencies.

2. Survey of Studies and Identifying Gap

Researchers explained the global financial crisis in 2008 by business point of view and also by the eye of global economic policy movement. Global economic policy analysis points towards the combined effect of global current account imbalances among major developed economies and US favorable position as the primary issuer of reserve asset since 2000 (Dunaway, 2009). Using analytical approach it suggests for better IMF surveillances. US deficit financing supported by issuing reserve asset cannot last long without internal adjustment. Ultimately, it results into the crisis. Current account surpluses or reserve surplus in China, Japan and Emerging Asia may be another reason. After Asian crisis, emerging Asia contributed their surplus reserve by investing in the US market. Obstfeld and

Rogoff (2005) and Corden (2007) signal the probable problems due to growing current account imbalances especially for USA but these signals were not recognized properly by the concerned counterparties. Regarding Asian surpluses, Aizeman and Jinjarak (2009) estimates 1% increase in the lagged US import/GDP is associated with a 0.3% current account surplus of countries running surpluses. Using time series data from 1981-2006, it showed that US is the '*demander of last resort'* of surpluses. Similarly, Schnabl and Schobert (2009) use Middle-East and North African data to show that emerging market economies are international liquidity provider and industrialized economies are the international liquidity absorber.

In relation with Emerging Asian reserve flow, Aizeman and Glick (2009) estimates direct opportunity cost of reserves associated with the marginal productivity of public capital or the cost of external borrowing. However, dollar denominated external debt is attributed to limited financial development in emerging countries (Caballero and Krisnamurthy, 2003). Similarly David (2010) explains an asymmetry of a financial system where developing countries finance USA. The study also identifies the anti development characteristics of US-dollar based international monetary system. It proposes Keynesian plan for an institutionalized rule-based international monetary system which can avoid deflationary pressures for the world economy. In the early 1940s, J. M. Keynes proposed a kind of an international clearing union that would operate on a multilateral basis but the United States opposed the idea on the grounds that it rested on automatic credits and controlled trade. However, in mid-1950, 18 Western European countries joined in a multilateral clearing union known as the European Payments Union (EPU). Similarly, 5 Asian countries formed the Asian Clearing Union (ACU) to minimize hard currency payment burden among them.

For better and sustainable global financial system, the performance of existing international financial organizations like World Bank or IMF is not yet satisfactory. Jensen (2004) finds that countries that had signed in IMF agreements attract 25% less FDI inflows than countries who had not signed. That is why time has come to review the structure of the existing global financial system. Genberg et al (2005) shows that 7 East Asian countries held about 60% of international reserve in 2004. It had an increasing trend thereafter. It proposes to establish an Asian Investment Corporation (AIC) and also supports the *Chiang Mai Initiatives* as a regional liquidity support system.

Therefore, the gap in favor of Asian reserve asset market has gradually been narrowed down by the recent proposal of an AIC and the Chiang Mai Initiatives

as a regional liquidity support system. However, no study has yet taken place to assess the possibility of bridging the Asian surplus reserve to large Asian development demand by forming at least one Asian reserve asset market. The idea of proposed Asian reserve asset market may come to reality by the coordinated structuring of existing Asian initiatives and experiences such as AIC for investment, ACU mechanism for trade clearing among South Asian countries, and *Chiang Mai Initiatives* for regional liquidity support among South-East Asian countries.

3. Limitations and Assumptions

Typical hierarchy of regional economic integration: 1.free trade area, 2.customs union, 3. common market, 4. economic union and 5.political union (Phatak et al, 2006) may not be true equally for all economic environment. For example, European Union was able to introduce a common currency *euro* in 1995, working since Treaty of Rome in 1958. On the other hand, ACU was initially formed with 5 Asian central banks in 1974. In 2010 its member countries rose to 9, and at the same time a few potential Asia and Pacific countries such as China and Australia tried for full membership. Though Asian Monetary Unit (AMU) follows the dollar value, Asian countries are trying to be integrated through ACU trade payment mechanism. Therefore,

- The question whether integration will bring common currency or common currency will bring integration is not very relevant now.
- This study has shown that Asian common currency will be the ultimate result of proposed ***'Asian reserve asset market'***.
- The study findings are quite different from European integration and their euro concept.
- At least 50 percent of global trade and transactions are dollar denominated.
- Economics may be looked at *territorial* and *global* economics rather than conventional division of micro and macro economics. Economic activities and interactions among individuals, firms and one state may be the broad areas of *territorial economics* and economic activities and interactions among firms, multinational firms and all states of the world would be the major areas of *global economics*.

4. Methodology

The study is based on analyses of past data and information with situational analysis. It used secondary data mostly collected from IMF Financial Statistics [IFS] and Bangladesh Bank, the central bank of Bangladesh. A mathematical model has been developed to assess the amount of '*dollar seigniorage tax'* collected from outside USA. The result of this research derives through a process of problem analysis, review of existing process and policies, literature review and finally identifying the research gap, which has implication for further research in this area.

5. Stylized Fact

A. Fact of Dollar Value Gained from Rest of The World:

Mostly US dollar is used in global financial system. Dollar monopoly is also prevailing in the international transactions across the globe as most of the transactions are pegged with dollar during quoting or exchange rate determination. That's why US dollar gains extra demand from outside US. The proposed Asian common currency along with existing euro can break the monopoly in near future. The study contains analytical approach and a new model has been framed by rearranging common variables to estimate the value of money. The rationale for introducing a possible Asian common currency may require extended analysis of related experiences and global economic trend.

The Model of Estimation: Council Special Report

This study explores a new function of money as a ***representative unit of nominal GDP*** in addition to the traditional functions such as store of value, unit of account and medium of exchange. The new function can be made clear by emerging a cross border money demand function that would be explained through sequential approaches of existing theories.

According to the classical school the demand for money denotes the quantity of real money balance $\left(\frac{M}{P}\right)$ people wish to hold (Mankiw, 2009).

$$\left(\frac{M}{P}\right)^{d} = kY$$

Y - real income

k - (constant) how much money people want to hold for every dollar of income

So that, $\frac{M}{P} = kY$

$$=> M\left(\frac{1}{k}\right) = PY \qquad [\ V = \frac{1}{k}$$

$$MV = PY \qquad \mid V \text{ – income velocity of money}$$

According to Keynesian Economics, people demand money for transaction and investment purposes.

$$\frac{M}{P} = l(r) + k(Y) \qquad \mid l(r) \text{ – speculative demand}, \; k(Y) \text{ - transaction demand}$$

This paper believes in the *Keynesian money demand function,* but it argues that a particular currency may have cross border demand in addition to its typical demand within territory. The outside demand of a particular currency has an important role to its value or purchasing power or price, in which interest rate is not so important. To explain cross border money demand function as a part of total money demand function, only exchange rate is not enough.

The explanation of new function of money would be clarified with an example of a certain economy. For example, Bangladesh actively participates in international trade and transactions through major international currencies and also with its own convertible currency (Taka=Tk.). But most of its international transactions are settled by foreign currencies such as dollar and euro. As a result, those dollar/euro denominated economic activities are not represented by the local currency so that it's net international transactions gain ratio will be negative. Let the ratio is -8 percent or -0.08. Therefore, *Taka* cannot represent the total economy or GDP and subsequently the lesser amount of the same of -8 percent influences to raise the value of dollar or euro. The example can be denoted as *Taka* representing percent of 1 + *f* GDP of Bangladesh Economy. Mathematically,

[*1+f*] x GDP

= [1+ (-0.08)] x GDP

= 0.92 xy

It means local currency (*Taka*) is able to represent its GDP up to 92 percent and the rest 8 percent is represented by US dollar considering its international transaction in other international currency is almost zero. For US dollar pegged countries' 100 percent GDP will be represented by US dollar. Conversely, for USA, it would be (1+*f*) x GDP, where *f* > . We can say that:

Negative *f* is denoted by that part of the economy that originates from own economic activities but transactions are made through other than own currency (example, *Bangladesh Economy*). Conversely,

Positive f is denoted by a certain size of economy originated from other than own economic activities but transactions are made through own currency (example, *US Economy*).

Therefore, the total of all countries' international transaction co-efficient will be $\sum_{i=1}^{n} f_i$ =T is the global transactions value. Where, T=$34.1592 trillion in 2009. [source: IMF Financial Statistics (IFS), 2011]

Therefore, the ***new function of money demand*** only for estimating *'cross border demand'* may be defined as:

$$T = t_I + t_X + t_s + t_L + t_R$$

t_I – global import=$12.4914 trillion

t_X - global export=$12.3529 trillion

t_s - global net service payment (remittance and current account balances=$0.3224 trillion

t_L - global debt or loan transactions=$3.5451 trillion

t_R - global reserve =$5.4474 trillion

$$\frac{M_2}{p} = tY + mY$$

t – international transactions lost or gained by own currency

m – Monetization process by which prevailing inflation rate does not rise.

p –Price level.

M_2 –money supply.

[This equation is similar to Fisher's Equation but not the same and it has been derived in a different way. Its interpretation is also different.]

According to the new equation, if price level rises, money value falls.

It means an inverse relationship v σ $\frac{1}{p}$ or, $v = \frac{1}{p}$ [Assuming constant is a unit]

$$M_2 v = Y\ (t + m)$$

$$v_i = \left(\frac{Y}{M_2}\right)_i (1 + f_i + m_i)$$

[Here, v value of the currency]

$[t = 1 + f_i]$

$$v_i = \left(\frac{Y}{M_2}\right)_i (1 + f_i + m_i)$$

M_2 may change by printing money, credit growth and or buy back treasury-bills/bonds.

Therefore, value gained from the own economy

$$= [Y(1+m)]\left(\frac{1}{M_2} - \frac{1}{\Delta M_2 + M_2}\right)$$

And value gained from outside the economy

$$= (Y\,f)\left(\frac{1}{M_2} - \frac{1}{\Delta M_2 + M_2}\right)$$

Y – US nominal GDP
M_2 –US money supply.
f –net ratio of US Dollar transactions surplus or deficit(=1.2501*)

=0.2566 or 25.66%

Here, the change since global crisis in 2007 to 2009 is considered. It means US dollar gained 25.66 percent extra values from the global community or outside US economy during the same period. However, to estimate *inflation tax* or *seigniorage tax* only currency circulation () by printing is required to consider. So that, seigniorage tax collected from outside the economy

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$$= (Y\,f)\left(\frac{Cu}{M_2} - \frac{Cu + \Delta Cu}{M_2 + \Delta M_2}\right)$$

=0.0186574 trillion =18.6574 billion.

Here, change is considered since global crisis to 2009. It means global community paid US dollar 18.6574 billion tax to US during 2007 - 2009. The estimation result is about 50 percent higher than the Feige (2009) estimation in which estimation was up to 2008. Though, this model could estimate similar result close to other studies, it requires to be tested further for best fit.

B. Fact of Experiences and Opportunities:

The post great depression regime has experienced many fundamental changes in economic theory and policy. Even economists were divided into classical and neo-

* [US transaction deficit in 2009 was about 0.977 trillion. During same year US nominal GDP was 12.88 trillion. Therefore, net international transaction was -0.076. However, USA currency enjoyed about 50% (assumed based on London FX market transactions and the dollar share in SDR) of the total global transactions or 17.0796 trillion that was 132.61% of US nominal GDP. Thus, f = 1.2501 and f = 2.2501]

classical school. In connection with the recent financial crisis, basic money function and related issues are required to be reviewed. One of the basic arguments is the dollar value empowered by transactions demanded outside of USA. In addition, US dollar enjoys almost a monopoly advantage in international currency system. Feige (2009) estimates that USA collected dollar 6 to 7 billion every year from outside as a form of *inflation tax* or *seigniorage tax* over the past two decades. It is also assumed that US reserve asset market attracts most of the surplus reserves, especially from Asia. So, dollar dominating international transactions with New York based reserve asset market in the world plays two important roles. Firstly, recognition of the problem was delayed and secondly, it favored USA to minimize the adverse effect of the financial crisis, which could have been much worse than the actual.

Indeed, the economic analysis of global financial crisis indicates that an addition of two or three widely recognized international currencies along with similar number of vibrant reserve asset markets can improve the global welfare significantly and by which globalization can be railed again on the right direction. This study proposes that emerging Asia or even Asia as a whole can enjoy the favorable opportunity (See Chart-1, graph-1& 2) to form an Asian reserve asset market, which may extend its ability to come under Asian common currency at least among the developed or rich Asian countries. In addition, an Asian Monetary Unit (AMU) system is already functioning as Asian Clearing Union (ACU), which can be extended to include most of the Asian countries. ACU system is still minimizing the dollar dependency or dependency on other hard currencies among 8 member countries' trade settlement.

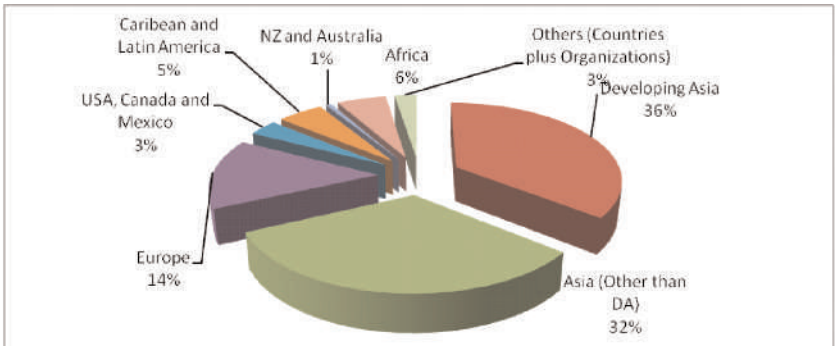
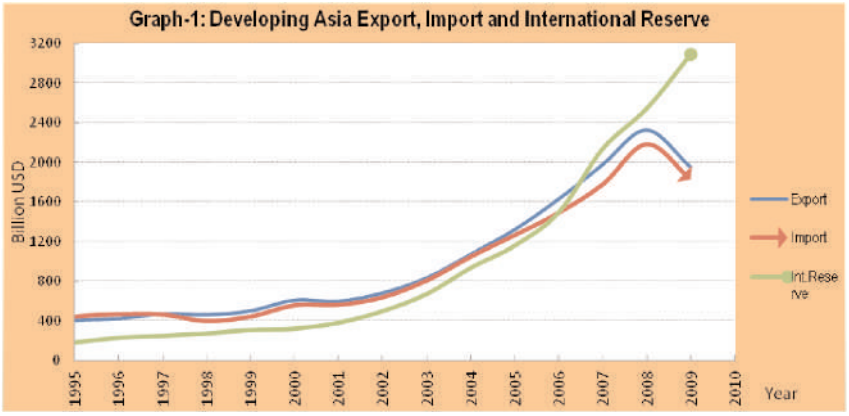
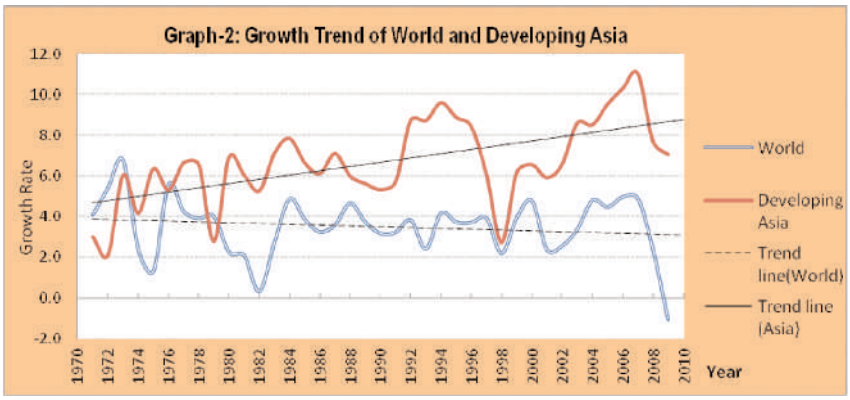


Chart-1: Global Distribution of International Reserve, 2009

Source: *Compilation based on IMF Financial Statistics (IFS), 2011.*



Source: *Compilation based on IMF Financial Statistics (IFS), 2011.*



Source: *Compilation based on IMF Financial Statistics (IFS), 2011.*

In fact, Asia has the potential to take initiatives to start a new international currency based on successful formation of an Asian reserve asset market, which may not be the regional integration like Euro Zone. Asia has of course taken initiatives such as Asian Monetary Unit (AMU) used in South Asian trade clearing and the Chiang Mai Initiatives for regional liquidity support in South East Asia, can help form the proposed Asian reserve asset market. However, the idea is different from existing Asian Development Bank (ADB) structure where 44 percent ownership is held by non-Asian members. USA is the highest 15.6 percent share holder jointly with Japan. Undoubtedly, the role of non-Asian members during initial stage of ADB was highly appreciable. Later, it has become apparent that the US desire has been reflected in ADB's activity in depriving Vietnam's loan proposals.

Therefore, it is the common Asian desire to form a new platform based on pure Asian initiatives enlightened with Asian idea and experiences by which global community can expect a third international currency, the Asian common currency. The outcome of the study may ensure greater Asian economic welfare as well as global economic welfare through introducing better competition in international currency system, the prospect of which has not yet been studied rigorously.

6. Benefits

A. Benefits for Asia

The study likes to see the proposed Asian common currency as a prelude to forming an Asian reserve asset market. It does not say that it would be a long term result, as ACU member countries are already enjoying some benefits by using their AMU. If Asia can establish an Asian reserve asset market, many Asian developing countries can borrow from that market rather than from World Bank or other non-Asian international financial institutions. Consequently, Asian surplus reserve may get good return against those government guaranteed development lending. In addition, after financial crisis in 2008, time has come to rethink whether USA will be able to keep its characteristic as a safe haven of international reserve asset or not.

The benefit may be enjoyed by implementing the ideas in several clusters. Especially, Middle East countries held lower variation in their socio-economic culture, and therefore, they can think separately. Even Asian tigers or ASEAN countries may think in this way. Each of the initiatives can slowly but surely enhance trade, investment and welfare through a synergy effect within Asia.

B. Global Benefits

Reducing dollar monopoly can ensure better welfare for the global community. Possible better competition in global trade and transactions system may expedite the ongoing globalization process. Ultimately, competition other than dollar monopoly will create a situation, in which global community can think about further development such as global currency. Therefore, this type of initiatives are badly needed for both Asian and greater global interest.

7. Conclusion

Global community does not have any effective global currency yet. US dollar is enjoying the global currency status though their domestic bill. Consequently, US dollar enjoys extra demand from the global transactions. However, recent global

economic trend and the causes of the last global crisis indicate that introducing a third international currency after euro may ensure a better competitive environment in international currency system. Asia is in the most favorable situation to avail of the opportunity to establish an Asian common currency. Forming an Asian reserve asset market for bridging Asian debt demand and other potential debt demand with Asian surplus money may expedite the way of Asian common currency. The journey for common currency may be started based on existing Asian experiences of Chiang Mai Initiatives for liquidity cooperation and Asian Clearing Union for trade clearing.

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Table 1: Global Development Finance: External Debt of Developing Countries, 2011

The World Bank
1818 H Street NW, Washington D.C, 20433
ISBN 978-0-8213-8673-6
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(million US dollar)

Sl	Region	Total External Debt Stock	Total long term debt stock	Public and publicly guaranteed debt (Multilateral)	Public and publicly guaranteed debt (Bilateral)	Public and publicly guaranteed debt (Com.banks &others)	Public and publicly guaranteed debt (bond)	Private non-guaranteed debt (bond)	Private non-guaranteed debt(Com. banks &others)	IBRD (memo)	IDA (memo)	Use of IMF credit	Short-term debt
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	East Asia and Pacific	825602	502950	80654	120900	60029	32372	22840	186154	23332	20921	291	322361
2	Europe and Central Asia	1126252	925764	59033	30122	126853	53516	108489	547750	25479	7631	35103	165385
3	Latin America and Caribbean	912980	773100	115208	33869	242880	40159	101621	239364	40439	1468	1243	138637
4	Middle East and North Africa	141321	118719	34673	43096	23946	10853	670	5480	8016	3831	200	22402
5	South Asia	339983	282407	94140	49268	8692	7863	16181	106261	9817	51440	9081	48495
6	Sub-Saharan Africa	198976	156260	54335	48761	13368	22396	6224	11175	900	31612	6261	36456
7	Low Income Countries	135593	116809	68594	36764	750	4754	0	5946	463	39115	5951	12833
8	Middle Income Countries	3409521	2642391	369450	289252	475018	162406	256025	1090239	107521	77788	46227	720903
	Total (World)	**3545114**	**2759200**	**438043**	**326016**	**475768**	**167159**	**256025**	**1096184**	**107983**	**116903**	**52179**	**733736**
	Developing Asia [1+5-(Aus&NZ)]	1165585	785357	174794	170168	68721	40235	39021	292415	33149	72361	9372	370856
	Total Asia	1349142											

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Neither Transit nor Corridor but Re-export

M S Siddiqui*

Abstract *One economy cannot grow with its neighbors left behind. The integration of economies is essential to supplement each other with sources of technology, manpower, raw materials and market for products etc. Some nations try to oppose the reality due to historical and political reasons. There are many forms of economic co-operation such as: Bonded warehouse for manufacturer, Bonded were house for re-export, Duty draw back, Temporary admission, Transit, Corridor, Re-export and Re-exports consist of foreign goods exported in the same state as previously imported, from the free circulation area, premises for inward processing or industrial free zones directly to the rest of the world and from premises for customs warehousing or commercial free zone to the rest of the world. Free include- trade, service, industry, banking, etc. Others such as vendors and shipping forwarders, shipping agents and customs brokers, exporters and importers, manufacturers and investors have free entry to Free Zone without much formality. The position of Bangladesh within the global map makes it a natural candidate to become a regional hub economy. We are negotiating with India for some transit fee and appealing for transit facilities to Nepal and Bhutan as a relatively weak party. If India can re-export to Bangladesh why Bangladesh will voluntarily ban re-export to India and other countries?*

Keywords: Transit, Corridor, Re-export, Free Trade Zone,

Introduction

The economic integration and cooperation in all regions is necessary for growth of all the economies. One economy cannot grow left behind the neighbors. Some isolated economies like Myanmer and Cuba failed and rather were leaving behind

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by others due to their self isolation. These countries are now opening up the economy to avail the existing opportunity of openness for exchange of technology, products and investment. There may be difference in rate of growth but neighbors can supplement and support each other. Some nations try to oppose the reality due to historical and political reasons. They don't always make enough distinction between economic integration and political unification (!). The political term in our country is 'desh bikri', a widely used term against opponent. The integration of economies is essential to supplement each other with source of technology, manpower, raw materials and market for products etc. The exchange of human sources and technology is easier due to close relation of language and culture and easy communication. Any cooperation among nations is to create jobs and raise standards of living, transfer new skills and expertise to local human resources, boosting up non- traditional exports, increase foreign exchange earnings, create backward and forward links to increase the output and raise the standard of local enterprises that supply goods and services to investors, introduce new technology, develop backward regions and attract industries, kick-start the economy as a whole, stimulate strategically important sectors to the economy etc.

The exchange of skilled and unskilled human resources is another method of cooperation although this co-operation is almost happening beyond legal and formal frame work. Many skilled humans from Korea, China, Sri Lanka or India are working in Bangladesh and unskilled Bangladesh manpower are working almost everywhere in the world. The authorities keep the eyes closed and keep mum about the exchange of human resources.

Options of Trade Co-operation

The economic cooperation is ensured by regional or bilateral agreements for duty free trade apart from political, cultural or educational cooperation. There are some other relations between north- south and south-south agreements and alliance are very common. The trade relation and cooperation also has various options like:

a. Bonded ware house for manufacturer
b. Bonded ware house for re-export
c. Duty draw back
d. Temporary admission
e. Transit
f. Corridor
g. Re-export

Bangladesh has already 6 EPZs, only for manufacturing facilities. The terms Free Trade Zones and Export Processing Zones in the Indian context are synonymous. Our neighbor India has 7 EPZ in Kandla, Santa Cruz (Bombay), Falta (West Bengal), Madra, Noida, Cochin and Visakhapatnam. They allow manufacturing and trading of foreign products for re-export. Bangladesh is now importing products of other origins from India due to their re-export policy through export processing zone but unable to take benefit of re-export to the fastest growing big market of India.

There is no alternative to exporting of low cost and low technology products to developed countries from developing economies for their mutual benefits. The developing economies offer various fiscal and institutional supports in production or conversion of product for developed economies. The export-oriented manufacturers import their inputs without paying the applicable duty/tax. In such cases, the duty/tax is suspended or realized after these inputs incorporated in the finished goods are exported. It includes inward processing; manufacturing under bond; export processing zones; temporary admission for re-exportation in the same state; and Customs warehousing. Another method is drawback duties/taxes to be paid at time of importation and then refunded after the finished goods are re-exported. The other options are free zone for manufacturing and trading, temporary admission and transit.

These regimes are designed to remove or reduce the tariff burden to give exporters access to their industrial inputs at world prices and thereby make exports more competitive. By exempting duty/tax on inputs at time of import, or refunding duty paid when the inputs are incorporated into the finished goods and exported, capital costs can be reduced. The principle of not levying import duty/tax on goods that are not remaining in the Customs territory is fully consistent with WTO rules, provided the amount refunded does not exceed the duty/tax payable (in which case it would be an export subsidy and be prohibited under WTO rules).

What is Free Trade Zone

A free trade zone (FTZ) is one or more special areas of a country where the usual trade barriers such as tariffs and quotas are eliminated and bureaucratic requirements are lowered in hopes of attracting new businesses and foreign investments. Most FTZs are located in developing countries, and they are labour-intensive manufacturing centres that involve the import of raw materials or components and the export of finished products.

Free trade zones came about because of the need to promote trade between and amongst nations. Free zone or bonded where ware house became increasingly popular during the last decade, with many countries attempting to promote exports of non-traditional manufactured goods, strengthen the competitiveness of exporters, attract investors, diversify the economy, create employment, transfer technology, expand trade and transport linkages in the country as a whole, promote tourism, encourage foreign direct investment (FDI), and achieve development and growth. Sometimes referred to as Free Trade Zones, Duty Free Zones, Tax Free Zones, Free Export Zones, Special Economic Zones, Export Processing Zones, by whatever name, such zones are legally considered outside the Customs territory of the country and thereby subject to an entirely different Customs tariff and income tax regime. The process is simple like break-bulk and shifting of goods from one container to another, sorting/repackaging/re-labeling, further assembly or manufacturing, etc.

In many free zones, quantitative restrictions apply on how much of an operator's production can be allowed into the domestic market (say about 10- 20%). Licensed operators in the zone are required to submit a simplified Customs declaration for approval to admit or remove goods from the zone. Normally no duty/tax is payable on goods entering or being exported from the zone to third countries. However, certain administrative fees may be collected to finance the zone authority's administrative operations, and to maintain or improve the zone's infrastructure facilities that it rents or leases to operators.

The location of FTZs in underdeveloped parts of the host countries attracts employers, thus reducing poverty and unemployment and stimulating the economy. They are normally organized around major seaports, international airports and national frontiers – areas with many geographic advantages for trade like Hong Kong, Singapore, Nigeria and a host of others.

There were more than 3000 FTZs across more than 225 countries, with nearly 50 million workforce engaged in them at various times and seasons. The FTZ is meant for manufacturing and re-export of products imported from other countries.

Re-export

One of the popular businesses is re-export trade. Several countries throughout the world engage in re-export activity. It is a trade of imported good exported by the importing country. According to wikipedia, re-exportation can occur when a member of a customs union charges lower tariffs to external nations to win trade, and then re-exports the same product within the customs union, but tariff-

free. Thus re-exportation involves export without further processing or transformation of a good that has been imported. It is also called entrepot trade. In the "Essex" case (1805) a British judge declared that U.S. ships could not circumvent the Rule of 1756 by using the 're-export trade'. To get around the Rule of 1756, U.S. merchants had been first shipping foreign goods to a U.S. port, then re-exporting them to England and Europe as "neutral" goods.

Re-exports consist of foreign goods exported in the same state as previously imported, from the free circulation area, premises for inward processing or industrial free zones, directly to the rest of the world and from premises for customs warehousing or commercial free zones, to the rest of the world. It creates opportunity of development of trading centre and diversified economic base. Free includes- trade, service, industry, banking, etc. Others such as vendors and shipping forwarders, shipping agents and customs brokers, exporters and importers, manufacturers and investors have free entry to Free Zone without much formality.

FTZ of other countries

The FTZs are so important that World Free Zone Summit held in Dubai on 2 November 2010 called for increased synergy between Free Zones.

The World Free Zone Convention 2010 was the first of its kind held in the Middle East and it hosted over 200 international and regional delegates reviewing the opportunities ahead for free zones worldwide in the current economic climate.

Jebel Ali Free Zone in Dubai, UAE, is probably the most successful zone in the world. Created in 1985, this free zone has no taxation. The restrictions are minimal, and there is no obligation to have a local partner. Staff can be recruited from anywhere. There are excellent port facilities, warehouses, office space, and factories already built and ready for lease. The port is the busiest in the Middle East and now the 10th busiest in the world.

Aqaba Special Economic Zone in Jordan is another recent bold initiative to turn the entire port city area of Aqaba to the Saudi border into a duty/tax free zone in an attempt to promote economic development and attract FDI. What is interesting with the Aqaba Special Economic Zone Authority (ASEZA) is the authorities' decision to create a separate Customs service to operate inside ASEZA. ASEZA Customs is autonomous from the national Jordanian Customs administration, which provides a focused, specialized, and better level of service to firms operating inside the Zone. ASEZA has been very successful in a very short period of time at attracting several billion USD of FDI since its creation in what was

otherwise a seriously economically depressed region of southern Jordan. ASEZA constitutes a pilot/catalyst for nationwide Customs reform.

Colon Free Zone in Panama operates almost exclusively as an entrepot/warehousing hub, focusing on commercial warehousing and repacking operations for firms that export finished goods to the Caribbean and Central America.

The total value of Foreign Direct Investment that has flowed into the United Arab Emirates (through free zones) has reached approximately USD 73 Billion (AED 268 billion), making it the second most FDI attractive country in the Arab World, according to the UN Conference on Trade and Development [UNCTAD]. Free zones in the UAE play a very important role in international trade and re-export activities. The UAE is now one of the top commercial centers in the world and this is further strengthening the competitiveness of its investors as they enter new markets and expand their commercial operations. UAE is ranked 14th globally in the number of new Foreign Direct Investment (FDI) projects in 2009, accounting for 230 projects or 1.7 per cent of the overall global share of new FDIs, as per the UNCTAD report.

Singapore was traditionally a re-export economy by virtue of her historical role as an entreport for Southeast Asia. Singapore's imports included goods for re-exports. According to International Enterprise Singapore (IES), Singapore's exports of all goods in 2004 were about $200 billion and re-exports accounted for 46 percent of total exports. USA is a very important partner for Singapore, cantered on Asia and its fast-growing economies like China and Vietnam as well as the Middle East. Singapore companies have become some of the most active Asian importers and re-exporters of US goods and services. American exports in 2007 to ASEAN rose to over US$60 billion, making ASEAN's combined market the fifth largest trading partner for the United States. Approximately 43% of exports from the United States to ASEAN countries went to Singapore. Singapore is the 11th largest export market for American products, with over US$26 billion.

A noteworthy change for Dutch trade is the recent growth of imports from China. A large share of goods imported from China is destined for other countries. Exporting partners often declare the Netherlands as the destination of goods intended for re-export. This is because suppliers are unaware of the final destination of goods. Asia supplies 25 percent of the Netherland's goods for re-export, with China as the leading supplier from the region. Other large re-exporting countries include Belgium, Germany, and the United States where more than 10 percent of their exports are re-exports. Re-exports for the United States

were $90 billion in 2004. Reported exports to the Netherlands as reported by partners are 14 percent higher than what the Netherlands reports as imports from the world. About 15 percent of the Netherland's exported commodities were reported as unclassified commodities. Based on estimates from this method, re-exports for the Netherlands account for about 50 percent of total exports.

Similar to Hong Kong, the most significant re-exporting sector in the Netherlands is the electronic equipment sector. Reported gross exports ($53.7 billion) far exceed estimated domestic exports ($7.9 billion).

For example, the Netherlands, reported exports of electronic equipment to Germany $11.3 billion in electronic equipment to Germany. These exports were reduced to $1.6 billion after adjusting to eliminate re-exports. There are numerous unsolved puzzles with trade taking place between Singapore, Hong Kong and the Netherlands. The actual reported amount of trade from Singapore to Hong Kong includes Singapore's re exports, which are re-exported again by Hong Kong. However, re-export data is not available on a source and destination basis as it is for Hong Kong. About $7 billion in unclassified commodity exports are reported by Singapore. Singapore reports exports of $18 billion to Hong Kong of which 50 percent are re-exports from other countries.

The Gambian economy and especially its public finances are highly dependent on this trade because imported goods destined for re-export pay the normal import duties. Gambia has served as a regional entry port, using the river as a transportation link to the hinterland. Relatively low import taxes, well-functioning port and customs services, and limited administrative barriers reinforced the Gambia's position as a trading center. About 80 percent of Gambian merchandise exports consist of re-exports to the sub-region.

Panama availed the opportunity of unique geographical location. The Colon Free Trade Zone is a gigantic entity at the Atlantic gateway to the Panama Canal, dedicated to re-export an enormous variety of merchandise to Latin America and the Caribbean. It is also the largest free zone in the Americas and second largest in the world. It started operations in 1948 and occupies about 600 acres (2.4 km^2). It is located near the Atlantic Entrance of the Panama Canal.

The ASEAN nations are exploring trade and investment opportunities in Malaysia under seamless trade, utilizing the country as a gateway to emerging markets in South Asia and the Middle East. In International Trade (Intrade) Malaysia 2010 event shared the view that the country had high potential to serve as a centre for trade with Muslim countries. The ASEAN members are eyeing to markets of Muslim countries under the Asean Free Trade Agreement (Afta).

Free Trade zones have transformed themselves into leading service centers for attracting foreign investment in the world. The rise of Dubai as a global economic and trading powerhouse is largely owed to its strategic location on the Gulf with access to both the West and the fast-growing markets of Asia. Singapore companies have become some of the most active Asian importers and re-exporters of foreign goods and services. Bangladesh can also have the similar opportunity. Its strategic location between two fast growing economies China and India provides the opportunity to be re-export hub for the markets having more than 350 billion buyers.

Many decision-makers in World Trade Organizations like UNIDO, UNCTAD, OECD and the European Commission have an opinion that when tariffs disappear economic incentives for free zones will die and zones will dissolve but the significant contribution made to the economy by the 36 free zones operating in the UAE. The UAE's Free Zone model has proved to be an excellent catalyst for development in line with our vision for diversified economic growth. Our free zones are very unique in that they were developed in accordance with an economic development strategy that puts economic diversification and creating a suitable economic and business climate as a top priority.

The position of Bangladesh within the global map makes it a natural candidate to become a regional hub economy. However, the globe wouldn't come to it unless it aligns itself to become a hub. Much has been written before about how to make sure that Bangladesh becomes a regional hub that smoothens the interaction of three Asian Engines (China, India and ASEAN). Re-export has a big promise for the economic development of Bangladesh. It also has the potential to facilitate trade for land locked Nepal, Bhutan or other land-locked Indian provinces in the North-East.

Deficiency of Free Trade

Some countries like Bangladesh have inefficient procedures and burdensome documentation requirements resulting in exporters incurring extremely high costs. In the end the firm simply gives up on receiving a refund or the refund received has been drastically reduced in value due to inflation of cost of products. It is important to note that in many countries there has been massive drawback refund fraud when Customs does not exercise proper controls when goods are exported or does not perform post-audit checks. This problem can be especially acute in developing countries where the fiscal situation is such that the government may at time, not have sufficient budget to pay drawback refunds, and is instead obliged

to provide credits against duty/tax payable on future imports. Given the fact that duty/tax is being temporarily deferred, it is very important that Customs services exercise effective controls to ensure that there is no leakage of such raw materials into the domestic market.

Conclusion

We are negotiating with India for some transit fee and asking for transit facilities to Nepal and Bhutan as a relatively weak party. But we can stop bargaining for transit fee and also avoid the political conflict and confusion about Transit versus corridor. There is no need for negotiation with any country if we can re-export country through allowing EPZ as manufacturing and free trade zone. The nation can decide alone without any negotiation with any other country over the matter.

If India can re-export to Bangladesh why Bangladesh will voluntarily ban re-export to India and other countries? It may not be a difficult question for the policy makers to answer.

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Migration and Remittances: Recent Trends and Future Opportunities for Bangladesh

MOKSUD BELAL SIDDIQUI*

Executive Summary

Bangladesh is blessed with a large and diligent work force. Bangladeshi workers working abroad are a very significant source of foreign exchange earnings for the country, bringing in annually about US$10 billion into the economy. Labour migration is now an important issue for Bangladesh. However, this large source of earning incomes from abroad now faces huge risks due to exorbitant migration costs charged by the manpower agencies.

As a labour exporting country, Bangladesh can influence the inflow of remittances through adopting appropriate policies such as building an hassle free remittance sending infrastructure, exploring new overseas markets for workers, improving the formal channels of fund transfer, establishing specialized banks, and creating more effective investment avenues, and providing ownership in social development projects for nonresident Bangladeshis.

The financial sector can facilitate higher remittance inflows through improving transactions efficiency by introducing automation of rural bank branches, encouraging private banks to open branches in rural areas, and allowing well-established NGOs and micro-finance institutions to receive and disburse remittances through their vast rural network.

Migration as well as remittance contributes to a significant reduction in poverty and economic development of our country. Remittance flow reduces poverty at

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the rate of 6 percent in Bangladesh. The adoption of a national migration policy can go a long way in ensuring a sustained increase in the inflow of remittances along with guaranteeing the welfare of the remitters.

Remittance is one of the most important economic indicators in Bangladesh as it influences the country's balance of payments, foreign exchange reserve, national savings, reserve money, and money supply. Remittance earning is increasing day by day and is now the second largest source of foreign exchange earnings after exports. In recent years till the outbreak of hostilities in North Africa and Middle East, Bangladesh experienced a robust growth in remittances due to acceleration of demand for migrant workers in Gulf countries.

There are at present two channels of sending remittance to Bangladesh. One is the formal banking channel that remits through demand draft, traveler's cheque, telegraphic transfer, direct transfer, ATM etc. The other is the informal channel (*hundi*). *Hundi* refers to the illegal money exchange not supported by international or national laws, in particular by the country's anti-money laundering act. Yet, the *hundi* system is popular since *hundi* operators offer exchange rates that are consistently higher than the official exchange rate prevalent in the country. Additionally, *hundi* operators generally maintain the confidentiality of the recipients and have the ability to reach the money to any nook and corner of the country.

Recently, a significant number of Bangladeshi women have begun seeking opportunities for foreign employment to overcome their poverty. Female labour migration from Bangladesh was insignificant even a decade ago. The growing demand for female workers in recent times in labour importing countries has created opportunities for female workers to participate in the international labour market.

A migrant worker seeking employment abroad faces a lot of problems and challenges. In most cases, the recruiting agencies employ a sub-agent, locally called '*dalal*', to get the jobseeker a job out of specific job categories. There are, however, concerns that manpower brokers both in the labour-sending and destination countries often engage in unethical practices that cause enormous despair for the aspirant migrant workers.

Most manpower-importing countries are interested in employing skilled workers. But the reality is that most of the Bangladeshis seeking jobs abroad are uneducated and unskilled. They are grossly underpaid and very often are poorly treated by overseas employers. The government should take steps to create skilled manpower in those lines of work for which there is high demand in the destination

countries. More bilateral negotiations need to be held in order to have a safe and secure place for workers in the world market. The concerned ministry will need to establish contact with the employer companies of those countries. The manpower agencies and the government should join hands not only to revive the demand for Bangladesh workers in traditional destinations but also to explore new markets in which there is a good socio-political environment and where wages are relatively high.

Policymakers should take care of the migrants, look after their problems and support them for improving their condition, so that they can send more foreign currency to the country.

1. Background and Rationale of the Study

Bangladesh has a long history of migration and overseas remittances. It is reported that as far back as in 1942, Bengalees used to migrate to the port cities of London and Liverpool in the United Kingdom (UK). The British had at that time a scheme of issuing employment vouchers to overseas workers seeking work in Britain. The scheme opened up a great opportunity for Bengalee workers to migrate to UK. It is believed that thousands of Bengalees, especially from Sylhet, took the opportunity and created a flow of migration towards UK.

For certain reasons, however, the emigration trend weakened by the 1960s, and the direction of the migration flow also changed in the 1970s. After the birth of Bangladesh, most Bangladeshi migrants sought to look for jobs in the Middle East (ME) as well as in selected European Union (EU) destinations (mainly Germany). Then in the 1990s and onward, a tendency developed to find employment in developed countries like USA, Canada, Italy and in some Asian countries like Japan, Malaysia and Singapore. The process of migrating abroad from Bangladesh has been continuing strongly till now.

The annual growth rate of global migrant population has increased from 1.2 percent during the period 1965 to 1975 to 3 percent in early 2000s. Among all kinds of migration, movement of workers is the most dominant. Close to 80 percent of the total migrant population are workers. Increased movement of labour is indicative of increased employment opportunity in the global market. In recent time migration has enabled a section of people to attain productive, self-actualizing and creative work but for many others it has not been successful in ensuring acceptable quality of job. Instead, migration has resulted in inhumane work conditions where basic labour rights of the workers are not respected. Bangladesh is one of the major labour sending countries of the world. Each year

a large number of people voluntarily migrate overseas for long-term and short-term employment (Siddiqui, 2004).

During the period 1976 to 2010, the migration of labour totaled 7.1 million and total remittances amounted to US$78 billion. Yearly migration and remittances were 6,087 workers and US$23.71 million in 1976, which rose to 3,83,150 workers and US$9,982.98 million in 2010. The huge increase in outward migration as indicated above makes Bangladesh one of the major remittance recipient countries in the world.

The World Migration Report 2010 (WMR) ranked Bangladesh among the world's leading manpower exporting countries noting the country's remarkably high remittances from its expatriate workers compared to other developing ones despite the global economic recession. The report observed that while remittances to most developing countries declined by six percent during the recession period of 2008 and 2009, remittances in some countries such as Bangladesh, Pakistan and the Philippines kept on increasing. The report identifies labour mobility, irregular migration, migration and development, integration, environmental change and migration governance as areas expected to undergo the greatest transformation in the coming years. The WMR 2010 also recommended for generating better data on irregular migration and labour markets, combating migrant smuggling and human trafficking and improving the ability of transit countries to assist irregular migrants. The report called for a rigorous analysis of core capacities of countries to manage migration in order to assess their effectiveness and to identify gaps and priorities for the future.

International labour migration has become increasingly important now due to globalization. An estimated 190 million of the world's people live outside their country of birth, 49.6 percent of them women, and 50.4 percent men (World Bank, 2006). In the context of international labour migration, globalization has not only influenced the movement of people from one country to another in search of employment but also has extended different modes and channels of migration and employment.

The rising unemployment has motivated governments to adopt policies to make the migration process easy and transparent. Governments of both sending and receiving countries are now adopting regulatory mechanism to manage labour migration.

This study focuses on the trends in the out-migration of Bangladeshi labour and remittance inflows since the 1970s and their contribution to solving problems of unemployment and poverty in the country.

2. Objectives of the Study

The general objective of the study is to highlight recent trends of migration and remittances as well as future opportunities for Bangladesh. The specific objectives of the study are as follows:

- Highlight the current patterns of migration by destination and by type of workers, i.e., skilled, semi-skilled, less-skilled;
- Highlight the recent trends in remittances of Bangladeshi migrants;
- Ascertain the needs of various type of skills in major labour-importing countries;
- Identify the potential labour markets for different types of job-seekers, i.e., skilled, semi-skilled and less-skilled;
- Indicate the need for undertaking training programmes for migrant workers jointly by government and stakeholders, for enhancing their skills;
- Identify the barriers and problems of Bangladeshi migrants in destination countries and possible interaction of government with the relevant counterpart; and
- Assess the likely contribution of increased labour migration to solving the problems of unemployment and poverty.

3. Scope of the Study

In line with the objectives stated above, the scope of this study is to shed light on the recent trends in migration as well as remittances in Bangladesh. It will also seek to identify the future opportunities of migration and overseas remittances to Bangladesh and suggest actions in that regard.

- The study also tries to explore answers to the following questions.
- What are the recruiting processes for sending workers to foreign countries?
- What are the demands of labour in international labour market?
- What are the skill development opportunities in line with the skill requirements for international labour market?
- What are the recent trends of labour migration to foreign countries? and
- What are the problems faced by migrant workers in home country and in the country of destination?

4. Methodology of the Study

The study takes into account the formal and informal sources of information. Qualitative and quantitative information are gathered to examine the manpower export situation in Bangladesh. A semi-structured questionnaire is deployed to collect the information from different government and non-government agencies working for international labour migration. Interviews were taken from executives of the following agencies:

- Bangladesh Manpower Employment and Training (BMET);
- Bangladesh Overseas Employment Services Limited (BOESL);
- Bangladesh Association for International Recruiting Agency (BAIRA); and
- Private recruiting agencies.

Secondary information was collected from published materials, newspapers, different ministries, and website of different organizations that are working on international labour migration.

5. Limitations of the Study

Comprehensive information on labour migration and remittances is difficult to obtain from the available secondary sources and the limited primary information gathered from different government, trade association and private sources. Limited information is available regarding the situation prevailing in the destination countries as it is difficult to identify the recent returnees from whom the actual situation overseas could be obtained. The people go abroad often through unofficial channels, for which there are no records. Moreover, the remittances sent by the migrants through unofficial, illegal channels are not included in the figures of remittance flow. Thus, both the number of migrants and remittances made by them are under-stated, and the overall picture regarding migrants and remittances deviates from the actual.

6. Literature Review

The available literature on international labour migration, remittance and their impact on employment generation and poverty reduction of different economies are briefly reviewed in this section.

A World Bank study (2006) notes that international labour migration has become an increasingly important feature in a globalizing world in which not only more people are on move, but also the frequency and the different modes, channels and directions of mobility have expanded and extended into every corner of the world.

This trend is set not only to continue but to increase. The migration of workers across international boundaries in search of economic opportunity has enormous implications for development. It can have significant positive impacts on household well-being and economic growth through improved income earning opportunities, knowledge transfers and increased integration in the global economy, the study says.

According to a United Nations report (2005), people move across borders for many reasons but principally in pursuit of economic opportunities. In a globalizing labour market, migrant workers seek out greener pastures in part because they have potentially competitive assets in terms of skills, wage expectations, and cultural attributes, which allow them to establish footholds in alien lands. The United Nations Population Division estimates that from 2005 to 2050, nearly 100 million migrants will leave poor countries for rich nations.

A recent study conducted by Maxwell Stamp Ltd. for the ILO's TVET Reform Project observes that while international migration has traditionally had a regional bias, a considerable migration now takes place across regions, making it a truly global phenomenon. For example, Europe has an estimated migrant population of 64 million. Although most of them are from within the intra-European region, a significant part of that migrant population originated from Asia and Africa (Maxwell Stamp, 2010).

Siddiqui (2004) notes that currently two types of voluntary international migration occur from Bangladesh. One takes place mostly to the industrialized west and the other to Middle Eastern and South East Asian countries. Voluntary migration to the industrialized west includes permanent residents, work permit holders and professionals. They are usually perceived as long term or permanent migrants. Migration to Middle East and South East Asia are usually for short term. The migrants return home after finishing their contract. Although long term migration is much older than short term, information on their type, extent and composition is not available with the government. Information on short term labour migrants who officially go overseas for employment is available with the BMET.

The study by Afsar and others sponsored by IOM observes that labour migration is not limited merely to the Middle East and South East Asia. Some African oil exporting countries, such as, Libya and Nigeria, too, attract labour migration. The migration flow to the USA, the UK, and other industrialized countries is also quite significant. For instance, Sylheties are still moving to London in order to work in family businesses, like restaurants; and negotiations between the Italian and the

Bangladesh government will most probably result in the sending of a few hundred labour migrants to the Southern European peninsula (Afsar *et al*., 2002).

According to Siddiqui (2003), international migration to the Middle East started right after the independence of Bangladesh in 1971. The infrastructure development boom following the rising oil prices in 1973 fuelled the demand for labour migrants in the Middle Eastern countries, especially in the Gulf States (i.e., Saudi Arabia, Kuwait, Bahrain, Qatar, Oman and the UAE). Cheap labour was found in South and South-East Asia. Later, the newly industrialized countries of South-East Asia (Singapore, Malaysia, Korea) also went through a similar expansion boom and needed migrant workers to fill the demand for unskilled workers.

Chimhowu, Piesse and Pinder (2005) examine the nature and role of remittances in household income and evaluate the impact of remittances on poverty reduction. This study reached a number of conclusions about the impact of remittances on poverty. First, remittances form an important part of household livelihood strategies and contribute directly to raising household incomes, while broadening the opportunities to increase incomes. Remittances also allow households to increase their consumption of local goods and services. However, citing some evidence the study suggests to adopt caution in drawing further conclusions on the extent to which remittances can be a broad strategy for poverty reduction. The study warns that remittances can be unreliable and hence can make specific contributions only at a particular moment in time. In the long term, they can cease altogether as migrants either return to the home country or are integrated into the host community. Second, at the community level, remittances generate multiplier effects in the local economy, creating jobs and spurring new economic and social infrastructure and services, particularly where effective structures and institutions have been established to pool and direct remittances. Where these have been set up and encouraged and where the state is supportive, remittances can make a difference, particularly in remote rural locations where state resources have not been effective. Third, at the national level, remittances provide foreign currency and contribute significantly to GDP. Fourth, remittances can redistribute resources from rich to poor countries. The increase in remittances, which now surpass official aid transfers to developing countries, reduces international inequality and promotes poverty reduction.

Azad (2006) examines the impact of migrant remittances on some macro economic factors and the dependents of the migrants in home countries. Remittances influence the social structure in terms of life standards, rural

financial and trade activities, and income and consumption levels of the people of particular community/villages both actively and passively. Many recipient families get rid of extreme poverty situation, at least marginally.

The study by Maxwell Stamp, referred to above, sheds light on the impact of remittances on the economy, in particular, in reducing the pressure of unemployment and improving the balance of payments. Bangladesh is a huge labour surplus country in the world. The higher the manpower export from Bangladesh, the higher the flow of remittances to the country. The labour outflow has not only reduced the unemployment pressure in Bangladesh, it has also enabled higher remittances received from the migrant workers. Thus, it has had a significant impact on the economy, in particular, in providing considerable support to meeting the country's balance of payments needs (Maxwell Stamp, 2010).

The same study describes how labour migration from Bangladesh has helped the country to build up healthy foreign exchange reserve while opening job opportunities for the vast number of unemployed people. The study, however, warns that migration cannot be looked upon as a panacea to address all economic ills that afflict the nation. The idea of accelerating migrants' remittances by sending skilled people to work abroad does not have universal appeal. Instead of seeing off its talented people nurtured with tax payers' money, the government may reorient the country's human resources development policy to create highly skill manpower to meet such critical domestic sectors as education, health services, and information technology (Maxwell Stamp, 2010).

However, the Maxwell Stamp study (2010) appreciates the need for stepping up efforts for raising manpower exports and suggests strengthening Bangladesh's missions abroad in addition to diplomatic overtures at the highest level in order to have positive impacts on export of manpower, especially skilled and semi-skilled workers.

Siddiqui (2005) explores the extent and nature of international voluntary migration from Bangladesh. It identifies the areas for policy intervention to increase the opportunities available for poor people to migrate beyond national borders with maximum protection. The study emphasises that through timely and appropriate intervention, migration can be turned into a major development enhancing process. It can reduce poverty and be an important sustainable strategy for the poor.

Murshid *et. al.* (2000) observes that emigration generally provides well-paid employment for those who do not get job in the country. Even for similar level of

skills it provides highly paid employment in the destination countries compared to the home country. Remittances from emigrant workers have now become one of the major sources of income in our national income accounts. The inward remittance is generating domestic employment by investing the savings out of the remittance money. Over and above the employment aspect, several other key macroeconomic variables in Bangladesh such as growth, poverty reduction, social security, and balance of payments have proven to be significantly positively related to remittances.

Sridhar (2007) examines some of the key issues facing labour migration from the South Asian region, particularly the vast inflow of remittances, problems faced by women migrant workers and the challenging nature of the international labour market. The paper also focuses on some of the problems that are often faced by the migrant workers, the contribution of remittances in poverty alleviation and employment in the South Asian region. It also looks at how migration has provided access and opportunities to many people from South Asia to make a better living by taking advantage of the international labour market. It also looks at measures that need to be taken in South Asia to further promote migration and protect the rights of the migrant workers.

7. Recruitment Process of Migrant Workers in Bangladesh

The recruitment of migrant workers from Bangladesh takes place in four ways – through Bangladesh Manpower Export and Training (BMET), Overseas Employment Services Limited (BOESL), private recruiting agency, and personal contact.

The BMET is a government organization which is engaged in overall planning and management for promoting manpower export to foreign countries. It is responsible for issuing licenses to recruiting agencies. It grants permission to agencies for recruitment, provides immigration clearance after verifying visa papers and employment contracts, looks after the welfare of Bangladeshi workers abroad, promotes skill development training, and performs other functions related to training and promotion of migration overseas. BMET also controls the government recruiting agency, BOESL, and private recruiting agencies. BOESL is engaged in sending high skill professionals to overseas countries. It negotiates and coordinates with the companies of labour receiving countries to get orders to send labour from Bangladesh. Accordingly, it follows the usual process to send labour and provide low cost migration. It is also treated as a reliable source by the job seekers in foreign countries. There are about 700 private recruiting agencies in Bangladesh who also take part in recruiting labour on their own network.

Recruiting agencies obtain information on the prevailing labour demand from their counterpart of labour receiving countries. Then they have to get clearance from BMET to send the labour. Once the agencies receive the clearance, they search for prospective migrants that have the desired types of skill. They ask potential workers to submit passports and necessary documents, and make a partial payment to begin the recruitment process. After receiving passport and relevant documents, Bangladeshi recruiting agency contacts its counterpart for visa processing. The sponsor-employer of the employing country will then secure visas from the relevant authority and pass them on to the recruiting agency in Bangladesh. All this procedure, from giving the passport to getting the visa, can take few weeks to several months.

Suggestions obtained from Key Informant Interviews (KIIs) for simplifying the migration process are as follows:

- Private recruiting agencies should issue circulars, with details of jobs available abroad, including skills required in those jobs as well as wages and perks of the workers, in prominent daily newspapers and the media. This will help job seekers to get an idea about the nature of the job and whether their skill lines are commensurate with the job requirements. They will also learn about salary and benefits obtained from the advertised jobs.
- Special care should be taken by the government to issue passport in time for labour migration and minimize the expenses of the migrants.
- Standard pre-departure training should be mandatory for all intending migrants after getting visa, and the training should be conducted by the government authority or a government approved organization.
- As most of the potential job seekers in foreign countries live in village and semi-urban areas, training centers should be established in thana level so that the trainees do not have to incur extra expenses for food and lodging.
- Government agencies/ministries should take less time to approve the documents necessary for labour migration.

8. Trends in International Migration

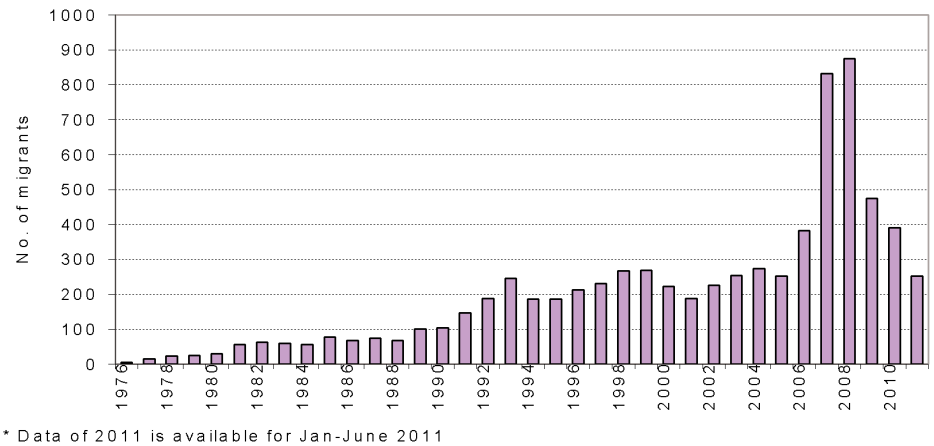
Movement of labour from labour surplus countries to labour shortage countries is an important phenomenon in the globalized world. Bangladesh has a long history of workers migrating to different destinations in search of job for their livelihood. A huge number of Bangladeshis are currently residing in various countries either with the status of permanent citizenship or as short-term worker. A remarkable

number of migrants are working in foreign countries without valid documents, for which no reliable estimate is available, and as such these are not included in the official estimate. Nor does the BMET estimate of 7.1 million people migrating between 1976 and 2010 (mentioned in Section 1 above) include those who have migrated through personal contact and those who have been living in the destination countries permanently.

Table 1 shows the outflow of migrants recorded by the BMET since 1976. A total of 3,83,150 labour migrated in 2010, compared to just 6,087 in 1976. Data indicates a positive incremental trend of labour migration throughout the period from 1976 to 2010, except for certain years. There was a sudden increase in out-migration in 2007, when 8,32,609 workers left Bangladesh for overseas jobs. The number of migrant workers rose further to 8,75,055 in 2008.

BMET has classified short term migrant population into four categories in terms of skill composition. These are professional, skilled, semi-skilled, and less-skilled. Engineers, doctors, nurses and teachers are considered as professional workers; manufacturing workers, drivers and computer operators are considered as skilled workers; tailor, mason etc are considered as semi-skilled, and housemaid, cleaner, hotel boy, labourers etc. are classified as less-skilled workers. Skilled and less-skilled workers constitute the majority of the migrant workers. Table 1 provides data on the number of workers under different skill categories that migrated to foreign countries in different years.

Figure 1: Migration of Bangladeshi Labour to the Destination Countries over the Period from 1976 to 2011



Source: *BMET*

During the early years of short-term labour migration, the proportion of professional and skilled labour was higher than that of semi-skilled and less-killed labour. In recent times semi-skilled and less-skilled workers have made up the majority of migrants. Table 1 shows that from 1976 to 2010, about 2.54 percent of migrant workers were professional, 30.24 percent skilled, 14.59 percent semi-skilled, and 52.63 percent were less-skilled. Less-skilled and semi-skilled labour together constitutes 67.22 percent and the other 32.78 percent stand for professional and skill categories. The amount of remittance would have been much higher if the country could send more professional and skilled workers.

Table 1: Skill Composition of Migrant Workers from 1976 to 2010

Year	*Number of workers of skill categories*				*Total*
	Professional	*Skilled*	*Semi-skilled*	*Less-skilled*	
1976	568	1,775	543	3,201	6,087
1977	1,766	6,447	490	7,022	15,725
1978	3,455	8,190	1,050	10,114	22,809
1979	3,494	7,005	1,685	12,311	24,495
1980	1,983	12,209	2,343	13,538	30,073
1981	3,892	22,432	2,449	27,014	55,787
1982	3,898	20,611	3,272	34,981	62,762
1983	1,822	18,939	5,098	33,361	59,220
1984	2,642	17,183	5,484	31,405	56,714
1985	2,568	28,225	7,823	39,078	77,694
1986	2,210	26,294	9,265	30,889	68,658
1987	2,223	23,839	9,619	38,336	74,017
1988	2,670	25,286	10,809	29,356	68,121
1989	5,325	38,820	17,659	39,920	1,01,724
1990	6,004	35,613	20,792	41,405	1,03,814
1991	9,024	46,887	32,605	58,615	1,47,131
1992	11,375	50,689	30,977	95,083	1,88,124
1993	11,112	71,662	66,168	95,566	2,44,508
1994	8,390	61,040	46,519	70,377	1,86,326
1995	6,352	59,907	32,055	89,229	1,87,543
1996	3,188	64,301	34,689	1,09,536	2,11,714
1997	3,797	65,211	43,558	1,18,511	2,31,077
1998	9,574	74,718	51,590	1,31,785	2,67,667
1999	8,045	98,449	44,947	1,16,741	2,68,182
2000	10,669	99,606	26,461	85,950	2,22,686
2001	5,940	42,742	30,702	1,09,581	1,88,965
2002	14,450	56,265	36,025	1,18,516	2,25,256
2003	15,862	74,530	29,236	1,34,562	2,54,190
2004	12,202	1,10,177	28,327	1,22,252	2,72,958
2005	1,945	1,13,655	24,546	1,12,556	2,52,702
2006	925	1,15,468	33,965	2,31,158	3,81,516
2007	676	1,65,338	1,83,673	4,82,922	8,32,609
2008	1,864	2,92,364	1,32,825	4,48,002	8,75,055
2009	383	104,627	18,419	3,41,922	4,65,351
2010	387	90,621	12,469	2,79,673	3,83,150
Total	**1,80,680**	**21,51,125**	**10,38,137**	**37,44,468**	**71,14,410**
% of total	**2.54**	**30.24**	**14.59**	**52.63**	**100.00**

Source: *BMET (www.bmet.org.bd)*

Classification of occupations could have been done more specifically by type of occupation in which Bangladesh workers are employed abroad.

A large portion of the country's manpower export goes to the Middle-Eastern countries (Table 2). The demand for manpower in these countries fluctuates with the fluctuation in the price of oil. When oil prices go up, these countries begin hiring more people from abroad to work at construction sites to build roads and other infrastructure. In 2010, Bangladesh sent 53.06 percent of all migrant workers to the United Arab Emirates (UAE), 11.13 percent to Oman, 10.19 percent to Singapore, 5.70 percent to Bahrain, and the rest of the workers were sent to other countries. Migration flows to different countries over the last ten years show that labour export to some countries declined, and to some countries increased or remained stable. For instance, labour export to KSA in 2001 was 1,37,248, which was 72.63 percent of total export in that year, but in 2010 the export stood at 7,069 only, which was 1.84 percent of the total export. In the case of Malaysia, labour export in 2001 was 4,921, which was 2.60 percent of the total. In 2007 and 2008, when Bangladesh's manpower export was at its peak, labour export to Malaysia stood at 2,73,201 and 1,31,762, which were 32.81 percent and 15.06 percent of the total labour exports in the respective years. Malaysia is a favorite destination for Bangladeshi workers but it does not have any stable immigration policy, especially for workers from Bangladesh. Malaysia allows entry of migrant workers when there is a boom in the economy but starts driving them out of the country or haul them up for imprisonment and deportation when the demand for labour goes down. Similarly, labour export to Kuwait showed more or less a declining trend over the last 10 years. As regards wages, skilled and semi-skilled migrants like masons, plumbers, welders, carpenters, rod binders and pipe fitters who work in the Middle East and South East Asian countries get relatively higher wages compared to the less-skilled workers. These people send higher amount of remittances to the country.

9. Labour Demand and Skill Development

Demand for specific types of labour and worker-friendly migration policies of the destination countries are more important in encouraging labour migration to these countries than the availability of labour supply in source countries. The current and potential labour destinations for different types of workers, as obtained from Key Informant Interviews (KIIs), are shown in Table 3.

The government lays emphasis on developing the skills of potential migrants under various schemes, in particular, the Technical and Vocational Education and Training (TVET) project. There are 38 Government Technical Training Centers

Table 2: Migrant Labour Out-flow to Different Countries from 2001 to 2010

Year/ Country	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
KSA	137,248	163,269	162,131	139,031	80,425	109,513	204,112	132,124
	(72.63)	(72.48)	(63.78)	(50.93)	(31.83)	(28.70)	(24.51)	(15.10)
UAE	16,252	25,462	37,346	47,012	61,978	130,204	226,392	419,355
	(8.60)	(11.30)	(14.69)	(17.22)	(24.53)	(34.13)	(27.19)	(47.92)
Qatar	223	552	94	1,268	2,114	7,691	15,130	25,548
	(0.12)	(0.25)	(0.04)	(0.46)	(0.84)	(2.02)	(1.82)	(2.92)
Oman	4,561	3,854	4,029	4,435	4,827	8,082	17,478	52,896
	(2.41)	(1.71)	(1.59)	(1.62)	(1.91)	(2.12)	(2.10)	(6.04)
Bahrain	4,371	5,421	7,482	9,194	10,716	16,355	16,433	13,182
	(2.31)	(2.41)	(2.94)	(3.37)	(4.24)	(4.29)	(1.97)	(1.51)
Kuwait	5,341	15,769	26,722	41,108	47,029	35,775	4,212	319
	(2.83)	(7.00)	(10.51)	(15.06)	(18.61)	(9.38)	(0.51)	(0.04)
Lebanon	0.00	2	3	0.00	14	821	3,541	8,444
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.22)	(0.43)	(0.96)
Libya	450	1,574	2,855	606	972	104	1,480	5,067
	(0.24)	(0.70)	(1.12)	(0.22)	(0.38)	(0.03)	(0.18)	(0.58)
Malaysia	4,921	85	28	224	2,911	20,469	273,201	131,762
	(2.60)	(0.04)	(0.01)	(0.08)	(1.15)	(5.37)	(32.81)	(15.06)
Singap	9,615	6,856	5,304	6,948	9,651	20,139	38,324	56,581
ore	(5.09)	(3.04)	(2.09)	(2.55)	(3.82)	(5.28)	(4.60)	(6.47)
Others	5,983	2,412	8,196	23,132	32,065	32,363	32,306	29,777
	(3.17)	(1.07)	(3.22)	(8.47)	(12.69)	(8.48)	(3.88)	(3.40)
Total	**188,965**	**225,256**	**254,190**	**272,958**	**252,702**	**381,516**	**832,609**	**875,055**
	(100.00)	**(100.00)**	**(100.00)**	**(100.00)**	**(100.00)**	**(100.00)**	**(100.00)**	**(100.00)**

Note: Figures in the parenthesis indicate share of migrants sent in different countries
Source: *BMET (www.bmet.org.bd)*

(TTCs), and a good number of technical institutes in the private sector, which impart training in more than 47 different trades. It is, however, learnt from KIIs that the quality of skill development training courses is not of the high standard desired by foreign employers. Because of the low quality of training, Bangladeshi workers face tough competition with workers from other labour exporting countries and are often compelled to work at lower wages. Moreover, costs including course fees, food expenses, lodging and other expenses incurred for completing a course are pretty high, which the trainees cannot always afford. For this reason, some of the training centers have fewer trainees than the number of seats available for the courses.

Very recently, a sudden opportunity has appeared for Bangladeshi workers in the Gulf nation Oman after thousands of the Filipino and Indian workers have

Table 3: Current and Potential Markets of Labour Migration

Work type	*Current and potential markets*
Construction worker	UAE, Oman, Bahrain, KSA, Singapore
Factory worker	UAE, Oman, Bahrain, Qatar, KSA, Papua New Guinea, Korea
Welder	Middle East countries
Cleaner	Middle East
Driver	Middle East
Doctor/Nurse	European countries and Middle East
Agricultural worker	Middle East, Papua New Guinea, Angola
Marine worker	Singapore
Fish processing and fishing	Korea

Source: *Obtained from KIIs*

departed following political turmoil in this oil-rich Arab country. In the UAE, too, where the construction industry has witnessed a boom in recent months, the opportunity for Bangladeshi workers has increased following the demand for higher wages by key manpower exporters like India, Sri Lanka, China, Indonesia, and the Philippines. These countries accounted for a significant portion of the UAE's expatriate workforce.

In Malaysia, the number of foreign workers is expected to record a significant increase in the coming days as the Malaysian government has announced an amnesty for thousands of illegal Bangladeshi workers. Saudi Arabia, too, has made it known that it would soon start recruiting various categories of workers from Bangladesh. Demand for Bangladeshi workers remains buoyant also in South East Asia, especially in Singapore where the thriving shipbuilding industry has emerged as a key recruiter. Iraq is set to hire thousands of workers from Bangladesh as the reconstruction of the war-torn country gathers pace.

The prospects of manpower export from Bangladesh thus appear quite bright. The ministry for expatriate welfare and diplomats posted in important countries should now work hard to exploit these opportunities and at the same time remain vigilant to ensure the rights of the migrant workers in their country of work. They will also need to take pragmatic steps to augment the manpower export drawing lessons from countries like Sri Lanka, Pakistan and India that have been immensely successful in sending a large number of both skilled and unskilled workers abroad.

Bangladesh missions abroad need to be much more proactive in searching out markets for manpower export in the old and new destinations. The positions of labour attaches and the like in the missions should go to dedicated and truly

capable persons. The missions should devote more time and energy to look after the interest of overseas Bangladeshi workers so that the latter can get their contracted remunerations and other monetary benefits from the foreign employers. These steps, if pursued diligently, can notably increase the volume of remittances.

The government will need to be serious about the expansion of the manpower export market. This is the single most sources after merchandise exports that earn the highest amount of foreign exchange. A further increase in remittance flows can be achieved by an assortment of policies in different sectors and not alone by setting up remittance houses abroad. While the latter can be a useful step, other policies do need to be pursued for augmenting remittance flows.

The export of skilled manpower, including workers and professionals, can lead to higher earnings and hence higher remittance flows because their wages would be substantially higher than those of the unskilled workers. But a large number of people will require training for the purpose, and this requirement can be met if the government operates a sufficiently large number of skill training centres across the country. The training can be imparted free of cost and those who receive such training will be able to gradually pay for their training costs, once they get jobs abroad and start earning.

The government does need to form a standing regulatory commission to expedite the manpower export and ensure the rights of the migrant workers. If this is done, the manpower sector, which is the country's second highest foreign exchange earner, can help boost the country's economy to a large extent.

10. Major Destination Countries

According to BMET data on manpower exports since 1976, KSA, UAE, Malaysia, Kuwait, and Oman were the major destination countries for Bangladeshi migrant workers (Table 4). Labour export to these destination countries fluctuated from time to time, variously depending on the country's bilateral relationship with those countries, on their economic condition, and at times on the foreign employment policy of these countries.

More than 2.5 million workers migrated to the KSA since 1976. The ranking of the destination countries in Table 4 in order of their importance to Bangladesh would show that manpower export to KSA has remained volatile, while manpower export to UAE has remained more or less stable over the past 35 years. Malaysia and Kuwait are the third and fourth highest manpower importing countries but Bangladesh's

manpower export to these countries has trended to decline in the most recent years. Malaysia was the third largest employer of Bangladeshi workers in 2000 but its rank dropped drastically to sixteenth position in 2010. The country's labour export to Oman, Singapore and Bahrain has registered a slight decline but their rank has improved in the most recent years (Table 4).

The labour migration to KSA steadily increased up to 2002, and then, after declining in the next few years till 2006, it rose to its peak in 2007 (Table 2). Since then, however, labour export to KSA has declined consistently to reach its bottom in 2010. Similarly, in the case of the second highest destination country UAE, the manpower export steadily increased till 2008 and then declined in the next two years (Table 2).

The official statistics on migration are gross underestimations since a significant proportion of intra-regional migration are through informal or unauthorized channels and thus do not get recorded. There are a huge number of Bangladesh people known to have been working in low paying jobs in informal sectors in India and Pakistan (Sridhar, 2007).

Table 4: Distribution of Migrant Workers of Bangladesh by their Destinations over time

Country	*Migrants 1976-2011**		*Migrants in 2010*		*Migrants in 2000*		*Migrants in 1990*		*Migrants in 1976*	
	Number	*Rank*	*Number*	*Rank*	*Number*	*Rank*	*Number*	*Rank*	*Number*	*Rank*
KSA	25,86,548	1	7,069	8	1,44,618	1	57,486	1	217	5
UAE	19,19,278	2	2,03,308	1	34,034	2	8,307	3	1,989	1
Malaysia	7,00,089	3	919	16	17,237	3	1,385	7	-	
Kuwait	4,79,644	4	48	18	594	11	5,957	5	643	3
Oman	4,54,458	5	42,641	2	5,258	5	13,980	2	113	7
Singapore	3,41,131	6	39,053	3	11,095	4	776	8	-	9
Bahrain	2,18,347	7	21,824	4	4,637	6	4,563	6	335	4
Qatar	1,73,911	8	12,085	7	1,433	7	7,672	4	1,221	2
Libya	95,194	9	12,132	6	1,010	9	471	9	173	6
Lebanon	58,469	10	17,268	5	-		-	-	-	-
Italy	36,669	11	6,726	9	-		-	-	-	-
Jordan	29,702	12	2,235	14	-		-	-	-	-
Brunei	25,766	13	2,191	15	1,420	8	-	-	-	-
S. Korea	25,696	14	2,699	12	990	10	-	-	-	-
Mauritius	19,574	15	3,705	10	271	12	-	-	-	-
Egypt	11,765	16	2,730	11	9	15	-	-	-	-
UK	10,009	17	173	17	-		-	-	-	-
Sudan	7,833	18	14	20	54	13	-	-	-	-
Iraq	2,710	19	2,288	13	-		-	-	-	-
Japan	762	20	17	19	22	14	-	-	-	-
Others	1,85,831		4,025		4		3,217		1,396	
Total	**73,83,386**		**3,83,150**		**2,22,686**		**1,03,814**		**6,087**	

* Data are available up to June, 2011
Source: *BMET (www.bmet.org.bd)*

11. Remittances Inflow

Worldwide flow of remittances, including those to high-income countries, is estimated to have grown to US$433 billion in 2008 depicting an increase of US$53 billion or 12 percent from US$380 billion in 2007. If unrecorded flows through formal and informal channels are included, actual remittance figures are likely to be significantly larger by at least 50 percent (World Bank, 2006).

Bangladesh has experienced a robust growth in remittances in recent years due to the acceleration of demand for blue-collar jobs in Gulf countries. The expatriate workers holding white-collar jobs seldom remit their incomes to their own country. Their earnings are generally spent in foreign countries by purchasing cars and houses, and investing in business. On the other hand, blue collar job holders remit virtually the entire amount of their earnings to their own country through different channels. The bulk of such remittances come from countries in the Middle East such as Saudi Arabia, UAE, Kuwait and some Asian countries like Malaysia. About 65 percent of the remittances come from gulf countries. Since remittances from the unskilled expatriate workforce are significant, an increase in Bangladesh's foreign exchange reserve is to a great extent dependent on remittances from these less-skilled workers.

About 35 percent of foreign exchange is earned through remittances sent by migrant workers (Siddiqui et. al., 2008). However, this share could rise much higher if the remittances were sent through official channels. There are at present two channels of sending remittance to Bangladesh. One is the formal banking channel that remits money through demand draft, traveler's cheque, telegraphic transfer, direct transfer, ATM etc. The other is the informal channel (*hundi*). *Hundi* refers to the illegal money exchange not supported by the international or national legal structure. The anti-money laundering act of Bangladesh expressly prohibits remittance by *hundi.* Yet, the *hundi* system is popular in the country because *hundi* operators offer exchange rates that are consistently higher than the official exchange rate. Additionally, *hundi* operators generally maintain the confidentiality of the recipients and promptly send the money to any nook and corner of the country.

There is no record of remittances received through informal channels. A rough approximation is that 46 percent of the total volume of remittance is channeled through official sources, around 40 percent through *hundi*, 4.61 percent through friends and relatives, and about 8 percent of the total is hand carried by migrant workers themselves during their home visits (Siddiqui and Abrar, 2003).

In absolute terms, the total receipts of remittances from Bangladeshi migrants through formal channels during 1976-2010 stood at US$78.7 billion. In particular, the remittance received in 1976 was only US$23.71 million. Then it continued to increase until 1983. The remittance showed a downward trend during the next couple of years. However, the remittance showed a steadily increasing trend until 2010. The remittance rose to US$10,987 million during 2010 (Table 5). The increasing flow of remittance has helped reduce Bangladesh's external aid dependency. In fact, the growth of remittances is one of the key factors in boosting the country's foreign exchange reserves.

By making the formal sector stronger, quicker, secure, efficient, less costlier than the informal sector, private commercial banks in collaboration with NGOs can play a vital role to reach the remittance money anywhere in Bangladesh. This would on the one hand make all such transactions legal, and also help beef up foreign exchange reserves of the country.

Table 5: Yearly Data of Remittances from 1976 to 2010

Year	*Remittance (in US$*	*Year*	*Remittance (in US$ million)*
1976	23.71	1994	1153.54
1977	82.79	1995	1201.52
1978	106.90	1996	1355.34
1979	172.06	1997	1525.03
1980	301.33	1998	1599.24
1981	304.88	1999	1806.63
1982	490.77	2000	1954.95
1983	627.51	2001	2071.03
1984	500.00	2002	2847.79
1985	500.00	2003	3177.63
1986	576.20	2004	3565.31
1987	747.60	2005	4249.87
1988	763.90	2006	5484.08
1989	757.84	2007	6568.03
1990	781.54	2008	8979.00
1991	769.30	2009	10717.73
1992	901.97	2010	10987.00
1993	1009.09	**Total**	**78661.11**

Source: *BMET (www.bmet.org.bd)*

Table 6: Role of Individual Banks in Mobilization of Remittances from FY2006 to FY2011

Name of Banks	*FY2006*	*FY2007*	*FY2008*	*FY2009*	*FY2010*
State Owned Commercial Bank	**2198.47**	**2320.40**	**2635.85**	**2891.82**	**3047.70**
Sonali Bank Ltd.	1220.44	1197.20	1317.82	1263.27	1299.64
Janata Bank Ltd.	535.66	595.37	726.11	784.64	938.85
Agrani Bank Ltd.	360.47	440.01	491.60	739.19	703.70
Rupali Bank Ltd.	81.90	87.32	100.32	704.71	105.51
Specialized Banks	**44.02**	**72.49**	**91.86**	**101.99**	**111.91**
Bangladesh Krishi Bank	43.62	71.93	91.59	101.82	111.77
Basic Bank Ltd.	0.40	0.59	0.27	0.17	0.14
Private Commercial Bank	**2354.10**	**3408.90**	**5004.23**	**6509.02**	**7617.22**
Al-Arafah Islami Bank Ltd.	3.02	4.30	2.47	4.65	15.18
AB Bank Ltd.	56.94	79.17	118.77	245.58	234.67
Bangladesh Commerce Bank Ltd.	0.04	0.10	0.09	0.16	0.11
Bank Asia Ltd.	85.24	85.87	119.89	146.71	197.83
BRAC Bank Ltd.	70.09	207.49	400.36	558.17	594.73
Dhaka Bank Ltd.	91.08	113.49	135.61	121.08	116.05
Dutch-Bangla Bank Ltd.	14.57	17.84	50.03	77.99	88.51
Eastern Bank Ltd.	54.49	115.70	154.45	153.39	153.53
EXIM Bank Ltd.	1.67	3.58	9.84	16.25	20.13
First Security Islami Bank Ltd.	0.17	0.46	4.55	4.46	6.01
IFIC Bank Ltd.	32.65	37.84	49.54	56.50	65.96
Islami Bank Bangladesh Ltd.	643.78	949.76	1636.14	2339.03	2933.83
Jamuna Bank Ltd.	7.12	39.09	39.86	38.64	27.78
Mercantile Bank Ltd	7.18	33.80	76.40	52.66	48.90
Mutual Trust Bank Ltd.	5.84	65.09	91.85	78.42	80.71
National Bank Ltd.	251.73	336.27	529.01	583.81	685.12
NCC Bank Ltd.	38.52	85.46	140.78	186.52	186.63
One Bank Ltd.	5.66	4.37	2.92	6.03	8.17
Prime Bank Ltd.	80.39	175.84	238.33	267.06	301.56
Pubali Bank Ltd.	210.55	286.42	377.71	468.86	481.85
Shahjalal Islami Bank Ltd.	27.92	49.94	65.94	47.56	40.02
Social Islami Bank Ltd.	1.44	2.05	2.42	11.33	7.42
South East Bank Ltd.	93.44	150.24	108.45	170.75	261.39
Standard Bank Ltd.	3.86	0.85	2.68	0.88	11.37
The City Bank Ltd.	78.56	80.29	57.83	158.19	207.87
ICB Islamic Bank Ltd.	25.52	16.30	10.36	7.68	7.18
The Premier Bank Ltd.	0.77	5.97	21.48	20.33	19.68
Trust Bank Ltd.	7.18	17.49	60.64	94.77	119.28
United Commercial Bank Ltd.	36.49	50.34	36.32	49.66	50.06
Uttara Bank Ltd.	418.19	393.54	459.50	541.90	645.69
Foreign Commercial Bank	**205.28**	**176.66**	**182.83**	**186.41**	**210.60**
Commercial Bank of Ceylon Ltd.	0.54	1.84	8.39	9.71	7.61
Citi Bank NA	1.35	87.41	61.83	52.27	32.46
Habib Bank Ltd.	122.95	1.92	1.63	0.47	0.16
HSBC	2.02	41.88	52.05	68.42	95.25
National Bank of Pakistan	31.33	0.01	0.04	0.02	0.07
Bank Al-Falah	0.04	0.62	1.11	0.16	0.03
Standard Chartered Bank	0.49	41.40	54.06	53.03	73.17
State Bank of India	45.61	1.57	3.01	1.30	0.77
Woori Bank Ltd.	0.95	0.00	0.70	1.03	1.08
Total (All Banks)	**4801.87**	**5978.45**	**7914.77**	**9689.24**	**10987.43**

Source: *BB (www.bangladesh-bank.org)*

Banks in Bangladesh have been playing an important role in mobilizing and channeling remittances to the beneficiaries. The group-wise role of banks depicts that private commercial banks (PCBs) are playing a pioneering role in mobilizing remittances from the overseas countries. Among all banks, Islami Bank Bangladesh Ltd. is at the top in repatriating remittances in the country and contributing a lot to the development effort of the government. The role of different types of banks in mobilizing remittances is shown in Table 6.

The World Bank's recently published 'Migration and Remittances Fact Book 2011' shows Bangladesh as the seventh highest remittance receiving country in the world in 2010, receiving US$11.1 billion during the year. India was the world's top remittance receiving country in 2010, with an inflow of US$55 billion, followed by China (US$51 billion), Mexico (US$22.6 billion), Philippines (US$21.3 billion), France (US$15.9 billion) and Germany (US$11.6 billion) (Table 7).

The remittance receipts in Bangladesh have not increased significantly despite a rise in the number of emigrants. In the South Asian region, Bangladesh was the second highest recipient after India, but ahead of Pakistan, Sri Lanka and Nepal (Table 8). The most important reason behind the incongruity between the number of migrants and remittance flows is that Bangladesh has increasingly been exporting more less-skilled and semi-skilled workers whose wages are lower than those of skilled and professional migrants (Siddiqui and Abrar, 2003).

12. Impact of Remittances on Employment and Poverty

Remittances can make an important contribution to development through employment generation and reducing poverty. The recipients of remittance money

Table 7: Ten Top Remittance Recipient Countries of the World in 2010

Sl. #	*Country*	*Remittance (in US$ billion)*
1	India	55.00
2	China	51.00
3	Mexico	22.60
4	Philippines	21.30
5	France	15.90
6	Germany	11.60
7	Bangladesh	11.10
8	Belgium	10.40
9	Spain	10.20
10	Nigeria	10.00

Source: *World Bank staff estimates based on the IMF's BOP statistics yearbook, 2010*

meet their basic needs by using these funds. The report by Adams shows that remittance recipients are more likely to send their children to school, have more access to health care, and start small businesses (Adams, 2006). Remittance has in fact been playing a significant role in the economic development of

Table 8: Five Top Remittance Recipient Countries of South Asia in 2010

Sl. #	*Country*	*Remittance (in US$ billion)*
1	India	55.00
2	Bangladesh	11.10
3	Pakistan	9.40
4	Sri Lanka	3.60
5	Nepal	3.50

Source: *World Bank staff estimates based on the IMF's BOP statistics yearbook, 2010*

Bangladesh. It is now considered one of the major weapons for fighting poverty in the country.

No doubt, migration can to some extent help relieve the acute pressure of underemployment and unemployment; it can also be a potent instrument for transferring skills, creating productive efficiency, and stimulating domestic investment. When international labour migration is accompanied by sufficient remittances, it can make a significant contribution to both economic growth and poverty reduction. According to recent estimates by the World Bank, remittances accounted for significant poverty reduction in a number of poor countries: 11 percentage points for Uruguay, 5 percentage points for Ghana, and 6 percentage points for Bangladesh (World Bank, 2006).

Adams and Page (2005) focuses on the positive side of remittances resulting from migration, which they argue reduce poverty. This study uses cross-country regression based on 74 countries and finds that a 10 percent increase in the share of remittances in a country's GDP can lead to an average 1.2 percent decline in the poverty headcount.

13. Female Migration

In recent days, a significant number of Bangladeshi women have begun seeking opportunities for foreign employment to overcome their poverty. The growing demand for female workers in labour importing countries has created opportunities for female workers to participate in the international labour market. Female labour migration from Bangladesh has been increasing in the recent years though it was insignificant even a decade ago. Female migrants in 2000 were just 0.20 percent of all migrants that went through official channel. The percentage rose to 4.78 percent in 2009 and 6.48 in 2010 (Table 9).

As gathered from KIIs, more female labour are now migrating both to take up jobs in the informal sector such as those of housemaids and cleaners and in the formal sector like garments and tailoring, fish processing and health care sectors that require specific skills in the respective areas. There is also a growing demand in particular activities in particular countries (Table 10). There is a large demand for nurses in some countries but women of Bangladesh are not able to get those jobs due to inadequate language skills and lack of proper certificate required in the destination countries.

Table 9: Percentage of Female Migrants from 2000 to 2009

Year	% of women migrants over total migrants
2000	0.20
2001	0.35
2002	0.54
2003	0.93
2004	4.29
2005	5.57
2006	4.73
2007	2.29
2008	2.38
2009	4.78
2010	6.48

Source: *Calculated from BMET data*

14. Problems Faced in the Home Country before Departure

A migrant worker seeking employment abroad faces a lot of problems in his/her own country prior to departure for a foreign country. We have recorded some of these problems through Key Informants Interviews (KIIs). In most cases, the recruiting agencies employ a sub-agent, locally called '*dalal*', to get the jobseeker a job out of specific job categories. There are, however, concerns that manpower brokers both in the labour-sending and destination countries often engage in unethical practices that cause enormous despair for the aspirant migrant workers.

The job seekers that eagerly desire to get employment in foreign countries do not have much knowledge about the migration process and the cost of migration. They do not even have any opportunity to get the information they desire. There is limited scope to get the information about what documents are required, how long the aspiring migrant will have to wait to migrate, and who the reliable recruiting agencies are. In many cases, job seekers were cheated by the *dalal* who had earlier promised them of tempting jobs with large salary and benefits, but these promises were more often found hollow and baseless.

Table 10: Current and Potential Markets for Female Workers

Work Type	*Current and potential markets*
Housemaid	Lebanon, UAE, KSA, Oman
Garments/tailoring	Mauritius, Jordan, UAE
Fish processing	Mauritius
Cleaner	Kuwait
Doctor, Nurse	KSA, Oman, Fizi, Bhutan, Maldives

Source: *Obtained from KIIs*

Thus, due to a flawed immigration policy and its poor enforcement, migrant workers often become victims of deception by middlemen before departure.

15. Problems Encountered in Destination Countries

As in the home country, the intending migrants in Bangladesh face a number of problems and challenges in the destination country as well. Migrant workers are exploited by the companies they work for. The present study has identified a number of such problems on the basis of information gathered from a number of KIIs that are the key actors in the migration process.

A significant number of migrants receive much lower wage than what *dalals*–local recruiting agents–promise them when they migrate from the country. In some instances, migrant workers are bound to agree upon a fake contract written in a language they do not understand and which forbids all fundamental rights. Alongside the fake one, the company makes another contract with counterfeit information to show government about the facilities provided to the migrant workers. Also, the Police and Immigration Departments force them to give money. Their travel documents are taken away by the employers after they arrive at the country of work, so that they cannot raise their voice against exploitation and are compelled to work even in low wages, delayed payment, and no medical care. Despite all this, migrant workers usually do not get cooperation from Bangladesh's diplomatic missions in the destination countries. Most of the workers in the destination countries have to work in vulnerable conditions, which are a threat to their security, health and efficiency.

There are uneven wages between the migrant workers and the nationals of destination countries. Also, there are wage discrepancies vis-à-vis the workers of other labour sending countries. The position and status of Bangladeshi workers is lower, compared to those from other labour exporting countries. Yet, the migrant workers cannot raise any complaint about the unequal treatment due to the fear of losing their job.

Most migrant workers do not have the right to change their job in the destination country before they complete the period of contract. More often than not, these workers are engaged in dangerous, dirty, and humiliating jobs with long working hours. Some of the workers, who have the potential to get a higher income job, can not avail of this opportunity due to this contractual barrier. As a result, Bangladeshi workers are deprived of the opportunity of earning higher income and the country loses a significant amount of remittances.

The Gulf Cooperation Council (GCC) has proposed to bring all recruitment agencies under a legal framework to root out fraudulent practices in the workers' recruitment process and protect the migrants' rights. The GCC has also proposed that the legal fees for recruitment of migrant workers in the GCC nations will be borne by the employers, but these fees should be clearly defined by the labour-sending and receiving countries (The Daily Star, April 21, 2011).

The social unrest and political uproar in some labour-importing countries in the past one year has created an impediment to the increase of labour export to these countries.

16. Cost of Migration

Employers in foreign countries, with few exceptions, do not provide air ticket to workers and pay for their emigration related expenses. Moreover, workers have to pay to get work permit in the destination countries. The situation was not so about 20 years back. In most of the cases, employers of the labour importing countries used to bear all costs like air ticket, medical expenses, work permit and other expenses associated with migration. The wages at that time were much higher than what they receive now. Now-a-days, more and more developing countries than before are trying to enter the labour market in Middle East countries. As a result of the growing competition in the labour market, salary, wages and benefits of labour are being reduced. So, the rate of remittances has not been increasing these days, commensurate with the increasing rate of migrants over the most recent years.

17. Conclusion and Recommendations

Being a country with huge labour surplus, Bangladesh has a strong potential to contribute to the supply side of world labour market. In Bangladesh, the access for its workers to different countries for getting employment has been an issue of growing importance in recent years. The migrants have been big contributors to the national economy, remitting huge amount of foreign currency. The manpower

export sector deserves to be protected from all harm so that it can flourish and add substantially to the country's foreign currency reserves.

Most manpower-importing countries are interested in employing skilled workers. It is in fact not desirable to send less-skilled workers as their wages are always substantially lower than those of skilled workers. The government should take steps to create skilled manpower for those lines of work in which there is high demand in the destination countries. The reality is, however, that most of the Bangladeshis seeking jobs abroad are uneducated. There are grossly underpaid and face deprivation by overseas employers very often.

Government of Bangladesh has introduced a foreign employment act and policy to protect workers from exploitation. The manpower agencies and the government should join hands not only to revive the demand for Bangladesh workers in traditional destinations but also to explore new markets in which there is a good socio-political environment and where wages are relatively high. Eastern Europe, Russia and some countries of Africa can be good options. More bilateral negotiations need to be held in order to have a safe and secure place in the world market. The relevant ministry has to establish contact with the employer companies of those countries. Every mission must have a very strong press wing from which the concerned ministry will get an idea about job openings in the respective country.

There is a huge demand for trained nurses in the developed world. Major labour exporting countries are providing various incentives to private sector educational institutions to produce trained nurses. Bangladesh government, too, should not hesitate to provide incentives for creating skilled nurses in order to exploit opportunities for exporting trained nurses to the developed world.

The most important task of the government now should be to create training opportunities in diverse areas as per the requirements of the labour importing countries. It would need to set up adequate number of skill training centres throughout the country to facilitate the enrolment and training of a large number of people. The private sector, too, can establish more high quality technical, polytechnic and vocational institutes that will add to the supply of skilled and professional workers. Admission seekers in these skill training centers should be admitted free of charge or at consessional cost on the condition that they would pay back for their training costs once they get employment. Both the training institute and the trainee would benefit from such an arrangement.

Finance is another frightening barrier faced by people planning to go abroad. Government can play a very useful role by asking the country's nationalized commercial banks to extend, low interest, collateral-free loans to people aspiring

to go abroad on the express commitment by the loanees that the loans would be progressively repaid with interest after they reach their destinations and start working abroad. Neither the lending banks nor the loan recipients stand to lose anything but only gain from such an arrangement. The outcome of such a move will be the sending out of a large number of workers abroad where they will be earning higher incomes from relatively high-wage jobs which will ultimately lead to a higher level of remittance flow to the country.

Recruiting agencies, too, should be brought under some strict rules and regulations and all of their activities will need to be monitored so that no migration seeking person becomes their victim. The government should make all migration-related information easily accessible to the people so that they become aware of the present and the potential market and learn the pros and cons in the process of migration.

The foreign missions of the country will have to be sufficiently active. They will need to have separate wings for promoting manpower export and monitor the welfare of the workers. They would be expected to assess the prospects for our manpower export to the country when they are located, establish government-to-government contact or facilitate direct contact between our manpower exporters and foreign employers. They should be obliged to intervene if foreign employers break the terms of their contract with the workers, involving underpayment, fraudulent practices and other abuses. The missions should send reports to the concerned ministry on a regular basis.

Instances of cheating and fraud are very common and occur both prior to and after the departure of workers from the home country. The prevailing complex and time consuming recruitment process is largely responsible for the rise in fraudulent acts of the stakeholders. A simplification of the recruitment process is therefore strongly warranted.

The targeted increase in the remittance flow through exploring new labour markets in the coming days may face stiff challenges unless the country is in a position to export more and more skilled workers abroad.

Remittance is an important source of foreign exchange earning, and if a part of the sums is used in productive investment, it can make a significant contribution to the country's economic development. Policymakers should take care of the migrants, look after their problems and support them for improving their condition, so that they can send more foreign currency to the country.

Further study is needed to assess the costs and benefits of migration and also evaluate the prospect and potential of using remittances in productive sectors.

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Energy Cooperation in South Asia: Prospects and Challenges

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Abstract *Energy Security has always been a concern for all the countries in the world, as with modernization the use of energy has been increasing rapidly and people's life and national economy becoming dependant on the usage of energy. So, to maintain a secured future, different initiatives are being taken in the energy sector all over the world. South Asian region is vital part of this world with its huge population base and rapid economic growth. To facilitate the objective of achieving faster economic growth in this region, South Asian Association for Regional Cooperation (SAARC) was formed in 1985. But, due to some lack of trust between the member states and political dilemma, this association has never flourished to its full potential. However, through building mutual trust and understanding the greater perspective of this region, SAARC Member States (SMSs) have a big scope to create a strong regional cooperation, which includes bilateral and multilateral energy trade between the states and a generalized energy policy, which can provide a guiding principle for energy security in the future. With the present scenario of energy reserve, production and consumption of the countries of this region, it can be seen that there is a dire need for cooperation among the countries. Observing the successful regional cooperation in other parts of the world, it is high time that the leadership of the SMSs proceed towards a more secured future in the energy sector by pursuing strong regional cooperation.*

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1. Introduction

The South Asian Association for Regional Cooperation (SAARC), comprising Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka was established in 1985 to enhance economic growth through increased cooperation among member countries in different areas and sectors.

To support and quicken economic growth in the region, the most significant input needed is increased access to energy, as there is a formidable direct relationship between economic growth and energy demand. Increased social mobility related to faster economic growth further raises the demand for energy, putting pressure on SAARC member states (SMSs) to ensure uninterrupted and dependable supply of energy.

Even though the SAARC region as a whole is rich with assorted energy resources, with enough potential in renewable energy field, a lion's share of these resources are yet to be exploited. Inadequate availability of indigenous energy supplies, combined with the large population base, makes the region significantly dependent on energy import. The variation of energy resource endowment between South Asia and its neighboring regions presents prospects for interregional energy trade to obtain the optimum advantage from available resources. However, the geopolitics involved and competition from alternative energy markets makes interregional energy trade a challenging proposition. In such a situation regional cooperation can be an effective mechanism boost the region's energy security. SAARC member states (SMSs) require adequate energy supplies and protect themselves from the potential threat of oil price hikes. Regional cooperation provides them such an opportunity.

Examples of successful collaboration in chasing reliable energy policies can be observed in different regions of the world, predominantly in sharing electricity generation using cross-border transmission interconnections. Estimates suggest that in Europe, electricity system interconnection has resulted in a 7%–10% reduction in generation capacity costs. Similar cooperation within the United States has been estimated to bring benefits in the order of $20 billion. A study of the Greater Mekong Sub-region in Southeast Asia suggests that regional cooperation in energy could reduce energy costs by nearly 20%, for a saving of $200 billion during 2005–2025 [1].

This paper briefly presents the current energy scenarios in South Asian countries and highlights the potential benefits of regional cooperation in energy sectors as well as obstacles to forgoing cooperation in this area. In order to derive lessons for South Asia, the paper presents example of energy cooperation in other parts of

the world. Finally, the paper reviews the initiatives taken so far to promote regional energy cooperation in South Asia and recommends steps to ensure energy securityy for all SAARC countries.

2. Energy Scenario in South Asia

In South Asia, the reserve and potential for energy resources comes from a wide variety of options. Initially reliant on conventional bio-mass fuels, the forward-looking sectors of the countries moved on to the use of coal. So, coal mines were one of the first symbols of modernity in colonial times. Coal was discovered first in 1774, but mining began in mid-nineteenth century, primarily from eastern Indian coal seam but also later from Assam and central India. These coals were used to fuel the new railways and industries such as the jute mills around Calcutta metropolis. As modern modes of transportation started to flourish, Oil and natural gas entered the energy basket. The Assam Oil Company went operational in the first quarter of twentieth century after Petroleum was struck in Digboy, Assam in 1889 [2]. As part of multipurpose river valley projects in late 1940s, large-scale hydroelectric projects were initiated. The vital factors behind creating greater demands for modern energy sources are the population growth and urbanization. For instance, the primary energy consumption in India increased as much as four times between 1971 and 2000 with increasing urbanization and this demand is expected to grow further while other South Asian countries have pursued comparable course, with little variations.

Oil reserve has always been a constraint for South Asian region which is rather inadequate to meet the oil demands of the region. So, it is clear that, the region will remain dependent on oil imports. The natural gas reserves in Bangladesh, India and Pakistan are sizeable but they are not seen by experts as a dependable source for long term planning. India and Pakistan, along with Bangladesh, have large coal reserves. India is the world's third largest coal producer, and will continue to use coal as the primary commercial fuel for electricity generation. Pakistan's immense coal reserves are yet untapped and estimated at 175 billion tonnes in the Thar area of Sindh province, a source that Pakistan will probably start to utilize fully in the years to come, although oil and gas are plentiful in regions to the north and west of Pakistan [2]. Pakistan also has plans to develop its lignite resources and to set up mine-head power plants. Bangladesh has limited coal reserves and plans to develop them slowly; although its one large open-cut project in Phulbari has been shelved just before beginning production due to mass demonstrations about the displacement of local communities. Sri Lanka intends to begin coal imports for power generation. Hydro-electric potentials are pretty high

in this region with possible locations being primarily in India, Pakistan, Nepal and Bhutan. Two mountainous countries, Nepal and Bhutan, have the potential to produce power from hydro-electric plants, which are far in excess of their current or projected demand. But, high investment required is the only barrier for them to produce surplus power. Traditional fuels such as biomass and animal waste continue to contribute handsomely in the region's energy mix, but at the same time, nuclear sources provide increasingly sizeable portions of power (in India and Pakistan), as do solar and wind power projects in India. Renewable energy sources have become a point of interest in this region and researches are going on to extract a noteworthy amount of power from renewable energy sources. Solar and Wind power is the segment that is getting pretty high interest from the researchers, private investors and governments.

2.1 Country-Wise Energy Scenario

In different countries in the SAARC region, the energy resources differ. Similarly, the process of power extraction also differ as some countries are dependent on natural gas as their main source of energy while some others are dependent on coal. These country-wise energy scenarios are discussed below in brief to get an overview of the present situation of that country and to get an insight on why regional cooperation in energy sector is required.

Afghanistan

In 2008, Afghanistan generated 0.83 billion kilowatt-hours of electricity from an installed capacity base of 0.489 megawatts. The top 2 energy sources overall were Hydroelectricity (76.48% of total capacity) and Conventional Thermal (23.52%). 76.48% of the installed capacity base comprised of renewable energy sources, the largest being Hydroelectricity at 374 megawatts [3].

From statistics, it is observed that energy scenario of Afghanistan does not truly represent the country's energy demand. The present energy consumption of the country is far below the bench mark of 1978. Some recent surveys project that in the coming years Afghanistan would experience primary energy growth rate of around 6% a year but at the same time, growth rate of electrical energy would be 10.5% a year [4]. Though endowed with natural resources, the country will have to largely depend on energy imports to meet its energy demand. Currently, out of a yearly 3.81 mtoe of non-diminishing hydropower potential, Afghanistan utilizes only 6.69% [4]. From a regional energy perspective, Afghanistan has the potential to act as energy transit country for South Asia.

Bangladesh

Energy sector of Bangladesh is heavily dependent on natural gas. If probable gas reserve can not be firmed up, Bangladesh will experience serious energy challenge due to gas shortage after 2016. To avoid this situation, Bangladesh will have to switch its extreme primary fuel dependency on gas to coal. Bangladesh is meeting its oil requirement through imports. From analysis, it is observed that Bangladesh would experience fuel based primary energy growth of around 6.24% a year, along with electrical energy growth of 7.8% a year from the period 2010 to 2020 [4]. Bangladesh can diversify fuel supply mix in an economic way, through import of gas and electricity from neighboring countries.

Among all the energy sources, presently, Bangladesh heavily relies on fossil fuels, especially natural gas, petroleum oil and coal. Bangladesh has not yet gone for large scale usage of renewable energy sources except the hydroelectric power plant in Kaptai or a failed wind turbine power plant project in Kutubdia. But, steps are being taken to popularize renewable energy sources in the form of solar energy or wind energy. But, at present, it is almost all fossil fuels. Here is an overview of the present scenario of the energy resources of Bangladesh:

Natural Gas

Natural Gas is the most important energy source for Bangladesh for both household uses and heavy industries. But, unplanned use of natural gas in earlier years and highly subsidized price of it has made it difficult to perfectly utilize the full potential of total natural gas reserve in Bangladesh. Contrary to popular belief, Bangladesh does not have a large reserve of natural gas, a Table 1 world indicates.

Table 1: Natural Gas Reserve in Bangladesh [5]

Natural Gas Reserve	Amount in Bcf
Reserve (Proven + Probable)	28,619.70
Reserve (Recoverable)	20,631.45
Cumulative Gas Production (Till Dec 2010)	9,407.14
Remaining Recoverable Reserve	11,224.31
Daily Gas Production in 2010-2011 (Till April 2011)	2.19

From Table 1 it is clear that Bangladesh has used up almost half the total reserve of natural gas. With the increasing rate of use of natural gases, it is obvious that Bangladesh will run out of Natural Gas reserve within 2025 if not sooner.

Already, as can be seen in Table 2, there is a demand-supply gap in natural gas in Bangladesh. According to the monthly report for the month of August from Petrobangla, there is around 500 Mcf shortage of supply every day. [5]

Table 2: Demand Supply Situation as in August 2011 [5]

. Consumer	Demand (Mcf)	Supply (Mcf)	Shortage (Mcf)
Power	923	804	
Fertilizer	289	132	
Non-Grid Power	40	37	
Captive	425	340	
CNG	125	114	
Industry	400	323	
Domestic	275	224	
Commercial and others	36	26	
Total	2513	2000	513

Petroleum Oil

Petroleum oil is the most important fossil fuel around the world. Though presently a very large number of vehicles and industries are running in CNG in Bangladesh, petroleum oil is still a very big source of energy. Unlike in the past, Bangladesh is presently producing enough petrol to serve its own needs. A healthy amount of petroleum products are being produced at different fields under Sylhet gas fields ltd. According to Monthly Production and Sales Statistics of different fields of the company, total production of condensate in the month of June 2011, was 1088.83 barrel from Haripur, Beanibazar and Rashidpur gas fields. But unfortunately, petrol is not as important as diesel as a fuel because bigger machines usually run on diesel engines. The amount of diesel produced from this condensate can barely serve a very low percentage of demand. So, every year, Bangladesh has to import a huge amount of petroleum oil in the form of crude oil, refined oil and lubricating oil.

Coal

Coal is a very important source of energy in worldwide perspective. Since the dawn of industrial age, coal has played a very big part as the primary energy source. But, in Bangladesh, coal is not a popular source because it is a new discovery. Also, due to bureaucratic red tape and resistance by a section of the people, coal has not been yet used in mass level. Presently, only one mine is on operation in Bangladesh and that is in the Barapukuria, Dinajpur. According to the data found in the Centre for Energy Studies, BUET, the total amount of coal reserve in Bangladesh is 3.015 billion MT of which 1.4 billion MT is recoverable [5].

Electricity

Bangladesh's total electricity capacity has increased on an annual compound basis by 3.91% over the last 20 years to 5,453 megawatts (MW) in 2008. The top 2 energy sources overall were Conventional Thermal (95.78% of total capacity) and Hydroelectricity (4.22%). [6].

Total renewable energy capacity accounts for only 4.22% of this total installed capacity base whilst renewable energy sources excluding hydropower account for 0%. Total electricity generation meanwhile climbed 11.72% over the last year to 32.93 billion kilowatthours (bn kWh) in 2008. Conventional sources, including conventional thermal (coal, petroleum, gas), nuclear power and hydro pumped storage accounted for 95.57% of total electricity generated, up from 94.78% 5 years previously. In 2009, Bangladesh had a zero balance net import requirement. There were no exports of electricity. [6]

Bhutan

Available data on Bhutan, which in highly outdated, shows that the country has relatively greater access to electricity and of all country of the region, it has about eight-fold higher per-capita energy consumption. In 2000, 55% of Bhutan's commercial energy consumption (which totaled 380.7 million kWh) was provided by hydroelectric power, 24% from petroleum, and 21% from coal. Electric power was introduced in Bhutan in 1962; by the mid-1980s, six hydroelectric and six diesel power stations were in operation. The 336-MW Chukha hydroelectric project, in south-western Bhutan, was completed in early 1987 and is connected to the Indian power grid; the project was funded by India, which is to receive all the electrical output not used by Bhutan. As of 2002 the major hydroelectric project under construction was the 1,020 MW Tala plant, slated for completion in 2004/05. In 2001, Bhutan's net installed capacity was 425,000 kW; in 2000 production totaled 1,900 million kWh, of which 99% was hydroelectric [2].

India

India's energy consumption is increasing by leaps and bounds; from 4.16 quadrillion Btu (quads) in 1980 to 12.8 quads in 2001, recording a 208% increase. In 2001, coal accounted for 50.9% of India's primary energy consumption, with petroleum accounting for 34.4%, hydroelectricity 6.3%, natural gas 6.5%, geothermal/wind/solar (non-conventional) 0.2%, and nuclear power 1.7%. Despite this growth and high population, India's energy consumption is still below that of US, China, Japan or Germany [2]. In 2008, India generated 785.53

billion kilowatt-hours of electricity from an installed capacity base of 176,788 megawatts. The top 3 energy sources overall were Conventional Thermal (68.95% of total capacity), Hydroelectricity (22.23%) and Wind (5.46%). 28.72% of the installed capacity base comprised of renewable energy sources, the largest being Hydroelectricity at 39,308 megawatts [7].

India's total electricity capacity has increased on an annual compound basis by 4.61% over the last 20 years to 176,788 megawatts (MW) in 2008. Total renewable energy capacity accounts for 28.72% of this total installed capacity base whilst renewable energy sources excluding hydropower account for 6.49%. Biomass and Waste experienced the fastest capacity growth rate (23.92%) while Conventional Thermal Energy added the most capacity in the last 5 years, reaching 121,892 MW in 2008.Total electricity generation meanwhile climbed 3.45% to 785.53 billion kilowatthours (bn kWh) in 2008 with the largest source for electricity generation being Conventional Thermal (82.02% of total net generation).Conventional sources including conventional thermal (coal, petroleum, gas), nuclear power and hydro pumped storage accounted for 83.69% of total electricity generated, up from 85.74% 5 years previously. In 2009, India had a zero balance net import requirement. There were no exports of electricity [7].

Maldives

About 55% of total energy consumption comes from wood. Nearly all of the inhabited islands of the Maldives (194 out of 199) have access to electricity; in late 2001, the Asian Development Bank issued an $8 million loan to boost the availability and supply of power to 40 outlying islands of the Maldives. In 2000, net electricity generation for all of Maldives was 110 million kWh, of which 100% came from fossil fuels. Total installed capacity at the beginning of 2001 was 25 MW [8].

The State Electric Company is to establish power stations all throughout the 200 islands under a planned program of rural development. With 23 islands, electrificated by the State Electric Company, the remaining 177 islands have some form of limited and not-so-reliable power supplies run by individual entrepreneurs. The airports and the tourist resorts have their own power generation systems. All these power supply systems are entirely run on imported fossil fuel, diesel. Renewable energy is used to power navigational lights (marking the reefs), communication transceivers on fishing boats and for power supply at the remote installations in the national telecommunication network.

These installations are not connected to the grid and are privately owned and operated. Solar energy is also used on a small scale for producing hot water for homes and in the tourism industry. The telecommunication company of Maldives is the single biggest user of renewable electrical energy, which is produced using solar energy. One hundred and seventy seven sites, mainly using solar power or solar-diesel hybrid systems, are operational. The largest site has a capacity of 3.5 kW while the total capacity approximates to 130 kW [8].

Nepal

Nepal is the poorest of the South Asian countries. Nearly all energy consumption was in the residential sector and most of that energy was derived from fuel wood. Nepal has little or no fossil fuel reserves so it relies totally on imports. Because of this, some emphasis is being put on renewable sources of energy. For example, the 10th Five Year Plan (2002–2007) aimed to provide more access to energy to rural families from alternative energy sources, as a means for poverty alleviation. In 2008, Nepal generated 3.05 billion kilowatthours of electricity from an installed capacity base of 717 megawatts. The top 2 energy sources overall were Hydroelectricity (92.05% of total capacity) and Conventional Thermal (7.95%). 92.05% of the installed capacity base comprised of renewable energy sources, the largest being Hydroelectricity at 660 megawatts [9].

Sri Lanka

Fuel wood and oil provide Sri Lanka with about 90% of its primary energy supply, in roughly equal proportions [2]. Nearly half of the oil is used for transportation and a quarter for power generation. In terms of electrical power produced, roughly equal amounts come from hydro and thermal plants. Some of the issues Sri Lanka will have to deal with concerning electrical power are:

- Inadequate generation capacity additions
- Absence of cost reflective pricing
- Absence of a coherent policy towards sector expansion such as weak public-private partnership situation
- Increased dependence on imported fossil fuels in the thermal generation sector and increased fuel switching, biomass to LPG.

Pakistan

Pakistan’s economy is at the crossroads. The energy sector consists of natural gas (45%), oil (15.2%), hydroelectricity (6.43%), coal (3.3%), nuclear (.42%) and

renewable (negligible). Natural gas is currently utilized by the power sector (35.4%), fertilizer (23.4%), industrial (18.9%), household (17.6%), commercial (2.8%), and cement (1.5%). In electricity consumption, the domestic sector demands 41.4%, with industries claiming 31.1%, agricultural 14.1%, other government sectors 7%, and commercial consumers 6%. The government has recently published a 25 year Energy Security Action Plan (ESAP) with two main thrusts: first is to clearly separate short-term, mid-term and long-term goals, and secondly to increase self-reliance on indigenous fuels.

Natural gas is the fuel of choice, and the country is considering various pipeline options from Iran, Qatar and Turkmenistan as well as enhancing exploration. This Plan also aspires to change the hydro-thermal mix in favor of hydro power, and increase the share of nuclear energy to 5–6% by 2025 [2].

3. Benefits of Regional Cooperation in Energy Sector of SMSs

i. Dependable support, reserve sharing, cleaner fuels, improved investment opportunities and decreased risks for investors, and the associated sharing of knowledge and experience will benefit every country.
ii. Scope to increase access to up to date and cleaner energy, especially electricity, to unreached localities and to intensify performance of the energy utilities would be created by economic progress.
iii. Differing resource endowments, development needs, and demand patterns among the countries in the region and its neighborhood create significant opportunities for cooperation and trade in the energy sector and eventually for creating one of the world's largest integrated energy markets.
iv. Energy resource-surplus countries (Nepal, Bhutan in the region, Central Asian countries, Iran, Myanmar in the neighborhood) would be benefitted from economic progress through energy export and accomplishments of comprehensive regional schemes, which would not be practically feasible otherwise.
v. Improved energy security would be possible in those countries with considerable energy import needs like India, Pakistan, Sri Lanka and Afghanistan, as would the others like Bangladesh from developing the energy mix.
vi. Enhancing energy trade through specific projects, whether bilateral or multilateral, and strengthening regional organizations and institutions, to complement the track, help to enhance mutual trust and confidence. SAARC could play a major role in helping to build mutual trust, to

develop regional institutions and physical infrastructure, and to partner with development organizations [11].

vii. Two regional energy trading hubs initially: the first at the western flank of the region, comprising Afghanistan, Pakistan and north-western India as importing markets, trading with Central and Western Asia; the second at the eastern flank of the region, comprising India (as the main importing market), Nepal, Bhutan, Bangladesh, and Sri Lanka. Both hubs could develop gradually, with India eventually bridging the two hubs into a region-wide integrated market [11].

4. Obstacles for Regional Co-operations in Energy Sector

Political Obstacles

- In Bangladesh and Nepal, a group of politicians and some other important persons from the civil society **discourage energy trade with India**.
- **Prolonged political tension between India and Pakist**an over Kashmir, warlike conditions in Afghanistan, internal armed conflicts in Nepal, as well as the political turmoil in Bangladesh, are not conducive to develop regional cooperation and trade.
- The previous inward-looking, import-substitution–based policy was aimed at the elusive goal of national self-sufficiency. This approach regarded energy imports as diluting energy security.
- Overshadowing all the aspects mentioned in the previous paragraphs is a **severe lack of trust between SAARC member states**. This can be perceived in almost any aspect of the negotiations, in particular the regional negotiations at the SAARC level. The SAARC Energy Working Group, which is in theory the correct platform to facilitate regional cooperation, has shown rather slow progress. In 2008, a high-level study on regional energy trade was carried out by the ADB. While this is only a preparatory study and further feasibility studies will have to be carried out before any implementation, it does indicate that energy trade has not been high on SAARC's list of priorities [12].

Monetary Obstacles

- Pervasive state ownership of the utilities, their poor earnings, and their inadequate internal cash generation to finance their own domestic needs let alone the investments for export infrastructure—is a major handicap for the development of regional trade.
- **Economic benefits were the main reason for cooperation in other**

regions, such as the Greater Mekong, the Nordic Pool and Southern Africa. In South Asia, most countries are energy-deficient and lack the capacity to trade in electricity. Instead, large-scale upfront investments have to be incurred for a long-term benefit. That is one of the reasons why both decision makers and the people at large perceive short-term improvements in domestic systems and power availability as superior investment priorities.

- On account of such **poor operational and financial performance of the power utilities and their lack of creditworthiness**, the entry of independent power producers (IPPs) for generation in most cases could be only on the basis of "take or pay" obligations fully covered by sovereign guarantees [1]. Even in such cases, the inability of the utilities to absorb the rising cost of power from IPPs (indexed to variations in fuel prices, exchange rates, domestic inflation, and similar variables) resulted in disputes, cancellation, or renegotiations, which soured the investment climate. This environment was clearly not conducive for electricity trade among the countries.

Environmental Obstacles

- Hydropower generation and the construction of multipurpose projects are considered to have significant environmental repercussions [12]. Internationally, it is still highly debated whether hydropower is a renewable energy source or not. The construction of multipurpose projects, which include large reservoirs, means a disruption of riverine fauna, and displacement of human settlements and agriculture.

Technical and Infrastructural Obstacles

- **The absence of infrastructure in the region** by way of electrical interconnections and gas pipelines across the borders (except in the case of the few interconnections between India and Nepal, India and Bhutan, and between Afghanistan and Central Asia and Iran) is a physical constraint to the energy trade [1]. There is no special geographical reason for lack of interconnections between India and Pakistan or between India and Bangladesh.

5. Lessons from the International Community

There are a number of successful examples of regional electricity grids throughout the world. Bangladesh may derive lessons from the success of various

regional blocks in achieving a government-level agreement; institutionalizing interaction between different member states and stakeholders; establishment of a supervisory/supranational authority; infrastructure investment and transmission connections; and increased availability of reliable energy for citizens. Let us take a look at some of these successful organizations.

5.1 ASEAN

ASEAN has been very active in energy cooperation. At several levels of government the member countries meet on an annual basis, and their reports are made available to the general public. In 2002, the Memorandum of Understanding (MOU) for the construction of the Trans-ASEAN Natural Gas Pipeline (TGAP) was signed, establishing the ASEAN Gas Consultative Council. For both the gas pipeline and a power grid, an ASEAN Master Plan was completed in 2000 and 2003 respectively (The 22nd ASEAN Ministers on Energy Meeting 2004). Four power grid interconnections are already in place in Southeast Asia: Peninsular Malaysia–Singapore, Thailand– Peninsular Malaysia, Vietnam– Cambodia, Thailand–Cambodia. ASEAN's strategy is to "encourage interconnections of 15 identified projects, first on cross-border bilateral terms, then gradually expanding to a sub-regional basis and, finally to a totally integrated Southeast Asian power grid system." There are four ongoing interconnection projects and an additional 11 projects are planned for interconnection by 2015.

5.2 Southern Africa

The Southern African Power Pool (SAPP) is a cooperation of national electricity companies in Southern Africa under the auspices of the Southern African Development Community (SADC). The members of the SAPP have created common power grids between their countries and a common market for electricity in the SADC region. The SAPP was founded in 1995 and is considered to be the most successful example of regional energy cooperation. Its coordination centre is located in Harare, Zimbabwe. Prior to its creation a history of 40 years of cooperation supported its development. Before 1995, two independent networks were already in existence.

The Southern Network, which connected Namibia, South Africa and Mozambique, was dominated by thermal-based power generation; and the Northern Network, which connected the DRC, Zambia and Zimbabwe, supported mainly hydropower generation. It is a fascinating achievement when looking at electricity exports, imports and production for all sub-Saharan countries. In 1997, 20 out of 42 countries were exporting or importing power. Half of those are

members of the SAPP. The SAPP example demonstrates one of the preconditions for grid integration: the prevalence of competitive electricity trade legislation, which had been decided at an early stage of cooperation.

5.3 Europe

The EU's story of integration can be seen as the mother of all regional agreements. While the EU mainly evolved out of the regional cooperation on coal, steel and nuclear energy under the 1951 European Coal and Steel Community (ECSC) and European Atomic Energy Community (EURATOM) treaties, energy policy has never become a supranational portfolio. Energy cooperation at the intergovernmental level, however, has deepened integration and always been supported by EU institutions. Gas Pipelines like the Nabucco (connecting Europe to the Middle East through Turkey) or North-Stream projects (connecting to Russia through the Baltic) have an inherently European character for importing gas from the EU's eastern and southern neighbors. Before 2007, the EU was divided into regional transmission organizations, coordinating national transmission system operators. Synchronization of the regional grids happened in 2007 (Bower 2003). An analysis of the role played by energy policy in the overall European integration process will further add to the theoretical approach to regional cooperation.

5.4 The Lessons for South Asia

One of the key arguments given by representatives and commentators in our region is that apart from Bhutan none of the South Asian countries has an energy surplus, which could essentially justify regional integration. Europe, however, has always relied on external supply of energy sources to meet its demand. Predictions till 2020 even foresee a dependence of 56 percent of its energy needs. This is due to a peaking in domestic consumption in, for example, the North Sea. By 2020, 77 percent of natural gas will have to be imported, 93 percent of oil, and 8 percent of solid fuel supplies (European Commission 2008). This is why the goal of the EU's energy policy has been in fact exogenously oriented: it is "to build up a wide network of countries around the EU, acting on the basis of shared rules or principles" (European Commission 2007). Furthermore, the European Commission argues that "the dependency is not a problem in itself. However it requires an active energy security policy, building up internal strengths through a well functioning internal energy with good interconnections, diversity in the types of energy used, clear regulation for security of supply and mechanisms for cooperation to deal with crisis" The ideal rationale therefore becomes that

common problems may only be solved with transnational solutions. Two ideas can be seen as central to the success of any regional project: the role of a secretariat, and the role of spillover effects. In theory, India could pursue a similar strategy with its northern neighbors. By persuading SAARC member states to adopt similar energy regimes and to jointly decide on certain standards, the theory suggests that a spill over into other areas of cooperation could not only generate trade benefits but also contribute to economic and political stability in the region. One of the key aspects of such a spillover, the theory claims, is an increasing frequency in the meetings of representatives from different countries

6. Initiatives for Regional Energy Cooperation

6.1. SAARC Inter governmental Framework agreement for Energy co-operation

Energy ministers in SAARC nations have decided to finalize the SAARC Inter-Governmental Framework Agreement (IFA) for Energy Cooperation to ease electricity crisis in the region. The importance of electricity in promoting economic growth and improving the quality of lives, and the potential common benefits of cross-border electricity trade among the SAARC member states have prompted this initiative. The framework agreement would also include the provision of allowing unrestricted cross-border trade of electricity on voluntary basis subject to regulations of the respective member countries. The agreement would allow the SAARC nations buying and selling entities to negotiate the terms, conditions, payment security mechanism and tenure of their power purchase agreements as normal commercial agreements. It would also allow the national grid operators to jointly develop coordinated procedures for the secure and reliable operation of the inter-connected grids of the member states and prepare scheduling, dispatch, energy accounting and settlement procedures for cross border trade. It would also allow transfer of technology related to the power generation, transmission and distribution among the SAARC member states.

6.2 SAARC Energy Trade Study (SRETS)

Completed with the assistance of Asian Development Bank, this study has identified four trade options, which will be considered by the relevant SAARC mechanism in order to make a road map for implementation. As a follow up, SAARC has commissioned a study on Regional Power Exchange. The study was to be completed in 2012. It could explore the development of a regional power market involving SAARC countries that already have interconnection, as well as those that have planned interconnections. It would also examine both economic

and technical requirements of establishing a regional power exchange that would maximize the potential for power transfers among SAARC regions to reduce power shortages and reap economic benefits.

6.3 SAARC Market for Electricity (SAME)

The 16th summit held on 28-29 April 2010 in Thimpu, Bhutan adopted an Indian proposal for a roadmap to create a SAARC market for electricity. The summit urged the member countries to quickly ratify the trade in services deal to open their service sectors. The leaders in their declaration emphasized the need to undertake studies to develop regional energy projects, promote regional power trade, efficiency, conservation and development of labeling and standardization of appliances, and sharing of knowledge and technologies. Earlier, Bangladesh Prime Minister Sheikh Hasina in her summit speech had proposed for a regional grid of electricity in the SAARC region. Energy-starved Bangladesh has been in negotiation with India and Bhutan to import electricity from the neighboring countries.

6.4 SAARC Energy Centre (SEC)

The creation of SAARC Energy Centre (SEC) came into picture after the Dhaka Declaration in 2005. In this declaration, the Heads of State or Government welcomed the joint Statement of the first SAARC Energy Ministers' meeting held in October 2005 in Islamabad. They agreed to the recommendation to establish the SAARC Energy Centre in Islamabad: to promote development of energy resources, including hydropower, and energy trade in the region; to develop renewable and alternative energy resources; and to promote energy efficiency and conservation in the region. It started journey from 1st March 2006 in Islamabad. SAARC energy cooperation program provides a major substantive element for economic prosperity of South Asia through meeting the energy demand of the countries. SAARC Energy Centre is converting energy challenges into opportunities for development. It is the platform involving officials, experts, academics, environmentalists and NGOs to tap potentials of cooperation in energy sector, including development of hydropower, renewable and alternative energy, promoting technology transfer, energy trade, energy conservation, and efficiency improvement in the region.

6.5 Energy Cooperation through BIMSTEC

Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), comprised of seven countries, viz., Bangladesh, India, Myanmar, Sri

Lanka, Thailand, Bhutan and Nepal was formally launched on 31 July 2004 in order to create a link between ASEAN and SAARC. Out of the seven members, five are members of SAARC, and energy is one of the priority sectors.

Member states of the BIMSTEC reached a consensus to sign a Memorandum of Understanding (MoU) to exchange electricity among them. The proposed MoU will provide a broad framework for the member countries to cooperate towards the implementation of grid interconnection for the trade in electricity with a view to promoting rational and optimal power transmission in the BIMSTEC region. It also added that the BIMSTEC trans-power exchange and development projects would be implemented through strengthening of bilateral and intra-regional cooperation within the framework of respective member countries' environmental and electricity laws and regulations. According to the MoU, the member states would coordinate and cooperate in the planning and operation of interconnected systems to optimize costs and maintain satisfactory security to provide reliable, secure and economic electricity supply to the member countries. The issue of imposing import, export, or transit fee, duty, tax or other government charges on construction, operation and maintenance of the BIMSTEC grid interconnection would be mutually agreed upon under the MoU.

6.6 Four Borders Project: Reliability Improvement and Power Transfer in South Asia

During 2001–2002, under the USAID sponsored SARI/Energy programme, Nexant conducted a study on the "Four Borders Project: Reliability Improvement and Power Transfer in South Asia", which suggested connecting Siliguri (India) to Anarmani (Nepal) and Thakurgaon (Bangladesh) initially by 132 kV lines, capable of being upgraded to 220 kV as the volume of interchange increases. It also suggested the alternative of connecting Purnea (India) to Duhabi (Nepal) and Ishurdi (Bangladesh). Further connections are possible from Chhukha (Bhutan) to Siliguri and then on to Purnea. The cross-border flows would be around 500 MW and these would represent a relatively low-cost initiation of power trade, which could be extended later.

6.7 Energy trade and creating energy ring

After decades of insignificant volumes of cross-country electricity trade and absence of any trade in natural gas through pipelines among the countries in South Asia, political leaders and businessmen of the region have recently evinced a great deal of interest and enthusiasm in cross border electricity and gas trade, not only within South Asia but also with its neighbors in the west (Central Asia and Iran)

and in the east (Myanmar). So the concept of an "energy ring" has now come into picture and political leaders now realize that it is necessary to establish a regional energy ring and build an international grid among the countries. The steady, reliable supply of energy at reasonable cost is one of the key determinants for industrial competitiveness.

7. Recommendations

To ensure energy security all the neighboring countries have to step up their efforts. Co-operation agreements like SAARC and BIMSTEC have been active in this regard, but there are a few more areas where the countries should focus on.

7.1 Governments

The governments of all South Asian countries carry the key responsibility for advancing regional energy cooperation. Recommendations for these governments can be condensed into four key ones:

i. Unbundle national utilities, distribution and transmission systems operators.
ii. Sign more agreements to harmonize and synchronize the grids, which will also facilitate conventional imports and exports.
iii. Update domestic power grids to allow for feed-in.
iv. Become the prime project sponsors to create an environment of security for private and foreign investors, as well as upgrade regional infrastructure.

Given the state of energy deficiency in Bangladesh, India and Nepal, the key to cooperation lies not only in the import and export of power and gas to exploit complementarities but also in many softer areas of cooperation that are still lacking. These are energy efficiency, rural electrification, smart grid, grid harmonization, renewable energy and technology transfer, e.g., through exporting solar photovoltaic technology. More concretely, the 2010 SAARC Regional Energy Trade Study (SRETS) carried out by the ADB suggests four ways of moving forward in regional energy cooperation. The four areas for successful regional cooperation were identified as:

a) Regional/Sub-regional Power Market
b) Regional/Sub-regional Refinery
c) Regional/Sub-regional LNG Terminal and Gas Transmission Expansion
d) Regional/Sub-regional Power Plant

The final market approach can be adopted, once the essential preconditions for any region to trade in a competitive market are fulfilled, which are:

a) Adequate redundancy in generation and transmission
b) Electricity sales price reaching its economic value
c) Level playing field
d) Mechanism for market surveillance to guard against abuse of power

The attainment of these conditions affects the final timeline of market opening.

On a more general note, the individual countries should pursue their trading interests. The key remains a connection through the chicken neck area, where Bangladesh, Bhutan and Nepal are separated by only a narrow strip of Indian Territory. Bangladesh needs to lobby hard for a connection to the hydropower centers of its neighbors, Bhutan and Nepal. At the same time, Bangladesh government will have to support natural gas pipelines from Southeast Asia connecting its own infrastructure. While they are necessary for regional cooperation to happen, they are not sufficient. When technical knowledge and feasibility are attained, policy makers on all sides and in particular India have to take the leadership role.

7.2 International Aid

Donors and actors like the World Bank have always been trying to make these types of co-operation function properly. But sometimes they have been criticized for being unsuccessful in fostering regional energy cooperation. According to a former Nepali Minister for Water Resources, Dipak Gyawali (2010), in the Nepali context, donor-funded projects have become mere “cemeteries” of energy cooperation.

Regardless of such criticisms, the USAID, the World Bank and the ADB are continuing their assistance on the issue. The USAID has been focusing on capacity building in the Nepal Electricity Authority known as NEA. The World Bank is giving legal assistance to the NEA and carrying out feasibility studies on the consequences of electricity trade. The ADB is willing to assist in future transmission lines and integration. There remain a number of areas where their involvement is likely to enhance the overall progress in energy cooperation.

There are a number of areas in which the expertise of international donors and organizations can be useful. These are:

a) Capacity building of policy makers
b) Fostering interaction of decision makers at the highest level

c) Support of negotiations through provision of advisory and legal services
d) Research support
e) Payment mechanisms

Technical assistance is also a major part where the international actors can play a vital role. At a conference in New Delhi, Shri S Padmanabhan, the regional director of SARI/Energy explained how imported hydropower and natural gas would help in moderating the increase in fossil fuel requirements. He enumerated the following roles of SARI/E: to promote regional cooperation together with governments and the private sector; to bridge the gap of barriers and distrust; to provide counterpart funding, resources and unbiased support for regional initiatives; and to showcase examples of the benefit of regional cooperation.

Unlike more recent directional changes in development assistance, there remains a considerable scope for raising technical assistance. The debates on regional cooperation have remained at the policy level. What is needed is a detailed feasibility study to estimate possible trade volumes, transmission lines required, and citizens affected. Similarly, financial and economic calculations of the poverty- alleviating benefits surrounding the construction of export projects should be weighed against their true social costs. This will facilitate goal-oriented negotiations between India and its future energy trading partners, as well as at the multilateral level in the long run.

7.3 Education, Research and Training

Educational institutions can play a key role in supporting regional cooperation. Universities are able to provide neutral platforms for discussions, since they are both centers of research and ideas.

Through executive training, specifically on energy trade, higher-level officials can be targeted and representatives from the different countries brought together. One of the key advantages of the encouragement of education institutions to work in the area of energy cooperation is their neutrality and acceptability for most stakeholders.

7.4 Leadership

It is clear in the case of energy cooperation that the challenges faced by stakeholders and advocates are not of a technical nature. The issues here are the lack of initiative, leadership and ownership of the issues. Interventions require problem solving, when problems cannot be clearly defined and solutions not easily found. Even to define the problem and subsequently find the solution

requires significant capacity and willingness to learn. India's commitment and leadership can push the stalled process of regional energy cooperation forward. However, prudent diplomacy from other member states can play an important role in setting the policy agenda. A strong alignment of these members can help bring India on board. An important step would be to accept the responsibility for the shortcomings of the past and build a consensus to move forward.

8. Immediate steps the South Asian governments should take to promote regional cooperation

Now the South Asian governments should make determined efforts to encourage the power trading. Some guidelines are given below:

Subscribe to, and become members of the Energy Charter Treaty, as Pakistan has done, in order to place the cross border energy trade on a firmer multilateral footing in relation to investment protection, regulation of cross-border energy infrastructure and flows, provide additional comfort and confidence to all participants, and minimize the political risks to prospective investors.

- Create firm political commitment towards energy trade.
- Give attention in adequate training to enhance individual country capability in power sector as well as launch educational program.
- Reduce political tensions within and across the countries, with special attention to the integrity of transit countries (such as Afghanistan) and the viability and operational stability of their energy systems. Trade flourishes under peaceful conditions.
- Adopt a sustainable commercial approach to trade (rather than a political ad hoc approach) and use standard commercial contracts which allocate risks fairly. Let the private investors and market forces play a major role in actual buying and selling,
- Keep the price expectations realistic based on reliable market signals and ensure that both the buyer and seller see advantage in the trade.
- Promote private sector investment and public private partnership in power production.

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Investment for Sustainable Development of Bangladesh Tea Industry - An Empirical Study

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Abstract *The present scenario of Bangladesh tea makes further investment inevitable to uplift the industry. Domestic consumers presently consume about 98% of its produce, leaving very little for export. The rate of investment in Bangladesh tea is very low, i.e. 3.64% per annum (1979-80 to 2008-2009), which has caused a slow growth of 2.94% per year in the production of tea, while the internal consumption has been increasing at a rate of 14.23% per annum over the last 39 years (1973 to 2011). Massive investment is needed to increase production for meeting domestic demand and serving the export market. New investment will enhance productivity, and thereby increase profitability, generate employment, income and standard of living of tea workers. Without sufficient investment, the industry will lose its position as a unitary supplier of tea in domestic market as well as an exporter of the product.*

1. Background of the Study

This article discusses the need, scope and potentials for further investment in Bangladesh tea. Commercial cultivation of tea started in Bangladesh at Malnicherra, Sylhet in 1854. Since then tea has developed itself as an agro-based and labour intensive industry in Bangladesh. The country contributed 1.40% of world tea production and shared 0.10% of global tea export in 2010. Tea sector plays a significant role in the national economy through employment generation, export earnings as well as import substitution and poverty reduction in rural areas. At present there are 172 tea estates and 357 small growers/holders with an area of 116,264 ha for tea plantation out of which 56,846 ha was brought under tea cultivation in 2011. It provides direct employment to about one lakh twenty

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thousand people, 50% of whom are women. Tea industry though struggling with various adversities, has increased per hectare yield from 639 kg/ha in 1970 to 1245 kg/ha in 2011. Bangladesh produced only 59.13 million Kg of tea, consumed 58.50 million Kg (370 grams/per head) and exported 1.47 million Kg and imported 5.79 million kg of tea in 2011. The scenario of Bangladesh Tea has changed rapidly in recent years. Tea production in Bangladesh was mainly export oriented in the past. Due to increased tea drinking habit, population growth and rapid urbanization, domestic consumption has been increasing at about @ 4.10% per annum. The rate of export has been decreasing @ 8.92% per annum due to lack of exportable surplus caused by a slow rate of increase in production, i.e. @ 1.03% per annum, for the last 10 years (from 2002 to 2011). For instance, in the 1980s (1980-1989) Bangladesh exported on an average 68%, in the 1990s (1990-1999) 50%, in the 2000s (from 2000 up to 2009) 19% and in the 2010s (2010-2011) only 2% of its produce. If this trend continues, export will soon shrink to standstill and the country may even be a net importer of tea to meet local demand by 2016. Total turnover of Bangladesh Tea Industry was about Tk.9232.56 million, internal consumption about Tk.9003.03 million, and export of tea Tk.229.53 million in 2011. The rate of investment in tea is very low, i.e. 3.64% per annum (1979-80 to 2008-2009), which has resulted in a slow growth in the production of tea. The sharp increase in internal consumption has resulted in an extraordinary increase in the demand for tea in Bangladesh. At its present rate of increase population will be about 182.31 million and domestic requirement of tea will be about 84.06 million kg (461 grams/per head) while production will be 73.63 million kg by 2025. Thus production must be increased by investments in field, factory, labour welfare and human resource development to meet internal demand and enhance exports to earn foreign exchange. This article presents an estimate of the amount of investment that will be needed in different fields for sustainable development of Bangladesh tea industry.

1.1. Bangladesh Tea Production

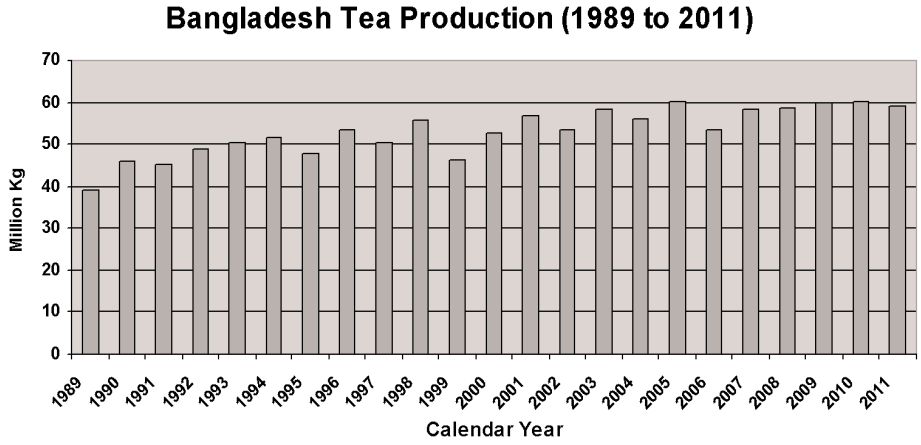
Tea production in Bangladesh maintained an upward trend with an annual average rate of increase of 1.03%, producing on an average 57.75 million Kg of tea annually during the last ten years (2002-2011). The total world production in the 35 tea producing countries amounted to 4,162.00 million Kg of tea in 2010. Bangladesh was 10th highest producer producing 60.04 million Kg in that year. In 2005 Bangladesh produced 60.14 million Kg, which was the record production in the country as shown in figure-1. After 2005 Bangladesh tea production has experienced a declining trend. Bangladesh produced 59.13 million Kg of tea and earned a turnover of Tk.9232.56 million in 2011.

1.2. Productivity of Bangladesh Tea Compared to Some Other Tea Growing Countries

1.2.1. Per Hectare Productivity of Bangladesh Tea

The annual global per ha productivity of tea is 1127 Kg in 2010. Though Bangladesh maintained an upward trend of tea production per year at 1.03 percent during the last ten years (2002-2011) per ha productivity of tea is still very low

Figure-1



due to lack of sufficient investment. The annual per ha productivity of tea in Bangladesh is only 1079 Kg, which is very low compared to 1668 Kg in India, 2321 Kg in Kenya and 1763 Kg in Sri Lanka (ITC, 2011: pp. 42,47). For this reason the cost of production in the country is higher compared to those countries. Since however there is scope for further expansion, Bangladesh will have to increase quality tea production through infilling, replanting and extension as well as balancing, modernisation, replacement and extension of tea factories and human resource development. In order to reduce the cost of production, to make the tea production cost effective and profitable, to make the entire industry economically viable, and to at least maintain the exportable surplus at its present level after meeting the increasing domestic consumption, Bangladesh needs to go for a massive investment programme for the tea sector.

1.2.2. Per Hectare Productivities of Some Tea Producing Countries

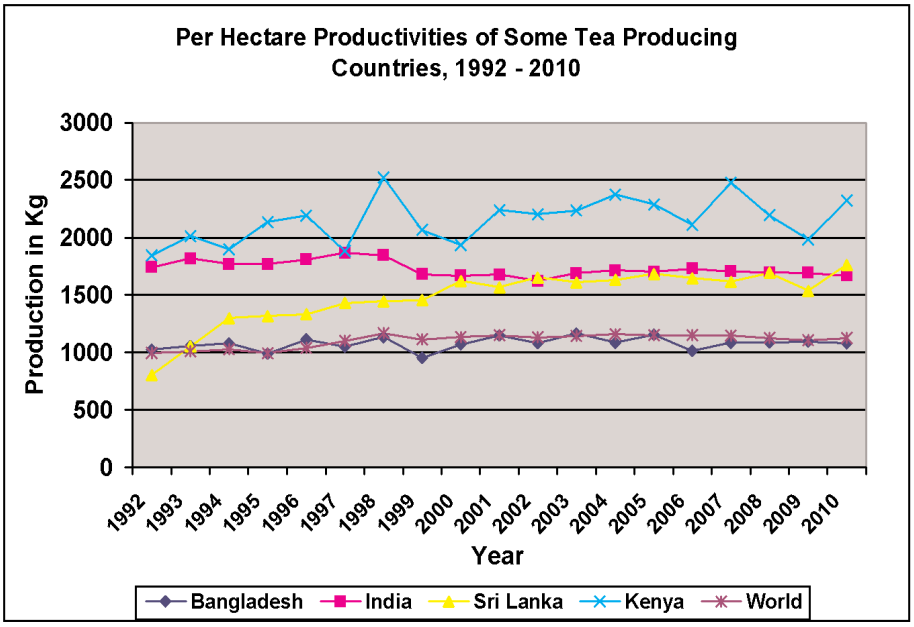
The trend in annual per ha productivity in some tea producing countries along with world average production is depicted in figure-2. It appears from figure-2 that since1992 Kenya has been leading tea producing countries with respect to productivity. It also appears that the gap between countries possessing higher

productivity and Bangladesh has widened during the period. Figure-2 also shows that per hectare productivity of Bangladesh tea was lower than the world average productivity in 1995, 1997, 1998, 1999, 2000, 2002, 2004, 2006, 2007, 2008, 2009 and 2010.

1.3. Investment Position in Bangladesh Tea

Investment in Bangladesh tea is very low compared to national investment. The growth of turnover and investment in tea is shown in figure-3. Bangladesh Tea industry has developed as an agro-based, labour intensive and export oriented

Figure-2



sector and plays an important role in the national economy through export earnings, trade balancing, import substitution and employment generation. Production of tea in the country dates back to 1854 when the first tea estate was established at Malnicherra in Sylhet. Presently Bangladesh has 172 tea estates with a total grant land area 116,264 hectares of which 56,846 ha. (2011) i.e. 48.89% is under tea plantation. Tea estates in Bangladesh are predominantly in the private sector. Managements are the only players for investments in tea estates. The private owners possess 97.54 per cent of land area and Bangladesh Tea Board which is a statutory body under the Ministry of Commerce owns the remaining 2.46 percent of land.

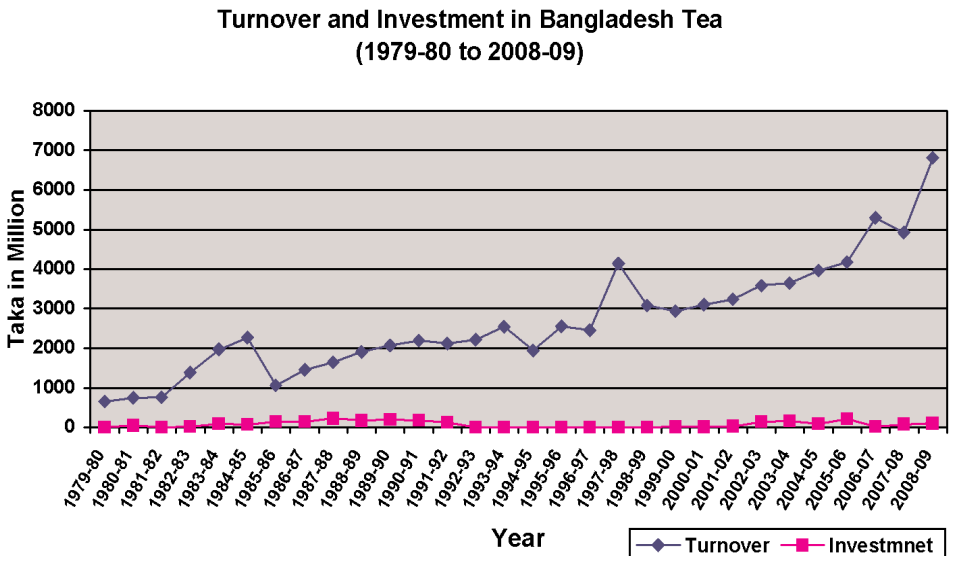
Srimangal in Moulvibazar, called the tea capital of Bangladesh, is the main center of tea area commonly known as Surma Valley. Greater Sylhet, the tea granary of Bangladesh, has 133 tea estates. Besides, quality tea is also grown in 23 tea estates in Chittagong and Chittagong Hill Tracts known as Halda Valley of the country's famous tea growing areas. Tea cultivation was also started in 16 tea estates in 2000 in Panchagarh, the northern district of the country.

The tea industry suffered a serious setback in 1971 but Bangladesh could overcome it with help of the government, foreign assistance and hard work of planters. Per ha yield has increased from 500 Kg per ha then to over 1245 Kg per ha today. The country is planning to increase its production to an average of over 1500 Kg per ha in a few years time. Bangladesh Tea Board has undertaken measures to improve the quality of tea by extending the area with new varieties of hybrid clones, modernizing factories and improving infrastructure. The annual production of tea is now 59.13 million Kg of made tea (2011). Investment in Bangladesh tea is very low compared to national investment. As can be seen in figure-3, the turnover in tea is increasing while the investment is decreasing.

1.4. Investment Scenario at Bangladesh Tea in Comparison with Overall Investment in Bangladesh

In broad sense, three kinds of investments are made in tea such as in field, factory and human resource development activities. In literal sense, there was no

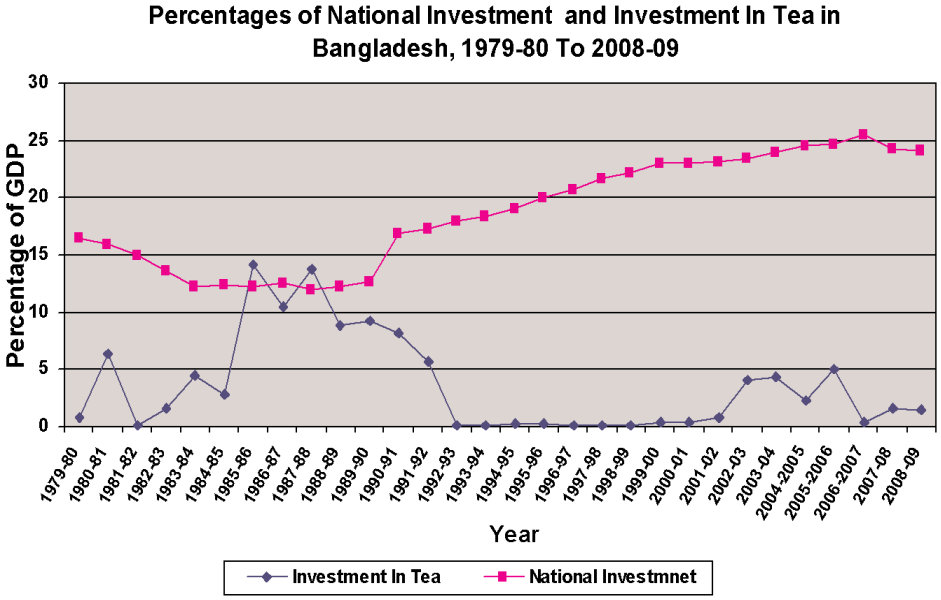
Figure-3



significant investment in tea just after the Independence in 1971. Later on a massive investment project named Bangladesh Tea Rehabilitation Project (BTRP) with Tk.1424.78 million was implemented during 1980-1981 to 1991-1992. But after the termination of the BTRP there was no significant investment in tea until 1999-2000. In 1999 Government of Bangladesh (GoB) with the help of European Commission (EC) introduced a Revolving Fund with an amount of Tk.250 million. The fund was spent between 1999-2000 and 2003-2004 for the development of field, factory and labour welfare (housing, sanitation and water supply) in tea estates. The GoB also introduced a Special Fund of Tk.450 million for the years 2001-02, 2002-03 and 2003-04. The fund was spent for capital investment in tea. However, the rate of capital absorption by the tea estates is low compared to national investment in Bangladesh. The national investment as percentage of GDP ranges from 12.03 to 25.55 in the country. But the investment as percentage of total revenue earned by all tea estates ranges from 0.12 to 14.15. Further, the investment as percentage of GDP was 24.20 in 2008-2009; whereas investment as percentage of total revenue earned by tea estates was only 1.51. This implies that the rate of growth of investment in tea sector is very low compared to aggregate investment in Bangladesh Economy.

While in the last 30 years from 1979-80 to 2008-09 the rate of average national investment was around 18.72 percent of GDP per year, the rate of investment in

Figure-4



tea was only 3.64 percent of turnover per year. Even the present rate of investment in Bangladesh tea is less than 1 percent per year. Percentages of national investment and investment in tea are shown in figure-4.

Development of tea industry requires huge long-term investment. The tea estate owners and small growers/holders are not capable enough to invest such huge amount of money. As such, government intervention is of prime importance to increase investment in this sub-sector. Bangladesh Tea got financial support during 1979-80 to 1991-1992, 1999-2000 to 2003-2004 and 2001-02 to 2003-04 from Government of Bangladesh, United Kingdom and European Union. It is seen from the figure-4 that the rates of investment were higher during these periods. After 1991-92 investment slowed down until 1999-2000. Rate of investment started to grow from 2000-2001 due to government intervention. Therefore, Bangladesh tea requires requisite finance, with low rate of interest, and easy terms and conditions, from government as well as foreign donors for boosting up its investment.

1.5. Internal Consumption of Tea in Bangladesh

Demand for tea has been increasing in Bangladesh since its independence due to increased tea drinking habit, higher income, population growth and rapid urbanization. Trend of internal consumption is shown in figure-5. Production of tea has been increasing at a rate of 1.03% per year, while the demand for tea has been increasing at a rate of 4.10% per annum over the last 10 years (2002 to 2011). Due to low level of production and higher rate of internal consumption, tea

Figure-5

supply in the market could not keep pace with the demand. As a result, prices of tea have been increasing. Lower level of production reduces exportable surplus of tea as well.

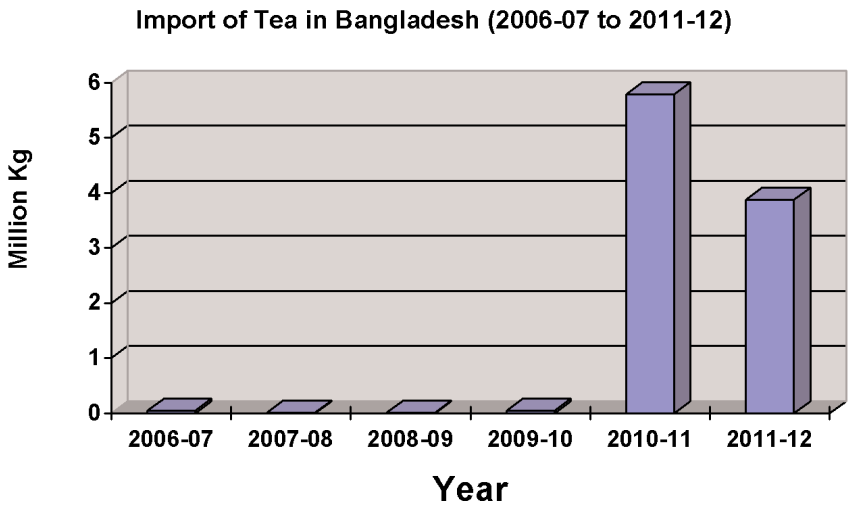
1.6. Import of Tea for Meeting Internal Consumption of Tea in Bangladesh

Though Bangladesh is not a net tea deficit country, it has started import of tea since 2006-07 as shown in figure-6. The tea traders imported record highest quantity, 5.79 million Kg of tea, in 2010-11. Import of low priced poor quality tea has already created serious consequences for the domestic industry. For example, price of Bangladesh tea in auction fell and a large quantity of tea remained unsold in two auctions (nos. 14 & 15) in 2010-2011.

1.7. Extra Ordinary Demand Function for Bangladesh Tea

In the present context if demand for tea during the last 21 years is plotted against prices (1991 - 2011), demand curve will be upward sloping as in figure-7:

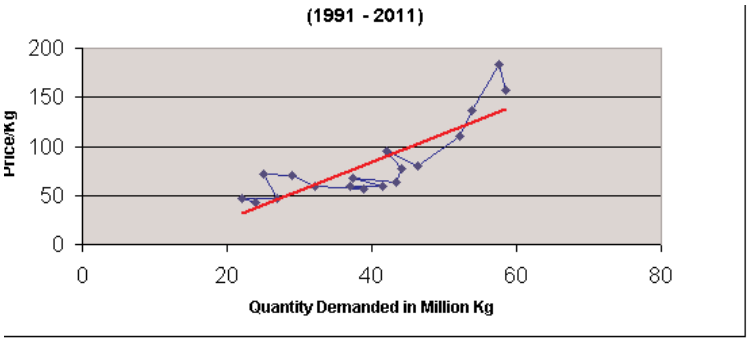
Figure-6



Reasons for having an upward sloping demand curve:

Tea sector is unable to supply enough tea for internal consumption as well as for export market due to slow growth.

Figure-7



Basic requirement of tea of the consumers has not yet been fulfilled in this country.

Only 30% of the people of Bangladesh consume tea and the number of consumers has been increasing.

If 50% of the total population consumes tea, a huge quantity of tea will have to be imported now.

Price of tea in Bangladesh is high due to protection. For example, nominal protection coefficient on tradable output in Bangladesh tea is 1.32 that implies the producers are getting 32 percent more in the internal market than what it would be in the world market. Nominal protection coefficient on tradable inputs in Bangladesh tea is 0.96, which implies that the producers pay 96 percent of the world prices of tradable inputs. Effective protection coefficient in Bangladesh tea is 1.50, which implies that protection of domestic market helps the trader to get 50 percent more value added in the internal market than what it would get in the world market. However, domestic resource cost ratio in Bangladesh tea is 0.78 > 1 that implies comparative advantage is available in this sector. Thus interested entrepreneurs can invest to obtain comparative advantage that exists in Bangladesh tea (Ahmed, 1999: pp. 139-141).

Finally once basic requirement for tea is met and then demand for tea will be lower than the present rate in this country.

1.8. Export Position of Bangladesh Tea

Export of tea has been declining @ 8.92% in the last 10 years (2002-2011) due to lack of exportable surplus. Bangladesh exported 31.91 million Kg of tea in 1993 as shown in figure-8. In 2011 the country exported only 1.47 million Kg of tea due to lack exportable surplus.

1.9. Need for Development of Bangladesh Tea

Due to increased drinking habit, population growth, higher income and rapid urbanization, domestic consumption of tea is rising. At the present rate of

Figure-8

population growth of 1.6%, Bangladeshis population will be about 182 million by 2025 and the domestic requirement of tea will be about 80 million Kg while domestic tea production will be 71 million kg. The tea industry has the potentiality and capability to increase production. At the moment tea sector needs a substantial investment like BTRP making a breakthrough to produce additional tea to the tune of 40 million Kg by 2025 for meeting internal demand and retaining the traditional export market.

2. Scope for Development of Bangladesh Tea

The tea industry has the potentiality and capability to increase production. The present national average yield is only 1240 kg/ha and average land use in tea is only 48.89%. The country has vast area suitable for further extension. For example, about 6,106 ha suitable land is available in the 172 tea estates for new

extension. Neither large holding khas land is available nor is it practically feasible to open large tea estates by purchasing land. So it has become imperative for the policy makers to explore the possibilities of establishing small holding tea plantations in suitable areas of the country. A comprehensive feasibility study was conducted in 2002 by Bangladesh Tea Board through PMTC (Bangladesh) Ltd with financial support of European Commission in Northern Bangladesh (Panchagarh and Thakurgaon), three hill districts (Rangamati, Khagrachari and Bandarban) and the traditional tea growing areas of greater Sylhet and greater Chittagong districts. After examination of all parameters for growing tea, the study suggests that scientifically soil and climatic factors of Panchagarh and all the three hill districts are suitable for cultivation of tea. A total of 35,000 hectares in Panchagarh, 46,875 hectares in the three hill districts of CHTs and 3,500 hectares in the traditional tea areas of greater Sylhet and greater Chittagong could be brought under tea cultivation in the form of small holding tea plantation without any legal or administrative problems.

Another feasibility study was conducted in greater Mymensingh, Thakurgaon, Chittagong and Cox's Bazar districts in January and September 2004. It was mentioned in the study report that 4,067 ha of land in greater Mymensigh, 4455 ha in Thakugaon and 7822 ha in Chittagong and Cox's Bazar districts are suitable for small holding tea cultivation. A substantial number of people living below poverty line in these areas could be gainfully employed in small holding tea plantations. Bangladesh has 9,704.80 (17.08% of total plantation) ha very old and uneconomic tea land that yields only 496 kg/ha. This land needs to be replanted with improved varieties. If land utilization under tea is raised to at least 50% and yield to 1500 Kg/ha by replanting old and uneconomic teas, extension planting and intensive cultivation through better managements, production can be raised to about 87 million kg of tea in the organized sector by 2025. If 5000 ha of land can be brought under small holding tea cultivation, about 13 million kg of additional tea will be produced. Thus, if this plan is implemented the annual tea production will be about 100 million kg in 2025. The projected additional production to the tune of 40 million Kg of tea will earn Tk.800 crore annually. This additional income can contribute to developing the tea industry and the country as a whole.

3. Internal Consumption of Tea in Bangladesh

Tea consumed per head in Bangladesh is extremely low compared to the UK and neighbouring countries. Per capita tea consumption in Bangladesh is only 0.370 Kg compared to 1.97 Kg in the UK, 1.37 Kg in Sri Lanka, 0.62 Kg in Pakistan and 0.69 Kg in India (ITC, 2011: p 137). Though drinking habit does not have a

very long history in Bangladesh, yet tea has become a very important part of Bangladeshi culture. In Bangladesh tea is considered as the cheapest health-drink next only to water. Tea consumption in Bangladesh is rising faster than production because the tea drinking habit among the people in Bangladesh is increasing as a consequence of population rise, urbanization and with the improvement in the quality of life (National Brokers Limited, 2002: p.8). However, the habit of taking tea is centred largely in the urban and industrial population, little tea being drunk in the village except in market places and trading centres where tea shops have grown up (Rahman et al, 1968, pp. 39-40). The cross elasticity of demand for tea in Bangladesh is high because the extent of tea drinking depends on the prices of the complementary inputs of sugar and milk. However, the potential domestic market for tea is difficult to estimate (CDC, 1973, p.91). According to BTB's record, internal tea consumption in Bangladesh rose to 58.50 million Kg in 2011 from 8.93 million Kg in 1973. If per capita tea consumption of the country increases to 60% of India's or 65% of Pakistan's current tea consumption with present rate of increase of production, Bangladesh will not have any exportable surplus even now. Instead of exporting we may have to import tea with adverse impacts on the country's foreign exchange earnings.

3.1. Internal Tea Market: the Prevailing System of Supplying Teas to the Domestic Consumers

Teas produced in the country are disposed of either to exporters or internal consumers in the form of loose tea, packet tea or tea bags. Presently internal consumers are increasingly becoming quality conscious and expecting teas with good liquor. The active participation of internal buyers contributes towards achieving higher average price at Chittagong auctions (National Brokers Ltd., 1994: pp.4-7). The numerous loose tea traders who are registered with the BTB as wholesalers and retailers dominate the domestic market. The wholesalers and retailers purchase their requirements from the bidders at the auctions with remuneration agreed between them.

Though there are 205 blenders registered with the BTB, the blending and packaged tea industry is dominated by only ten major blenders and packeteers in domestic and export market. During the Pakistan regime and even in the early days of independence Bangladesh government formulated policy to influence the market price by equating supply and demand for tea (EWP Associates, 1971: pp.1-2). However, presently there is no control of price of tea. The packet tea industry has a market structure of monopolistic competition dominated by the five multinational companies, for example, Duncan Brothers (Bangladesh) Ltd.,

Deundee Tea Company Ltd., the Consolidated Tea & Lands Ltd, Unilever (Bangladesh) Ltd. and Tetley and six major local companies namely Abul Khair Consumer Product Ltd., HRC Syndicate Ltd., M M Ispahani Ltd., Monir Sha & Sons, Ahmad Trading & National Tea Company (BTB, 2012).

The gradual increase in total consumption may be further accelerated with the rise in total population as well as industrialization and urbanization in the country. Presently some of the multinational and local companies have been advertising through radio, television and newspaper for market promotion of tea. Better quality tea with proper blending and concerted market campaign can render Bangladesh tea as a commodity among the targeted domestic consumers. Foreign buyers can also pick up their teas by choice if the internal market forces are organized and brand names and grades of teas are firmly established. Internal market of tea is becoming important because of increasing domestic consumption. Teas are supplied to the internal market either through the Chittagong auction or through direct sale by the producers in bulk or in valued added form, i.e. packet tea or tea bags.

3.2. Retailers and Wholesalers

Internal market deals with retail and wholesale business of tea for domestic consumption. There are 2,810 retailers and wholesalers, 558 bidders, 205 blenders and 8 brokers registered with the BTB. However, the actual numbers of retailers and wholesalers that have been trading tea in internal market may be high. The retailers and wholesalers get their supplies of loose tea through the bidders from the auction as well as from the estates through ex-garden or direct sale of tea. They get these supplies of packet tea or tea bags from the blenders/packers for retailing. The retailers and wholesalers mainly conduct internal tea trade in Bangladesh.

3.3. Blenders and Packers: Value Addition to Tea (Packet or Tea-Bags)

3.3.1. Value Addition at Estate Level

Sales of packet tea directly from estates have emerged as one of the alternative marketing systems to the auction. More recently (since 1992) estates are allowed to add value to their teas by packing up to 15% of output and sell directly from the estates to the internal market. For example, three of the Sterling Companies (James Finlay PLC, Duncan Brothers (BD) Ltd. and Deundee Tea Company (BD) Ltd.) and three of the local companies (M M Ispahani Ltd., HRC Syndicate Ltd and National Tea Company Ltd.) have been packing teas in estates and selling their teas with own brand names through the retailers and wholesalers as well as

directly to the consumers from their showrooms. Apart from these, other blenders namely Abul Khair Consumer Products Ltd., Monir Sha & Sons and Unilever (BD) Ltd. have also been engaged in packing tea with the supplies purchased from auction for internal market.

3.3.2. Value Addition (Packet or Tea-Bags) to Tea Purchased from Auction

Tea blenders in Bangladesh are licensed with Bangladesh Tea Board. Any blenders must have licenses as wholesaler and retailer as well as bidder. A blender can buy tea directly from the auctions if the firm is a member of the Tea Traders Association of Bangladesh; otherwise they have to get their supplies from the bidders with agreed remuneration between them.

Loose teas are graded as clone, best-seedling, medium and low quality teas. Other than these, there are no particular brand names for selling of loose teas. Blending and packing of tea add value to the finished commodity to be supplied to the consumers who prefer blended and packed tea to loose tea because of correct weight and consistent quality (Rahman et al, 1968: pp. 74). Like packet tea, loose tea also undergoes certain form of manual blending, but such blending is more in the nature of adulteration (EWP Associates, 1971: p.44-47). Most of the blenders in Bangladesh operate their packaging as a part of their business activities (EWP Associates, 1971: p.3).

3.4. Monopolistic Competition for Tea Market

Teas are marketed internally with multiplicity of brand names in monopolistic competition with slightly differentiated products. Prices of teas in the auctions vary according to the appearance and liquor quality of teas. Tea estates having well equipped factory, sound financial footing and efficient management can produce quality teas at optimum rate of output at lower cost which in turn brings more profits for the owners of the estates. The small estates produce teas at high costs. In addition, the quality of their products is not good enough to fetch remunerative prices (Alam et al, 1993: pp.10-20, 23). Thus, the efficient producers of tea can minimize the cost of production and earn more profits as in other monopolistic markets.

3.5. The Issue of Product Differentiation vis-à-vis Establishment of Brand Names

3.5.1. Brand Name on the Basis of Estate Origin

Teas are sold in the auctions under the brand names of each estate. Teas manufactured by tea estates in Bangladesh are packaged in chests with their own brand names, which contain all the necessary marks indicating names of estates, quality and weight.

Manufactured teas are classified as clone (vegetative propagated) tea and seedling tea according to origin of products. Teas are also divided into three types on the basis of manufacturing practice such as CTC (Crush Tear Curl, 99.50%), Orthodox (0.00%) and Green Tea (0.5%). CTC teas as produced in Bangladesh are also classified into ten grades on the basis of the sizes of grains. For example, (1) Flowery Pekoe (FP), (2) Flowery Broken Orange Pekoe (FBOP), (3) Broken Orange Pekoe (BOP), (4) Golden Broken Orange Pekoe (GBOP), (5) Orange Fannings (OF), (6) Flowery Orange Fannings (FOF), (7) Pekoe Dust (PD), (8) Red Dust (RD), (9) Dust and (10) Churamani Dust (CD).

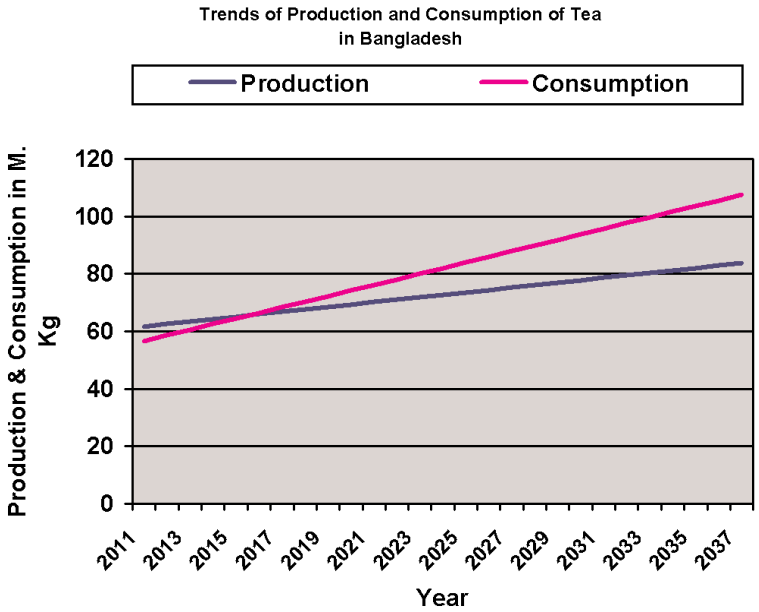
3.5.2. Required Level of Investment for Internal Consumption of Tea in Bangladesh

Area, production, internal consumption, per head consumption, surplus of tea for export from Bangladesh, export and export earnings are shown in **Annex-1.** It appears from **Annex-1** that production increased by 2.94% during 1973 to 2011. However, increasing local consumption @ 14.23% mostly absorbed this growth. Thus the exportable surplus of tea is gradually decreasing over time due to exorbitant rise in internal consumption. It also appears from **Annex-1** that the tea production fell from 31.38 million Kg of 1970 to 12.45 million Kg in 1972 due to the devastating war of liberation in 1971. However, production recovered up to 1970 level in 1974. Thereafter production has been increasing at an average at 2.94% per year. Internal consumption has been increasing on an average at 14.23% per year from 1973. With most of production now consumed locally, there are concerns of not having any surplus available for export, unless production is increased. Bangladesh Tea Board is planning to intensify efforts to make available more tea for both domestic and export markets (ITC, 2002: p. 32). The trends of production and internal consumption as shown in **Annex-1** are plotted in **figure-9**. It is evident from **figure-9** that all other things remaining constant; the country will be a net importer of tea from 2016, when consumption and production will be 66.43 million Kg and 65.96 million Kg respectively. There will be a shortfall of 0.47 million Kg for internal consumption of tea in 2016. In the year of 2025, total production and internal consumption of tea in Bangladesh will be 73.63 million Kg and 84.06 million Kg respectively. Thus, there will be shortfall of 10.43 million Kg of tea in 2025. For producing extra 10.43 million Kg of tea @ 1,500 Kg of tea per ha, an area of about 6,953 ha needs to be brought under tea. For extension of 6,953 ha under tea @ Tk.3.00 lakh per ha, an amount of Tk.20859 lakh will be needed. The vacancies in the 20% of existing plantation (11369.20 ha) need to be infilled, which requires Tk.17053.80 lakh (@ Tk.1.50

lakh per ha., total number of plant is 15000 per ha and Tk.10.00 per plant), which will yield about 17.05 million Kg (@ 1500 Kg/ha) of tea per year. Further 17.08% of old and uneconomic tea plantation (9,704.80 ha) needs to be replanted with Tk.33190.42 lakh (@ Tk.3.42 lakh per ha), which will produce 14.56 million Kg (@ 1500 Kg/ha) of tea per year. Hence total investment in the field will be Tk.71103.22 (Tk.20859 + Tk.17053.80 + Tk.33190.42) lakh. The total approximate value of 42.04 million Kg of tea (10.43 + 17.05 + 14.56) will be about Tk.840.80 crores (@ Tk.200/Kg) annually.

The amount of required investment may rise with the increase in the cost of inputs and the rate of inflation. The capacity of the existing tea factories may be extended or new tea factories need to be established for manufacturing that quantity of tea. It is found from empirical study that investment in factory is 92% of field investment. Thus for the purpose of manufacturing extra green leaf, Tk.65414.96 lakh will be required for investment. Therefore, an investment of Tk.136518.18 lakh in the next 10-15 years will be needed to meet the internal demand for tea in the country. Otherwise the hard earned foreign exchange to the tune of Tk.20860

Figure-9



lakh will be needed for import of 10.43 million Kg of tea annually. The rate of import will increase gradually with the increase in the growth of population and urbanization in the country.

4. Retaining Bangladesh's Tea Export Market

Tea is one of the major exportable commodities of Bangladesh. There are about 35 tea growing countries in the world of which more than 31 countries exported their teas (ITC, 2011: pp.42, 47, 57). Bangladesh contributed 1.40% of world tea production and shared 0.10% of global tea export in 2010 (ITC, 2011: pp. 48, 58). Tea in Bangladesh was mainly export oriented in the past. But due to increased tea drinking habit, population growth and rapid urbanisation domestic consumption has been rising to a noticeable extent. If it continues at this rate and production does not keep pace, export will soon shrink to a standstill and even tea may have to be imported in near future.

Bangladesh tea had a captive export market in a few countries of the world and the country was quite comfortable by exporting to those countries without many endeavours. The scenario has changed in recent years because of open market economy, emergence of new entrants in world tea market with low priced poor quality tea, unfavourable price trend, trade and tariff barriers and inadequate promotional activities. The situation has come to such a stage that if we do not go for right steps at this stage to overcome this situation, we will be simply out of the world tea market in near future.

4.1. Existing Tea Marketing System in Bangladesh

Marketing system of Bangladesh tea is defined as the process of sale of manufactured tea in bulk or in packet from tea estates to the buyers at Chittagong Auction or at estate level from where teas are sold with prior permission of Bangladesh Tea Board either directly to overseas buyers or to internal traders. Tea auction is held every Tuesday at Chittagong, a major port city with sufficient warehouse and port facilities and well connected by road, railways and air. Tea Traders Association of Bangladesh (TTAB) organizes the weekly tea auction in Chittagong through the appointed tea brokers of BTB. Most of the Bangladesh tea is exported in bulk and in blended form.

4.2. Existing External Market for Tea in Bangladesh

Prior to 1971, Pakistan was the largest consumer of Bangladesh tea. With the emergence of Bangladesh, the captive market of Pakistan was lost. A number of high-powered delegations visited several countries in both traditional and non-traditional markets in an attempt to re-introduce and market in the name of `Bangladesh tea'. Such aggressive export marketing was essential to cater for surplus teas of the country and earn much-needed foreign exchange. Barter trades with Russia, Poland and Egypt during 1973 and afterwards helped the country in

gradual opening of new outlets. In 1980s, export of Bangladesh tea to Pakistan was boosted up through the signing of Special Trade Agreement (STA). Recently Pakistan Government allowed tariff facilities in importing tea from Bangladesh and as a result export of Bangladesh tea to Pakistan has been increasing. At present the major buyers of Bangladesh tea are China, Japan, Kingdom of Saudi Arabia, Kuwait, Pakistan, Qatar, United Kingdom and United Arab Emirate (Bangladesh Tea Board, 2012).

Bangladesh plays an insignificant role in global trade and is not capable of influencing either the international price or the terms and conditions in international tea trade. Exports of our tea have been registering a downward trend for some years. This downward trend is noticeable both in volume and in foreign exchange earning. Domestic consumption has shown an upward trend for some years and is likely to remain so. Despite variation in the total volume of tea produced by Bangladesh on year-to-year basis and, a downward trend in export, there has remained a small surplus tea to export. Prices both in the local and in the export market have fluctuated widely in recent years.

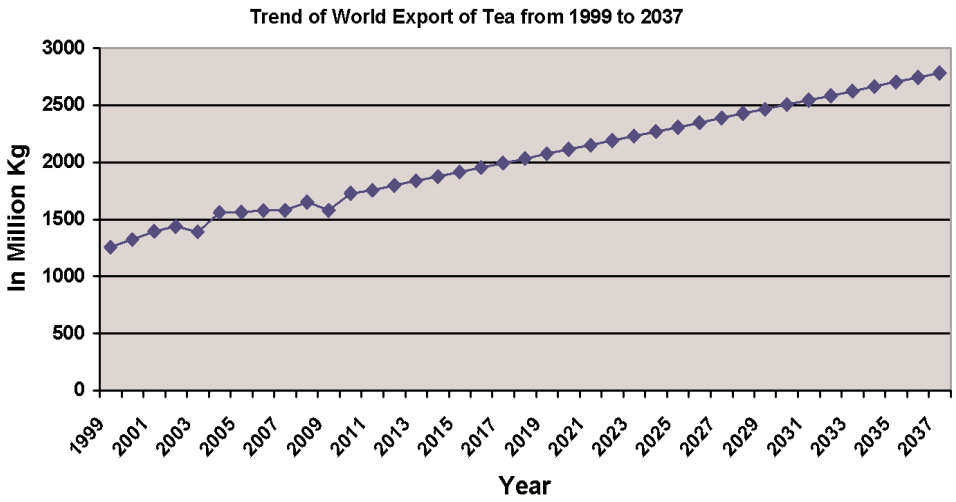
4.3. World Export of Tea

The world export of tea has been increasing at the rate of 2.86 percent for the last 16 years starting from 1995 to 2010. The regression line for these data, as stated in **Annex-2** is E_W=1088.80+39.37t, where t stands for time. The estimated world export of tea as on the regression line of E_W=1088.80+39.37t, will be 2309.27 million Kg in 2025. If the trend values are plotted in a graph one will get a curve like in **figure-10**

In this projection, world export will increase @ 2.16% per year from 2012 to 2037.

4.4. Investment for Retaining Bangladesh's Export Market for Tea Presently, Bangladesh shares only 0.10 percent of the world export of tea. Bangladesh once used to share 1 percent of the world export in the past. The 1% share of Bangladesh in the world export of tea in 2025 should equal 23.09 million Kg. Thus, to produce 23.09 million Kg of extra tea in 2025, @ 1500 Kg/ha, the country will need to bring 12973 ha under tea. The investment cost for bringing 12973 ha under tea will be at least Tk.38919.00 lakh @ Tk.3.00 lakh per ha extension. For manufacturing the green leaf, which will be produced on 12,973 ha at least Tk.35805.48 lakh (92% of field investment) will be needed. Therefore, the total investment cost will be Tk.74724.48 lakh for the next 10-15 years. The

Figure-10



approximate value of export of 23.09 million Kg will be Tk.461.80 crores (@ Tk.200/Kg), i.e., the value of export of two years will be more than the total investment cost. It may be pointed out that there will not be so much land in the organised sector of large tea estates for producing extra tea for export. For this purpose new avenue like small holding tea cultivation will have to be started.

4.5. Investment Strategy for Retaining Export of Bangladeshi Tea in the World Market

This is the age of Open Market Economy. Globalization and liberalization are the distinct features of the present day world. The investment strategy should be planned focusing on the health aspect of drinking tea to safeguard the interest of both the local and the international consumers and to compete with other tea exporting countries like India, Kenya and Sri Lanka. The investment strategy should be designed with a view to retaining the existing market and to expand it. The prospect for export of larger quantity of tea from Bangladesh is likely to be hampered unless the country can raise its tea production to meet the ever-increasing demand for internal consumption. Therefore, the main task of the country is to increase tea production to sustain the present markets. It will require fund for investment in tea cultivation for which active support and assistance from Government as well as donors and co-operation from Bangladeshiyo Cha Sangsad (BCS), Tea Traders Association of Bangladesh (TTAB), i.e., the private sector as a whole.

5.a. Hypotheses of the Study

(a.1). Exportable surplus has been decreasing due to fast increase in internal consumption.

(a.2). Export has been decreasing due to decrease in exportable surplus.

Therefore, production should be increased through investment to meet internal demand and to retain the export market of Bangladesh Tea.

5.1. Test of Hypothesis

Hypothesis-I: Exportable Surplus has been decreasing due to fast increase in internal consumption.

The Regression Equation:

$Y = \alpha - \beta X$

where Y = Exportable Surplus
X = Internal Consumption
α = Intercept
β = Slope parameter
Y = 47.83748 - 0.789443 X

The regression analysis with data for the last 7 years (2005-2011, **annex-1**) shows that the ***t*** value of the slope is – 6.046. The ***t*** value for 99.95% confidence is 5.959 with 6 degrees of freedom (one-tailed test). Thus, 99.95% confidence interval is obtained for β. One can say with 99.95 percent confidence that there is very highly significant relationship between X and Y variables. Furthermore, P-Value is 0.001784, which implies that 0.1784 percent of the ***t*** distribution lies outside an interval of t_c standard deviation from the estimated slope parameter (Pindyck & Rubinfeld, 1991. pp.56-57). The empirical study shows that exportable surplus is negatively related with the internal consumption, which implies that the exportable surplus decreases with the increase in internal consumption. Thus, to increase exportable surplus production must be increased by massive investment.

Hypothesis-II: Export has been decreasing due to decrease in exportable surplus.

The Regression Equation:

$Y' = \alpha' + \beta' X'$

where Y' = Export
X' = Exportable Surplus
α' = Intercept
β' = Slope parameter

$Y' = 1.458511 + 0.634195\ X'$

The regression analysis with data for the last 10 years (2002 to 2011, **annex-1**) shows that the ***t*** value of the slope is 3.863. The ***t*** value for 99.75 percent confidence interval is 3.690 with 9 degrees of freedom (one- tailed test). Thus, 99.75 percent confidence interval is obtained for ?′. One can say with confidence that there is very highly significant relationship between X′ and Y′ variables. Moreover, P-Value is 0.004786, which implies that only 0.4786 percent of the ***t*** distribution lies outside an interval t_c standard deviation from the estimated slope parameter (Pindyck & Rubinfeld, 1991. pp.56-57). The empirical study shows that export is positively related with the exportable surplus, which implies that export increases with the increase in exportable surplus and vice versa.

The empirical relation as established with the tests of hypotheses between internal consumption, exportable surplus and export shows that fast increase in internal consumption causes a decline in exportable surplus with low growth of production, which in turn causes the decline in the export of tea. Therefore, production should be increased through investment to meet the internal demand and to retain export of tea.

6. Consequences of Tea Import in Bangladesh

Tea itself belongs to the concept of sustainability, as it bears fruit for the present and the future generations. However, low priced poor quality tea import will have multifarious impacts on Bangladesh tea industry. Due to import of low priced poor quality tea price of domestic tea will fall. Consequently tea will remain unsold in the local auction that will have negative impacts on income and profitability. If tea is remained unsold, then the producers will be unable to pay labour wages regularly that may cause disruptive strike in Bangladesh tea industry. In absence of remunerative profit the producers will be unable to invest that will cause a decline in tea production in the near future. Due to loss of profitability the producers will be unable to remain in their business in the long run. Thus, the tea industry in Bangladesh will not able to sustain without boosting up its production through investment for meeting internal demand and retaining export market.

7. Findings of the Study

The crux of the problem of tea sub-sector is slow growth of production that has been caused mainly due to lack of investment. Internal consumption has been increasing sharply instead of price rise, because basic demand for tea has not yet been saturated in Bangladesh. Exportable surplus has been decreasing due to

abrupt increase in internal consumption. Export has been decreasing due to decrease in exportable surplus. Presently tea industry has been suffering from acute crisis of fund for investment. Gestation period of tea is about 5-7 years due to which private entrepreneurs are reluctant to invest in the sub-sector. If a large-scale investment fund is not pumped into the industry through a big project like Bangladesh Tea Rehabilitation Project (BTRP), with above trends export will soon shrink to a standstill and even the country may have to be a net importer of tea to meet local demand by 2016.

8. Limitations of the Study

The fund for investment as proposed by this article is only the bare minimum amount of investment in field and factory for Bangladesh tea to grow more quality tea for meeting present domestic consumption and retaining traditional export market. However, the country has enough scopes to invest in field, factory, labour welfare and research for boosting up its production.

9. Policy Recommendations

Government Intervention is needed urgently for increasing investments in tea. Sufficient fund is needed for long term investments in tea field and factory with concessional rate of interest and easy terms and conditions. Instruments of refinance with bank rate as well as interest subsidy can be applied for boosting up investment in tea.

10. Conclusion

Bangladesh has the need, scope and potentials for increasing tea production. Now tea industry requires supports and sufficient funds for investment in field and factory that can only increase tea production for meeting domestic demand and retaining export, generate employment opportunities, enhance income and profitability and increase gross domestic product of the country.

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Annex 1: Tea Area, Production, Internal Consumption, Per Head Consumption, Exportable Surplus, Export and Export Earnings of Bangladesh Tea

Year	Tea Area (in Hectare)	Population (in m Kg)	Internal Production (in m Kg)	Total Population (in m)	Per Head Consumption (in gram)	Exportable surplus (in m Kg)	Export (in m Kg)	Export Earnings m US $)
1970	42,637	31.38	5.77	68.12		25.61	-	-
1971	42,928	12.45	-	69.77		-	-	-
1972	42,649	23.48	5.26	71.47	74	18.58	13.19	7.67
1973	42,866	27.55	8.93	73.21	123	18.62	20.31	11.03
1974	42,603	32.16	6.96	74.99	93	25.20	21.17	19.00
1975	42,396	29.01	8.01	78.96	102	21.00	24.10	21.00
1976	42,500	33.27	8.00	80.82	99	25.27	30.73	28.98
1977	43,343	38.04	8.00	82.71	97	30.04	25.97	42.46
1978	43,509	37.99	8.50	84.66	100	29.49	30.85	44.83
1979	43,730	36.13	4.50	86.64	52	27.63	31.86	29.12
1980	43,969	40.04	9.06	88.66	102	30.98	30.98	43.25
1981	44,544	41.32	9.00	90.46	99	32.32	29.19	38.14
1982	44,681	40.94	9.00	92.56	97	31.94	34.42	46.97
1983	45,256	43.73	9.00	94.65	95	34.73	29.99	56.67
1984	45,329	38.21	9.00	96.73	93	29.21	23.10	59.12
1985	46,446	43.29	9.00	98.66	91	34.29	30.31	47.38
1986	46,703	37.59	9.00	100.62	89	28.59	27.67	34.14
1987	46,588	40.61	10.00	102.56	98	30.61	21.61	29.12
1988	47,378	43.58	10.00	104.53	96	33.58	26.19	40.21
1989	47,439	39.08	10.00	106.51	94	29.08	23.43	38.80
1990	47023	45.89	14.21	108.12	131	27.68	26.97	45.29
1991	47284	45.03	19.21	111.50	172	25.82	25.38	38.06
1992	47665	48.94	21.77	113.11	192	27.17	27.16	32.43
1993	47670	50.51	14.50	114.90	126	32.01	31.91	42.63
1994	47751	51.66	24.00	117.70	204	27.66	23.64	29.00
1995	47920	47.67	22.00	119.90	183	25.67	25.43	32.07
1996	48337	53.41	27.00	122.10	221	26.41	26.15	32.28
1997	48616	50.52	25.00	124.20	201	25.52	25.16	40.45
1998	48570	55.83	29.00	124.77	232	26.83	22.22	38.56
1999	48510	46.19	32.11	126.95	253	14.08	15.18	20.17
2000	48678	52.65	38.79	132.42	293	13.86	18.10	23.11
2001	49313	56.82	36.95	134.34	277	19.87	12.92	16.04
2002	50226	53.62	41.50	136.29	307	12.12	13.65	16.31
2003	50896	58.30	37.44	138.27	267	20.86	12.82	15.69
2004	51265	56.00	43.33	140.27	305	12.67	13.11	14.83
2005	52317	60.14	44.08	142.30	307	16.06	9.09	11.26

Table Cont

Year	Tea Area (in Hectare)	Population (in m Kg)	Internal Production (in m Kg)	Total Population (in m)	Per Head Consumption (in gram)	Exportable surplus (in m Kg)	Export (in m Kg)	Export Earnings m US $)
2006	52407	53.41	42.00	144.36	290	11.41	5.40	9.23
2007	53667	58.19	46.27	146.45	316	11.92	10.56	12.84
2008	54105	58.65	52.12	148.57	350	6.53	8.39	14.28
2009	54804	59.99	53.74	150.72	356	6.25	3.15	6.34
2010	55702	60.04	57.63	152.91	346	2.41	0.91	2.42
2011	56846	59.13	58.50	155.13	370	0.63	1.47	2.89
2012*		62.56	58.59	157.38	372			
2013*		63.41	60.55	159.66	379			
2014*		64.26	62.51	161.98	386			
2015*		65.11	64.47	164.33	392			
2016*		65.96	66.43	166.71	398	(-0.47)		
2017*		66.82	68.38	169.13	404			
2018*		67.67	70.34	171.58	410			
2019*		68.52	72.30	174.07	415			
2020*		69.37	74.26	176.59	421	(-4.89)		
2021*		70.22	76.22	179.15	425			
2022*		71.07	78.18	180.74	433			
2023*		71.93	80.14	181.00	443			
2024*		72.78	82.10	181.50	452			
2025*		73.63	84.06	182.31	461	(-10.43)		
2026*		74.48	86.02	183.17	470			
2027*		75.33	87.98	184.53	477			
2028*		76.18	89.94	185.90	484			
2029*		77.04	91.90	187.28	491			
2030*		77.89	93.86	188.67	497	(-15.97)		
2031*		78.74	95.82	190.07	504			
2032*		79.59	97.77	191.48	511			
2033*		80.44	99.74	192.90	517			
2034*		81.30	101.70	194.33	523			
2035*		82.15	103.65	195.77	530	(-21.50)		
2036*		83.00	105.62	197.22	536			
2037*		83.85	107.57	198.68	541	(-23.72)		

Sources: *1. ITC, 1981: p.85; 1989:p.108; 1991: p.116; 1994: p.114; 2002:p118; 2. World Development Report, 2003, A co-publication of World Bank and Oxford University Press, 198 Madison Avenue, New York NY 10016, USA. 2002: p. 234. 3. World Population Projections, 1994-95 Edition, Eduard Bos et al, A World Bank Book, The John Hopkins University Press, Baltimore Maryland 21211-2190, USA. 1994. pp. 134-135.*

*** Estimated**

Annex 2: World Export of Tea vis-à-vis Bangladesh Export of Tea

Year	Number of Years	Actual World Export of Tea (in M. Kg)	Estimated World Export of Tea (in M. Kg)	Actual Bangladesh Export of Tea (in M. Kg)
1995	1	1094.49	-	25.43
1996	2	1127.18	-	26.13
1997	3	1203.79	-	25.17
1998	4	1299.12	-	22.23
1999	5	1257.49	-	15.18
2000	6	1321.94	-	18.10
2001	7	1397.82	-	12.92
2002	8	1436.68	-	13.65
2003	9	1391.80	-	12.18
2004	10	1559.03	-	13.11
2005	11	1566.29	-	9.01
2006	12	1578.56	-	4.79
2007	13	1578.96	-	10.56
2008	14	1653.06	-	8.39
2009	15	1580.12	-	3.15
2010	16	1728.81	-	0.91
2011	17	-	1758.09	1.47
2012	18	-	1797.46	-
2013	19	-	1836.83	-
2014	20	-	1876.20	-
2015	21	-	1915.57	-
2016	22	-	1954.94	-
2017	23	-	1994.31	-
2018	24	-	2033.68	-
2019	25	-	2073.05	-
2020	26	-	2112.42	-
2021	27	-	2151.79	-
2022	28	-	2191.16	-
2023	29	-	2230.53	-
2024	30	-	2269.90	-
2025	31	-	2309.27	-
2026	32	-	2348.64	-
2027	33	-	2388.01	-
2028	34	-	2427.38	-
2029	35	-	2466.75	-
2030	36	-	2506.12	-
2031	37	-	2545.49	-
2032	38	-	2584.48	-
2033	39	-	2624.23	
2034	40		2663.60	
2035	41		2702.97	
2036	42		2742.34	
2037	42		2781.71	

Source: *ITC, 2005: p.45; 2008: p.61 & 2011 p. 57.*

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The Emerging Rich-Poor Gap in Bangladesh and Its Solution from Islamic Perspective

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The last few decades witnessed a growing frustration with the perception of higher growth rate as the ultimate objective of all development activities. The evidence of growing number of poor people around the globe especially in LDCs despite the widespread claim of higher growth rates attained in these countries has reduced the prominence of growth mania. The development experience of last two decades shows that the benefits of higher growth rates trickled up rather than trickling down to the poor as traditionally believed. Higher economic growth cannot be the top priority in economic development planning unless it can bring about concomitant reduction in the prevailing incidence of poverty.

It is true that for economic development, a country needs a higher GNP and a faster growth rate. But in the context of a developing country, the question is who would enjoy the benefits of GNP growth. If the rich were to claim it, then poverty and the inequality in income distribution would worsen and more people would be deprived. If the poor were to attain it, the majority of the people would share the fruits of economic growth and the prevailing inequality in income distribution would be reduced. In other words, attention should be given to both higher growth rate and policies geared to the purpose of making the economy more egalitarian. It should be mentioned here that income inequality in Bangladesh has increased to a significant extent in recent years. From a country of low inequality in the 1980s, it has now become a country of high inequality. Inequality has increased more in the urban areas.

While the share of the bottom 20% of households in total income has declined during the last two decades, the share of the top10% has registered a significant

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increase. The rate of poverty reduction in Bangladesh could have been faster had inequality not widened. In Bangladesh there has been a gradual acceleration of GDP growth which crossed 6% mark since 2004. However, if the growth performance is put in the perspective of other Asian Countries, it would not appear to be very impressive. In terms of per capita income, the gap between Bangladesh on the one hand and India and Sri Lanka on the other has increased. India has been experiencing a much higher growth (over 8%) since 2003-04. China has been having a double digit GDP growth since the 1980s. The rate of investment (as percentage of GDP) in Bangladesh (25%) remains lower not only compared to China (43%) and India (34%), but also to Nepal (29%) and Sri Lanka (over 26%).

In Bangladesh despite the growth of per capita GNP, the share of GNP going to the poor sections of the people declined drastically. Per capita GNP in 1996 constant prices almost doubled from Tk.8,688 in 1974 to Tk.14,028 in 1996 but the income shares of lower income groups decreased during the same period. The top 5% acquired income almost twenty seven times as high as the income of the lowest 5% in 1996. The share of the lowest 40% of households fell gradually from 18.3% to 15.54% during the same time period. The ratio of the highest 20% to the lowest 20% increased from 6.3 in 1974 to 8.8 in 1996. These facts indicate that during the last twenty four years between 1974 and 1996 higher values of per capita GNP and higher growth rates of GNP were attained at the cost of increased inequality in income distribution. The increased per capita GNP in Bangladesh not only widened the gap between the poor and the rich overtime, it could not prevent the number of poor people from increasing since liberation. At present, the gap between the rich and poor is very wide. With the increase in the growth rate of national income, there is a simultaneous increase in the number of poor people living below the poverty line. This contradiction may be explained by the proposition that phenomenal growth has been achieved by the richer section of people while the poorer section remains outside the growth range. Marginalized poor people are sinking below the poverty line, probably getting no ladder to go up.

If we draw poverty shades in the geographical map of Bangladesh, the country will be economically divided into two zones: (i) poverty zones comprising mainly rural areas and (ii) prosperous zones comprising city and urban area. Therefore, Bangladesh is now a country of two economies. A small section of people has accumulated fabulous wealth leaving the larger section of people in poverty. It is said that only 5 percent of the population enjoy 45 percent of the national wealth. They are all city dwellers. It is also assumed that around 5 percent

of population enjoy around 5 percent of national wealth. They live in the rural areas and also in city slums. The divide is crystal clear. Top class is not only rich, they are brutally powerful. They do not believe in sharing and caring. They believe in accumulation only. Due to lack of commitment and political will, successive governments failed to stop squandering of public money and to eradicate the widespread corruption in the society. A lax and chaotic law and order situation only worsened the economic condition of the country. It is rather sad when a community or a nation becomes degenerated and reaches a stage where people do not feel shame or embarrassment for having accumulated dirty wealth. The point of no return is reached when society accommodates the corrupt and wealthy, and people feel proud to be related to, or friends of, those who are visibly corrupt, and even elevated if they are only acquainted with them.

Many of the blatantly corrupt are socially accepted, in some cases even respected, feared and revered, in stead of being avoided. Until such time society changes its attitude and starts socially boycotting at least silently those corrupt people, no law, no anti-corruption drive will have meaningful impact on the life of the people. It is people and not the government alone who need to change their attitude towards those who destroy the basic values of life. At such a stage it becomes a necessity to look deeply and re-examine the dignity of life and value of existence. Accumulation of wealth is not necessarily a crime, but the means adopted needs to be examined and society needs to be aware of the means and methods used in reaching the super-rich status. People need not be terrorized by the wealth of their relatives, friends and acquaintances, who might not have achieved it through transparent means. When the source of wealth is not transparent or accountable and remains questionable, society can express its revulsion and distaste by distancing itself from the company of those corrupt giants of the society. Those giants feel no shame in demonstrating their wealth by building massive luxury houses and apartments, driving expensive vehicles, sending their children to expensive universities overseas, and even investing in real estate abroad. We take pride, instead of feeling shame and embarrassment in talking about those people's acquisitions knowing fully well the dubious sources of their income and the grossly disproportionate wealth they possess. These corrupt people become admirers of art, culture and literature overnight. Some enroll themselves as members of shushil samaj, spreading words of wisdom. They participate in talk shows and appear in TV interviews positioning themselves in front of colourful bookshelves, which would have embarrassed Karl Marx, who spent 12 to 18 hours a day reading books in British Museum for many years. This is how some highly corrupt individuals camouflage themselves. Frederic Bastiat rightly

remarked, "When plunder becomes a way of life for a group of men together in society, thus create for themselves in the course of time, a legal system that authorizes it and a moral code that glorifies it".

The rich-poor gap has also been widening due to the disappointing performance on the employment front. Even though open unemployment in an economy like that of Bangladesh normally remains low (because there is no unemployment insurance and the poor cannot afford to remain unemployed), the rate of open unemployment has increased over time from 2.5% in 1995-96 to 4.3% in 2002-03. The structure of employment is not changing in a direction that is expected of an economy undergoing development. One expects to see the share of industry in total employment rising along with a decline in the share of agriculture. That is not happening in Bangladesh (although absolute numbers employed in manufacturing may have increased). The manufacturing sector is not doing very well; while traditional industries like jute and cotton textiles, sugar, matches, etc. have declined, there has been significant growth in only one new industry (viz., garments). And that is not adequate to put the country on a path of economic development that could absorb the surplus labour in higher productivity activities. Jobs in construction and most services subsectors are actually of low productivity in nature, and do not help much in reducing poverty and improving the quality of living of the people on a sustained basis. What is more worrisome is the decline in the employment generating capacity of the economy. In 1980s, 1.82% GDP growth was required to produce a job growth of 1% per annum; but in the 1990s, over 2% GDP growth was required to produce the same rate of employment growth. With the current rate of employment growth in relation to GDP growth, the economy needs to achieve a growth of 8% to produce an employment growth of 4%, which is the absolute minimum, given the rate of growth of labour force and the backlog of unemployment and underemployment.

Eminent economist and first deputy chairman of the Bangladesh Planning Commission Prof. Nurul Islam opined that an unusual price hike in land prices, the culture of default loan with banks and massive tax evasion are widening the rich-poor gap in Bangladesh. He is of the view that rising inequality is a global phenomenon and the recent economic crisis has worsened it still further.

Prof. Azizur Rahman Khan, a Bangladeshi economist and a teacher of the University of California has said that the world has witnessed remarkable changes in the past several decades based on three major factors; growth, inequality and international migration. He is of the opinion that the distribution of income has become increasingly unequal during the last two decades. He holds the view that

poverty would have been eliminated if inequality did not increase. He blamed the growing inequality on accumulation of wealth by a section of people, gap in implementation of strategies and imbalanced distribution of wealth.

Prof. Rehman Sobhan holds the view that enormous inequality, particularly in the human development area, prevails in Bangladesh. He is of the opinion that broadening the ownership of productive assets can reduce the inequality or rich-poor gap. He blamed institutional failure for the poor quality of education and healthcare services.

According to Prof. M.M. Akash, the unsung heroes of much heralded growth of Bangladesh are our peasants, garments and migrant workers and micro and small entrepreneurs. The ruling class keeps them outside the main stream growth process and favours the rich non-performers. Prof. Akash is of the view that collective ownership of all means of production, universal literacy, democratic land reform and reversal of traditional patron-client political structure are fitting tools to apply for achieving that desired objective.

Eminent banker Khondakar Ibrahim Khaled is of the view that the gap between rich and poor is very wide in Bangladesh. According to him, there is a strange contradiction that phenomenal growth and increase of national income simultaneously triggered further increase of the number of poor multitude.

In this connection it should be mentioned that productive employment provides the key link between economic growth and poverty reduction. It also needs to be recognized that a rise in inequality in the distribution of income can blunt the poverty reducing effect of economic growth and that is what has been happening in Bangladesh for the past two decades or so. It is now just time to tackle the problem of inequality head on. From the point of view of accelerating the rate of poverty reduction on a sustained basis, it should be noted here that a large segment of the population (many of whom may not be poor) in Bangladesh remain vulnerable to external shocks caused by natural calamities and economic crises of various types, e.g., sharp increase in food prices and economic downturns. Such shocks affect not only the poor; they often cause what is known as transient poverty, non-poor people near the borderline falling into poverty. The measures of social protection can play an important role in tackling such transient poverty as well as in helping the poor. In fact, at the international level, there is a growing recognition of the importance of a 'basic social floor' below which the poor and the vulnerable should not be allowed to slip. It is probably time for Bangladesh to give some consideration to the building up of a 'basic social floor', of course, taking into consideration the ground realities of the country. In that context, it

would be important to institute 'automatic stabilizers' which can play the role of supporting the poor and vulnerable during a crisis. In developed countries, different social security measures play the role of automatic stabilizers. Given the structure of the economy of Bangladesh where informal employment predominates, a rights-based approach to employment and special programmes for guaranteed employment based on such approach may be useful. Such a programme can also incorporate unemployment benefits in the event of the inability to provide employment. Given the frequency of external shocks and the vulnerability of large segments of the population in the face of such shocks, it has become important to think of such an approach to employment. Of course, one may raise the issue of the fiscal space needed for such a program. A recent exercise undertaken jointly by ILO and BIDS demonstrates that Bangladesh can meet the necessary costs of such a program from its own resources. But given the plethora of social safety net programs that exist in Bangladesh, it would be important to adopt a strategic approach to the issue of social protection and formulate an integrated approach. Such an approach will help economize resources and make implementation easier.

The Holy Qur'an and Prophetic Sunnah in numerous places allude to the significance of social responsibilities of Muslims to the poor and weak. Some citations from the Holy Qur'an may be made in this connection:

> "And give them of the wealth which He has given you."(An Nur:33) "Believe in Allah and His Messenger, and spend whereof He has made you heirs." (Al-Hadid:7)
>
> "And those who hoard up gold and silver and spend not in the way of Allah, announce to them a painful chastisement." (At-Tauba:34) .
>
> "Whatsoever Allah may restore unto His Messenger, is due unto Allah and unto His Messenger – the orphans and the needy. So that it may not be confined to the rich amongst you." (Al-Hashr:7)

In line with the teachings of the Holy Qur'an, prophetic missions are one way or another meant for liberating people from all types of injustice, aggression as well as economic and political exploitation. It was the mission of our prophet (SAW) to protect the rights of weak and poor people in the society and secure them a sense of social justice and protection from strong and affluent sectors of the society. It is not enough for us to understand just some aspects of social responsibilities at theoretical and conceptual level; as a Muslim we must realize the practical dimensions and their implications to bridge the gap between the rich and the poor. It is true that Muslim community is the most charitable community in the world in that each and every rich Muslim is obliged to pay 2.5% of his or

her wealth annually by divine instructions. Yet, Muslims lack systemization and organizational skills to distribute charities like Zakah, Sadaqah etc. in any cohesive and sophisticated ways. It is high time for our political and religious leadership and welfare organizations to review the collection and distribution of Islamic charities and religious dues in systematic and methodological ways to the greater interest of poor and weak people of Muslim community in our society. The Islamic charitable funds and religious dues should be utilized as means of poverty reduction and creating long-term employment opportunities. We may follow the example of Malaysia in this regard. Malaysia has transformed the Zakah collection system into a kind of productive industry for creating employment opportunities and income generating activities.

The Islamic Council of Wilayah Perse Kutuan Kuala Lumpur (MAIWP) established the Center for Zakah Collection (Pusat Pungutam Zakah or PPZ), which performs its functions through 14 Islamic Councils (one for each state) for Zakah. The main objective of the Center for Zakah collection is (i) to increase the collection of Zakah, (ii) to increase the amount of Zakah payers year by year, (iii) to increase the ability of professional management to cope with the current technology, (iv) to maximize the customer satisfaction through services offered, and (v) to inculcate the Islamic work environment. The vision of the Center is: (a) to increase quality of service, (b) to ensure excellent management, (c) to apply current technology, and (d) to develop human resource. The basic task of the Center is to make planning, prepare annual budget, determine target groups, activities, cost, work force and period/ duration. The Center performs various activities according to the respective unit and co-operate with some organizations such as banks, government departments, private firms, mosque, radio, television, newspaper etc. The types of Zakah defined by the Center are (i) Zakah on self-assessment (Al-Fitr), (ii) Zakah on income, (iii) Zakah on business, (iv) Zakah on saving, (v) Zakah on shares, (vi) Zakah on employers' provident fund, (vii) Zakah on gold, (viii) Zakah on wealth/property, (ix) Zakah on agricultural production, (x) Zakah on cattle, and (xi) Zakah on buried treasure. Zakah to the eligible persons of different categories is given as assistance for various purposes. For instance, direct assistance for the poor and the needy is given in the form of food assistance, financial assistance, medical assistance, educational scholarship, school uniform assistance, assistance during the month of Ramadan, house rent assistance, marriage assistance, maternity assistance, business assistance, skill and entrepreneurial assistance, building/home repairing assistance, shelter assistance, house equipment assistance, cloth assistance etc. The above stated Malaysian model of Zakah collection and distribution has attained tremendous

success in Malaysia. If we can replicate the same model here in Bangladesh, I confidently believe that similar type of success will be attained in Bangladesh Insha Allah and this will definitely contribute to the reduction of poverty and the increasing rich-poor gap in our society to a significant extent. Needless to say, only Islamic measures can guarantee provision of basic human needs such as food, clothing and shelter to everyone and ensure fair and equitable distribution of wealth and income thereby providing best solution to the rich-poor gap. Let us now work towards that direction for an effective and everlasting solution of the problem of poverty, inequality and rich-poor gap. May Allah (SWT) help us to fulfill such a noble mission.

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Impact of New Technology on Sharecropping in Bangladesh

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The economy of Bangladesh is mainly agrarian. The sector is likely to play a vital role in achieving self-sufficiency in food-grain production. Agricultural development is essential for our survival. Agricultural development could be achieved with the proper adoption of modern inputs like irrigation technology, chemical fertilizer, HYV of seeds and pesticides either individually or in their suitable combination. The seed-fertilizer-irrigation technology, which is also known as the new technology has created great opportunities of expanding food production in Bangladesh. The diffusion of the new technology has helped in changing the nature and terms of tenancy market, impacting on the distribution of income, poverty and employment. Normally tenant farms had adopted new technology. But findings obtained by a farm the different village studies (Islam and Halim 1976, Hossian 1977, Ahmed 1981) it was not possible to reach at a clear decision regarding the relationship between the adoption of modern technology by a firm and its tenurial arrangement. The relation between the adoption of new technology by a farm and its tenurial arrangement is a controversial issue. A. Dusgupta (1998, P. 144) observed that sharecroppers have little to achieved from the spread of modern technology. He also observed that the advent of modern technology has made the position of the tenants extremely vulnerable. Smith (1776) considered that the sharecropping system would ultimately disappear. Georgescu-Roegen (1969) and Bhaduri (1973) pointed out that the institution of share tenancy as a feature of precapitalist modes of production and the system of sharecropping were considered to be a barrier of new technology. While, Bardhan and Srinivasan (1971), Bardhan (1976) and

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Pearse (1980) did not think tenancy as an impediment to new techonology. Without going to theoretical questions and debates here attempt has been made to explain the impact of new technology on share cropping in Bangladesh.

Methodology

The study is based on secondary data. Secondary data were collected from diffeent publisedh and unpublised documents.

Importance of the Study

The results of the study may be of great use to policty markers . Extension workers may tulize the results of the study in making decisions regarding irrigation technology, share tenancy and farm employment. The results of the study have also academic importance to the teachers and the students of economics.

Results and Discussion

In this section we shall discuss the impact of irrigation technology on share tenancy.

Impact of New Technology on Sharecropping.

Tenureship of Agricultural land

In Bangladesh land tenure situation has undergone changes. Pure tenant farms in rural Bangladesh had been declining between 1960 and 1983-84 but it increased between 1983-84 and 1996 (M. Hossain 1999, p-36) Censes of Agriculture and live stock (1983-84) reported that sharecropped-in land was only 16.81 percent, it increased to 21.6 percent in 1996 (censeus in Agriculture 1996).

The most common form of tenancy relation in rural Bangladesh is sharecropping. Under share cropping system the tenants and the landlords share the output and risk and some cases the costs too. But output and costs are not always shared equally between the parties. One important factor which had been linked with sharecropping was cultivation risk. In this context M. Glaser (1989) stated “different access conditions to irrigation water and HYV inputs leads to different levels of cultivation risk. This will affect the agricultural production structures, patterns of accumulation at household level and the rules and meaning of land tenancy”.

Ali (1989) observed that the following the introduction of modern technology in agriculture the rich farmers had distorted the rural institutions to there own interest. Ali further stated that " "landless and small owner tenants have been forced out of the land lease market. The landlords might have thought that such tenants would not be able to use purchased inputs associated with the new technology in the rented land. On the other hand, input cost sharing has been introduced in may areas to reap the benefit of the new technology" (Ali, A.M. 1987).

Land Leasing and Operational Arrangement of cropped land by farm size groups in Bangladesh

Available data indicated that irrigators leased in more land and leased out less land than the non irrigators. M.K. Hussain (1986, P.34-35) observed that under land leasing arrangement farms when irrigated leased in 3.74 percent of their operated or cropped land and leased out 17.35 percent of their owned land and leased in 4.46% of their operated or cropped land . He also found that small farmer being more irrigation conscious have the tendency to leased in more land (on an average 0.35 areas) while they irrigated and leased out an average 0.31 areas of non irrigated land. He further said that large farms have the tendency to rent out higher proportion of their owned land because they can not manage it.

Available data indicated that large farmers in non irrigated village sharecropped in no land. But in irrigated village the large farmers sharecropped in 1.1 percent of other's land. Medium farmers sharecropped in more land (47.70%) in irrigated village, while, small farmers sharecropped in more land (64.71 percent) in non irrigated village (M.N. Islam 2002). On the other hand, small farmers sharecropped out no land in irrigated village, medium farmers in non irrigated village sharecropped out no land (M.N. Islam -2002). Hamid et. al (1982) pointed out that there had been no qualitative change in tenurial arrangements as a result of the adoption of technology. M. Hossain (1986) stated that share tenancy in Bangladesh is exploitative in nature. White (1986) stated "due to the increased cost of cultivation, owners farmers are renting out their farm land to sharecroppers.

Security of Tenure

There are no written lease contract between the tenants and the landlords. In the absence of written contracts tenants of rural areas have no security. As a result, landlords can easily evict any tenant when they so desire. When tenants fail to

satisfy the landlords can easily evict any tenant when they so desire. When tenants fail to satisfy the landlords in expanding yield rate or in using adequate modern inputs they face the consequences of eviction. M.N. Islam (2002) stated that eviction of sharecroppers for the purpose of resumption of land for self cultivation is common in irrigated village. While, it is rare in non- irrigated village. A Dusgupta (1998 P. 145) pointed out that evication of tenants have become a common matter especially after the introduction of canal water irrigation. He also stated that a sharecropper who invest more on modern agricultural inputs gets a chance of securing a lease for the second time. Jansen (1979) found that land owners evicted the tenants and employed wage labourers to cultivate the land. He also stated " it is regarded as more beneficial to organize production on irrigated land with wage labourers."

Available data indicated that the short duration of sharcropping relationship M. Hossain (1986) found that about 52 percent of the sharecropping relationship had been lasting less than three years. M.N. Islam (2002) found that about 70.58 percent of the lease units have been lease for one to three years (short terms lease) in irrigated village. While 25 percent of the lease units have been lease for one to three years in non irrigated village. About 11.76 percent of the lease units have been lease for five years or more (long term lease) in irrigated village. But it is only 33 percent in non irrigated village. He further stated that sharecroppers in non-irrigated village were found to have beter security than those of irrigated village, The Land Occupancy Survey of 1978 observed that duration of sharecropping relationship as reported by the sharecroppers was presented below: 26 percent of the sharecroppers had a lease contract that had lasted for less than one year, while 20 percent lease contract lasting between one to two years, 8 percent lease contract lasting between three to four years. Jansen (1987) found that 59 percent of the sharecropping relationship had lasted less than three years.

Input and Output Sharing

In sharecropping arrangement, labour was provided in-full by the sharecroppers. But the costs of irrigation, seeds, chemical fertilizers, power tiller etc were shared by the landlords. Bayes and Sayeeduzzaman (1991, P.68) found that sharecroppers bear all the input costs and surrender half of the output to the landlords. M.N Islam (2002) observed that output shared betwen the sharecroppers and the landlords is a standard 50 : 50 basis. he also found that in irrigated village normal practice is to share the costs of irrigation, seeds, chemical fertilizer equally between the sharecroppers and the landlords. While in non irrigated village the practice is to share the costs of seeds, fertilizer are equally

shared between the parties. Although in both the villages human labour, animal labour and manures are supplied entirely by the sharecroppers. A good number of village studies found that the landowners were sharing of costs of non labour inputs in the sharecropped land where modern varieties of rice and wheat are producted (Zaman 1973; M. Hossain 1979; BUP 1982). A Dasguspta (1998 P1 44) found that tenants surrender 50 percent output and bear all costs of production except land revenue and irrigation costs. Costs of modern inputs, human labour, animal labour etc are brone entirely by the sharecroppers.

Suggestions of Policy Implications

The need for tenancy refoms is essential in Bangladesh Special attension should be given to protect the rights of sharecroppers Administrative and legal measures should be taken to protect the sharecroppers Absentee landlordism should be abolished.

Conclusion

Modern technology is essential for agricultural development of Bangladesh. Introduction of irrigation technology have brought about significant change on share tenancy. Sharecroppers in rural Bangladesh have little to achieve from the spread of irrigation technology. When tenants fail to satisfy the landlords in expanding yield rate or in using adequate modern inputs they face the consequences of eviction. Eviction of tenants for the purpose of resumption of land for self cultivation is common in irrigated land. In may cases, sharecroppers bear all the non labour input costs and surender 50 percent of the output to the landlords.

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Banking Sector Reforms in Bangladesh: Measures and Economic Outcomes

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Abstract *This paper discusses the reform measures of the banking system of Bangladesh along with economic outcomes of the reform measures. The paper finds that the Government of Bangladesh undertook ownership reform program in 1982 to make the banking system more competitive and robust under the financial restraint framework. The banking system followed arms-length model since the 1990s by undertaking a broad based reform program in the name of FSRP. Afterwards, it undertook BRC/CBRP programs, liberalized interest rate policy, and adopted risk based capital adequacy norms, inter alia, to foster competiveness and efficiency in the banking system. However, the paper reveals that the banking sector still is not free from distortion, fragmentation and oligopolism even after the financial reform measures, as there exits high level of nominal lending rates, high nominal spreads, high non-performing loans in different clusters of banks and clout of the owners and directors. The paper concludes that creating an enable environment for a rational spread rate, introducing tailored products on both asset and liability front and proper management of NPLs along with accurate risk management device may improve financial stability in the banking system.*

JEL Classification: *E52, G21*

Keywords: *Reforms, Non-performing loans, profitability.*

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1.1 Introduction

Unlike developed economies where "Anglo-Saxon" or "Arms-Length" mode of finance tends to play an important role in channelling funds to the entrepreneurs, the banking system of developing and emerging economies such as Bangladesh plays a pivotal role in augmenting economic growth. Often cited reason in this respect is that the capital market in developing economies lacks transparency and accountability in operations, which reduce the trust and confidence of the general investors in undertaking financial transactions in this market. Additionally, "information asymmetry" problem is seen fierce in developing economies and this information asymmetry problem reduces the depth of the capital market (Allen *et al*., 2000). Developing economies also suffer from a shortage of supporting institutions such as venture capitalists, security houses, rating companies, and asset management bodies which are in fact preconditions for accepting the Anglo-Saxon system (King & Levine, 1993; Rajan and Zingles, 1998). Therefore, in developing economies, the banking system mainly mobilizes and allocates financial resources at a lower financial intermediation cost, and thereby enhances economic growth.

However, the reduction of financial intermediation costs requires continuous reforms in the banking system in tune with the technological advancements, prudential laws and regulations, accounting standards, supervisory capability of the banking regulators, and efficiency of the bank officials in applying latest tools and techniques to manage the operational, credit, and market risks of a transaction. Besides, for independence of the banking system in fixation of interest rates, allocation of credits without government intervention, and increasing competition and efficiency in financial intermediation, reforms are indeed essential. In other words, effective reform measures ensure robustness of the banking system which helps increase the economic growth rate of a country by directing investments to those sectors that offer the highest risk-adjusted rates of return. However, unplanned financial liberalization is likely to aggravate financial malaise instead of improving the efficacy of the system as is observed in the latest Asian financial fiasco in 1997. This implies that the banking sector reform is a continuous process and multipronged in nature. It (reform) aims at making the banking system competitive, prudent, resilient, and efficient in mobilizing and allocating financial resources at a least financial intermediation cost. It also covers integration strategies of the banking system with the global banking arena.

Looking at Bangladesh, the banking system captures the lion's share of the financial market, although in recent years non-banking financial institutions

(leasing and merchant banks) have been increasingly catering the financing and technological needs of the entrepreneurs. In the banking system, the private commercial banks (PCBs) hold more than 61% of total deposits and 59% of industry assets followed by the four nationalized commercial banks (SCBs) that hold 27.5% of total deposits and 28.8% of industry assets (Annual Report, Bangladesh Bank 2010-11), and thus, they influence the efficacy of the banking system to a great extent. On the other hand, the equity financing from capital markets through issuing new shares is found to be lenient, and the debt financing through issuing corporate bonds is almost nonexistent. Bank financing was around 94% of total financing while equity financing accounted for the remaining 6% in 2007. This implies that the financial system of Bangladesh is predominately bank centric and the country's economic growth primarily rests on the development of its credible and stable banking system.

Notably, in order to make the banking system competitive, effective, and of international standard, the policy making institutions of Bangladesh adopted different measures and initiatives especially in the beginning of 1990s that include deregulation of interest rates, loan classification and provisioning requirement, adoption of indirect and market oriented monetary policy instruments, strengthening the operations of banking system by improving legal environment, making taka convertible and computerization of bank branches. However, the banking system of Bangladesh still holds large percentage of non-performing loans (NPLs) 9.2% as of December 2009 which is in fact highest in comparison to the NPL ratios of neighbouring countries such as India (1.5%), Sri Lanka (5.6%), and Pakistan (7.7%). There is also absence of technological alliance among different banks and financial institutions to judge the credit risk of the borrowers effectively. Keeping this background in mind, this paper aims at addressing the following research questions:

1. *What reform measures have been undertaken in Bangladesh so far in order to increase the efficiency of the banking sector? and*
2. *How far, the widespread reform measures have increased the efficiency of the banking sector?*

In order to answer these questions the study proceeds as follows. Section II provides the theoretical framework of the study. Section III describes research methodologies. Section IV discusses reform measures so far undertaken in the banking system of Bangladesh since its independence. Section V unfolds economic outcome of the reform measures. Section VI concludes remarks.

2. Theoretical Framework

In general, "information asymmetry", "transaction costs", "moral hazards", "incentives", "agencyship", "contracts" and "uncertainties" are the basic theories applied to discuss the cost of financial intermediation as well as needs for financial reforms in an economy. In practice, however, the policy-making institutions rely on two extreme theories: (1) the "financial restraint" or "financial repression" theory, and (2) the "financial liberalization" or "arms-length" model in order to ensure stability in the financial intermediation. In fact, information asymmetry can be considered as a prime determinant in calculating the costs of financial intermediation as this usually leads to increase adverse selection and moral hazards, which in turn, increases the cost of contract enforcements or say transaction costs. Besides, uncertainties increase "risk premium" which also triggers the transaction cost of financial intermediation. However, the banking system cannot directly charge the risk premium in the loan price as such a practice increases lending rates to an exceptionally high level resulting in the "lemon problem". This practice further contracts economic growth by way of shrinking the volume of financial transactions. Therefore, higher transaction cost becomes a disincentive to financial agents to discharge their agency duties perfectly unless adequate bank rents (spread) are ensured in the system of financial intermediation. Conversely, higher spread influences the cost of capital of the borrowers which creates disincentives for them in undertaking business activities. In other words, higher spread provides incentives to expand bank branches but it is likely to result in economic contraction and low growth by increasing the cost of capital of the borrowers. This creates a "catch 22" situation for the policy making institutions in that unless the banking system is professionally and ethically sound, leaving out financial intermediaries from the checks and measures of government control may lead to financial malaise on one hand and repression of interest rates incubates inefficiencies among the financial intermediaries on the other. This 'catch 22' situation becomes a vicious circle for the government of developing countries as these countries usually suffer from capital shortage and institutional inefficiencies, which may result in inefficient and improper allocation of credits.

On this vintage point, Stiglitz & Weiss (1981) argue that credits are intrinsically rationed in developing economies due to problems of asymmetric information. They note that lenders cannot perfectly select the right borrowers without costs *ex ante* and monitor the behaviour of borrowers *ex post*, and the price mechanism does not clear the excess demand for funds. For instance, even when a borrower deemed by a bank to be un-creditworthy offers to pay higher interest rates, the

bank may decline the loan application, because this offer is interpreted as a signal of higher default risk.

On the contrary, in the seminal work on financial development, McKinnon (1973) raises questions on the applicability of the neoclassical approach to financial development in developing countries in that the financial system in developing countries is mostly characterized by low levels of formal intermediation with a weak institutional structure which impede financial deepening. Criticizing the Tobin's model (1965)[2] of economic growth, they argue that money and capital are complements rather than substitutes — the more the real money balances, the greater the incentive to invest. Productive investment and capital accumulation occur as large amounts of real money stocks create greater amounts of loanable funds available to borrowers (McKinnon, 1973. In this view, expanded financial intermediation between savers and investors increases the incentives to save and invest which improves the efficiency of investment (Fry, 1982). They argue that financial repression policies usually crowd out high-yielding investments, discourage future saving and shrink the supply of investment finance as this policy makes depositors to move away from banks. In consequence, the quality and quantity of investment as well as financial deepening are reduced. There are also a significant number of empirical studies that report negative correlations between a low real interest rate, a high reserve requirement, and a low degree of financial intermediation on one hand, and investment and growth on the other (Easterly, 1993; Levine, 1993. As mixed results are observed through empirical analysis, it is better to accumulate country experience to argue whether the financial restraint or the financial liberalization policy is suitable for ensuring prudence and stability of the banking system. In this respect, the present study is expected to add knowledge by accumulating experience of reforms undertaken in the banking system of Bangladesh.

3. Methodology

The study uses secondary information. Publications of both printed and electronic sources of different banks, Bangladesh Bank, Ministry of Finance, different organs of the Govt., International agencies like IMF, World Bank, Asian Development Bank have been used as sources of data.

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[1] In Tobin's model money and capital are perfect substitutes for one another and if the rate of return on productive capital increases in comparison to money, then there will be a shift of resources from money to productive capital. Such a shift will create a beneficial impact on productivity, increase per capita income and accelerate economic growth.

In order to review the reform measures undertaken so far in the banking system of Bangladesh, the study segregates the reform measures into four phases. These are: (1) ownership reform (1982-89), financial sector reform project (1990-95), (3) BRC/CBRP (1996-2002), and (4) Current reforms programs (2003-onwards). Structural issues with respect to consultants, manpower, costs, timing and implementation of each reform measures have been thoroughly examined on the basis of reviewing documents relating to agreements, terms of references (TOR), etc. In this regard, procedures of neighboring countries, particularly South Asian Countries, have been used to find out the structural weaknesses of the reform measures.

The impact assessment of reforms in the banking sector has been measured primarily in terms of profitability, productivity and efficiency, and social justice parameters. In this regard, simple accounting techniques, descriptive statistics and relevant parametric tests have been used.

4. Reform Measures — Background

The Banking system prior to the independence in 1971 was highly concentrated in the urban areas. It was also owned largely by Non-Bengalis to serve Non-Bengali enterprises, thereby enabling them to establish hegemony over the local economy. Therefore, immediately after the liberation, the then government nationalized and reorganized all banks and financial institutions, except a few foreign banks. In addition, the government established two specialized banks — Bangladesh Shilpa Bank (BSB) and Bangladesh Krishi Bank (BKB) — to cater to the industrial and agriculture financing needs of the country in a planned way. Notably, the primary goals of the banking policy at that time were (1) to exercise state control over the financial assets, (2) to save an abandoned banking system from the collapse, (3) to spread the coverage of the banking system to rural areas for mobilizing financial resources, and (4) to provide easier access to bank financing to a wider constituency of borrowers drawn from a less privileged background. In other words, the government adopted a financial restraint framework based on rigid government control and central bank regulations. The regulation broadly covered fixation of interest rate on deposits and credits, direction of credit to public sector enterprises (PSEs), priority sectors and expansion of bank branches.

This system undoubtedly increased bank branches, volume of deposits, and deployment of credits but led to the deterioration in the efficiency of the banking system by increasing a number of unprofitable bank branches, which, in turn,

reduced bank's profitability. For instance, at the time of nationalization (1972), there were only 1116 bank branches across Bangladesh of which 38% were located in the rural areas. At the end of 1980, the bank branches increased to 3748 of which 63% were located in rural areas (Economic Trends, various issues). Similarly, total deposits and credits increased to Tk. 2806.86 and 3049.95 crores, respectively, in 1980 from Tk. 523.61 and 2806.86 crores, respectively, in 1972 (Economic Trends, various issues). However, the total profitability (in per Tk. 100) of the banks fell down from 0.32% in 1973-74 to 0.32% in 1982-83 (Choudhuri et al., 1995). In addition, the level of customer services and overall quality of management also deteriorated due to the monopolization of the banking services by the government.

In the above backdrop, the government undertook several reform measures to improve competition and efficiency in the banking system, which are as follows:

(a) The Ownership Reform Program (1982-1989).

The ownership reform program was initiated in 1982 to encourage the private sector and to strengthen, fortify and reinforce overall banking efficiency. As a part of ownership reform program, the government denationalized two out of six nationalized commercial banks (SCBs) and allowed the operation of local private banks. The main reason for allowing local private banks was the desire on the part of the government to demonstrate its commitments to encourage the private sector and to create competition in the banking sector. However, it is argued that during the period of 1983 to 1985, the operational efficiency of the banking sector further declined due to improper allocation of credits which created huge nonperforming loans (NPLs) in the name of "sick industry syndrome". Thus, the government appointed a "National Commission on Money, Banking and Credit" in 1986 to diagnose the malaise and identify ways and means for banking recovery. The Commission undertook a detailed examination of various problems of the banking sector, such as the bank rate and refinancing policy of the Bangladesh Bank, overdue loans of SCBs and the development financial institutions (DFIs), supply of adequate loan to rural and agriculture sector, supervisory problems of the Bangladesh Bank and individual bank management, and frauds and forgeries in the banking sector. Based on the recommendations of the Commission, the government undertook a number of steps to improve the efficiency of the banking system that included fixation of recovery targets for the SCBs and DFIs, prohibiting defaulters from getting new loans, self-classification of loans by banks based on their quality of loans, and increase of monitoring capabilities of the central bank. Nevertheless, the deterioration in banking efficiency could not be

arrested although there was an increase in total number of bank branches, volume of deposits and credits. For instance, the number of branches for SCBs increased from 3270 in 1983 to 3560 in 1989, but in relative terms they shared 64.12% of the total branches in 1989 — a reduction of 6.92% in comparison to the year 1983 (Table 1). Similarly, the volume of deposits and credits for SCBs increased by more than 100% in 1989 as compared to the year 1983, but their relative share in total banking industry decreased by almost 22% and 25%, respectively, during the same period (Table-1). Likewise, the volume of deposits and credits for DFIs are found to have a declined trend when a relative measurement is applied. On the other hand, the share of bank branches, deposits, and credits for PCBs and FCBs are found to have an increasing trend during the period of 1983-89. Nevertheless, the operational efficiency of the banking system declined to 0.11% in 1989 from 0.32% in 1983, where SCBs showed to have a very poor performance (Table-1).

Table 1: Comparative Share of Different Categories of Banks in Total Banking Activities (1983-1989)

(Figures in the Bracket Indicate Share in %)

	Branch Expansion				Deposit Mobilization (Tk. in Crores)			
Year	SCBs	DFIs	PCBs	FCBS	SCBs	DFIs	PCBs	FCBS
1983	3270	780	536	17	5215.1	367.4	226.5	464.4
	(71.04)	(16.94)	(11.64)	(0.37)	(83.13)	(5.86)	(3.61)	(7.40)
1989	3560	1146	824	22	11597	859	4266	1369
	(64.12)	(20.64)	(14.84)	(0.40)	(64.10)	(4.75)	(23.58)	(7.57)

	Deployment of Credit (Tk. in Crores)				Operational Efficiency (profitability in per Tk.100)		
	SCBs	DFIs	PCBs	FCBS	SCBs	PCBs	All Banks
1982-83	4069	1298	124	290	0.23	0.16	0.32
	(70.39)	(22.45)	(2.15)	(5.01)			
1988-89	9898	3822	3563	1087	0.002	0.15	0.11
	(53.88)	(20.81)	(19.4)	(5.91)			

Source: *Compiled from various issues of Bangladesh Bank Economic Trends, Schedule Banks Statistics, and Annual Reports of different years.*

This indicates that the ownership reform program (1983-89) helped increase in financial intermediation in the economy but the overall banking efficiency declined due to the presence of collusive behavior among banks followed by directed credits of the government. There were also improper accounting system for recording accrued interest income, lack of supervision on the part of

Bangladesh Bank, inadequate support for debt recovery, and absence of prudential rules and regulations that can correct financial failures. All these phenomena ultimately reflected in declining profitability of the banking system. This situation demanded further reform for the banking sector.

b) Financial Sector Reform Program (1990-1995).

The financial sector reform program (FSRP) was launched under Financial Sector Adjustment Credit (FSAC) of the World Bank in 1990 with the following objectives:

- Gradual deregulations of the interest rate structure with a view to improving the allocative efficiency;
- Providing market oriented incentives for priority sector lending;
- Making subsidies in the priority sectors more transparent;
- Adoption of appropriate monetary policy;
- Improvement in debt recovery environment; and
- Strengthening of the capital markets.

Accordingly, the FSRP brought about a number of developments in the banking system of Bangladesh. Table 2, shown below, summarizes this development into four broad groups such as: (i) screening, (ii) monitoring, (iii) transparency, and (iv) lender's recourse regulations. For instance, in case of screening, a 'lending risk analysis manual' was put into operation, directed lending and subsidy to the priority sectors were reduced, interest rates were liberalized, insiders' loan was controlled and banks were asked to follow the credit information bureau (CIB) report formulated by Bangladesh Bank. In the case of monitoring, the performance-planning system, large loan reporting system and the supervisory role of the central bank was given emphasis while, to ensure stability and transparency in financial intermediations, minimum capital requirement (Tk. 100 crore), capital adequacy ratio (8% of the risk weighted assets), CAMEL rating and the International Accounting Standard for the preparation of bank accounts were introduced. Banks were also asked to classify their loans, make provision thereof as well as instructed to disregard accrued interest on classified loans as their income so as to protect them from vulnerability. Alongside these measures, the Money Loan Court Act and Bankruptcy Act were enacted to improve the loan recovery performance.

However, a review of the outcomes of the FSAC indicates that from the viewpoint of implementation, the reform measures were implemented satisfactorily, but from the viewpoint of desired outcome, the results were not very encouraging. For instance, the share of SCBs and PCBs in total deposits remained constant nearly

Table 2: New Loan Laws and Regulations

Screening	Monitoring	Transparency	Lender's recourse
i) LRA ii) CIB iii) Loans to Insiders and Connected Parties iv) Interest Rate Deregulation	i) NLLC ii) LLRS iii) PPS iv) Off-site Supervision v) Repo and Reverse Repo Operations	i) Loan classification and Provisioning ii) Risk based Capital Adequacy iii) CAMELS rating Adoption of IAS 30	i) Money Loan Court Act, 1990 ii) Bank Companies Act 1991 iii) Financial Institution Act 1993

***Source**: Choudhury and Moral 1997.*

within 62% and 27%, respectively, during the FSRP period (1991-95), but the share of deposits for DFIs increased to 6.34% in 1995 from 4.88% in 1991 (Table 3). On the other hand, the share of FCBs in total deposits declined from 6.91% in 1991 to 4.54% in 1995 with a volatile trend. Similarly, the SCBs' share of advances during the stated period was volatile. Somehow, SCBs' share increased from 52.66% in 1991 to 53.13% in 1995. PCBs' share in advance increased from 22% in 1991 to 27.59% in 1995 but the share of FCBs and DFIs declined from 6.01% to 5.14% and 19.33% to 14.14%, respectively, during the stated period. However, the amount of net profit of the SCBs increased from Tk. (-) 38.78 crore in 1991 to Tk.112.37 crore in 1995. Similar trend is observed in the case of PCBs and FCBs, but the DFIs showed to have a declining trend in their net profit that fell to Tk. (-) 250.88 crore in 1995 from Tk.9.81crore in 1991 (Table-3).

Another important area that the FSRP brought under attention is the failure to curb NPLs of the banking system of Bangladesh. For instance, in 1990, 26.09% of the total loans were classified as NPLs, which increased to 32.04% in 1995. As per different cluster of banks, NPLs for SCBs increased to 31% in 1995 from 27.95% in 1990, and NPLs for PCBs increased to 39.43% from 23.73% during the same period (Banking Regulation & Policy Department, Bangladesh Bank, 1995). NPLs for FCBs, however, come down to 5.40% in 1995 from 20.65% in 1990. In addition, the percentage of rural deposit and advances remained more or less stable i.e. 21.9% to 22.1% and 19.8% to 19.8%, respectively, during the FSRP period (Scheduled Bank Statistics, various issues, Bangladesh Bank).

This implies that the FSAC failed to address the issue of efficient resource allocation in terms of access to credit by productive sectors. Interest rate

Table 3: Distribution of Deposits, Advances and Net Profit by Category of Banks

	SCBs			PCBs			FCBs			DFIs		
Year	Share of deposits (%)	Share of Advances (%)	Net Profit (Tk. in crore)	Share of deposits (%)	Share of Advances (%)	Net Profit (Tk. in crore)	Share of deposits (%)	Share of Advances (%)	Net Profit (Tk. in crore)	Share of deposits (%)	Share of Advances (%)	Net Profit (Tk. in crore)
1991	61.18	52.66	-38.78	26.99	22.00	-11.45	6.95	6.01	25.32	4.88	19.33	9.81
1992	62.78	49.56	-143.39	25.63	24.75	-7.62	6.48	6.13	38.36	5.11	19.59	-193.4
1993	62.16	52.16	-31.90	28.33	26.25	-9.46	4.17	4.71	54.36	5.44	16.88	-97.14
1994	62.52	50.60	18.82	27.22	27.35	16.40	3.95	5.01	68.32	6.31	17.04	-307.10
1995	61.19	53.13	112.37	27.93	27.59	76.49	4.54	5.14	90.76	6.34	14.14	-250.88
1996	61.33	52.88	28.11	27.83	26.73	137.87	5.30	5.40	98.72	5.54	14.99	-292.07
1997	60.26	53.03	16.77	28.19	26.94	199.73	6.40	5.77	135.02	5.15	14.26	-209.12
1998	60.21	51.09	-5.98	27.22	25.58	160.97	7.36	5.21	149.43	5.02	17.92	-261.02
1999	59.91	50.08	-16.66	27.54	25.92	178.44	6.99	5.21	149.70	5.56	18.07	-296.70
2000	55.81	48.53	24.58	30.30	29.16	309.97	7.93	5.22	220.46	5.96	17.09	-532.37

contd. table-3

2001	50.92	46.50	38.24	36.49	34.87	514.48	6.85	6.86	259.81	5.64	11.77	-79.81
2002	50.32	45.56	19.88	36.84	36.16	458.79	7.02	6.81	224.08	5.82	11.47	-114.64
2003	46.00	41.7	68.21	41.1	40.8	475.59	7.4	7.3	276.44	5.5	10.2	-24.32
2004	42.8	39.6	1904.72	44.3	43.5	736.49	7.2	7.2	392.01	5.7	9.7	-87.89
2005	40.0	37.4	1209.41	47.0	45.6	954.71	7.2	7.3	470.18	5.8	9.7	-240.68
2006	35.2	32.7	4415.92	51.3	47.7	931.54	8.1	11.8	624.12	5.4	7.8	-123.00
2007	32.6	33.1	-809.10	53.5	51.4	1995.75	8.5	8.2	723.33	5.4	7.3	-143.62
2008	29.6	31.1	897.68	56.6	54.2	2818.66	8.4	8.0	1138.42	5.4	6.7	-167.17
2009	28.6	28.6	2533.58	59.0	57.4	3947.72	7.0	7.4	708.78	5.3	6.6	40.16
2010	28.1	28.5	1176.26	60.9	58.8	6032.03	6.1	6.6	645.62	4.9	6.1	105.76

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

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

(P) = Provisional.

deregulation could not instill competition in the sector rather the banking sector remained somewhat fragmented and oligopolistic. Besides, management efficiency in the SCBs could not be perceptibly improved despite implementation of new operational and management/loan quality assessment tools such as the capital adequacy and the loan classification and provisioning system. This implies that the FSAC placed more emphasis on economic deregulations rather than on broadening of the prudential regulation and supervision for the sector. It is argued that it would have been more appropriate, in the context of Bangladesh, to introduce measures to deal with the "debt default syndrome" and the management of the SCBs, prior to more general interest rate liberalization in order to improve the financial health of the banking sector of Bangladesh. The impact evaluation of FSRP-TA Project (1995) itself recognized that though many of the operational building blocks needed to permit SCBs to function soundly had been provided successfully by FSRP, yet effective incorporation of new operating procedures required leadership and vision on the part of senior management, which was not ubiquitous in the SCBs. All these scenarios, in fact, demanded a third stage reform program for the banking system of Bangladesh.

(c) Banking Reform Committee (BRC)/Commercial Bank Restructuring Project (CBRP) (1996-2002).

In order to fix the problem unveiled by FSRP, the government formed a Banking Reform Committee (BRC) in October 1996. The broad objectives of BRC were to place recommendations in regard to:

(i) Improving debt recovery environment of banks;

(ii) Increasing income, reducing expenditure and upgrading service standard of banks;

(iii) Improving the personnel quality of the banks;

(iv) Strengthening supervisory capacity of Bangladesh Bank; and

(v) Any other related important issues, considered by the committee.

In May 1997, the government also undertook a Commercial Bank Restructuring Project (CBRP) funded by the World Bank. The CBRP mainly focused on improving the supervisory and regulatory framework of the commercial banks, enforcement of the power of Bangladesh Bank in loan monitoring, and restructuring the legal framework related to finance and banking.

The report of the Bank Reform Committee (BRC) gave highest priority on restructuring of the supervisory and regulatory set-up for ensuring strong system

of enforceable oversight of banks. At the same time, the CBRP also asked for strengthening of legal framework and effective restructuring of the SCBs. For reducing the political interference, BRC proposed not to interfere with the affairs of the Bangladesh Bank Board and to set a clear-cut guideline for deficit financing of the government. The BRC also suggested that the Directors of the NCB boards cannot be Member of Parliament or an office bearer of a political party or a loan defaulter. The BRC also opined that the 'regulatory forbearance' on the part of the Bangladesh Bank has been responsible for the continuing problems with the "problem banks". The government also removed the floor rates of deposits in 1997. Finally, in August 1999, the government eliminated interest band on agriculture and small and medium enterprises (SMEs) loans.

Though one should not expect that within the BRC/CBRP period (1996-2002), all predetermined objectives would be achieved, yet the movement of key financial variables during 1996-2002 should be looked into to see the direction of movement of the banking variables. For instance, the share of SCBs in total deposits declined from 61.33% in 1996 to 50.32% in 2002. But the share of PCBs increased from 27.83% to 36.84% during the above period (1996-2002). On the other hand, the share of FCBs increased from 5.30% in 1996 to 6.81% in 2002. Similarly, the share of DFIs also increased from 5.54% to 5.82% during the period 1996-2002 (Table 3).

In regard to advances, SCBs' share in advances declined from 52.88% to 45.56%, PCBs' share sharply increased from 26.73% to 36.16%, the share of FCBs also increased from 5.40% to 6.81%; but the share of DFIs sharply declined from 14.99% to 11.47% during the FSRP period 1996-2002. The amount of net profit of the SCBs during the same period declined from Tk. 28.11 crore to Tk.19.88 crore, whereas PCBs' net profit increased from Tk.137.87 crore to Tk.458.79 crore. FCBs also remarkably earned Tk.224.08 crore in 2002 from Tk.98.72 crore in 1996. Importantly, the net loss of DFIs declined from Tk.292.07 crore to Tk. 114.64 crore during the period of 1996-2002 (Table-3).

This indicates that the BRC/CBRP initiatives improved the financial health of the banking system to a great extent; however, it failed to curb the NPLs of the banking industry. For instance, the NPL ratio of the banking system reached the highest level (41.11%) in 1999, although it was 28.01% in 2002. There was also unsatisfactory performance with respect to the settlement of cases in Money Loan Court and under the PDR Act. In addition, poor recovery, withdrawal of refinance and interest rate band aggravated the negative flow in the rural banking after the BRC/CBRP program instead of improving it. In fact, the scheduled banks'

advances to the agricultural sector dropped to 11.27% in 2002 from 21.07% in 1990 (Schedule Bank Statistics, various issues, Bangladesh Bank).

As previously mentioned, the government liberalized interest rate fully in 1999 to make the banking system market-driven and competitive. In such a market-driven system, one of the important indicators of competitiveness in the financial markets is the interest rate spread (the difference between lending and deposit rate of interest). The higher the level of competitiveness, the lower the interest rate spread. However, in the wake of the deregulation of interest rates it has been observed that the spread has increased over the years in Bangladesh — the spread in the banking sector increased from 5.88% in 1990-91 to 7.30% in 1995-96 (Table 4). In 2002-03, the spread declined to 6.49%, but in terms of

Table 4: Interest Rates, Spread and Inflation Rates (All Banks)

Year	Deposit Rate	Lending Rate	Spread	Inflation	Real Spread
1990-1991	9.11	14.99	5.88	8.9	-3.02
1991-1992	8.11	15.12	7.01	5.1	1.91
1992-1993	6.51	14.39	7.88	4.3	3.58
1993-1994	5.34	12.78	7.44	3.28	4.16
1994-1995	4.86	12.22	7.36	8.87	-1.51
1995-1996	6.11	13.41	7.30	6.65	0.65
1996-1997	6.67	13.69	7.02	3.96	3.06
1997-1998	7.07	14.02	6.95	8.66	-1.71
1998-1999	7.28	14.16	6.88	7.06	-0.18
1999-2000	7.21	13.86	6.65	2.79	3.86
2000-2001	7.03	13.75	6.72	1.94	4.78
2001-2002	6.74	13.16	6.42	2.79	3.63
2002-2003	6.29	12.78	6.49	4.38	2.11
2003-2004	5.65	11.01	5.36	5.83	-0.47
2004-2005	5.62	10.93	5.31	6.48	-1.17
2005-2006	6.68	12.06	5.38	7.16	-1.78
2006-2007	6.85	12.78	5.93	7.20	-1.27
2007-2008	6.95	12.29	5.34	9.94	-4.6
2008-2009	7.01	11.87	4.86	6.66	-1.8
2009-2010	6.01	11.31	5.30	7.31	-2.01
2010-2011	7.27	12.42	5.15	8.88	-3.73

Note: Rate of interest on scheduled banks (weighted average);

Source: *Bangladesh Bank, Economic Trends Various issues.*

competitiveness, this remained very high for the banking system. In other words, the high nominal spread indicates that previous reforms are yet to bring about the expected degree of competitiveness in the banking system, rather, market distortions have increased. Arguably, the presence of higher NPLs is one of the factors responsible for those market distortions, but government-led distortions (for example, high interest rates on government savings certificates) and misconceived price strategies of the bank management are also responsible for these unusually high spreads. Fortunately, the real interest spread was found negative in most of the years during the period of 1990-91 to 2002-03, indicating that the financial liberalization policies provided incentives for banks to expand their bank branches as well as financial intermediations.

(d) Current Reform Programs (2003 onwards)

After the expiry of BRC/CBRP program, the Government of Bangladesh continued undertaking different measures and initiatives to make the banking system robust and competitive. A summary of these measures is presented in Box 1.

Box 1: Selected Current Reforms in the Banking Sector

- Formation of Audit Committee by individual banks to assist the Board in fulfilling its oversight responsibilities.
- Provision for appointing two independent directors representing the depositors' interest.
- Measures to strengthen risk management through recognition of different components of risk, assignment of risk-weights to various asset classes.
- Several provisions of the three important Acts relating to Banking, viz. the Bangladesh Bank Order, 1972, the Bank Company Act, 1991 and the Banks Nationalization Order, 1972 were amended during the period 2003 with a view to further strengthening the activities of the banking sector, bringing dynamism and extending greater autonomy to the central bank.
- Enactment of the Artha Rin Adalat Ain 2003 to provide mainly for speedy procedures for obtaining decrees and execution. Provision was also made for Alternative Dispute Resolution to ensure early settlement of disputes through settlement conference and negotiations.
- Development of a basic risk management model for selected areas of banking operation.
- Promulgation of "Money Laundering Prevention Act, 2012 repealing Money Laundering Prevention Act, 2009 and Anti Terrorism (Amendment) Act, 2012".
- High priority is accorded to ensure Corporate Governance in Banks.

- Introduction to uniform account opening and KYC profile form for all banks. Besides, the National Payment System Council (NPSC) was reorganized to support the development of sound and efficient payment, clearing and settlement systems, and to serve as a forum for cooperation in domestic and international payment matters.
- Mapping of External Credit Assessment Institutions (ECAIs) rating with the Bangladesh Bank Rating Grade.
- Introduction of New Capital Accord (Basel II) and Risk Based Capital Adequacy (RBCA) for Banks, and preparation to introduce Basel III".
- Prudential Guidelines for Consumer Financing and Small Enterprise Financing were issued.
- Marking to Market Based Revaluation of Treasury Bills & Bonds Held by the Banks.
- Introduction of CAMELS supervisory rating system, move towards risk-based supervision, consolidated supervision of financial conglomerates, strengthening of off-site surveillance through control returns.
- Corporatization of nationalised commercial banks (NCBs)
- Stress Testing became mandatory for the Scheduled Banks.
- Introduction to Corporate Social Responsibility
- Safeguard Policy for the banks on capital market activities.
- Financial inclusion.
- Green Banking- a new dimension.
- On-line CIB services.

Source: *Banking Regulation & Policy Department, Department of Off-Site Supervision, Bangladesh Bank.*

5. Economic Outcomes

As pointed out in the previous section, the banking system of Bangladesh undertook different reform measures to improve overall efficiency and stability of the banking system. However, to what extent this has been successful? In this section an attempt has been made to address this issue by investigating several performance indicators such as (1) profitability (proxied as profit after tax divided by average assets [ROA]), and profit after tax divided by average stockholders' equity (ROE); (2) earnings efficiency (measured as interest rate spread (IRS) and net interest margin (NIM); (3) cost efficiency (proxied as expenditure over income ratio); and (4) share of non-performing loans. In addition to these indicators, capital adequacy, liquidity, and technological readiness of different clusters of banks have been taken into account.

(1) Profitability

Table-5 presents ROA and ROE ratios of different clusters of banks over the period 1998-2009. As it is observed from table 5, ROA and ROE ratios differ largely by types of banks even after the reform measures. The ROA of the SCBs were found to be nil during the period 1998-2000, which were even worst (negative) in case of the DFIs. In 2010 these were 1.1 percent and less than 1.0 percent, respectively. SCB's return on equity ratio was 0.3 percent in 1998, but it suddenly rose to 22.52 percent and 26.4 percent in 2008 and 2009, respectively (Table-5). In the case of DFIs, the ROE position remained worst (-171.7 percent) in 2009 due to huge operating losses. On the other hand, the PCB's ROA ratio is found to have a positive but inconsistent trend, whereas the FCB's showed a consistently better trend over the last 14 years. The superior performance of foreign banks might be due to their technological advantage and product differentiation capabilities which might have been eroded to an extent by the local private banks in recent years. Notably, the difference of ROE between PCBs and FCBs narrowed substantially since 2005. The ROE of PCBs and FCBs were strong (21.0 percent and 22.4 percent, respectively) in 2009. This implies that there was a growing competition between FCBs and PCBs after the reform measures.

Earnings Efficiency

Table-6 presents deposit rates, lending rates, and spreads of the clusters of banks over the period 1990-2010. As it is revealed from Table-6, the banking system remained fragmented and distorted even after the reform program. For instance, in almost all cases the lending rates, the nominal spreads and the real spreads of SCBs were found to be lower while comparing the same with the PCBs and FCBs (Table 6). In fact, the average real spread of SCBs was much lower, -0.29 only in 2010, in comparison to the PCBs (1.10%) and FCBs (2.25%)[3]. However, with respect to the nominal deposit rates among the cluster of banks, SCBs were found to be higher in comparison to that of PCBs and FCBs during the period 1995-2001 whereas, in other periods (1990-94 and 2002 –2010), a reverse situation (lower deposit rates) can be seen, except in some cases (Table- 6)[4]. Importantly, the nominal deposit and lending rates for every cluster of banks were found in a

[3] The reason is that the government continued directed lending at an administered rate in certain sectors (especially state owned enterprises in energy and civil aviation) through nationalized commercial banks as well as government owned specialized banks (SBs). Also, the government continues borrowing from the public by selling National Savings Directorate Certificate (NSDC) at a non-market rate (presently 11.5%), which also affects banks to set their lending rates and spreads as well.

Table 5 : Profitability Ratios by Type of Banks

(In percent)

Type of Banks	Return on Assets (ROA)													
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 June
SCBs	0.0	0.0	0.0	0.06	0.10	0.08	-0.14	-0.10	0.00	0.00	0.70	1.0	1.1	0.6
DFIs	-2.8	-1.6	-3.7	0.67	0.33	-0.04	-0.13	-0.13	-10.15	-0.27	-0.60	0.4	0.2	-0.3
PCBs	1.2	0.8	0.8	1.12	0.75	0.69	1.24	1.06	1.07	1.28	1.37	1.6	2.1	1.6
FCBs	4.7	3.5	2.7	2.80	2.36	2.55	3.15	3.09	3.34	3.10	2.94	3.2	2.9	3.6
SCBs	0.3	-1.1	1.7	2.39	4.21	3.00	-5.75	-6.90	0.00	0.00	22.52	26.4	18.4	10.0
DFIs	-36.3	-29.4	-68	12.28	5.76	-0.61	-2.14	-2.14	-2.00	-3.40	-6.94	-171.7	-3.2	-5.2
PCBs	26.8	15.3	17	20.94	13.56	11.37	19.53	18.10	15.19	16.65	16.37	21.0	20.9	15.6
FCBs	40.7	41.8	27.3	32.39	21.47	20.39	22.47	18.40	21.53	20.44	17.75	22.4	17.0	20.2
All Banks	**6.6**	**5.2**	**0.3**	**15.90**	**11.56**	**9.75**	**12.97**	**12.40**	**14.13**	**13.78**	**15.60**	**21.7**	**21.0**	**15.5**

***Source**: Bangladesh Bank Quarterly, Annual Reports of different years.*

* ROA and ROE for state owned commercial banks have become nil due to provision shortfall cumulative loss.

Table 6: Interest Rate, Inflation and Spread of Major Cluster of Banks

	Nationalized Commercial Banks				
Year	Deposit Rate	Lending Rate	Inflation	Nominal Spread	Real Spread
1990	9.29	14.06	9.3	4.77	-4.53
1991	9.12	14.03	8.31	4.91	-3.4
1992	6.98	14.36	4.56	7.38	2.82
1993	6.08	13.14	2.73	7.06	4.33
1994	5.14	11.63	3.3	6.49	3.19
1995	5.43	11.85	8.9	6.42	-2.48
1996	6.89	13.16	6.7	6.27	-0.43
1997	7.3	13.81	3.96	6.51	2.55
1998	7.43	13.98	8.66	6.55	-2.11
1999	7.69	13.69	7.06	6	-1.06
2000	7.36	13.36	2.79	6	3.21
2001	6.9	12.93	1.94	6.03	4.09
2002	6.27	12.42	2.79	6.15	3.36
2003	5.82	11.59	4.38	5.77	1.39
2004	4.88	9.75	5.83	4.87	-0.96
2005	4.59	10	6.49	5.41	-1.08
2006	5.21	10.84	7.16	5.63	-1.53
2007	4.96	11	7.2	6.04	-1.16
2008	4.96	8.92	9.94	3.96	-5.98
2009	5.04	8.51	6.66	3.47	-3.19
2010	5.01	9.18	7.31	4.17	-3.14
Average	**6.30**	**12.01**	**6.00**	**5.71**	**-0.29**

contd. table-6

	Private Commercial Banks				
Year	Deposit Rate	Lending Rate	Inflation	Nominal Spread	Real Spread
1990	9.13	16.44	9.3	7.31	-1.99
1991	9.12	16.5	8.31	7.38	-0.93
1992	8.33	16.73	4.56	8.4	3.84
1993	6.49	14.97	2.73	8.48	5.75
1994	5.33	14.09	3.3	8.76	5.46
1995	4.88	14.05	8.9	9.17	0.27
1996	5.6	14.41	6.7	8.81	2.11
1997	6.21	14.66	3.96	8.45	4.49
1998	6.3	14.88	8.66	8.58	-0.08
1999	6.49	14.91	7.06	8.42	1.36
2000	6.75	14.71	2.79	7.96	5.17
2001	6.84	14.39	1.94	7.55	5.61
2002	7.07	14.12	2.79	7.05	4.26
2003	6.99	13.54	4.38	6.55	2.17
2004	6.46	12.00	5.83	5.54	-0.29
2005	7.4	12.47	6.49	5.07	-1.42
2006	8.62	14.06	7.16	5.44	-1.72
2007	8.44	13.43	7.2	4.99	-2.21
2008	8.91	13.61	9.94	4.7	-5.24
2009	7.14	12.43	6.66	5.29	-1.37
2010	6.8	12.02	7.31	5.22	-2.09
Average	**7.11**	**14.21**	**6.00**	**7.10**	**1.10**

contd. table-6

Year	Foreign Commercial Banks				
	Deposit Rate	Lending Rate	Inflation	Nominal Spread	Real Spread
1990	6.58	15.54	9.3	8.96	-0.34
1991	5.55	14.5	8.31	8.95	0.64
1992	4.7	14.12	4.56	9.42	4.86
1993	3.46	12.86	2.73	9.4	6.67
1994	2.69	11.86	3.3	9.17	5.87
1995	3.52	11.13	8.9	7.61	-1.29
1996	4.71	12.15	6.7	7.44	0.74
1997	5.53	12.8	3.96	7.27	3.31
1998	6.27	13.49	8.66	7.22	-1.44
1999	5.58	13.15	7.06	7.57	0.51
2000	5.04	12.68	2.79	7.64	4.85
2001	4.04	12.27	1.94	8.23	6.29
2002	4.57	11.97	2.79	7.4	4.61
2003	4.78	12.1	4.38	7.32	2.94
2004	4	11.45	5.83	7.45	1.62
2005	3.96	11.83	6.49	7.87	1.38
2006	4.77	12.89	7.16	8.12	0.96
2007	4.81	13.57	7.2	8.76	1.56
2008	5.25	14.58	9.94	9.33	-0.61
2009	3.81	13.07	6.66	9.26	2.6
2010	3.01	11.84	7.31	8.83	1.52
Average	**4.60**	**12.85**	**6.00**	**8.25**	**2.25**

Source: *Scheduled Banks Statistics, 1990-2010, Bangladesh Bank*

declining trend, except in some cases, indicating increased competition within the banking system during this period (Table- 6). But with respect to the real spreads, a varied level of performance is found among SCBs, PCBs and FCBs. While real

4 This indicates the reflection of an important political change in Bangladesh that took place in the year 1990 by way of taking power of a democratic government which encouraged politicians to set-up private commercial banks. There is also the effect of stock market crash (1996-1997) that derailed the trust and confidence of the investors to invest in shares and to deposit in banks. In consequence, the government took initiative to restore the confidence of the depositors by offering higher rates by the nationalized commercial banks.

spreads of FCBs were positive in most of the cases, the real spread of SCBs and FCBs were varied with negative and positive outcomes. Importantly, the real spread of SCBs and PCBs became negative from the year 2004 onwards as compared to FCBs during the same period that ultimately reflects that the banking system remained uncompetitive, distorted and inefficient even in the liberalized regime.

Table-7 portrays the aggregate net interest income (NII) of the banking sector. It reveals that the NII of the banking system positively and consistently increased from Taka 6.3 billion in 1997 to Taka 121.9 billion in 2010. However, the NII of the SCBs became negative in 2000-2004. Since 2005, SCBs were able to increase their net interest income (NII) by reducing their cost of fund. In 2010, the NII of SCBs was Taka 19.8 billion. On the other hand, the DFIs showed a positive trend since 2000 and their NII was Taka 6.2 billion in 2010. Likewise, the NII of the PCBs showed a positive trend since 1997. They also exhibited incredibly high trends over the period from 2000 to 2010. As a whole, the trend of NII indicates that the PCBs and the FCBs were charging interests at a very high rate on their lending as compared to the interest they were paying to the depositors. This also implies that the banking system of Bangladesh remained fragmented and oligopolistic.

(3) Cost Efficiency

Table-8 presents expenditure to income ratio as an indicator of the operating efficiency of the banking system. It reveals from Table-8 that expenditure-income (EI) ratio of the DFIs was very high with 180.4 percent in 1998. This was mainly because the DFIs made loan loss provisions by debiting 'loss' in their books. The position however improved after 2000 and the ratio came down to 89.1 percent and 95.9 percent in 2001 and 2002, respectively. However, it again rose to 101.1 percent in 2003. Later on, the DFI's EI ratios were increased to 112.1 percent in 2009 due to huge operating losses and improved to 87.8 percent in 2010. Similarly, the EI ratio of the SCBs was 102.3 percent in 2004, which improved to 75.6 percent in 2009. This high EI ratio of SCBs mainly can be attributed to their higher administrative and overhead expenses, and suspension of income against NPLs. Likewise, the EI ratios of PCBs were found to be substantially high due to deduction of loan loss provision, other assets and corporate tax from current income. However, the FCB's EI ratio is found to be the lowest in the banking system, indicating that FCBs are better operationally managed than SCBs, DFIs, and PCBs.

Table 7: Net interest income by type of banks

(billion Taka)

Bank types	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 June
SCBs	2.7		3.1	-1.2	-1.8	-1.5	-0.3	-1.1	7.7	9.0	7.4	7.9	12.1	19.8	10.0
DFIs	-0.1	0.5	-0.1	1.0	2.7	1.4	1.3	1.8	1.0	1.7	1.4	1.9	1.9	6.2	4.0
PCBs	1.7	2.3	3.0	6.1	9.2	10.2	12.0	13.7	21.0	25.4	36.1	48.5	56.7	82.8	42.2
FCBs	2.0	2.2	1.8	2.5	3.3	3.4	3.6	4.2	5.6	8.2	69.9	12.6	10.7	13.0	8.4
Total	**6.3**	**7.1**	**7.8**	**8.4**	**13.4**	**13.5**	**16.6**	**18.3**	**35.3**	**44.3**	**54.8**	**70.9**	**81.5**	**121.9**	**64.6**

***Source**: Bangladesh Bank Quarterly, & Annual Reports of different years.*

(4) Non-performing Loans

The ratios of non-performing loans (NPLs) to total loans as per different clusters of banks are provided in Table-9 to understand the asset quality of the banking system of Bangladesh. Table-9 reveals that FCBs had the lowest and DFIs the highest ratio of gross NPLs to total loans. SCBs had gross NPLs to total loans ratio of 14.1 percent whereas in the case of PCBs, FCBs and DFIs, the ratios were 3.5, 3.1 and 21.8 percent, respectively, in 2011.

Notably, the ratio of NPLs to total loans of all the banks demonstrated an encouraging trend since its peak (41.1 percent) in 1999, although the aggregate ratio was still as high as 7.1 percent (in 2011). The reason is the high NPLs of the SCBs and the DFIs. The SCBs and DFIs continued to have high level of NPLs mainly due to substantial loans provided by them on considerations other than commercial and under directed credit programs during the 1970s and 1980s. Poor appraisal and inadequate follow-up and supervision of the loans disbursed by the SCBs and DFIs in the past eventually resulted in massive booking of poor quality assets, which still remained significant in the portfolio of these banks. Furthermore, these banks were reluctant to write-off the historically accumulated bad loans because of poor quality of underlying collaterals. Recovery of NPLs, however, witnessed some signs of improvement mainly because of the steps taken with regard to internal restructuring of these banks to strengthen their loan recovery mechanism and recovery drive and write-off measures initiated in recent years. It is worthwhile to note that although continual reduction of NPLs indicates overall improvement in the prudence of the banking operation, the high nominal lending rates followed by high absolute level of NPLs signify that there remains room for creating bank rents to monitor the borrowers effectively.

In regard to provision adequacy against NPLs, Table-10 presents a comparative picture of different clusters of banks since 1997. Table-10 shows that actual provision fell short of required provision for all categories of banks, except the FCBs, during the period 2001-2008. This implies that the banking system lacks efficiency in fund management especially in disbursing and recovering loans. However, after the year 2008, actual provisioning scenario for SCBs has been reversed. The actual provision remained higher than required provision for SCBs in 2009 mainly because of intensified recovery drive and rescheduling of overdue loans under the new management of the SCBs. This was supported by the Election Commission's requirement of non-defaulter status of potential candidates in national and local elections. For FCBs, the amount of actual provision remained higher than required provision throughout the whole period. It is noteworthy to

Table 8: Expenditure-Income Ratio by Type of Banks

Bank types	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 June
SCBs	99.4	99.8	100.5	99.4	99.0	98.5	98.8	102.3	101.9	100.0	100.0	89.6	75.6	80.7	65.9
DFIs	142.3	180.4	145.2	175.3	89.1	95.9	101.1	104.0	103.9	103.5	107.7	103.7	112.1	87.8	101.7
PCBs	85.9	86.3	90.4	90.8	88.1	91.9	93.1	87.1	89.3	90.2	88.8	88.4	72.6	67.6	69.1
FCBs	59.7	60.1	67.4	77.7	75.7	78.3	80.3	76.3	70.8	71.1	72.9	75.8	59.0	64.7	45.4
Total	95.3	95.4	96.6	99.9	91.2	93.3	93.9	90.9	92.1	91.4	90.4	87.9	72.6	70.9	69.1

***Source**: Bangladesh Bank Annual Report of different years*

Table 9: Trend of Classified Loans (Gross) by Clusters of Banks.

Contd. Table 9

(in percentage)

Bank types	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
SCBs	27.59	26.30	31.86	32.23	32.12	31.00	32.55	36.6	40.4	45.6	38.6	37.0	33.7
DFIs	-	-	-	-	-	-	-	65.7	66.7	65.0	62.6	61.8	56.1
PCBs	23.73	34.20	31.10	44.42	44.53	39.43	34.77	31.4	32.7	27.1	22.0	17.0	16.4
FCBs	20.65	11.87	12.64	10.46	8.89	5.40	4.72	3.6	4.1	3.8	3.4	3.3	2.5
Total	**26.09**	**25.00**	**30.67**	**34.86**	**34.85**	**32.04**	**31.49**	**37.5**	**40.7**	**41.1**	**34.9**	**31.5**	**28.0**

Bank types	2003	2004	2005	2006	2007	2008	2009	2010	2011
SCBs	29.0	25.3	21.4	22.9	29.9	25.4	21.4	15.7	14.1
DFIs	47.4	42.9	34.9	33.7	28.5	25.5	25.9	24.2	21.8
PCBs	12.4	8.5	5.6	5.5	5.0	4.4	3.9	3.2	3.5
FCBs	2.7	1.5	1.3	0.8	1.4	1.9	2.3	3.0	3.1
Total	**22.1**	**17.6**	**13.6**	**13.2**	**13.2**	**10.8**	**9.2**	**7.3**	**7.1**

***Source**: Compiled from various issues of Bangladesh Bank Annual Report of different years*
Note: Data of DFIs are not available for the period 1990-1996.

mention that while the shortfall in the provisions for all PCBs is improving, the shortfall for DFIs remained high during the whole period (2001-2011) indicating financial uneasiness in the overall banking system of Bangladesh.

Table 10: Comparative Position of Provision Adequacy by Different Clusters of Banks

(billion Taka

Year	Items	SCBs	DFIs	PCBs	FCBs
2001	Required provision	59.54	18.37	23.08	1.25
	Provision maintained	20.71	17.99	19.61	1.56
	Provision maintenance ratio (%)	34.78	97.93	84.97	124.80
2002	Required provision	61.51	17.09	27.85	1.23
	Provision maintained	18.94	17.30	22.81	1.57
	Provision maintenance ratio (%)	30.79	101.22	81.90	127.64
2003	Required provision	53.3	14.7	23.1	1.4
	Provision maintained	3.5	14.6	17.5	1.7
	Provision maintenance ratio (%)	6.6	99.2	75.4	125.2
2004	Required provision	50.7	13.5	22.3	1.3
	Provision maintained	3.4	12.4	18.5	1.6
	Provision maintenance ratio (%)	6.7	91.9	83.0	123.1
2005	Required provision	52.8	13.4	20.5	1.6
	Provision maintained	13.2	9.3	17.8	2.2
	Provision maintenance ratio (%)	25.0	89.4	85.8	137.5
2006	Required provision	61.6	14.8	27.5	2.2
	Provision maintained	18.2	9.1	22.6	3.1
	Provision maintenance ratio (%)	229.5	61.5	82.2	140.9
2007	Required provision	71.4	17.3	34.9	3.5
	Provision maintained	56.5	8.7	28.2	3.8
	Provision maintenance ratio (%)	79.1	50.3	80.5	108.6
2008	Required provision	73.1	17.0	41.3	4.6
	Provision maintained	75.6	8.6	37.0	5.0
	Provision maintenance ratio (%)	103.4	50.6	89.6	108.7
2009	Required provision	66.0	17.5	46.5	4.6
	Provision maintained	79.5	8.9	43.6	5.9
	Provision maintenance ratio (%)	120.5	50.9	93.8	128.3
2010	Required provision	70.64	19.07	53.31	6.19
	Provision maintained	69.87	13.29	51.78	7.39
	Provision maintenance ratio (%)	98.9	69.7	97.1	119.4
30June 2011	Required provision	69.8	20.6	60.0	7.5
	Provision maintained	69.8	14.3	60.0	8.2
	Provision maintenance ratio (%)	100.0	69.4	100.0	109.3

***Source**: Bangladesh Bank Annual Report of different years*

(5) Liquidity

The Statutory Liquidity Requirement (SLR) is one of the quantitative and powerful tools of monetary control of central banks. Changes in SLR can have a marked effect on money and credit situation of a country. If the central bank raises average reserve requirement of the commercial banks, this would create a reserve deficiency or decrease the available reserve of depository institutions. If the banks are unable to secure new reserves, they would be forced to contract both earnings and deposits, which would result in a decline in the availability of credit and increase the market interest rates. The reverse would happen if the central bank lowered its reserve requirements.

Table-11 shows that the FCBs have the highest liquidity ratios followed by the SCBs. This situation of constant surplus of liquidity warrants creation of effective demand for credit at lower costs. All banks have maintained a sufficient liquidity position in terms of cash, balance with banks and the BB, and investment in government securities, which suggest that they are relatively resilient to systemic banking crises.

(6) Capital Adequacy

Capital position of a bank reflects its ability to absorb risk deriving from its internal and external liabilities and creates confidence among depositors by the ability to protect their money from losses. It is also considered one of the major financial soundness indicators of a bank. BB commenced the implementation of Basel II from January 2009 and provided banks with a Guideline on 'Risk Based Capital Adequacy for Banks" (Revised regulatory capital framework in line with Basel II vide BRPD circular no. 9/2008) to make the banks' capital more risk sensitive and shock absorbent. Beneath the Basel-II regime, SRP–SREP dialogue stands for an exclusive meeting between the team of Supervisory Review Process (SRP) of a scheduled bank and the team of Supervisory Review Evaluation Process (SREP) of BB on capital adequacy. The objective of the dialogue is to determine the adequate level of capital needed for a bank beyond minimum capital by reviewing the Internal Capital Adequacy Assessment Process (ICAAP). On this background, Table 12 provides risk weighted capital asset ratios by type of banks over the period 1992-2011. Table-12 shows that in 2010 the SCBs, DFIs, PCBs and FCBs maintained CAR of 8.9, -7.3, 10.1 and 15.6 percent, respectively, implying that SCBs and DFIs were yet to comply the required 10% CAR.

Table 11: Liquidity Ratio by Type of Banks

(In percent)

Liquid assets

Bank types	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 June
SCBs	22.7	24.4	25.2	26.5	25.7	27.3	24.4	22.8	20.0	20.1	24.9	32.69	25.1	27.2	27.0
DFIs	16.9	16.6	15.7	16.2	15.3	13.7	12.0	11.2	11.2	11.9	14.2	13.7	9.6	21.3	22.1
PCBs	24.2	24.8	25.9	24.8	24.2	26.3	24.4	23.1	21.0	21.4	22.2	20.7	18.2	21.5	24.5
FCBs	31.2	39.8	51.3	34.7	34.1	41.5	37.5	37.8	41.5	34.4	29.2	31.3	31.8	32.1	31.1
Total	**23.3**	**25.2**	**27.0**	**26.1**	**25.3**	**27.2**	**24.7**	**23.4**	**21.7**	**21.5**	**23.2**	**24.8**	**20.6**	**23.0**	**25.9**

Contd. Table.11

Excess Liquidity

Bank types	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 June
SCBs	2.7	4.4	5.2	6.5	5.7	7.3	8.4	5.8	2.0	2.1	5.9	14.9	17.5	8.2	8.1
DFIs	9.7	9.2	8.7	9.9	8.9	6.9	5.8	4.7	6.2	3.8	5.5	4.9	7.1	2.3	3.1
PCBs	6.0	6.7	8.0	6.8	6.2	8.5	9.8	8.8	5.1	5.8	5.4	4.7	5.3	4.6	8.0
FCBs	11.2	19.9	31.4	14.8	14.3	21.8	21.9	21.9	23.5	16.4	11.2	13.3	21.8	13.2	12.2
Total	**4.5**	**6.4**	**8.3**	**7.5**	**6.7**	**8.7**	**9.9**	**8.7**	**5.3**	**5.1**	**8.9**	**8.4**	**9.0**	**6.0**	**7.9**

***Source**: Bangladesh Bank Annual Reports of different years.*

Table 12: Risk Weighted Capital Asset Ratios by Type of Banks

(In percent)

Type of Banks	1992	1995	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
SCBs	4.29	4.91	6.6	5.2	5.3	4.4	4.2	4.1	4.3	4.1	-0.4	1.1	7.9	6.9	9.0	8.9	9.5
DFIs	-	-	6.0	6.9	5.8	3.2	3.9	6.9	7.7	9.1	-7.5	-6.7	-5.5	-5.3	0.4	-7.3	-7.0
PCBs	5.00	4.97	8.3	9.2	11.0	10.9	9.9	9.7	10.5	10.3	9.1	9.8	10.6	11.4	12.1	10.1	10.4
FCBs	10.12	13.17	16.7	17.1	15.8	18.4	16.8	21.4	22.9	24.2	26.0	22.7	22.7	24.0	28.1	15.6	17.1
All Banks	**5.81**	**6.30**	**7.5**	**7.3**	**7.4**	**6.7**	**6.7**	**7.5**	**8.4**	**8.7**	**5.6**	**6.7**	**9.6**	**10.01**	**11.6**	**9.3**	**9.7**

Source: *Bangladesh Bank, Annual Report of different years*

(7) Modern and Innovative Products and Services

The existing modern and innovative banking products and services in Bangladesh are: (i) products- Debit Card and Credit Card, (ii) services- Automated Teller Machine (ATM), Point of Sales (POS), and e-services- Internet, Tele-banking, On-line-banking, Society for Worldwide Inter-Bank Financial Tele-communication (SWIFT), and Reuter. In this regard, Table-13 shows that out of different innovative technology-driven products and services, significant response among the banks is observed in adopting ATM, on line, and SWIFT during the period 1998-2009. More specifically, the number of banks offering credit cards increased from 2 to 15, debit cards from nil to 24, ATM service from 1 to 30, POS services from 1 to 11, internet service from nil to 7, tele-banking service from nil to 4, branch banking through individual bank on line network from 2 to 35, SWIFT service from 4 to 43, and Reuter service from 7 to 25. Although all these are positive developments, more attention is needed to enhance ICT capabilities of the banking system, especially for the SCBs for successful implementation of e-banking all over the country.

6. Concluding Remarks

The banking system followed true financial liberalization policy since the beginning of 1990s, especially with the introduction of FSRP. Since then, several legislations related to the financial sector were enacted and amended to support the reform process. The newly enacted laws responded to the need for promoting a sound and orderly financial market by providing appropriate legal framework for the licensing, organizing, operating, and supervising of a broad range of financial services companies. All the depository institutions were brought under the regulatory jurisdiction of Bangladesh Bank and all of them are monitored and supervised by the central bank by issuing prudential regulations.

The reform measures have had major impact on the overall efficiency and stability of the banking system of Bangladesh. A good number of banks and other financial institutions with various types of financial instruments emerged. The institutional network and volume of operations of the financial sector have expanded and diversified. The number of scheduled banks have gone up from 11 in 1980 to 47 in 2011. The banks' involvement in non-traditional activities and the increase in profits from these activities have contributed to improvements in banking sector performance in terms of profitability, cost efficiency, and earnings efficiency. Banks were allowed to engage in diverse activities, including securities and foreign exchange transactions, brokerage and dealing activities, and other fee-

Table 13: Adoption Frequency of Technology in Banking, 1998-2009

(No. of banks adopting modern and innovative technology driven products and services)

Year	Type	No.	Cr. Card	Dr. Card	ATM	POS	Internet	Tele banking	Online	SWIFT	Reuter
1998	SCBs	4	0	0	0	0	0	0	0	0	3
	DFIs	5	0	0	0	0	0	0	0	0	0
	PCBs	30	1	0	0	0	0	0	0	1	2
	FCBs	10	1	0	1	1	0	0	2	3	2
	Total	**49**	**2**	**0**	**1**	**1**	**0**	**0**	**2**	**4**	**7**
1999	SCBs	4	0	1	0	1	0	0	0	0	3
	DFIs	5	0	0	0	0	0	0	0	1	0
	PCBs	30	2	0	0	1	0	1	0	7	5
	FCBs	10	1	0	2	1	0	0	2	3	2
	Total	**49**	**3**	**1**	**2**	**3**	**0**	**1**	**2**	**11**	**10**
2000	SCBs	4	0	1	0	1	0	0	0	1	3
	DFIs	5	0	0	0	0	0	0	0	1	0
	PCBs	30	2	0	0	1	0	1	1	11	6
	FCBs	10	1	0	2	1	0	0	3	4	2
	Total	**49**	**3**	**1**	**2**	**3**	**0**	**1**	**4**	**17**	**11**
2001	SCBs	4	0	1	0	1	1	0	0	2	3
	DFIs	5	0	0	0	0	0	0	0	1	0
	PCBs	30	3	3	5	2	0	1	3	16	9
	FCBs	10	1	0	2	1	0	1	3	4	3
	Total	**49**	**4**	**4**	**7**	**4**	**1**	**2**	**6**	**23**	**15**
2002	SCBs	4	0	3	2	2	1	0	0	3	3
	DFIs	5	0	0	0	0	0	0	0	1	1
	PCBs	30	3	7	8	2	1	1	4	21	10
	FCBs	10	1	0	2	1	1	1	3	5	3
	Total	**49**	**4**	**10**	**12**	**5**	**3**	**2**	**7**	**30**	**17**
2003	SCBs	4	0	3	2	2	1	0	0	3	3
	DFIs	5	0	0	0	0	0	0	0	2	1
	PCBs	30	3	8	9	2	1	2	12	25	14
	FCBs	10	1	0	3	1	1	1	4	6	4
	Total	**49**	**4**	**11**	**14**	**5**	**3**	**3**	**16**	**36**	**22**
2004	SCBs	4	0	3	2	2	1	0	0	4	3
	DFIs	5	0	0	0	0	0	0	0	2	1
	PCBs	30	7	11	12	4	3	2	15	28	16
	FCBs	10	1	1	4	1	3	2	4	6	4
	Total	**49**	**8**	**15**	**18**	**7**	**7**	**4**	**19**	**40**	**24**
2005	SCBs	4	0	3	2	2	1	0	0	4	3
	DFIs	5	0	0	1	0	0	0	0	2	1
	PCBs	30	11	13	15	7	3	2	18	29	16
	FCBs	9	1	2	4	1	3	2	4	6	5
	Total	**48**	**12**	**18**	**22**	**10**	**7**	**4**	**22**	**41**	**25**
2006	SCBs	4	0	3	3	2	1	0	0	4	3
	DFIs	5	0	0	1	0	0	0	0	2	1
	PCBs	30	14	17	17	7	3	2	22	29	16
	FCBs	9	1	2	5	1	3	2	7	8	5
	Total	**48**	**15**	**22**	**26**	**10**	**7**	**4**	**29**	**43**	**25**
2007	SCBs	4	0	3	3	2	1	0	0	4	3
	DFIs	5	0	0	1	0	0	0	0	2	1
	PCBs	30	14	18	19	7	3	2	24	29	16
	FCBs	9	1	2	5	1	3	2	7	8	5
	Total	**48**	**15**	**23**	**28**	**10**	**7**	**4**	**31**	**43**	**27**
2008	SCBs	4	0	3	3	2	1	0	0	4	3
	DFIs	5	0	0	1	0	0	0	0	2	1
	PCBs	30	14	18	20	8	3	2	26	29	16
	FCBs	9	1	2	5	1	3	2	7	8	5
	Total	**48**	**15**	**23**	**29**	**11**	**7**	**4**	**33**	**43**	**29**
2009	SCBs	4	0	3	3	2	1	0	0	4	3
	DFIs	5	0	0	1	0	0	0	0	2	1
	PCBs	30	14	19	21	8	3	2	28	29	16
	FCBs	9	1	2	5	1	3	2	7	8	5
	Total	**48**	**15**	**24**	**30**	**11**	**7**	**4**	**35**	**43**	**32**

***Source**: BIBM Survey, 2010*

based business. The expansion of the scope of banks' business has certainly helped offset a decline in net interest income from advances. This has an important policy implication for the sequencing of financial liberalization. Likewise the number of non-bank financial institutions have also increased. Additionally, the development of new financial instruments and services, introduction of regulatory framework and institutionalization of savings facilitated economic growth and development. The present capital adequacy of banks is comparable to those at international level. There has been a marked improvement in the asset quality with the percentage of gross non performing assets (NPAs) to gross advances for the banking system reduced from 41.1 percent in 1999 to 7.1 percent in 2011. The reform measures have also resulted in an improvement in the profitability of banks. The Return on Assets (ROA) of the banks rose from 0.0 percent in 2000 to 1.3 percent in 2011. Further, SCBs have steadily improved their cost efficiency (measured by expenditure income ratio) since 2008 even though FCBs and PCBs generally performed better than SCBs and DFIs in terms of profitability and cost efficiency in their initial stage. This suggests that the banking sector reforms since 1990 have exerted increased pressure and, thus had a positive moderate impact on the performance of SCBs and tiny impact on DFIs.

However, it should be stressed that this does not imply that the reforms have had wholly satisfactory results, for the following reasons.

First, the banking system is still found to be geographically fragmented, distorted and noncompetitive even in the post-reform period. The public sector banks (SCBs and DFIs) have remained more or less dominant in the banking sector. Still, SCBs and DFIs hold 32.9% of deposits and 34.6% of advances of the banking sector of Bangladesh.

Second, profitability of SCBs has remained low whereas in the case of DFIs it is less than 1.0 percent and even worse (negative) during the whole period. This is because public sector banks have continued to suffer from poor management skills, overbranching, and overstaffing. Although their NPL ratios have gradually declined, the ratios have remained high. Some public sector banks (mainly DFIs) have been suffering from the shortage of capital, demanding further recapitalization.

Third, SCBs and DFIs enjoy scale of advantages because of their nationwide branch networks (especially compared with PCBs and FCBs, which tend to compete in the retail market). The current approach, therefore, for improving their

performance without rationalizing them may not have further and substantial benefits for the banking sector. As 30 years have passed since the reforms were initiated and SCBs and DFIs have been exposed to the new regulatory environment and pressures, it may be time for the government to take a further step for promoting the quality of managements and assets of banks and for closing unviable branches.

Fourth, the problem of banking system is "systemic", not related to the banking system only. Reforms only in the SCBs, keeping away the DFIs and non-bank financial institutions (NBFIs), may not generate desired results. Therefore, the scope of reforms should also be extended to other organs of the financial system to make it more resilient and stable. In addition, initiatives are required to be taken to address the problems of sick banks and to improve the performance of SCBs and DFIs by way of adopting effective risk management techniques and undertaking efficient monitoring of their credit portfolios. So the Government should give the highest priority to take reform measures for reforming DFIs and NBFIs and liberalizing the whole commercial banking sector, through careful consideration of the various aspects indicated above in the next reform agenda.

Finally, in the current scenario, banks are required for constantly pushing the frontiers of risk management compulsions arising out of increasing competition as well as agency problems between management, owners and other stakeholders. In addition, banks are also required to look at newer avenues to augment revenues, while trimming costs. Consolidation, competition and risk management are no doubt critical to the future of banking but one should believe that governance and financial inclusion would also emerge as the key issues for a country like Bangladesh at this stage of socio economic development.

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Energy Subsidy and Sustainable Development of Bangladesh

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Abstract *Subsidy is a regularly talked economic topic around the world. Energy subsidy, especially in the case of fossil fuels, is regularly practiced around the world. This idea of energy subsidy is taken by different countries due to various reasons among which, the most common is sustainable economic development which allows more investment in the energy sector and increases the use of energy technological and economic development. But, there are some downsides of energy subsidy such as it facilitates wastage of energy and promotes environmental damage. In the case of Bangladesh, a developing country in the South Asian region, it is a must to give subsidy in the energy sector. Even with the advantages it provides, Bangladesh, as a country, which does not have high energy reserve and financially is not very able to import high amount of energy resources, it is pretty harmful for the future. So, for sustainable development, measures should be taken to successfully phase out the subsidies through targeted compensation. In this paper we have discussed the amounts of subsidy provided by the government for different natural resources, how these affect the economy of Bangladesh, and the policy our government should come up with for sustainable development of the country.*

Keywords: *Bangladesh; energy production and consumption; subsidy; economic impact; environmental effect, sustainable development.*

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1. Introduction

Bangladesh, a developing country in the South Asian region, has been facing numerous obstacles regarding energy issues. It has been confronting problems in production and consumption of energy. In Bangladesh, with moderate per capita income, it is tough for the people to pay the international price. So, energy and power is invariably subsidized in Bangladesh to reach the goal of development. This process of subsidizing has both positive and negative consequences.

Though, in an economy like Bangladesh, there is utter need of subsidy in energy and power sector, this subsidizing process hurts the national economy as the government pays a lot for the people. This paper begins with definition of subsidy and its needs and then it focuses on the energy production and energy import situation of Bangladesh, the pricing system, and the present price range along with the subsidy given by the government in energy sector. The merits and demerits of energy subsidy are discussed and its implication for the Bangladesh economy is

analyzed. This paper finally makes recommendations on how the energy subsidy situation should be approached in Bangladesh.

2. Energy Subsidy and Reasons Behind It

2.1 What Is Subsidy

A subsidy is a type of financial support provided to a business or economic sector. Most kind of subsidies are made by the government to producers or distributors in an industry to prevent the decline of that industry as a result of continuous unprofitable operations or an increase in the prices of its products or simply to encourage it to hire more labor (as in the case of a wage subsidy). Examples are subsidies to encourage the sale of exports; subsidies on some foods to keep down the cost of living, especially in urban areas; and subsidies to encourage the expansion of farm production and achieve self-reliance in food production. Subsidies can be regarded as a form of protectionism or trade barrier by making domestic goods and services artificially competitive against imports. Subsidies may distort markets and can impose large economic costs. Financial assistance in the form of a subsidy may come from government, but the term subsidy may also refer to assistance granted by others, such as individuals or non-governmental institutions. [1]

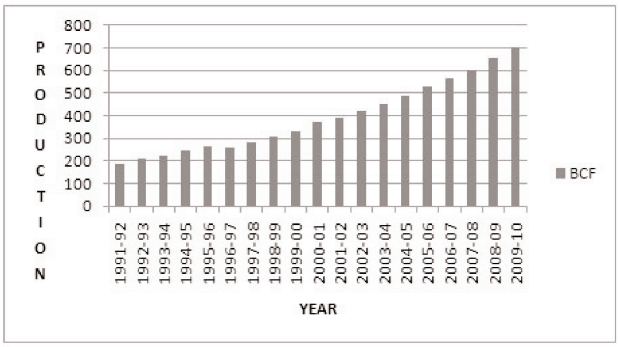
2.2 Energy Subsidy

Energy subsidies are those steps that keep prices for consumers below market levels or for producers above market levels, or reduce costs for consumers and producers. Energy subsidies may be direct cash transfers to producers, consumers or related bodies, as well as indirect support mechanisms, as tax exemptions and rebates, price controls, trade restrictions, and limits on market access. Main arguments for energy subsidies are:

1. Environmental development-subsidies are used to reduce pollution, which includes different emissions, and to fulfill international obligations like Kyoto Protocol.
2. Surety of supply-subsidies are used to guarantee adequate domestic supply by supporting indigenous fuel production in order to deflate import dependency, or supporting overseas activities of national energy companies.
3. Employment and social benefits - subsidies are used to conserve proper employment situation, especially in times of economic transition.
4. Economic benefits-subsidies in the form of reduced prices are used to innervate particular economic sectors or portion of the population. It can work to alleviate poverty and increase access to energy in developing countries. [2]

2.3 Types Of Energy Subsidies

- Direct financial transfers-grants to producers; grants to consumers; low-interest or preferential loans to producers.
- Preferential tax treatments-rebates or exemption on royalties, duties, producer levies and tariffs; tax credit; accelerated depreciation allowances on energy supply equipment.
- Trade restrictions-quota, technical restrictions and trade embargoes.
- Energy-related services provided by government at less than full cost - direct investment in energy infrastructure; public research and development.
- Regulation of the energy sector-demand guarantees and mandated deployment rates; price controls; market-access restrictions; preferential planning consent and controls over access to resources.
- Failure to impose external costs-environmental externality costs; energy security risks and price volatility costs.[2]
- Depletion Allowance-allows a deduction from gross income of up to 27% for the depletion of exhaustible resources (oil, gas, minerals). [3]



Worldwide, fossil fuels are the most heavily subsidized energy sources, totaling an estimated USD 180 to 200 Billion per year. Support to the deployment of low-carbon energy sources currently amounts to an estimated USD 33 Billion each year.

3. Energy Sources in Bangladesh

Among all the energy sources, presently, Bangladesh heavily relies on fossil fuels, especially natural gas, petroleum oil and coal. Bangladesh has not yet gone for large scale usage of renewable energy sources except the hydroelectric power plant in Kaptai or a failed wind turbine power plant project in Kutubdia. But, steps are being taken to popularize renewable energy sources in the form of solar energy or wind energy. But, at present, it is almost all fossil fuels. Here is an overview of the present scenario of the energy resources of Bangladesh:

Table 1 : Natural Gas Reserve In Bangladesh [4] [5]

Natural Gas Reserve	Amount in Bcf
Reserve (Proven + Probable)	28,619.70
Reserve (Recoverable)	20,631.45
Cumulative Gas Production (Till Dec 2010)	9,407.14
Remaining Recoverable Reserve	11,224.31
Daily Gas Production in 2010-2011 (Till April 2011)	2.19

3.1 Natural Gas

Natural Gas is the most important energy source for Bangladesh. From household uses to heavy industries, natural gas is used frequently. But, unplanned use of natural gas in earlier years and highly subsidized price of it has made it difficult to perfectly utilize the full potential of total natural gas reserve in Bangladesh.

Contrary to popular belief, Bangladesh does not have a large reserve of natural gas. According to the latest information found, the natural gas reserve situation of Bangladesh looks like:

So, from the information stated in Table 1, it is clear that Bangladesh has used up almost half of the total reserve of natural gas. With the increasing rate of use of natural gases, it is obvious that Bangladesh will run out of Natural Gas reserve within 2025 if not sooner.

Now, if we look at the present pattern of gas consumption in Bangladesh, it can be seen that the consumers can be divided in to two broad divisions, a) Bulk and b) Non Bulk. In bulk sales, As per latest information from Petrobangla, in 2008-09 fiscal year, for total production of 653.7 Bcf, total bulk sales was 426.682 Bcf where grid power industry consumed 351.85 Bcf and fertilizer industry consumed 74.832 Bcf. The non-bulk sales consumed a total of 217.258 Bcf. Present situation of demand-supply relation of natural gas is not looking positive in Bangladesh. According to the monthly report for the month of august from Petrobangla, there is around 500 Mcf shortage of supply every day. [9]

Fig 1 *Category wise Natural Gas Consumption [8]*

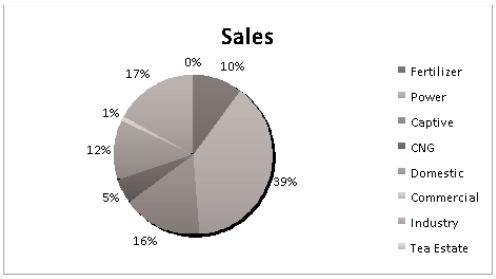


Table 2 Demand Supply Situation as in August 2011

. Consumer	Demand (Mcf)	Supply (Mcf)	Shortage (Mcf)
Power	923	804	
Fertilizer	289	132	
Non-Grid Power	40	37	
Captive	425	340	
CNG	125	114	
Industry	400	323	
Domestic	275	224	
Commercial and others	36	26	
Total	2513	2000	513

3.2 Petroleum Oil

Petroleum oil is the most important fossil fuel around the world. Due to its higher heating value and portability by carrying in fuel tanks, it has become the most prominent fuel for different uses especially transportation sector. Though presently a very large number of vehicles and industries are running in CNG in Bangladesh, petroleum oil is still a very big source of energy. Unlike past, Bangladesh is presently producing enough petrol to serve its own needs. A healthy amount of petroleum products are being produced at different fields under Sylhet gas fields ltd. According to Monthly Production and Sales Statistics of different fields of the company, June 2011, in the month of June 2011, total production of condensate is 1088.83 Barrel from Haripur, Beanibazar and Rashidpur gas fields [11]. But unfortunately, petrol is not as important as diesel as a fuel because bigger machines usually run on diesel engines. The amount of diesel produced from this condensate can barely serve a very low percentage of demand. So, every year, Bangladesh has to import a huge amount of petroleum oil in the form of Crude oil, refined oil and lubricating oil.

Based on a presentation of BPC (Bangladesh Petroleum Corporation), in 2009-10 fiscal year BPC imported a total of 3778041 MT petroleum products. which had a value of 16781.75 crore taka. In 2010-2011 fiscal year (up to April) BPC imported 3851149 MT, which had a value of 20336.79 crore taka [12]. This sudden rise in cost is due to the increase in oil price per barrel around the world. A chart is given below where there is clear indication of world market scenario,

Table 3: Sector wise sale of petroleum products in fiscal year 2010-2011(up to May 2011)

Sector	Agriculture	Industry	Power	Transportation	Domestic & Others	Total
Amount (bbl)	1070632	183852	362350	2362778	482836	4462448
Percentage	23.99	4.12	8.12	52.95	10.82	100.00

It is clear from Table 3 that the transportation sector is the principal consumer of petroleum products. Though a big number of vehicles in Bangladesh now run in CNG, still petroleum oil kept its place due to unavailability of CNG in western and south-western part of Bangladesh. Agriculture industry is the second biggest consumer as they use petroleum oil, mainly diesel to run the irrigation system, tractors etc. Presently, power and industrial consumers do not use petroleum oil due to excessive use of natural gas and coal.

3.3 Coal

Coal is a very important source of energy worldwide. Since the dawn of industrial age, coal has played a very big part as the primary energy source. But, in Bangladesh, coal is not a popular source because it is a new discovery in Bangladesh and due to bureaucratic red tape scenario coal has not yet been used at mass level. Presently, only one mine is on operation in Bangladesh and that is in Barapukuria, Dinajpur. According to the data found in the Centre for Energy Studies, BUET, the total amount of coal reserve in Bangladesh is 3.015 Billion MT of which 1.4 Billion MT is recoverable. [13]

Table 4: Coal deposits in Bangladesh (as of 2009)

Coal Basin/Area	Year of Discovery	Depth of Coal Seam	Cumulative thickness of coal seam	No. of coal seams	Area of coal fields	Reserve in Million MT
Barapukuria	1985	118-509	61	6	6.68	390
Phulbari	1997	141-270	38	5	24	572
Khalashpeer	1989	257-451	40	6	5.75	400
Deeghipara	1995	328-455	61	5	-	600
Jamalgonj	1962	640-1158	64	7	11.7	1053

4. Energy Pricing in Bangladesh and Profit-Loss Scenario of the Government

4.1 Natural Gas Pricing

The production companies like SGFL, BGFCL etc get BDT 7 per Mcf while BAPEX receives BDT 25 per Mcf. Petrobangla pays IOCs significantly more than these companies to buy natural gas. A leading IOC in Bangladesh gets BDT 210 per Mcf. But, in case of selling, the price varies a lot. Based on the latest information from Petrobangla, Power and fertilizer sector has to buy gas at a rate of BDT 79.82 and BDT 72.92 per Mcf, respectively. But, private industry, commercial and CNG consumers have to pay a lot more for per Mcf of gas, which is in range of BDT 150 to 280 [14].

Table 5: Natural Gas Tariff in Bangladesh

Effective Form	Power	Fertilizer	Industry	Commercial	CNG	CAP. POWER
01-01-02	65.98	57.48	143.57	205.30	43.05	104.21
01-09-02	70.00	60.00	140.00	220.00	43.05	100.00
15-02-03	70.00	60.00	140.00	220.00	70.00	100.00
01-07-04	72.45	62.15	145.20	228.50	70.00	100.00
01-09-04	73.91	63.41	148.13	233.12	70.00	103.50
01-01-05	73.91	63.41	148.13	233.12	70.00	105.59
24-04-08	73.91	63.41	148.13	233.12	282.30	105.59
01-08-09	79.82	72.92	165.91	268.09	282.30	118.26

4.2 Petroleum Oil Pricing

Price of a litre of petrol has been fixed at 86 taka (112.34 U.S. cents) a litre, octane at 89 taka, diesel and kerosene at 56 and furnace oil at 55 taka [16].

Table 6: Average Import Price of Petroleum Products (USD per bbl)

Fiscal year	Crude oil	Refined oil	Lube oil
2003-2004	33.41	39.32	67.47
2008-2009	76.87	83.04	99.73
2009-2010	75.66	86.17	142.38
2010-2011	89.63	109.94	177.89

Bangladesh Petroleum Corporation, the country's sole oil importer and distributor, is currently paying 33.44 taka a litre as a subsidy for diesel, 32.49 taka for kerosene, 8.20 taka for octane and 12.96 taka for furnace oil. Due to subsidy, in 2010-2011(up to April) fiscal year, BPC faced loss of 6178.53 crore taka. Until now, BPC had to face a cumulative loss of 28,150.46 crore taka from 1976 [12].

Table 7: Year wise profit-loss of BPC

Fiscal Year	Loss (Crore Tk.)
2004-2005	2317.87
2005-2006	3337.78
2006-2007	2314.63
2007-2008	7050.30
2008-2009	1022.64
2009-2010	2307.56
2010-2011 (Provisional)	6178.53

BPC is now burdened with huge liabilities worth over Taka 60 Billion as it has been incurring substantial amount of losses over the years. Of the total liabilities, the corporation presently owes around Taka 35 Billion to the state owned commercial banks and rest to foreign banks like Islamic Development Bank [17].

4.3 Coal Pricing

Coal is sold pretty cheaply at present. Total revenue earned from the sale of coal for domestic uses up to June 2006 was Taka 75.85 crore. Up to June 2006, a total of 2,09,234.57 metric ton of coal was delivered to Power Development Board at the rate of US Dollar 60.00 Per MT as fixed by the Government. Coal can be loaded on trucks/vehicles by using mecahnised pay loading facility provided at the delivery point by Barapukuria Coal Mining Company Limited. Using of the company's loading facility will cost Taka15.00 (fifteen only) per tonne. Coal can also be loaded on the trucks/vehicles by using different facilities provided by other than Barapukuria Coal Mining Company Limited, which may cost approximately Taka 27.00(twenty seven only) per ton [18].

5. Socio-Economic Impacts of Reduction of Subsidies in Energy Sector

There is a strong impact of reducing subsidy in the energy sector or, in other words, increasing fuel price on the socio-economic situation of a country like Bangladesh. From researches done in South Asian and Southeast Asian region, we can come up to some decisions about what impact reduction of energy subsidy can have in Bangladesh.

- Inflation is certain to take place in this situation, which will consequently hurt investment and economic growth.
- Increase in inflation may lead to restrictive monetary policies and this inflation caused by phasing out subsidy may advancely affect Bangladesh's reports.
- The impact on industrial output of phasing out energy subsidies depends on at least three parameters: (a) the importance of energy inputs in production as represented by their cost shares, (b) the ease with which energy can be substituted by cheaper sources or less usage and (c) the ability of producer to pass the increased cost to consumers.
- Similarly, the impact on households depends on the elasticity of demand, the expenditure share, and the magnitude of the price change and the existing fiscal wedges.
- In Bangladesh, the most affected sector would be the agriculture sector as production cost will rise due to the increase in price of diesel, and the cost of irrigation will rise. This extra cost will eventually raise the price of agricultural products, which primarily include rice, the staple food in Bangladesh, causing problems to general people.
- Income groups differ greatly in their energy-consumption patterns, and

the distributional impact of subsidies is not the same for all types of fuels and electricity [19]

- Phasing out inefficient energy subsidies could have direct positive effects on the economy, particularly in the longer-term, as it would reduce economic distortions.
- Economic agents, both energy producers and consumers, respond to changes in energy prices and adapt in the longer run.
- It is generally expected that if the price of a good goes up, demand goes down and consumers shift to substitute goods.
- In the longer run, the economy adapts to a perceived permanent change in relative prices, creating greater scope for adjustment both on supply and demand sides.
- The direction of technological developments is also influenced by price changes.
- Increase in transportation (shipping) costs can lead to the "neighborhood effect": manufacturers would locate nearer their customers [20].

6. Environmental Impact of Rationalized Energy Pricing

Rationalizing energy pricing benefits the environment in different ways, such as:

With the increase in conventional fuel price, people will tend to use less fuel and try to find more efficient use of energy as cost of living increases with excess the use of fuel. These will result in less fuel burning and thus less CO_2 emission and other pollution. An example of this can be the increased use of public transport as maintaining individual vehicles will become costly. Higher price of fuels will ensure less wastage of energy.

Reduction of subsidy in conventional fuels will attract people to renewable sources of energy such as the use of wind turbines for irrigation, solar power for electricity etc [20].

7. Summary and Policy Recommendations

Energy subsidies are expensive, damage the climate, disproportionately benefit the well-off, and misuse occurs. Their reduction can encourage energy efficiency, increase the attractiveness of renewable energy and allow more resources to flow towards poor people.

Withdrawal of energy subsidy is justified by all means but, as we mentioned earlier, it would cause an increase in prices of all commodities. Given that the revised price regime will generate net positive earning to the government, it has

two options: i) lowering the price marginally and ii) finding better instruments for distributing subsidy to targeted sectors and people. [22]

Agriculture and small industries, which are the most productive sectors of Bangladesh, are going to take the heavy blow. To minimize the impact on output in the agricultural and industrial sectors, government may develop schemes to help producers through a) subsidized supply of diesel for irrigation purposes and b) subsidized fuel price for the small industries or readjustment of VAT for small sized producers.

Subsidies to support renewable and energy-efficient technologies can be an effective way of overcoming market barriers for their development and helping to reduce greenhouse-gas emissions. Our government has already set targets for developing renewable energy resources to meet five percent of the total power demand by 2015 and ten percent by 2020. So to fulfill this target they should start promoting appropriate, efficient and environment friendly use of renewable energy and the prospects of clean energy technologies [23].

Since many countries have already eliminated petroleum product subsidies and reduced losses, energy price reform is not a pipedream anymore. Our government, led by energy and finance ministers, should seize the present opportunity to reduce commercial energy subsidies since the costs of these subsidies far outweigh the benefits. The government should start working on the opportunity to improve natural resource management, encourage energy conservation, reduce environmental pressures, mitigate fiscal burdens and promote economic growth.

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Development of SME Sector in Bangladesh

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Executive Summary

Small and medium enterprises (SMEs) can play a key role in industrial development, employment creation and economic growth in Bangladesh through the development of indigenous skill and technology, promotion of entrepreneurship and innovativeness, enhancing exports, and also building a sound industrial base.

Growth of SMEs is, however, constrained by a number of factors. Lack of utility facilities, for example, electricity, gas and water, frequent changes in the prices as well as shortage of raw materials, inadequate infrastructure, high interest rate on borrowing, high transportation cost, lack of adequate finance, and political unrest are the major constraints to the development of manufacture-based SMEs in the country.

The paper argues that initiatives like developing necessary infrastructure, ensuring utility services, reducing interest rate, and ensuring regular supply of raw materials can change the total scenario.

These initiatives will help the SMEs as well as the broader manufacturing sector to grow, and thereby boost the overall industrial development of the country. SME growth can thus be expected to contribute to the country's economic development and enhance welfare through raising employment and reducing poverty.

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1. Introduction

SMEs play an important role in the country's industrial sector, and thus in its economic development. They provide the largest number of employment and, indeed, constitute the foundation of the private sector. The SME sector is also considered both a thrust sector and a pillar of the country's economic growth.

A well developed SME sector is a pre-requisite to attaining higher growth of large-scale industry and the services sector as well. According to a CIDA report, quoted in the Daily Independent on August 1, 2010, there are about 6 million SMEs in Bangladesh, which contribute about 50 percent of the country's industrial output, employing about 80 percent of its industrial labour force. SMEs are labour intensive and also need less capital. They are also significant contributors to backward linkage to heavy industries. About 60 to 65 percent of SMEs are located outside the metropolitan areas of Dhaka and Chittagong, where business costs are low and which also have easy access to labour and a more conducive physical environment. Therefore, SMEs can grow overtime and contribute to enterprise creation, private entrepreneurship development and employment generation.

While the overall contribution of SMEs to the national economy is easily recognized, opinions differ on the extent of the contribution of this sector. Various categories of SMEs together contribute 80 to 85 percent of industrial employment and 25 percent of total civilian employment. Apart from employment generation, SMEs also contribute significantly to the creation of value added in manufacturing activity. Figures quoted by different sources ADB (2002), WB (2003), Planning Commission (2008) and BIDS (1998) on value added contributions of the SMEs are closely similar, varying between 45-50 percent of the total manufacturing value added.

Despite their pre-eminence, SMEs have not been able to grow to their full potential in the country due to various constraints, such as the lack of medium and long-term credit, limited access to market opportunities, technology, expertise and information, lack of suitable incentives, inefficient and limited outreach of government services, and weak capacity among SME entrepreneurs in managing functional areas of business.

The Government is committed to promoting SMEs as vehicles for improvement in the quality of life, economic growth, and poverty reduction of the common people. To that end, the primary role of the government has been, firstly, that of a facilitator, removing policy obstacles and neutralizing market failures and, secondly, that of providing necessary promotional support. The SME Policy 2010

was formulated to assist in the achievement of Millennium Development Goals (MDGs) and targets. The Government constituted a National Taskforce on SME development to draw up a realistic strategy for promoting rapid growth and vigorous competitiveness among SMEs for accelerating the growth of the economy and reducing poverty in the country. The Government also constituted an SME Advisory Panel and an SME Foundation. Experienced specialists and entrepreneurs of relevance have been working together with the SME Cell of the Ministry of Industries (MOI). In turn, the country's central bank, the Bangladesh Bank (BB), for the first time, released a 'Small and Medium Enterprise (SME) Credit Policies and Programmes' with a disbursement target of around Tk.240 billion for the calendar year 2010. The policy has focused on encouraging more women entrepreneurs in business and investment across the country. The central bank announced to set up a three-tier monitoring system to ensure growth of the SME sector in the country.

Implementation of employment and income generation and poverty reduction programmes and strategies has been a systematic and continuous effort in Bangladesh. Rapid and sustainable growth of SMEs is undoubtedly an important vehicle for accelerating national economic growth, which is an indispensable condition for raising employment and reducing poverty in the economy.

2. Objectives

The general objective of the study is to assess the significance of the promotion of the SME sector in Bangladesh's economy in terms of its contribution to raising employment and income as well as reducing poverty.

The specific objectives of the study are as follows:

- Indication of the increase in capital investment in selected SME sub-sectors in the last 5 years;
- Gather information about how gross output in the selected sub-sectors has changed in the last 5 years;
- Produce evidence of how employment has changed in the selected SME sub-sectors in these 5 years;
- Examine if there is any positive relationship between investment and output/value added in SMEs in the one hand and employment on the other;
- Assess the impact of SME growth on poverty reduction in light of the observed changes in SME workers' income and expenditure on basic needs, including education and health;

- Highlight the prospects of SMEs for (1) increasing the income of the poor through self-employment by using indigenous resources and technology; (2) generating employment through entrepreneurship development; (3) promoting sub-contracting linkages with various types of large and medium scale industries; (4) meeting the local demand for essential commodities; and (5) encouraging production of export-oriented and import-substitute products;
- Identification of the obstacles faced in SME promotion and possible steps to eradicate some of the obstacles in terms of credit facilitation, registration, obtaining license etc.; and
- Suggest strategies to solve the problems, including government's programmes in both public and private sectors.

3. Scope

The study presents an overview of the development of SME Sector in Bangladesh. It also seeks to identify the SME sector's potential as means of raising employment and reducing poverty in the country and suggest measures to be taken in that regard.

4. Methodology

Data have been gathered from both primary and secondary sources. The secondary data contained in available reports, documents and other published materials have been reviewed and analysed. Primary data have been collected by administering two sets of structured questionnaire, one for the employees of SMEs and another for the firms. The respondents were mainly the owners of the SME units and workers of the respective firms.

The sample for the primary data has been so chosen as to cover the major sub-sectors of SMEs in the country. SMEs have been selected through information available from BSCIC/SME foundation, on the basis of such inherent characteristics as lower capital investment, lower capital–output ratio, lower infrastructure requirement, lower consumption of energy, shorter start-up time, and less environmental risk. A total of 20 firms have been selected purposively from different SME sub-sectors in order to collect firm level information.

Different SME sub-sectors have their own business strategies, opportunities, problems and limitations. There are also differences in the level of capital investment of different firms within the same sub-sector, for which reason their business tactics and operations also vary. The 20 firms selected for purpose of this

study belong to 10 sub-sectors, which together are representative of the entire SME sector of the country. Firms have been selected from manufacturing and services sub-sectors that are different in the nature of their operations. The selected firms, their type and number, and percentage distribution in the sample are depicted in Table 1.

Table 1: Distribution of Selected SMEs by type of firm

Sl. #	*Type of Firm*	*Number*	*Percent*
01	Printing	3	15.0
02	RMG	3	15.0
03	Light Engineering	3	15.0
04	Electric Industry	2	10.0
05	Real Estate	2	10.0
06	Telecommunication	1	5.0
07	Plastic Industry	2	10.0
08	Tourism	1	5.0
09	Furniture and fittings	2	10.0
10	Food processing	1	5.0
	Total	***20***	***100.0***

Besides, 85 workers have been selected from the same SME sub-sectors to collect worker level information. Out of these 85, 75 persons are male and 10 are female. As regards the nature of their job, 81 out of the 85 are full time and the rest (4) are part time workers.

5. Definition of SME

In this study, the definition of SME given by Government of Bangladesh in its Industrial Policy 2010 in terms of size of capital and employment of labour has been followed. The definition is given in Table 2.

Table 2: Definition of SME

	Capital	*Manpower*	*Condition*
Manufacturing:			
Small industries Enterprises	Tk 50 lakh to Tk 10 crore	25 to 99 workers	Excluding land and factory building, but including replacement value.
Medium-size industry Enterprise	Tk 10 crore to	100 to 250 workers	Excluding land and factory building, but including replacement value.
Services industry and businesses:			
Small enterprises	Tk 5 lakh to Tk 1 crore	10 to 25 workers	-
Medium enterprises	Tk 1 crore to Tk 15 crore	50 to 100 workers	Excluding land and factory building.

Note: 1 Lakh=0.1 million; 1 Crore=10 million
Source: *GOB, Industrial Policy 2010*

According to the definition, in case of manufacturing, small industries/enterprises are those that have assets worth Tk.50 lakh to Tk.10 crore (excluding land and factory building, but including replacement value) and/or employ 25 to 99 workers. In services industry and business, small enterprises are defined as those that employ 10 to 25 workers and have assets worth Tk.5 lakh to Tk.1 crore. On the other hand, in the manufacturing sector, industry/enterprises are considered as of medium size if they have assets worth Tk.10 crore to Tk.30 crore (excluding land and factory building, but including replacement value) or employ 100 to 250 workers. In services industry and businesses, the medium enterprises are those that employ 50 to 100 workers and have assets worth Tk.1 crore to Tk.15 crore (excluding land and factory building).

5.1 Industrial Policies and SME

Industrial Policies announced so far in Bangladesh since the mid-1980s have been designed to promote industrial growth, driven essentially by the private sector. Integration with the global economy is now high on the government's policy agenda. To that end, a number of changes have been brought in the country's policies, including in the industrial policy, for embracing economic as well as financial integration to achieve targeted growth (MIDAS, 2009).

Before independence, SMEs were seriously neglected and there was no policy support whatsoever. In the First Industrial Policy (1971-1975), SMEs were neither given any incentive nor did they face any threat. All major industries were nationalized following an inward looking policy. SME was defined as an enterprise having maximum investment of Tk.20.5 million. The Second Industrial Policy (1975-1981) did hardly have anything related to the development of the SME sector. There was, however, a planned shift from public to private sector led growth, heading towards a 'free enterprise system'. The Third Industrial Policy (1981-1990) was relatively SME friendly. However, the policy remained only on paper due to no or weak implementation in practice. A greater emphasis was given on 'free enterprise system', privatization, and export oriented industrialization. In this phase, the definition of SME remained the same as in the First Industrial Policy. A modest change in the policy environment was seen during the Fourth Industrial Policy (1991-1995) but it produced some policy induced constraints hindering SME development. Preparedness for globalization, privatization and export oriented industrialization was given a higher priority in the industrial policy. Investment ceiling was extended up to Tk.30 million. Strong emphasis on globalization, privatization and export oriented industrialization continued in the Fifth Industrial Policy (1996-2001) as well, resulting in more policy induced constraints that hindered the development of SMEs.

In the Sixth Industrial Policy in 2002, small industries were defined as enterprises with fixed capital investment of less than Tk.250 million. Medium industries were defined as enterprises with fixed capital investment between Tk.250-500 million. The Seventh Industrial Policy accorded almost the same treatment to SMEs as by its predecessor. In the Eighth Industrial policy in 2004, the SMEs received more attention. The definition of SMEs was clarified following observations by specialists and business chambers. In the policy, SMEs were classified into manufacturing and service providing SMEs. In the manufacturing industry, small enterprise was defined as small if, in current market prices, the replacement cost of plant machinery and other parts/components, fixtures, support utility and associated technical services by way of capitalized costs (of turn key consultancy services, for example), excluding cost of land and building, were up to Tk.15 million. An enterprise was treated as medium if in current market prices replacement cost of plant machinery and other parts/components, fixtures, support utility and associated technical services by way of capitalized costs (such as turn key consultancy services), excluding cost of land and building, were up to Tk.100 million. In non-manufacturing activities (such as trading or other services), an enterprise was treated as small if it had less than 25 workers, in full time equivalents, whereas the enterprise was treated as medium if it had between 25 and 100 employees. The government had formulated a comprehensive industrial Policy in 2005 by putting special emphasis on developing SMEs as a thrust sector for balanced and sustainable industrial development in the country to help deal with the challenges of free market economy and globalization. Almost the same objectives, policy strategies, definitions of SMEs were followed in the subsequent Industrial Policies.

In the 2009 Industrial policy, the SMEs received more attention. In the case of manufacturing activity, small industry included enterprises with either the value (replacement cost) of fixed assets excluding land and building in the range of Tk.0.5 million to Tk.15 million or enterprises having between 10 and 50 workers, and medium industry included enterprises with either the value (replacement cost) of fixed assets excluding land and building in the range of Tk.15 million to Tk.200 million or enterprises having between 50 and150 workers. In the case of non-manufacturing industrial activity, small industry included enterprises with either the value (replacement cost) of fixed assets excluding land and building in the range of Tk.0.5 million to Tk.5 million or enterprises having between 10 and 25 workers, and medium industry included enterprises with either the value (replacement cost) of fixed assets excluding land and building in the range of Tk.5 million to Tk.100 million or enterprises having between 25 and 50 workers. If one

criterion puts an activity in the small category while the other criterion puts it in the medium category, the activity was considered to belong to the medium category.

Industrial Policy 2010 aimed at achieving the MDGs and, above all, reducing unemployment and the proportion of the population afflicted by poverty and hunger to less than a half by 2017 through the adoption of short-, medium- and long-term programmes that help build a modern and vibrant industrial sector. Industrial Policy 2010 also pledged that no effort will be spared in raising the growth rate of the Gross Domestic Product (GDP) to 8 percent by 2013, further to 10 percent between 2017 and 2021, and thereby to elevate Bangladesh to the cherished rank of 'middle-income country'. As in the previous ones, the present industrial policy has given due emphasis on the SME sector and targeted to create employment opportunity for at least one person from each household in order to reduce poverty and unemployment. There is no alternative to providing for a flourishing environment and vigorous development of SMEs in attaining that goal. Recognizing the importance of SMEs, Industrial Policy 2010 has declared the SMEs as a thrust sector, considering the planned and balanced development of these labour-intensive industries as the engine of growth.

5.2 Entrepreneurship in Bangladesh

Entrepreneurship is universally regarded as one of the important determinants of industrial growth. It is one of the indispensable ways to economic self-sufficiency around the world. In a developing country like Bangladesh, where well-paid employment is scarce, entrepreneurship may be the only way that may empower most individuals to rise above the poverty. This problem is particularly severe for women. Society in Bangladesh tends to grant women limited access to material resources, land capital, and education. It is historically true that when half of the country's population cannot be involved in any formal or informal economic activities, the country will not progress further.

Now the time has come when one should emphasize on creating self employment opportunities and on expansion of employment-generating in small and medium business enterprises and at the same time on active involvement of women in the economic development process (MIDAS, 2009).

6. Literature Review

A substantial part of the available literature on Bangladesh's SME sector, some of which are contributed by foreign and national experts, has been reviewed for

purpose of the present study. Some of the notable ones are: Uddin (2008), Chowdhury (2007), Miah (2007), Ahmed (2001), Ahmed (2004), Ahmed (2006), Razzaque (2003), MIDAS (2009), Hallberg (2002), UNECE (2003), World Bank (1998), and Ahmed (2003).

Uddin's study (2008) notes that economic efficiency and overall performance of SMEs especially in developing countries are considerably dependent upon macroeconomic policy environment and specific promotional policies pursued by government. According to Chowdhury (2007), the dominant SME characteristics are their low capital requirements and limited assets, geographical diversity and high mortality, poor knowledge especially on credit, very limited access to formal sources of credit, cash intensity in transactions, very limited record keeping habit, and poor financial disclosure on tax issues. Lenders' high risk perception about them has led to their high borrowing costs.

The study by Miah (2007) identified a number of impediments to SME growth. These are: lack of adequate investment, lack of modern technology, high rate of interest on bank loans, irregular/inadequate supply of power, poor physical infrastructure and high transportation cost, poor information about market opportunities and requirements, inadequate availability of raw materials, lack of skilled technicians and workers, lack of research and development facilities, fierce competition, absence of effective and transparent legal system, difficulties in accessing technology, credit constraints, low access to business services, lack of quality human resources, low awareness, low lobbying capacity, rapid changes in policy environment etc.

Ahmed (2006) considers the lack of timely availability of the required finance a major constraint to the formation and growth of SMEs in Bangladesh. Banks are reluctant to expand their SME credit portfolio because they do not consider SME lending an attractive and profitable undertaking. This is so because SMEs are regarded as high risk borrowers because of their low capitalization, insufficient assets and their inability to comply with collateral requirements of the banks. Administrative costs are also high because close monitoring and supervision of the SME operation becomes necessary.

A study by Micro Industries Development Assistance and Services (MIDAS) reveals that sources of finance are mostly friends and family members in the case of SMEs (MIDAS, 2009). The sources of funds identified in the MIDAS study are: banks (18%), NGOs (17%), informal sectors (41%), family members without interest (20%), and family members with interest (4%). Hallberg (2002) argues that a stable macro-economy, an open trade and investment regime, and a

competitive financial sector are the most essential ingredients for a vibrant private sector. But with the law and order situation below the optimum level, corruption well above the level of acceptance, and unstable political situation, the domestic environment of Bangladesh does not come to any help, rather hinders the growth of SME in this country.

Studies cited in the foregoing indicates that SMEs stimulate private ownership and entrepreneurial skills, are flexible and can adapt quickly to changing market demand and supply situations, generate employment, help diversify economic activity, and make a significant contribution to exports in addition to meeting local demand. Even in the developed market economies SMEs account for a large share in output and employment (UNECE, 2003). Bangladesh has thus far failed to maximize the benefits derived from the SME sector, which needs to play a pivotal role in promoting and sustaining the industrial as well as overall economic growth (Ahmed, 2003). The role and contribution of SMEs differ from industry to industry and from country to country. Similar to other businesses, SMEs face sector-specific problems, which may affect their profitability and growth. In order to cope with the constantly changing business environment, therefore, having a well-versed good business manager is vital to the enterprise. Drawing on the lessons derived from observations on SMEs made in the few studies noted hereinabove, the task at hand of the present researcher is to suggest measures for the development of SMEs in Bangladesh for raising employment, reducing poverty, and ensuring a rapid industrialization of the country.

7. Present Scenario of SME in Bangladesh

Presently, SMEs play a significant role in the economy of Bangladesh. They account for about 45 percent of manufacturing value added, 80 percent of industrial employment, 90 percent of total industrial units, and employ about 25 percent of the total labour force. Their total contribution to export earnings varies between 75 percent and 80 percent. According to ADB, there are about 6 million SMEs and micro enterprises in Bangladesh, which contribute around 25 percent of the GDP (ADB, 2002). About 60 to 65 percent of SMEs are located outside the metropolitan areas of Dhaka and Chittagong. SMEs have easy access to labour in these non-urban areas, where business environment is better than in the congested urban centres and business costs are also low.

Data on the number of SMEs in Bangladesh available from different sources vary widely. For example, a recent DCCI-CIPE study (Economic Policy Paper on Benchmarking of Regional SME Policies: Identification of Policy Intervention

Areas for Bangladesh, 2000) finds a wide variation in the statistics on SMEs supplied by the BSCIC and Bangladesh Planning Commission. The aforementioned study notes that according to BSCIC data, which covers only manufacturing units, there are 55,916 small industries and 5,11,612 cottage industries, excluding handlooms. The number of cottage units shoots up to 6,00,000 units if the handloom sector is included, which indicates the numerical superabundance of small and cottage industries (SCIs) in Bangladesh. According to Bangladesh Planning Commission, on the other hand, the number of medium enterprises (undefined) in the country is around 20,000 and that of SCIs between 1,00,000 - 1,50,000. This wide variation in the BSCIC and Planning Commission estimates of the number of SMEs might be due to at least two reasons: (i) different definitions of the SMEs, and (ii) different coverage of the SME sector.

Whatever the correct number, the SMEs are undoubtedly quite dominant in the industrial structure of Bangladesh, comprising over 90 percent of all industrial units. This numerical dominance of SMEs in Bangladesh's industrial sector is evident in all available sources of statistics (Ahmed, 2001). However, the wide variation in their number as indicated by different sources strongly suggests the need for adopting and using a uniform set of definitions for SMEs by all government agencies to help formulation of pro-active SME promotion policies. As new definitions have been adopted in the Industrial Policy 2010 of the country, it would be necessary and appropriate to harmonize the definitions followed by all relevant institutions, viz., Bangladesh Bureau of Statistics, Finance Division of the Ministry of Finance, Planning Commission, Bangladesh Bank and all financial institutions, Export Promotion Bureau, the Ministry of Commerce, and of course, the Ministry of Industries.

SMEs are labour-intensive and have a low capital base. This twin characteristic of SMEs encourages individual entrepreneurs to invest, mainly in manufacturing products that appeal to the general public but are also significant contributors to backward linkage to heavy industries. The significant increase in SME loans over the last few years indicates that production in SMEs has been on the rise. Total SME loans increased by Tk.15,820.07 crore or 27.89 percent to Tk.72,540.25 crore at the end of June, 2011, as compared to Tk.56,720.18 crore at the end of June, 2010. Category-wise institutional SME loans increased at the end of June, 2011 in specialised banks (+43.46%), private banks (+34.21%), non-bank financial institutions (+46.52%), foreign banks (+10.02%) and state owned banks (+14.80%), as compared to June, 2010. Banks and the NBFIs are currently responding favourably to the government initiatives towards channelling more funds to the SME sector as conduits for raising employment and reducing poverty.

The SME sector is gradually becoming a rising industrial sector in the country and is contributing more and more to exports. SMEs' contribution to national exports through such industries as ready-made garments, jute, and leather is significant, though scarcity of raw materials hinders the ability of SMEs to be export oriented and limits their ability to reach more advanced stages of international business. Cheaper supply of goods and inputs in India, Taiwan, China, Thailand and Korea stimulate SME growth in those countries, raising competition faced by the Bangladesh SMEs, which also suffer local constraints such as shortage of electricity and water, and weak road and highway infrastructure. This sector also faces several common problems like lack of technical know-how, shortage of long-term financial support, lack of skilled workers and marketing links, dearth of knowledge about safety measures, hygiene, environmental pollution etc.

The central bank of Bangladesh, Bangladesh Bank (BB), has given the highest priority to SME sector development and established a new Department named SME & Special Programmes Department in 2009. According to a recent report (Bangladesh Bank, 2011), the Department was mainly created to strengthen the SMEs for alleviating poverty and hunger, ensuring gender equality, empowering women, generating employment, ultimately to achieve the overall economic development of the country. The main activities and steps taken by the Department were:

a) **Road-show:** Department successfully participated in Road show programme from Teknaf to Tetulia in March-April, 2011 for raising awareness.

b) **Target based Lending:** To achieve the target and encourage banks and financial institutions for investment in productive sector, BB instructed target based lending and disburse sector/cluster-wise lending in manufacturing, service sector and women entrepreneurs. BB achieved 138 percent of target in 2010 and announced Tk.62,000 crore target for 2011, of which Tk.6,790 crore was cluster based.

c) **Progress of disbursement in manufacturing and services sector:** As productive sector investment is beneficial for national economy, BB has disbursed 65 percent of total in manufacturing and services, of which 35 percent in manufacturing and 25 percent in services sector in 2010.

d) **Priority to women entrepreneurs for disbursing more credit:** To encourage participation and empowerment of women entrepreneurs, TK.1,805 crore SME loans were disbursed among 13,723 women entrepreneurs in 2010. Moreover, some women friendly policies were adopted. These were: 15 percent of total SME refinance fund to be allocated

for women entrepreneurs; provision of loan facility of up to Tk.25 lakh against personal guarantee; limiting interest rate to a maximum of 10 percent per annum; all types of loan applications of SME women entrepreneurs to be dealt with the highest priority; establishment of 'women entrepreneurs dedicated desk' by Banks and FIs; and ensuring service friendly approach towards women entrepreneurs.

e) **Timely changes in SME credit policy:** Some changes in SME credit policy were made to help small entrepreneurs. These were: refixing the lower limit of small credit to Tk.50 thousands, introducing Rubber Roler system in Rice-Mills, group lending to women entrepreneurs, nominating 'focal officer' by each Bank and Financial Institution, informing 'Board of Directors' of Banks/FIs on SME activities regularly, and forming 'Monitoring Cell' at BB Head Office, offices of BB in different districts and also at Banks and Financial Institutions level.

Fiscal policy support extended to SMEs through such measures as tax holiday, reduction of turnover tax, expansion of the coverage of entrepreneurs' equity fund (EEF) to include SMEs, and reduction of duties on necessary raw materials will have a positive impact on the development of the SMEs. Adoption of these fiscal policy measures will be crucial for promotion of the SME sector, keeping in mind the important role it can play in accelerating economic growth, generating employment and reducing poverty.

8. Survey Results

8.1 Firm Level Information

8.1.1 Distribution of Firms by Experience in Business Operation

Firms, which are much older, have more experience in business operation than the firms that have been in business for fewer number of years. Most of the firms of our sample have been in operation for 11-20 years. Eight (8) out of the 20 selected firms fall in this group and account for 40 percent of the sample (Table 3). Firms that have been in operation for less than 11 years are 7 in number and constitute 35 percent of the sample, while only 5 firms, or 25 percent of the sample, have been in business for more than 20 years.

8.1.2 Initial Investment by Firms

The size of initial investment of a firm depends on the type and nature of the firm. We have excluded the value of land and buildings while calculating the capital

Table 3: Distribution of Firms by the Number of Years in Operation

Sl. #	Type of Firm	Operation of Firm: Less than 11 years		11-20 years		More than 20		Total	
		Numbe	Percent	Numbe	Percent	Numbe	Percent	Numbe	Percent
01	Printing	1	33.3	2	66.7	-	-	3	100.0
02	RMG	2	66.7	1	33.3	-	-	3	100.0
03	Light Engineering	1	33.3	1	33.3	1	33.4	3	100.0
04	Electric Industry	-	-	2	100.0	-	-	2	100.0
05	Real Estate	2	100.0	-	-	-	-	2	100.0
06	Telecommunication	1	100.0	-	-	-	-	1	100.0
07	Plastic Industry	-	-	-	-	2	100.0	2	100.0
08	Tourism	-	-	-	-	1	100.0	1	100.0
09	Furniture and fittings	-	-	2	100.0	-	-	2	100.0
10	Food processing	-	-	-	-	1	100.0	1	100.0
	Total	***7***	***35.0***	***8***	***40.0***	***5***	***25.0***	***20***	***100.0***

investment. Average initial investment by type of firm can be seen in Table 4. The average initial investment of the firms ranged from Tk.20 lakh to Tk.197 lakh. Our study shows that the plastic industry requires the lowest initial average investment, which was Tk.20 lakh, and RMG industry requires the highest initial average investment, which was Tk.197 lakh.

Table 4: Initial Average Investment by Firms

Sl. #	Type of Firm	Initial Average Investment (in lakh Tk.)	
		Number of Firms	Mean
01	Printing	3	38
02	RMG	3	197
03	Light Engineering	3	47
04	Electric Industry	2	70
05	Real Estate	2	40
06	Telecommunication	1	50
07	Plastic Industry	2	20
08	Tourism	1	25
09	Furniture and fittings	2	23
10	Food processing	1	110
	Total	***20***	***67***

8.1.3 Sources of Fund for Initial Investment

Most of the entrepreneurs do not have enough funds of their own to start small and medium sized enterprises. They therefore have to depend on outside sources of fund. Different firms require different level of minimum initial investment. The entrepreneurs used formal and informal sources of fund to start their business. For firms that require lower initial investment, the proportion of own capital is higher than borrowed capital. On the other hand, for firms requiring higher initial investment, the proportion of borrowed capital is much higher than own capital. For example, the RMG industry's initial average investment is Tk.197 lakh of

which 58 percent is met by own funds. On the contrary, tourism industry's initial average investment is Tk.25 lakh, of which 100 percent is met by own source (Table 5). The telecommunication sub-sector appears to be an exception, where initial investment is not very large (Tk.50 lakh), but only 30 percent of its investment came from own funds and the other 70 percent from borrowed funds. The second source of funds for initial average investment was bank loan.

Table 5: Sources of Fund for Initial Investment

Sl. #	Type of Firm	Initial Average Investment (in lakh Tk.)	Initial Average Investment % of			
			Own Capital	Borrowed from Bank/FI	Borrowed from Non-Bank Sources	Acquired from Other
01	Printing	38	87	13	0	0
02	RMG	197	58	42	0	0
03	Light Engineering	47	70	23	7	0
04	Electric Industry	70	68	32	0	0
05	Real Estate	40	95	0	5	0
06	Telecommunication	50	30	60	10	0
07	Plastic Industry	20	88	0	12	0
08	Tourism	25	100	0	0	0
09	Furniture and fittings	23	90	0	10	0
10	Food processing	110	80	20	0	0

8.1.4 Growth of Investment in the Last Five Years

The study shows that average investment of most of the enterprises increased over the last five years, from 2006 to 2010 (Table 6). Though the annual compound growth rate is not very impressive, it indicates that the expansion of SMEs in terms of size over the last five years is positive.

Table 6: Trends in Investment over the Last Five Years

Sl. #	Type of Firm	Average Cumulative Capital (in Lakh Tk.)					Annual Average Growth Rate
		2006	2007	2008	2009	2010	
01	Printing	52	62	74	79	81	11.7
02	RMG	447	447	447	447	563	5.9
03	Light Engineering	313	313	323	360	393	5.8
04	Electric Industry	310	310	330	330	330	1.6
05	Real Estate	68	85	115	160	180	27.5
06	Telecommunication	50	60	73	92	120	24.5
07	Plastic Industry	80	83	85	85	85	1.5
08	Tourism	150	180	180	200	200	7.4
09	Furniture and fittings	73	85	95	95	100	8.2
10	Food processing	2000	2100	2200	2300	2300	3.6

8.1.5 Employment Generated by SMEs in the Last Five Years

As the size of enterprises expands, the employment in the respective sectors is also expected to increase. The average annual growth of employment over the last five years was rather small, only 3.0 percent, but it signals a positive impact of SME growth on raising employment and reducing poverty of the employees of the SMEs. In the 20 sample firms, the number of employees in the firms on average was 71 in 2010, which was 63 in 2006 (Table 7).

Table 7: Growth of Employment in SMEs over the Last Five Years

Sl. #	Type of Firm	Number of Employees in Average					Annual Average Growth Rate
		2006	2007	2008	2009	2010	
01	Printing	19	22	24	24	26	8.1
02	RMG	150	122	124	122	160	1.6
03	Light Engineering	64	41	46	53	54	(-) 4.1
04	Electric Industry	48	48	53	55	56	3.9
05	Real Estate	12	15	18	23	25	20.1
06	Telecommunication	13	20	27	36	42	34.1
07	Plastic Industry	25	25	30	33	33	7.2
08	Tourism	24	26	28	30	30	5.7
09	Furniture and fittings	51	55	65	65	72	9.0
10	Food processing	250	250	250	250	250	0.0
Average number of employees		***63***	***57***	***61***	***63***	***71***	***3.0***

About the employment situation, 19 respondent firms out of 20 replied that employment increased in the respective SMEs over the last 5 years (Table 8).

Table 8: Number of Firms in Which Employment has Increased over the Last 5 ears

Employment Increased over the Last 5 Years	Number of Firm	Percent
Yes	19	95.0
No	1	5.0
Total	***20***	***100.0***

8.1.6 Annual Average Sale of SME Products during the Last Five Years

Annual average sale of SME products was Tk.275 lakh in 2006, which increased to Tk.1,009 lakh in 2010 at an impressive annual average rate of 38.4 percent (Table 9). In particular, the sale of products of telecommunications and food processing has increased significantly at annual average growth rates of 55.4 percent and 75.7 percent, respectively, over the last five years.

8.1.7 Net Return of SME Firms during the Last Five Years

The overall net return of all firms has increased by a paltry 4 percent over the five year period between 2006 and 2010 (Table 10). This means that the firms' net

Table 9: Annual Sale of Products over the Last Five Years

Sl. #	Type of Firm	Annual Average Sales (in Lakh Taka)					Annual Average Growth Rate
		2006	2007	2008	2009	2010	
01	Printing	45	51	56	63	65	9.6
02	RMG	211	208	199	189	286	7.9
03	Light Engineering	530	47	57	310	395	(-) 7.1
04	Electric Industry	134	134	148	154	155	3.7
05	Real Estate	82	101	119	119	125	11.1
06	Telecommunication	1152	1920	2880	4440	6720	55.4
07	Plastic Industry	75	80	92	101	101	7.7
08	Tourism	129	133	144	160	168	6.8
09	Furniture and fittings	110	111	137	138	145	7.1
10	Food processing	1060	1050	1050	9900	10000	75.7
	All Firms	***275***	***254***	***313***	***860***	***1009***	***38.4***

return has increased at an annual compound rate of just 1 percent during the survey period.

Table 10 : Trends of Annual Average Net Return of SME Firms over the Last Five Years

Sl. #	Type of Firm	Annual Average Net Return (in Lakh Taka)					Annual Average Growth Rate
		2006	2007	2008	2009	2010	
01	Printing	9	11	13	14	15	13.6
02	RMG	39	34	24	20	49	5.9
03	Light Engineering	107	11	14	61	78	(-) 7.6
04	Electric Industry	26	26	31	33	33	6.1
05	Real Estate	15	24	34	39	35	23.6
06	Telecommunication	10	16	23	36	54	52.4
07	Plastic Industry	13	14	16	18	18	8.5
08	Tourism	11	13	16	22	24	21.5
09	Furniture and fittings	11	12	17	17	19	14.6
10	Food processing	360	350	350	300	300	(-) 4.5
	All Firms	***49***	***36***	***38***	***43***	***51***	***1.0***

8.1.8 Annual Average Expenditure of SMEs during the Last Five Years

As annual average sale of products has increased and net returns have remained positive, the annual average expenses of all firms, with the exception of light engineering and food processing, have increased over the last five years (Table 11). The annual compound growth rate of expenses during these years is 9.1 percent, which is an indication of the growing ability of entrepreneurs to spend on basic needs and essentials.

Table 11: Annual Average Expenses of SMEs over the Last Five Years

Sl. #	*Type of Firm*	*Annual Average Expenses (in Lakh Taka)*					*Annual Average Growth Rate*
		2006	*2007*	*2008*	*2009*	*2010*	
01	Printing	36	40	43	49	50	8.6
02	RMG	171	173	175	169	233	8.0
03	Light Engineering	423	36	44	249	317	(-) 7.0
04	Electric Industry	108	108	118	122	122	3.1
05	Real Estate	68	77	85	80	90	7.3
06	Telecommunication	1142	1904	2857	4404	6666	55.4
07	Plastic Industry	62	66	76	83	83	7.6
08	Tourism	118	120	128	138	144	5.1
09	Furniture and fittings	99	99	120	121	126	6.2
10	Food processing	9700	9700	9700	9600	9700	0.0
	All Firms	***676***	***691***	***749***	***818***	***958***	***9.1***

8.1.9 Re-investment of Net Returns by SME Firms

The study shows that among the ten types of firms, the printing firms re-invested their net return in all five years but telecommunication, plastics industry, tourism and food processing industry did not re-invest any of their net returns at all (Table 12).

Table 12: Re-investment of Net Returns of SME

Sl. #	Type of Firm	Average Re-investment as % of Net Return				
		2006	2007	2008	2009	2010
01	Printing	12	45	3	40	10
02	RMG	0	0	0	0	33
03	Light Engineering	0	0	33	0	0
04	Electric Industry	0	40	0	0	0
05	Real Estate	0	50	50	33	40
06	Telecommunication	0	0	0	0	0
07	Plastic Industry	0	0	0	0	0
08	Tourism	0	0	0	0	0
09	Furniture and fittings	30	40	25	0	38
10	Food processing	0	0	0	0	0

8.1.10 Starting Own Business by SME Employees

We have asked all the 20 respondent firms of all 10 types whether any of their employees started their own business during the last 5 years. From their reply, we found that only 3 respondents, or 15 percent of all, have started their own business and these were: furniture shop, light engineering workshop, and tourism industry (Table 13 and Table 14).

Table 13: Number of Firms Whose Employees Have or Have Not Started Own Business

Whether Any Employee Started Own Business	Number of Firm	Percent
Yes	3	15.0
No	17	85.0
Total	*20*	*100.0*

Table 14: The Type of Business the SME Employees Have Started

Type of Business Started by Employees	Number of Firm	Percent
Furniture Shop	1	33.3
Light Engineering Workshop	1	33.3
Tourism Industry	1	33.4
Total	*3*	*100.0*

8.1.11 Sub-contracting Linkages

Regarding sub-contracting linkages of SME firms, only 10 percent or 2 respondents out of 20 said that they have sub-contracting linkages with other firms (Table 15) and these two respondents are from RMG industry. The reasons

Table 15: Sub-contracting Linkages of SME Firms with any Other Enterprises

Sub-contracting Linkage with Other Firm	Number of Firm	Percent
Yes	2	10.0
No	18	90.0
Total	*20*	*100.0*

behind the sub-contracts were: the subcontractors can start the work at short notice, can complete the work on time and can utilize their resources properly.

Table 16: Meeting the Local Market Demand

Sl. #	Type of Firm	Current production and market demand almost same		Production falling short of local market demand		Production Excessds local demand		Total	
		Numbe	Percent	Numbe	Percent	Numbe	Perc	Numbe	Percent
01	Printing	2	66.7	-	-	1	33.3	3	100.0
02	RMG	3	100.0	-	-	-	-	3	100.0
03	Light Engineering	2	66.7	-	-	1	33.3	3	100.0
04	Electric Industry	1	50.0	-	-	1	50.0	2	100.0
05	Real Estate	1	50.0	1	50.0	-	-	2	100.0
06	Telecommunication	-	-	1	100.0	-	-	1	100.0
07	Plastic Industry	-	-	-	-	2	100.	2	100.0
08	Tourism	-	-	-	-	1	100.	1	100.0
09	Furniture and fittings	1	50.0	-	-	1	50.0	2	100.0
10	Food processing	-	-	-	-	1	100.	1	100.0
	Total	*10*	*50.0*	*2*	*10.0*	*8*	*40.0*	*20*	*100.0*

8.1.12 Meeting the Local Market Demand

Regarding the SME's ability to meet local market demand with current production of SME firms, the survey reveals that half of the respondents, i.e., 10 respondents, have not faced any problem to sell their products in the local market as demand is there. These firms have the ability to meet the local market demand. Also, 8 respondents or 40 percent of total mentioned that their production exceeds local market demand but only 2 respondents replied that they have produced much less than the prevailing demand for their products (Table 16).

8.1.13 Trade Orientation of SMEs

Regarding the trade orientation of SME firms, most of the firms i.e., 17 out of 20 firms were found to be import-substituting. Only 3 firms were found to be export-oriented (Table 17).

Table 17: Firms' Trade Orientation: Export-oriented or Import-substituting

Sl. #	Type of Firm	Products were				Total	
		Export-oriented		Import-substituting			
		Number	Percent	Number	Percent	Numbe	Percent
01	Printing	-	-	3	100.0	3	100.0
02	RMG	1	33.0	2	67.0	3	100.0
03	Light Engineering	1	33.0	2	67.0	3	100.0
04	Electric Industry	-	-	2	100.0	2	100.0
05	Real Estate	-	-	2	100.0	2	100.0
06	Telecommunication	-	-	1	100.0	1	100.0
07	Plastic Industry	1	50.0	1	50.0	2	100.0
08	Tourism	-	-	1	100.0	1	100.0
09	Furniture and fittings	-	-	2	100.0	2	100.0
10	Food processing	-	-	1	100.0	1	100.0
	Total	*3*	*15.0*	*17*	*85.0*	*20*	*100.0*

8.1.14 Obstacles Faced in SME Promotion

For smooth running of the SME activities and promotion of the firms, the respondents faced various problems and obstacles. The survey responses indicate that firms faced obstacles of certain types to promote their own business. The responses also show obstacles that hinder the growth of particular SME sectors. These obstacles are related to credit facilitation, registration, obtaining license etc.

a) Own business: The respondents faced some obstacles to promote their own businesses (Table 18). The top five obstacles, ranked by the respondents in order of their importance were: high price of raw materials that leads to high production cost, serious power crisis, lack of financial resources, lack of skilled/highly skilled worker, and increased number of competitors.

Table 18: Obstacles Faced by Owner in Her/His Own Business

Obstacles	*Responses reported as*		
	1st problem	*2nd problem*	*3rd Problem*
High price of raw materials that leads to high production cost	8	2	6
Serious power crisis	3	2	3
Lack of financial resources	3	-	1
Lack of skilled/highly skilled worker	2	3	4
More competitors in this business	1	1	1
RAJUK (govt. agency) regulation on leaving 40% open space	1	-	-
Lack of govt. planning for tourism	1	-	-
Lack of workers	-	3	1
Environment related problems	-	1	2
Difficult to get approval from different departments	-	1	1
High labour wage	-	1	2
Malpractice done by the processors and suppliers	-	1	-
Easy availability of foreign product in local market	-	1	-
Political unrest	-	1	-
Workers change his/her job frequently	-	1	-
Lack of management knowledge	-	-	3
Water logged due to poor drainage system	-	-	1
Severe road traffic	-	-	1
Govt. are not providing utility connections to new apartments	-	-	1

b) ***Particular SME sector:*** The respondents faced some obstacles to promote a particular SME sector though these obstacles and ranking were almost the same as they faced in their own firms (Table 19). As the respondents mentioned and ranked, the top six obstacles were: high price of raw materials that leads to high

Table 19: Obstacles Faced by Particular SME Sector

Obstacles	*Responses reported as*		
	1st problem	*2nd problem*	*3rd Problem*
High price of raw materials that leads to high production cost	7	4	5
Serious power crisis	3	2	3
Lack of skilled/highly skilled worker	2	3	4
Lack of financial resources	2	-	1
Environment related problems	1	-	3
More competitors in the sector	1	1	1
RAJUK (govt. agency) regulation on leaving 40% open space	1	-	-
Capital remain blocked for 100% bank guarantee	1	-	-
Lack of govt. planning for tourism for tourism sector	1	-	-
Lack of workers	-	3	1
Difficult to get approval from different departments	-	1	1
Workers change his/her job frequently	-	1	-
Malpractice done by the processors and suppliers	-	1	-
Easy availability of foreign product in local market	-	1	-
Political unrest	-	1	-
Lack of management knowledge	-	-	3
High labour wage	-	-	3
Govt. are not providing utility connections to new apartments	-	-	1
Water logged due to poor drainage system	-	-	1
Severe road traffic	-	-	1

production cost, serious power crisis, lack of skilled/highly skilled worker, lack of financial resources, environment related problems, and the growing number of competitors.

8.1.15 Measures Suggested by Entrepreneurs to Boost SME Growth

In their responses, the SME entrepreneurs stressed the need for addressing the problems and obstacles mentioned in the foregoing (Tables 18 and 19, Section 8.1.14) and suggested several measures for promoting the growth of SMEs. The suggested measures are indicated in Table 20.

Table 20: Measures Suggested by Entrepreneurs to Promote SME Growth

Measures	*Number of responses*
Training should be imparted to increase management knowledge and other skills	8
Availability of power should be ensured	7
Import of foreign electrical and plastic product should be banned	3
Complex approval process from different agencies should be eased	2
Tourism and shrimp policy should be announced soon	2
Product quality should be ensured	1
Import tax should be reduced on raw materials	1
Industrial park should be established	1
RAJUK (government agency) regulation on leaving 40% open space should be withdrawn	1
Government should provide utility connection soon	1
Drainage system should be developed to remove water logging	1

Table 21: Obstacles to Access to Finance by SMEs

Obstacles	*Responses reported as*		
	1st problem	*2nd problem*	*3rd Problem*
High lending rate	8	4	7
Complex procedure to obtain a loan	6	7	1
No collateral no loan from bank	2	3	4
Tax is high	2	2	1
Bank donot provide loan against project	1	-	-
Terms and conditions are not suitable for finance	-	1	2
Lack of management knowledge	-	1	2
Land registration cost is high	-	-	1
Delay payment of LC by the bank	-	-	1
More time required to get a loan	-	-	1

8.1.16 Causes of Inadequate Access to Finance and Suggested Remedies

In the survey, the respondent firms cited a long list of obstacles to access to finance by SMEs and suggested several measures to remove these obstacles. The obstacles cited and measures suggested in the responses can be seen in Table 21 and Table 22.

Table 22: Measures Suggested by Entrepreneurs to Improve SMEs' Access to Finance

Measures	*Number of responses*
Lending rate should be reduced	19
Procedure to get loan should be smooth and simple	14
Banks should allow loan without collateral	4
Tax should be reduced*	3
Short term loan should be given within shortest possible time	1
Liquidity problem of banks should be solved	1
Tax benefit should be given to light engineering industry*	1

Note: *=No explanation given as to how tax reduction or tax benefits would improve credit access

8.2 Worker Level Information

8.2.1 Workers' Compensation Package: Salary and other Benefits

Interviews of 85 workers selected from 9 different types of firm reveal that the average monthly salary, including all benefits, of all the 85 workers was Tk.9,533 in 2010. Per capita income of these workers was Tk.5,833 in 2006. During this period, the workers' monthly income increased by an annual compound rate of 13 percent. Workers' starting salary in the 9 types of firm on average was Tk.4,485 per month even though they did not start work in the same year. Among all the 9 types of firm, average monthly salary of RMG workers increased the most during this period (by an annual average of 15.78 percent) and the lowest was tourism,

Table 23: Average Monthly Salary of Workers (including all benefits) by Type of Firm

Sl. #	*Type of Firm*	*Starting Salary (Tk.)*		*Salary in 2006 (Tk.)*		*Present (2010) Salary (Tk.)*	
		Number of Respondent	*Mean*	*Number of Respondent*	*Mean*	*Number of Respondent*	*Mean*
01	Printing	20	3865.00	20	4520.00	20	8025.00 (15.43)
02	RMG	15	4346.67	15	4926.67	15	8853.33 (15.78)
03	Light Engineering	5	3800.00	5	5700.00	5	8400.00 (10.18)
04	Electric Industry	5	3700.00	5	5200.00	5	7600.00 (9.95)
05	Real Estate	10	6020.00	10	7450.00	10	13300.00 (15.59)
06	Telecommunication	5	5100.00	5	5600.00	5	9200.00 (13.21)
07	Plastic Industry	10	5450.00	10	6400.00	10	9450.00 (10.23)
08	Tourism	5	3300.00	5	9600.00	5	14000.00 (9.89)
09	Furniture and fittings	10	4450.00	10	6250.00	10	9350.00 (10.59)
	Total	***85***	***4484.71***	***85***	***5832.94***	***85***	***9532.94 (13.07)***

Note: Figures in parentheses in the last column indicate annual compound growth rate between 2006 and 2010

which witnessed 9.89 percent growth per annum (Table 23). The rate of average annual growth of salary of all workers was 13.07 percent.

8.2.2 Workers' Expenditure Per Month in 2006 and 2010

We can see from Table 24 that worker's average monthly expenditure on basic needs, including savings, has increased significantly, at an annual compound rate of 12.60 percent between 2006 and 2010. From these data, one can infer that workers' living conditions have improved and that the incidence of poverty has also come down correspondingly.

Table 24: Average Monthly Expenditure

Sl. #	*Expenditure Head*	*Average Monthly Expenditure in 2006*		*Average Monthly Expenditure in 2010*	
		Number of Respondent	*Mean*	*Number of Respondent*	*Mean*
1	2	3	4	5	6
01	Food	85	2247.06	85	3356.47 (10.55)
02	Clothing	85	209.41	85	352.35 (13.89)
03	Housing	85	2307.06	85	3449.41 (10.58)
04	Health	85	85.88	85	146.47 (14.28)
05	Education	85	256.47	85	640.00 (25.69)
06	Others	85	406.47	85	742.94 (16.27)
07	Savings	85	328.82	85	787.65 (24.41)
Total expenditure including savings		***85***	***5762.35***	***85***	***9263.53 (12.60)***

Note: Figures in parentheses in column 6 indicate annual compound growth rate between 2006 and 2010

9. Problems for SME Development

A dynamic and vibrant SME sector is not a luxury but a dire necessity. As the economy already faces a huge challenge to absorb some two million people entering the labour force annually, exports and job oriented manufacturing, especially the SME sector, must hold the key to national development over the next quarter century or so (World Bank, 1998). However, Razzaque (2003) argues that factors that pose serious problems/constraints to SME development are: poor product, quality and standards, weak marketing, paucity of investment and working capital, shortage of skilled workers, lack of entrepreneurship and management skills, poor conditions of physical infrastructure, rising of transport costs, inconsistent trade policy and incentives, information gap, weak legal and

regulatory framework and an unsound domestic environment. Ahmed (2004) suggests that it is necessary to reform the Government's industrial policy and technology policy to outline the Government's measures to support SMEs in technological upgradation.

The survey results indicate that the SME sector faces a lot of problems in Bangladesh which, inter alia, are the absence of adequate skilled manpower and modern technology, poor physical infrastructure, unfavorable geographical conditions, resources scarcity i.e., scarcity of raw materials, difficulty in exporting SME products etc., financial constraints, lack of information, lack of quality assurance, limited marketing capability and resources, lack of marketing opportunities, illegal imports, lack of research and development facilities, lack of participation of women entrepreneurs, lack of entrepreneurship skills, entrepreneurs' conservative attitude towards taking risk and lack of vision, weak law and order situation, poor capacity to make and implement plans, all of which hinder the growth of SME in Bangladesh.

10. Government and Non-government Programmes for SME Development

The government and the non-government organizations have initiated various programmes for the SME development in Bangladesh. As various types of industries and business enterprises have grown in the SME sector, the government has given priority to the promotion of this sector for expanding industrial production and boosting the country's economic development. Special emphasis has been given to the growth of women's entrepreneurship in SME and there are a variety of inducements to attract women in business. Initiating with the SME Task Force and later with the SME Advisory Panel, the SME Foundation was formed by the government and has been in operation since 2006 with specific objectives to look after policy, drawing up a reliable strategy for SMEs, and conducting country-wise study (MIDAS, 2009).

SME Foundation is a non-profit organization mandated to help growth, expansion and overall development of SMEs in Bangladesh. Over the years, the SME Foundation has been working in line with the government policy of reducing poverty through creating employment with the help of industrialization based on modern technologies. In particular, the Foundation is working on policy advocacy, capacity building of entrepreneurs, facilitating and financing, women entrepreneurship development, marketing management and expansion, creation of SME entrepreneurs, identification of SME sub-sectors, pre-and post-investment

counseling, quality certification for standardized products, SME Web portal development and Helpline Centre.

Among the non-governmental organizations (NGOs) involved with the SME development in Bangladesh are the related trade bodies, including the Chambers and the Associations, Training Institutes, private banks and financial institutions, and various forms of NGOs especially working for raising employment and reducing poverty.

11. Conclusions and Recommendations

11.1 Conclusions

SMEs can act as a vital player in a country's accelerated industrialization and economic growth, employment generation and reducing poverty. Government of Bangladesh has highlighted the importance of SME in the Industrial Policy 2010. SME has been identified by the Ministry of Industries as a 'thrust sector'. As the SME sector is labour intensive, it can create more employment opportunities; for this reason government has recognized SME as a poverty reduction tool. SME can also foster the development of entrepreneurial skills and innovation. Along with poverty reduction, SME can reduce the urban migration, increase cash flow in rural areas, and thereby enhance the standard of living of the rural people.

Notwithstanding its importance, the performance of SMEs in Bangladesh has been significantly below the performance at the international level. Although Government of Bangladesh has taken some initiatives to ensure the growth of SME, those steps are not enough. Bangladesh government should give more focused attention on some areas, such as, arrangement of finance, provision of infrastructure facilities, framing appropriate legal framework, establishing a national quality policy etc. We are quite optimistic that if these suggestions are implemented, the growth of SME sector in Bangladesh will accelerate.

11.2 Recommendations

In order to remedy the problems faced by SMEs, the study recommends the following:

a) A uniform definition of SME has to be developed for the proper implementation of all SME programmes. Bangladesh Bank, Bangladesh Bureau of Statistics, and SME Foundation have different definitions of SMEs. Government may take necessary initiatives to make it uniform.

b) Development of infrastructure is essential for the optimum growth of SME. So, the government needs to take appropriate steps for the infrastructure development of Bangladesh.

c) Government must have to take adequate measures to ensure the uninterrupted supply of raw materials for SME.

d) Government and financial institutions should provide adequate finance for modernization and technological advancement of SME.

e) Government, financial institutions and Non Government Organizations (NGOs) may take necessary steps to ensure uninterrupted financial support to the prospective SMEs in Bangladesh.

f) Government needs to take appropriate measures to fix the minimum salary/wages of the employees of SME.

g) Government should take the initiative to develop web pages exclusively for SME and an integrated SME database. This would reduce the barriers to SME access to global market.

h) In order to encourage women entrepreneurship, government may involve women entrepreneurs in policy formulation and implementation, arrange funds for women entrepreneurs, provide necessary training to women entrepreneurs in urban and rural area of Bangladesh.

i) Government through SME foundation may devise appropriate marketing tools to popularize the products of SME.

j) For minimizing red tape and accelerating the growth of SME, government may provide one roof service under the SME foundation.

k) Appropriate legal framework is necessary to ensure the development of SME of Bangladesh.

l) In this era of intense competition, continuous planning and quality improvement are essential prerequisites for the survival of SMEs. In order to improve quality, SMEs can follow the 'Just in Time (JIT)' philosophy and use 'Total Quality Management (TQM)' and can ensure the improvement of quality and productivity at a time.

m) Government should establish a credible certification authority especially for SMEs, so that the sector can obtain a technical evaluation of the quality of their products within the shortest possible time. The certification by the authority should be acceptable world wide.

Government may also provide assistance to SMEs during the certification process and promote the importance of product certification for international acceptance.

n) Research and Development (R&D) is must for the development and growth of SME. So, government must have to invest in R&D for ensuring the intensification of SME of Bangladesh.

0) Restriction may be temporarily imposed on the import of substitute SME products, which are domestically produced in Bangladesh.

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Recent Changes in Employment Status of the Youth Labour Force of Bangladesh

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Abstract *The study investigates the changes of employment status of the Youth Labour Force (YLF) of Bangladesh over the period 1999/2000-2010. It discusses the changing trends in the number of YLF, number of students among the youths, number of no schooling and educated persons in YLF, their growth rates, and the dynamics of Youth Labour Force Participation Rate (YLFPR) over the period. It analyses changes in the sectoral and occupational status of employment of the male and female YLF. It identifies the changes in the status of employment of the YLF over time (1999/2000 – 2010) as self employed, employer, employee, unpaid family helper, day labourers and others. It depicts unemployment rates among the educated YLF, identifies constraints to employment generation for the YLF and suggests several paths to eliminate youth unemployment, which would decrease the incidence of poverty among the youths and achieve higher economic growth in Bangladesh.*

Introduction

During the first decade of the twenty-first century, Bangladesh achieved considerable success in accelerating economic growth and social development, and in reducing poverty. Current development agenda of the 6th Five Year Plan (FY2011-FY2015) includes further acceleration of economic growth, faster pace of poverty reduction through income generation, improvement of the living standards of its millions of impoverished citizens. Among different factors, employment is most important for income generation, poverty reduction,

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improvement of living standard, empowerment of labour force and economic growth of the country.

The youths are the most energetic citizens of any country. Reports on Labour Force Survey (LFS) of Bangladesh define Youth Labour Force (YLF) as those belonging to the age group of 15-29 years. In 1999/2000 approximately 36% of the total labour force of Bangladesh was YLF, which increased to 37% in 2010. In 1999/2000 about 88.92% of the YLF was employed, which increased to 92.55% in 2010 and the unemployment of the YLF was 11.08% and 7.45% in 1999/2000 and 2010, respectively. The modest rate of youth unemployment "hides the true employment challenge in Bangladesh" (GED, Planning Commission, 2011, part- 1, p. 15) and of "disguised unemployment" of the youths "characterized by the concentration of a large number of workers in low hours, low productivity and low income jobs" (Ibid, p.15). For this reason the document of the 6th Five Year Plan (FY2011-FY2015) declares that "the unemployment rate among the young population in Bangladesh is higher than that in India and Vietnam". (Ibid, p. 15) The planners of the 6th Five Year Plan honestly recognized that "limited data available from the Labour Force Survey (LFS) and the census data and reports compiled by the Bangladesh Bureau of Statistics (BBS) are inadequate and often inconsistent and noncomparable overtime" (Ibid, p. 41), for which reason the actual ratio of comparable disguised unemployment of the YLF of Bangladesh remained unresolved in recent research works. According to BBS data in the LFS-2010, considering all youths working less than 35 hours per week, including youths working less than 15 hours per week, the percentage of disguised unemployment/underemployment was 34.26% of the YLF. If one adds youth unemployment and disguised youth unemployment then it shows higher rates of unemployment among the YLF of Bangladesh. Excluding this, recent data published by the BBS demonstrate multidimensional obstacles of employment of the YLF. But to integrate the YLF of Bangladesh to its growing economy and in finding for them "good jobs" with high productivity and high income it is necessary to create employment friendly climate. For this reason the objective of the present study is to analyse recent changes in the employment status of the YLF of Bangladesh. In view of that the author analysed the dynamics of YLF growth over the first decade of twenty first century, the growth of educated YLF, the dynamics of youth labour force participation rate (YLFPR), distribution of YLF by major industries, occupations and status of their employment. Problems of educated youth's unemployment are discussed elaborately, and finally conclusions are drawn on the study.

Methodology

The study is based on secondary data over the period 1999/2000-2010, published research works of different authors, publications of Ministry of Planning and Ministry of Finance and research publications of Bangladesh Economic Association (BEA), Bangladesh Institute of Development Studies (BIDS) and foreign research organisations. Tabular form analyses were resorted to in addressing the research issues. Logical analyses of the research work is supported by both quantitative and qualitative information.

Magnitude of the youth labour force in Bangladesh

The population of Bangladesh is increasing despite falling fertility rates. In 1999/2000 the total population of Bangladesh was 127.5 million, which rose to 137.3 million in 2005/06 and 148.7 million in 2010. It is evident from the statistics of table-1 that the working age population of Bangladesh has been increasing more rapidly than the total population. Every year in an average 2.1 million people are entering the labour force. Analysis shows that the ratio of working age population to total population was 58.20 in 1999/2000, 60.57% in 2002/2003, 61.62% in 2005/2006 and 64.29% in 2010. It means that the ratio of working age population is rising steadily due to the impressive progress made by Bangladesh in fertility reduction. So the dependency ratio is decreasing in the country and there are more people who can contribute productively to the growth of Bangladesh. This demographic dividend needs to be cashed in Bangladesh. Analysis indicates that youth population as percentage of total population and youth labour force as percentage of total labour force are increasing gradually. Increasing life expectancy at birth and lower child mortality rate have contributed to the rapid population growth of Bangladesh. These youths who are students, or engaged in household works and other activities are not included in youth labour force. Their number is increasing gradually.

Analysis of Labour Force Surveys (LFS) from 1999/2000 to 2010 shows that the number of students among the youths, which are not included in labour force, are increasing. Though a major weakness of the labour force of Bangladesh is their very low literacy rate, their increasing number as students indicates a steadily increasing number of the literate youth labour force. On the other hand the increasing number of youths in the labour force alarms the policy makers that every year the labour market must absorb a new wave of young entrants.

Table 1: Trends of youth labour force in Bangladesh, 1999/2000-2010

Period	Total Population (in million)	Working age population (in million) 15 years aged	Total labour force (in million)	Total youth population (in million)	Total youth labour force (in million)	Literate youth labour force (in million)	Youths Not included in youth labour force (in million)	Youth population as % of total population	Youth labour force as % of total labour force
1999/2000	127.5	74.2	40.7	30.6	14.5	8.2	16.1	24.0	35.6
2002/2003	133.4	80.8	46.3	35.3	19.0	7.8	16.3	26.5	41.0
2005/2006	137.3	84.6	49.5	34.3	17.8	11.0	16.5	25.0	36.0
2010	148.7	95.6	56.7	39.3	20.9	14.5	18.4	26.4	36.9

Source: *Compiled and calculated from BBS(2002), pp. 19, 21, 71, 75; BBS(2004), pp. 27, 29, 69, 74; BBS(2008), pp. 30, 32, 77, 82. BBS (2011b), pp. 33, 34, 82, 87.*

Educated Youth and Youth Labour Force Participation Rate (YLFPR)

It is evident from Bangladesh labour force surveys that in 1999/2000 about 14.5 million youth labour were economically active, of which 56.6% were literate. Among the economically active male and female youths, literacy rate was approximately 60% and 47%, respectively. Report on labour force survey 2010 shows that the number of economically active youths were 20.9 million, of which 69.4% was literate. The same report shows that among the economically active male and female youths, the literacy rate was approximately 68.6% and 71.2%, respectively.

Over the period 1999/2000 – 2010 the growth of literacy among male and female youths was 44.2% and 187.6%, respectively. Among the female youths this achievement was perhaps made possible because of the provision of incentives through awarding stipends and other measures for students upto higher secondary level for the spread of female education. On the other hand, in 1999/2000 approximately 38.6% economically active youths were in the category of no schooling, but in 2010 the economically active youths of no schooling decreased to 26.9% though the absolute number of economically active youths in the no schooling category increased over the period. The statistics mentioned above show that educational attainments in percentage terms among the economically active youths increased over the above mentioned period. At the same time it is evident that a huge number of economically active youths remained illiterate, which ultimately leaves them in hard working jobs with less productivity and in less remunerative sectors of the economy.

Education and skills of the youth population are strongly related to their labour market behaviour. Analysis of the level of education of the economically active youth labour force of Bangladesh (Table-2) shows that over the period 1999/2000 to 2010 more than 6.4 million youths entered into the labour market. The number of economically active labour force increased with attainment of every level of education over the time, excluding degree and above levels. At the same time the percentage of economically active youth labour force in the no schooling category decreased substantially over the period, which indicates a qualitative change of the economically active youth labour force of Bangladesh.

The trend of quantitative and qualitative change is equally applicable for both male and female youth labour force. But at the same time it is clear that only thirty five thousand youths attained technical and vocational education in 2010. “The economy of Bangladesh needs 1.5 lakh skilled and semi skilled labour force every year. But different formal and informal training systems can supply only one-fifth

Table 2: Educational level of the youth labour force of Bangladesh, 1999/2000 – 2010.

Level of Education	Economically active 1999/2000 (in thousand)			Economically active 2010 (in thousand)			Growth over the period (%)		
	Both sex	Male	Female	Both sex	Male	Female	Both sex	Male	Female
Bangladesh Total	14510	10402	4108	20900	13105	7796	44.03	25.99	89.78
No Schooling	5593	3563	2030	5614	3595	2019	0.38	0.90	– 0.54
Class I-V	3823	2909	914	5726	3850	1876	49.78	32.35	105.25
Class VI-VIII	2176	1750	426	4018	2423	1595	84.65	38.46	274.41
Class IX-X	972	737	236	2785	1518	1267	186.52	105.97	436.86
SSC/HSC & equivalent	1370	997	372	2251	1353	897	64.31	35.71	141.13
Degree and above (Medical and Engineering included)	576	446	130	455	327	130	– 21.00	–26.68	00
Technical / Vocational	-	-	-	35	27	8	-	-	-
Others	-	-	-	16	11	5	-	-	-

Source: *Compiled and calculated from BBS (2002), p. 75; BBS(2011b), p. 88.*

of the required labour force" (eMg, 2008, c . 28A5)study conducted by Rahman M. shows that "The Paradox of technical and vocational training in the country is that in one side there is a deficit of technical and vocational training holders on the other side among the training holders who cannot get overseas employment remains unemployed" (ingvb, 1988, c . .2Eic) deficit and wastage of the technical/vocational trained labour force in Bangladesh indicates weakness of communication among different stakeholders', e. g. policy makers, academicians, employers, which needs to be improved.

Youth labour force participation rate (YLFPR) is defined by the ratio of youth labour force (employed and unemployed) and youth population aged 15-29 years expressed in percentage. In Bangladesh LFPR declined from 72.1% in 1999/2000 to 59.27% in 2010. But the YLFPR increased from 47.36% in 1999/2000 to 51.72% in 2005/06 and to 53.24% in 2010 (Table-3). It is seen from the statistics of table-3 that YLFPR increases with the increase in age group and the highest participation rate is seen for the age group 25-29. There exists slight variation in the participation rate among the urban and the rural YLF. The participation rate of youth female labour force is much lower in comparison to their male counterparts at national, rural and urban levels. The causes of lower participation rate of the youth female labour force in Bangladesh may be due to (a) higher educational enrolment at the lower age group (15-19 years), (b) the "social and cultural constraints" (Bayes et al., 2007, p. 200) (c) 'the low bargaining power of women

Table 3: Trends in youth labour force participation rate of Bangladesh, 1999/2000 – 2010 (in%).

Locality and Age Group	1999/2000			2010		
	Both sex	Male	Female	Both sex	Male	Female
Bangladesh Total	47.36	71.06	25.67	53.24	69.50	38.22
15-19	41.66	55.85	23.35	39.40	48.40	29.44
20-24	47.04	74.01	26.30	56.70	75.95	40.97
25-29	54.22	91.30	27.08	66.61	92.19	44.71
Rural Total	47.99	71.09	28.34	54.30	70.43	38.92
15-19	39.22	52.23	25.80	40.46	49.64	29.56
20-24	48.81	72.61	29.41	57.08	77.16	42.00
25-29	56.17	92.90	29.51	66.87	92.58	44.99
Urban Total	47.17	71.06	24.85	50.17	66.59	36.32
15-19	42.30	56.70	22.59	36.38	44.51	29.17
20-24	46.46	74.51	25.31	53.08	72.34	38.14
25-29	53.63	90.88	26.34	65.80	90.97	43.84

Source: *Compiled and calculated from BBS (2002), p. 73; BBS(2011b), p. 85.*

within households and society and (d) the physically demanding nature of work in Bangladesh (construction, harvesting)"(Sasin, 2009, p. 115). A study confirms obstacles for their entry in the labour market as "They confront discrimination in credit markets; they have limited access to capital and modern technology; and they are confined to low productive, labour intensive work that offers only low earnings" (Meier, 1999, p. 29). It is interesting that the youth female labour force participation rate in the rural areas of Bangladesh is higher than the youth female labour force participation rate in the urban areas. A field level study in the rural areas of Bangladesh from the year 1988 to 2004 recognizes that "Participation of female labour force in the rural labour market has increased over the years" (Bayes et al., 2007, p. 23)· In the rural areas of Bangladesh 'some times economic demand or pressure encourages the female labour force to break the walls of religion, rituals and other obstacles"(Ibid, p. 201).

Changes in the industrial employment status of the youth labour force

The labour force surveys of Bangladesh for the years 1999/2000 and 2010 have "applied the same survey methods but due to the addition of two separate modules (volunteerism and literacy) to the labour force survey 2010 the quality of the Labour Force Survey was hampered" (BBS, 2011b, p.13). Nevertheless, to get a comparative picture of the distribution of employed youths by major industry and sex, the present researcher used the statistics of the above mentioned surveys. It is revealed from table-4 that the growth of employed youth labour force by major industries over the years was 50.30%. In mining and quarrying, real estate, rent and business activities over the period, youth employment growth was negative. Positive growth of youth employment is found in all other sectors of the economy. The highest employment growth of youth labour force is found in the construction sector, which is followed by bank, insurance and financial intermediations, public administration, manufacturing, agriculture, health and social works, hotel and restaurant, transport, storage and communication and services etc. The growth of youth labour force employment in different sectors indicates the expansion or development of different sectors of the economy.

1. Includes youths employed in repair of motor vehicles.
2. Youths employed only in real estate activities.
3. The employed youths in defence, compulsory social security are included in the public administration for the year 2010.
4. Included employed youths in professional, scientific and technical activities.

Table 4: Distribution of employed youths aged 15-29 years by major industry and sex, 1999/2000 – 2010.

Sl. No	Major Industry	Number in thousand		1999/2000 (in %)			2010 (in %)			Growth of youth employment over the period (%)
		1999/2000	2010	Total	Male	Female	Total	Male	Female	
	Total	12903	19393	100	100	100	100	100	100	50.30
1.	Agriculture	6110	9992	47.35	48.41	44.61	51.52	40.16	71.04	63.54
2.	Mining and quarrying	64	59	0.5	0.2	1.3	0.31	0.37	0.20	– 7.81
3.	Manufacturing	1709	2827	13.2	10.1	21.8	14.57	15.47	13.04	65.42
4.	Electricity, gas and water supply	37	39	0.3	0.3	0.2	0.20	0.31	0.03	5.41
5.	Construction	355	1065	2.8	3.2	1.6	5.49	8.12	0.99	200.00
6.	Wholesale and Retail Trade	1752	1793[1]	13.6	16.7	5.1	9.25	13.85	1.34	2.34
7.	Hotel and Restaurants	197	276	1.5	1.9	0.5	1.42	2.15	0.18	40.10
8.	Transport, Storage and Communication & Services[1]	941	1261	7.3	9.7	0.8	6.50	9.79	0.84	34.01
9.	Bank, Insurance and Financial Intermediations	49	94	0.4	0.4	0.7	0.49	0.59	0.30	91.84
10.	Real Estate, Rent and Business activities[2]	44	8[2]	0.3	0.4	0.2	0.04	0.06	0.00	–81.82
11.	Public Administration[3]	124	222[3]	1.0	1.1	0.5	1.14	1.63	0.32	79.03
12.	Education[4]	298	298[4]	2.3	1.8	3.5	1.54	1.48	1.62	0.00
13.	Health and Social Works	54	76	0.4	0.4	0.4	0.39	0.46	0.28	40.74
14.	Other Community, Social & Personal Service	1168	1383	9.1	5.2	19.3	7.13	5.57	9.80	18.41

Source: *Compiled and calculated from BBS (2002), p. 78; BBS(2011b), p. 89-91.*

Agriculture remains the most important sector of the economy of Bangladesh in terms of youth employment. It absorbed 47.35% of total youth labour force in 1999/2000, which increased to 51.52% in 2010. In 1999/2000 the share of employed youth male labour force in agriculture was 48.41%, which decreased to 40.16% in 2010. But the percentage of employed female youth labour force in agriculture increased from 44.61% in 1999/2000 to 71.04% in 2010. In 1999/2000 about 4563 thousand male youth labour force was employed in agriculture, which increased to 4924 thousand in 2010 and on the other hand in 1999/2000 employed female youth labour force in agriculture was 1538 thousand, which rose to 5068 thousand (growth over the period was 229.51%) in 2010. It means a good number of fresh youth male labour force are employed in agriculture and the employment of female youth labour force has also increased significantly. "May be behind this change have worked the psychological change of the male member of households for employment of female labour force outside the household in the rural areas and the livelihood pressure in the households from poverty" (Bayes et al., 2007, p. 23).

An in-depth study on employed persons aged 15 years and over in the agriculture sector of Bangladesh in 2005/06 shows that "of 7682 thousand female labour force employed in agriculture, including fishery, 4014 thousand or 52.25% was employed in livestock, poultry farming and in livestock and poultry related other activities" (BBS, 2008, pp. 127, 164-174). An analysis shows that "in 2005/06 total 4228 thousand persons aged 15 years and over were employed in livestock and poultry farming, of which 3981 thousand or 94.16% was female and the rest 5.84% was male" (Ibid, pp. 127, 164-174). So it could be assumed that the increase of employed youth female labour force in agriculture was mainly due to the contribution of livestock and poultry farming. Apart from this, youth female labour forces are also employed in other agriculture related activities.

In 2005/06 about 15084 thousand male labour force was employed in agriculture, hunting, forestry and fishing, of which approximately 13354 thousand or 88.5% was employed in growing cereal crops. In the same year, approximately 14080 thousand male and female labour force was employed in growing cereal crops of which 13354 thousand or 94.8% was male labour force" (Ibid, pp. 127, 164-174). So it is evident that the male labour force is dominating in growing cereal crops in the rural areas of Bangladesh. The same tendency could be assumed for the youth male labour force. There is no scope for an in-depth study of employment of the male and female youth labour force in growing cereal crops, livestock and poultry farming due to the limitations of data contained in the Labour Force Survey 2010. But the trend of employment in the agriculture sector for youth male and female labour force seems to be the same as shown for the year 2005/06. It

means the male youth labour force is dominating in growing cereal crops and the female youth labour force is mainly contributing in livestock and poultry farming in the rural areas of Bangladesh.

Table-4 shows that the growth of youth employment over the 1999/2000-2010 period is 65.42% in the manufacturing sector. But at the same time it is surprising that the percentage of employment of the youth female labour force in the manufacturing sector is decreasing though Bangladesh Garments Manufacturers and Exporters Association (BGMEA) sources claim more than one and a half million female employment in the Ready Made Garments (RMG) sector. A study claims that "nearly two million women workers directly .... associated with this (RMG) industry"(Habib, 2009, p. 129). Another study mentioned that "a million and a half women, mostly unmarried girls in their teens, have transplanted themselves from their villages to work in the RMG factories of Dhaka and Chittagong" (Sobhan, 2004, pp. xix-xx). Report on labour force survey 2005/06 of BBS have mentioned that "5224 thousand male and female labour force aged 15 years and over was employed in the manufacturing sector, of which 1298 thousand or approximately 25% was female labour force. About 2544 thousand youths (aged 15-29 years) was employed in the manufacturing sector, of which only 704 thousand or 27.67% was youth (aged 15-29 years) female labour force" (BBS, 2008, pp. 52, 85). Report on labour force survey 2010 mentioned that in 2010 about 2827 thousand youths aged 15-29 years were employed in the manufacturing sector, of which 930 thousand or 32.90% were female. The above mentioned findings create confusions about the employment of the labour force aged 15 years and over and of the youth (aged 15-29 years) female labour force in the manufacturing sector of Bangladesh – "Part of it may be attributed to data problem"(Rahman, 2007, p. 45).

In 1999/2000, approximately 51.3% of the total labour force was employed in agriculture, 35.6% was employed in services sector and 13.5% was employed in industry. On the other hand in 2010, about 47.56% of the total labour force of Bangladesh was employed in agriculture, approximately 18% was employed in industry and 35% in services sectors, indicating a slow structural change of employment in Bangladesh, which is different from Sir W. Arthur Lewis's dual sector model and is equally applicable for youth employment.

The above analysis allows the researcher to conclude as follows:

1. Growth of employment of the youth labour force of Bangladesh occurred over the years in every sector of the economy except in mining and quarrying, real estate, rent and business activities.

2. Agriculture remains the most youth labour intensive sector in the economy of Bangladesh, which is followed by manufacturing, wholesale and retail trade, transport, storage and communication and services etc.
3. In agriculture the youth male labour force is mainly employed in growing cereal crops whereas the youth female labour force is employed in livestock and poultry farming.
4. The youth male labour force is gradually coming out of agriculture and being employed in other sectors of the economy.
5. The LFS data on employed youth female labour force in the manufacturing sector is confusing because data provided by BGMEA and different researchers on employed female labour force in the RMG sector is much higher than that provided by LFS on manufacturing sector.
6. It seems that youth labour force which cannot obtain productive employment elsewhere get absorbed in agriculture, where average productivity and wages remain lower than in manufacturing and services sectors.
7. A slow but steady structural change in the youth labour force market is going on because growth of employment over the years is higher in the manufacturing, construction, bank, insurance etc. in comparison to agriculture.
8. Manufacturing sector is lagging behind services sectors, in terms of youth employment, which confirms structural change in the youth labour market of Bangladesh bypassing Lewis's dual sector model.

Trends in Status of Employment of the youth labour force

Before examining the changes in status of employment of the YLF it is necessary to explain briefly the notions used in table-5 of the research work. According to the report on LFS 2010 self-employed means a person working for his/her own household farm or non-farm enterprises for profit. Such persons do not receive wages or salary for the work performed. The employer is a self-employed person who may employ one or more persons in a commercial or industrial enterprise. Employee or regular worker is one who has a regular employment and receives wages or salary from the enterprise or establishment or organization to which he is attached for performing assigned work. Unpaid family helper/worker refers to a person who works at least one hour in the reference period (other than household work) without pay or profit in a family operated farm or in a business organization. Day labour or casual worker refers to a wage earner whose services are solicited only for a periodic time intervals during the reference period.

Table 5: Changes in Status of Employment of the YLF, 1999/2000 – 2010

Status of employment	Employed youths in 1999/2000 (in thousand)			Employed youths in 2010 (in thousand)			Growth over the period (in %)		
	Both sex	Male	Female	Both sex	Male	Female	Both sex	Male	Female
All status	12903 (100.00)	9414 (100.00)	3489 (100.00)	19393 (100.00)	12260 (100.00)	7133 (100.00)	50.3	30.2	104.4
Self-employed	4133 (32.0)	3291 (35.0)	842 (24.1)	3579 (18.5)	3227 (26.3)	352 (4.9)	–13.4	–1.9	–58.2
Employer	15 (0.1)	6 (0.1)	9 (0.3)	19 (0.1)	16 (0.1)	3 (0.04)	26.7	166.7	–66.7
Employee	2554 (19.8)	1756 (18.6)	799 (22.9)	3287 (16.9)	2472 (20.2)	815 (11.4)	28.7	40.8	2.0
Unpaid family helper	2800 (21.7)	1625 (17.3)	1175 (33.7)	7684 (39.6)	2246 (18.3)	5438 (76.26)	174.4	38.2	362.8
Day labourers	3401 (26.4)	2737 (29.0)	664 (19.0)	4073 (21.0)	3769 (30.8)	304 (4.3)	19.8	37.7	–54.2
Others*	-	-	-	751 (3.9)	530 (4.3)	221 (3.1)	–	–	–

* For 1999/2000 there is no status others. For 2010 in the status others included servant and irregular paid worker.
Figures within parentheses are percentages of both sex, male and female youths employed in different status of employment.
Source: *Compiled and calculated from BBS (2002), p. 79; BBS(2011b), p. 92-93.*

Table-5 shows the changes taken place in status of employment of both the sex, male and female YLF during 1999/2000-2010. It is revealed from the table that over the study period the growth of employment of YLF in all status categories for both sex, male and female is 50.3%, 30.2% and 104.4%, respectively. In the categories of unpaid family helper and employee the growth of employment of the female YLF is found positive but in all other status of employment the female YLF growth is found negative. It means that over the period the growth of employment of the female YLF has derived mainly from the status of unpaid family helper, may be because she "is devoted to family well-being through income generation, production and processing of goods and services for home consumption and performance of essential household tasks" including livestock rearing, food processing, caring of children and the elderly and so on (Salahuddin, 1989, p. 220). The growth of employment of the female YLF in the category of employee has derived mainly from the manufacturing sector where RMGs are included. A study shows that in 1999/2000 about 730 thousand female YLF was employed in the manufacturing sector which increased to 930 thousand in 2010 registering a 26.02% growth rate over these years. The employee status employment of the female YLF in the manufacturing sector indicates a positive feature of female YLF empowerment and their contribution to the economy and labour market. In the manufacturing sector (mainly in RMG), female YLF are being employed because 'Economic scarcity operates in conjunction with other "push" factors, such as family conflicts, marital breakdown, problems of harassment and uncertain marriage prospects' (Kibria, 2004, p. 85). Besides, there are some "pull" factors such as RMG "has also developed a certain image and reputation that may be attractive to young women. Garments work connotes social and economic independence and more generally, modernity'' (Ibid, p. 86).

Analysis shows that the growth of employment of the male YLF has taken place in every category except self employment over the above mentioned period. Over this period the growth of the category of self employed declined. The growth in percentage and absolute numbers in the categories of employer, employee, unpaid family helper, day labourers for male YLF have increased over the years. The male YLF in the categories "employers and self employed persons are sometimes referred to as independent and the rest as dependent workers" (BBS, 2010, p. 41). The "Employers and self employed persons, i. e. the entrepreneurial groups" are dominating among the male YLF of Bangladesh indicating progressive economic performance of male YLF (Ibid, p. 42). BBS report on monitoring of employment survey-2009 revealed that in all age groups "employer gets the highest salary, which is followed by employee. Salary in the self-employment category is in the

third place, which is followed by family helper and day labour respectively" (Ibid, p. 50). So it could be assumed that the same trend of salary prevailed among the different status of employment of the YLF of Bangladesh.

Changes in the occupational status of employment of the YLF

In a modern society occupational status of employment of a person primarily determines his social status. So changes in the occupational status of employment of the YLF of Bangladesh could explain the trend of social stratification among the youths. It is revealed from the statistics of table-6 that in 1999/2000 approximately 25.86% of the employed youth labour force was absorbed in white-collar occupations (professional, technical, administrative, managerial, clerical workers, service and sales workers) and the rest were absorbed in blue-collar (miners, quarrymen, workers in transport, craftsmen and production process workers) occupations. In 2010, about 18.18% youth labour force was absorbed in white-collar occupations and the rest were in blue-collar occupations. Over the period 1999/2000 to 2010 the growth of employed youth by major occupations was 49.91%, of which the growth of white-collar occupations was 5.36%, and of blue collar occupations was 65.94%. Among the white-collar occupations except clerical and service workers all others had positive growth over the above mentioned period. Among the employed youth males, the agriculture, forestry and fisheries workers, production, transport and other categories workers and the sales workers occupations were dominating in 1999/2000 and in 2010.

Among the employed youth females, agriculture, forestry, fisheries; production, transport and others; service workers; sales workers; professional and technical occupations were dominating in 1999/2000 and in 2010. But in 2010 youth females appear to have large proportionate shares than youth males in agriculture, forestry and fisheries workers; service workers occupations. It is revealed from the statistics of table-6 that over the decade female youths were substantially inclined to the agriculture, forestry and fisheries sector for their employment and the male youths were gradually coming out of agriculture, forestry and fisheries and entering into the production, transport and other professional and technical occupations.

The following conclusions could be drawn from the above analysis:

a. The growth of employed youth labour force has taken place over the years in all occupations, except clerical and service workers.
b. The growth of employment in blue-collar occupations of the youth was higher than the growth of employment in white collar occupations.

Table 6: Distribution of employed youth aged. 15-29 years by major occupation and sex, 1999/2000 – 2010.

Sl. No.	Major occupation	Number in thousand		1999/2000 (in %)			2010 (in %)			Growth over the period
		1999/2000	2010	Total	Male	Female	Total	Male	Female	
	Total	12903	19343	100	100	100	100	100	100	49.91
1.	Professional, Technical	420	539	3.30	2.60	5.00	2.79	3.08	2.30	28.33
2.	Administrative, Managerial	24	213	0.20	0.20	0.20	1.10	1.65	0.17	787.50
3.	Clerical workers	306	224	2.40	2.60	1.70	1.16	1.62	0.36	–26.80
4.	Sales workers	1804	1872	14.00	17.30	5.10	9.68	14.25	1.85	3.77
5.	Service workers	784	669	6.10	3.50	13.10	3.46	3.24	3.83	–14.67
6.	Agriculture, Forestry & Fisheries	6177	9984	47.80	48.20	47.00	51.62	39.84	71.08	61.63
7.	Production, transport and others	3389	5890	26.20	25.60	27.90	30.45	36.32	19.94	73.80

Note: Components may not add to total as some employed persons are engaged in more than one occupation.
Source: *Compiled and calculated from BBS (2002), p. 77; BBS(2011b), p. 91-92.*

c. Occupation in agriculture remains the top priority for male and female youths but its importance was declining for the male youths and was increasing for the female youths indicating the shift of male youths to the production, transport and other works. Production, transport and other works remained in second priority as occupation for the male and female youths of Bangladesh.
d. Excluding agriculture female youths appear to have larger proportionate shares than male youths in service workers occupation indicating female specific employment and empowerment of female youths.

Changes of unemployment among educated youth labour force

Earlier it was mentioned in Table-2 that over the period 1999/2000 – 2010 the growth of youth labour force of Bangladesh was 44.03% (4.20% per annum, employment growth rate was 4.75% per annum). In 1999/2000 about 13.41% youth labour force (absolute number was 1946 thousand) had education above class ten which fell to 13.19% (absolute number was 2706 thousand) in 2010. The growth of absolute number of youth labour force who had education above class ten within 10.5 years was 39.05%. In 1999/2000 and 2010 the unemployment of youth labour force was 11.70% and 7.45%, respectively. The unemployment of the educated youth labour force in 1999/2000 and 2010 was 15.65% and 14.71%, respectively.

The wastage of educated youth labour force for the economy of Bangladesh in very harmful. It is revealed from table-7 that unemployment rate among the male and female youths rises as the level of education rises. Youth unemployment rate among no schooling labour force group was less than educated youth labour force. This implies that the no schooling youth labour force group quickly enters in employment because "historically, incidence of poverty is high among the illiterates"(BBS, 2011a, pp. 40-41). The pressure of poverty dictates them to enter in any type of employment. Excluding this they have no scope to get work of sophisticated status and to kill time for that. Over the past three decades, Bangladesh made substantial progress in providing education to its citizens. Its literacy rate of population aged 7 years and over "was 55.8% and 48.1% for male & female respectively in 2005 which grew to 61.12% and 54.80% for males and females, respectively, in 2010" (Ibid, p. 51). So this increasing rate of literacy supplied more educated youths in the job market, which exceeded the demand of the job market and hence remained unabsorbed. The high rate of educated youth "unemployment prevails as there has been a lack of growth of sectors requiring school educated young persons" (Rahman, 2009, p. 164).

Table 7: Changes in distribution of educated unemployed youth labour force by level of education and sex, 1999/2000 – 2010

Level of Education	1999/2000						2010					
	Economically active(in thousand)		Unemployed (in thousand)		Unemployment rate (%)		Economically active(in thousand)		Unemployed (in thousand)		Unemployment rate (%)	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total	10402	4107	988	618	9.50	15.05	13105	7796	895	663	6.83	8.50
No Schooling	3563	2030	112	99	3.14	4.88	3395	2019	120	124	3.34	6.14
Class I-V	2909	914	225	143	7.73	15.65	3850	1876	199	134	5.17	7.14
Class VI-VIII	1750	426	140	99	8.00	23.24	2423	1595	180	129	7.43	8.09
Class IX-X	737	236	189	92	25.64	38.98	1518	1267	164	129	10.80	10.18
SSC/HSC & equivalent	997	372	229	148	22.97	39.78	1353	897	208	125	15.37	13.94
Degree & above*	446	130	93	37	20.85	28.46	327	130	25	20	7.65	15.39
Technical/ vocational	-	-	-	-	-	-	27	8	none	none	00.00	00.00
Others	-	-	-	-	-	-	11	5	none	1	00.00	00.00

Source: *Compiled and calculated from BBS (2002), p. 75; BBS(2011b), p. 88-89.*

- Means not available. Medical and Engineering included.*

Table-7 reveals that in 1999/2000 and 2010 the unemployment of female youth labour force was higher than those of male youth labour force almost at every level of education. In 2010 except in class IX-X and SSC/HSC and equivalent levels in all other levels of education unemployment of the female youth labour force was higher than the educated male youth labour force. On the other hand, among the economically active male youths 6.83% was unemployed and among the economically active female youth labour force 8.50% was unemployed. The gap between the unemployment rates for youth male and youth female labour force widens in the degree and above levels of education. These types of unemployment of youth female labour force indicate gender discrimination in the labour market of Bangladesh. The higher rate of unemployment among the SSC/HSC & equivalent level and class IX-X level school completers indicates that enough employment is not being created for them. Besides, "this group does not want to be engaged in agriculture. But the scope for regular non-farm employment is not expanding at a sufficient pace" (The Daily Star, 09 April, 2012). On the other hand, the higher rate of unemployment of the educated youth labour force of Bangladesh would discourage them to enroll in the educational institutions. For the same reason, enhancement of female education would be disturbed, drop out of the female enrolled students would increase and ultimately female empowerment and poverty alleviation through education would be in challenge though Government has declared different encouraging schemes (provision of stipends, supply of free text books, exemption of tuition fees etc.) for female education. So youth employment needs to be increased.

BBS statistics indicate that youth employment in 1999/2000 was 12903 thousand, which increased to 19343 thousand in 2010 (average annual employment growth rate is 4.75%). On the other hand, it is found that average yearly youth labour force growth rate over the last 10.5 years (1999/2000 to 2010) is 4.20% where currently unemployed and underemployed youth labour force are not included. With the assumed employment elasticity of 0.56, an employment growth of 4.20%. (i. e., same rate as labour force growth, not counting the currently unemployed and underemployed) would require a GDP growth of (4.20¸0.56) 7.5% per year which is a great challenge in front of the economy of Bangladesh. Because from the document of the 6th Five Year Plan (FY 2011-FY 2015) it is clear that in 2010 the real GDP growth of Bangladesh is 6.1%"(GED, Planning Commission, 2011, Part-1, p. 75). To achieve a GDP growth rate of 7.5% per year or 8% according to the 6th Five Year plan, (Ibid, Part-1, p. 80) the investment needs to be increased to 32.5% of GDP by Fiscal Year (FY) 2015. But Bangladesh Economic Review shows that the rate of investment has stagnated at "24.46% to

25.15% of GDP over 2006/07-2010/11 year, despite a steady increase in the national savings rate to 28.78% of GDP" (Ministry of Finance, 2012, p. 20). Public and private sectors should contribute to raise the required investment rate during the 6th Five Year Plan period. To create favourable investment environment and confidence among the investors the 6th five year plan has suggested some key areas for improvement. The areas are "(i) energy supply including electricity and gas; (ii) infrastructure including roads, railways, bridges, embankments and dykes; (iii) telecommunication; (iv) ports; (v) legal and administrative systems including property rights issues; (vi) socioeconomic environment including law and order situation; (vii) sound monetary policy and sustainable management of public finances"(GED, Planning Commission, 2011, Part-1, p. 81). Except the above mentioned areas, a peaceful investment-friendly political environment is necessary for the confidence of investors and for the acceleration of investment, employment and economic growth. All the political parties, stakeholders should come in consensus to create a peaceful investment-friendly political environment for the sake of employment and economic growth of the country. To come out from the problem of huge unemployment of the youth labour force, Bangladesh government, private entrepreneurs and other stakeholders should take initiative to create employment in the labour intensive sectors like furniture, toys, leather industry, and diversified agro processing industries in addition to the garments sector. The above analysis could be concluded as follows:

1. The share of unemployed youth and educated unemployed youth labour force has decreased marginally over the years 'analysed'.
2. The incidence of poverty is high among the illiterate youths which create pressure on them to enter at any type of job.
3. Over the years the growth of the sectors of the economy of Bangladesh lagged behind to create required employment opportunity for the educated youths.
4. The higher rate of unemployment among the educated youths discourages them to enroll in the educational institutions as future job aspirants.
5. In addition to the garments sector, government and other stakeholders should take initiative to create labour intensive employment for the youths in diversified agro processing industries, furniture, toys and leather industry of the country.
6. All political parties and stakeholders should come in consensus to create a peaceful investment-friendly political environment for employment generation of the youth labour force and economic growth.

Conclusions

Youth labour force and their status of employment have emerged as an important issue for Bangladesh. It is evident from the statistics of BBS that the total number of youth population, youth labour force, literate youth labour force, youth population as percentage of total population, and youth labour force as percentage of total labour force have increased over last 10.5 years. In an average, every year 6.10 lac youth labour force enters in the labour market of Bangladesh despite its declining fertility rates. It is a great challenge for the policy makers to create scope of employment for the new youth entrants.

Analysis shows that over the last 10.5 years (1999/2000-2010) literacy rates among the economically active youth males and females have increased. The absolute number of economically active youths in the no schooling category has also increased though their share has decreased over time. The growth of literacy among the economically active female youths over the years is 187.5%, which has been made possible with the provision of incentives delivered by the Government awarding stipends and other measures taken upto higher secondary level of education. At the same time a paradoxical situation is observed in the case of technical and vocational graduates. There is insufficient supply of technical and vocational education completers, and among them there are those who cannot get overseas employment and hence remain unemployed. This type of wastage of the skilled youths indicates lack of communication among different stakeholders.

It is observed that the growth of population in Bangladesh has declined (1.34% in 2011), and the ratio of working age population to total population has increased due to fertility reduction, which means that the economic dependency ratio is declining offering the country the opportunity to cash in on its demographic dividend. The participation of youth male labour force is now much higher than the youth female labour force. But in the rural areas female youth labour force participation rate is higher than youth female labour force in the urban areas.

Analysis of the changes in the industrial employment status of the youth labour force of Bangladesh shows that over the period under study agriculture remains the highest place for youth employment. Within the agriculture sector the male and the female youth labour force are dominating in growing cereal crops and livestock (including poultry) farming. The youth male labour force is coming out of agriculture steadily and is being employed in other sectors of the economy. Manufacturing is the second highest sector in terms of youth employment, which is followed by wholesale and retail trade. The share of employed youth male labour force in manufacturing, wholesale and retail trade, transport, storage, communication and services is higher than the female youth labour force. The

statistics provided by LFS, BGMEA and other sources and researchers create confusion about the employment of youth female labour force in the manufacturing, more concretely in the RMG sector of Bangladesh. A slow and steady structural change in the youth labour market of Bangladesh is going on in favour of the services sector in comparison to manufacturing bypassing Lewis's dual sector model, which means that "the Lewisian transformation of the economy remains elusive in Bangladesh"(Islam, 2009, p. 94).

Analysis of the status of employment of the YLF, both male and female, shows that self employment has declined over the years due to lack of minimum required assets such as cultivable and homestead land, schooling and skills, capital and credit, etc. Employee status provided a secure income inflow for which it has increased for both sexes. Unpaid family helper increased mainly for female YLF. Poverty or economic scarcity and some "push" and "pull" factors attracted the female YLF of Bangladesh to get employment in the RMG sector.

The analysis of the changes in the occupational status of employment of the YLF of Bangladesh reveals that over the years growth of employment of the YLF has taken place in every occupation except clerical and service workers. The higher growth of blue-collar occupations in comparison to white-collar occupations implies that the former contribute substantially to the production process with less management cost, which also indicates efficiency of the white-collar professionals.

It is observed that over the analysed years average yearly growth of youth employment exceeded the average growth of youth labour force, excluding the currently unemployed and underemployed youth labour force. That's why the share of unemployed youth has fallen to some extent. Due to high incidence of poverty among the illiterates, they accept any type of job but the higher rate of unemployment among the educated youths discourages the future job aspirants to enroll in the educational institutions. On the other hand, different sectors of the economy of Bangladesh failed to create necessary employment opportunity for the educated youths. In this regard there may exist gaps between the curriculum of the educated youths and the demand of the job market, which need to be investigated and improved. The national curriculum committee could invite policy makers, academicians, and job providers to eliminate the gaps. Apart from these, there are infrastructural, legal, socio-economic, political, and administrative constraints that hinder the investment climate as well as creation of employment opportunities for the youth labour force which need to be removed. To create an investment friendly and peaceful political climate all political parties, stakeholders should come in consensus, which would increase investment, provide employment to the youth labour force, decrease the incidence of poverty and promote economic growth of the country.

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New Sectors New Opportunities-A Note

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Bangladesh lies in the midst of tremendous opportunities. China, the export giant, is moving into high-value added products that can accommodate the increasing wage of Chinese workers, and global markets are in search of manufactured goods. Countries such as Bangladesh, Vietnam, India and Bhutan among many others in Asia, are the new destinations that receive the lion's share of the others depend for their success on quality control, timely delivery and most importantly, price.

Bangladesh expects to grow at 8.0 per cent per year by 2015 and enable its manufacturing sector to grow fast enough to employ a greater share of the workforce - from the current 13.7 per cent to 15 per cent by 2015 (based on SFYP). Being over three-fourths of all exports and employing over 5.0 million people, the contribution of the RMG sector in Bangladesh's global presence and GDP is undeniably massive and need not be iterated. But, Bangladesh needs to enable other new sectors to grow as well in order to accelerate exports, create jobs, grow faster, and offset its large and growing trade deficit (US$9.4 billion in FY 2010-11). Despite their lack of dominance in the export basket, shipbuilding, plastic, furniture, light engineering, home textiles, and ICT/software sectors have grown remarkably fast in the last 2 to 3 years. Which of these sectors will lay golden eggs? There are untapped opportunities in each of these sectors, but the harnessing of these opportunities requires strong policy and regulatory support and the drive to overcome constraints. Surely, there are more sectors with equal

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(if not more) potential for contributing to the economy. But, a coordinated effort is required in voicing required positive changes in policy and regulation in order to enable these potential sectors to grow. With that very intention in mind, Business Initiative Leading Development (BUILD) recently reviewed a wide array of secondary information and studied the industrial sectors of Bangladesh in order to map out sector-specific opportunities and constraints. And, through further validation with businesses who are much better informed, BUILD hopes to identify areas of regulatory simplification so that opportunities in certain sectors can be harnessed. The impetus for such a research oriented investigation came from BUILD's Trade and Investment Working Committee co-chaired by both public and private sector representatives. The same committee will make recommendations to improve the policy and regulatory environment in which these sectors operate. BUILD has three other thematic working committees that operate in a similar manner, and each working committee hopes to make similar recommendations to the government-based on sound research and investigation. Business Initiative Leading Development(BUILD) 's research on Prioritization of Sector Opportunities and Constraints was done in June 2012 and followed some specific investigation criterion, such as significant impact of a sector on balance of trade, jobs and income, competitiveness of other sectors etc. In the marketing opportunities of particular sector, the study looked into the demand and prices of their products at the global markets and also at local markets. Other broad investigation criterion were: prospects in these sectors, does Bangladesh have the underlying assets to be competitive in these sectors, are there good investment prospects in these sector, are the barriers to growth in these sectors relatively easy to address? This proven methodology has been used in some African countries and is being adopted for use in certain Indian states and Central Asian countries. Summary profile of some of the identified sectors is given below.

Agribusiness: Although Bangladesh's agribusiness exports are not very high at the moment (USD352m in FY 2010-11), exports are growing fast- at 27 per cent in the last two fiscal years. Global processed agro-market (without fresh exports) is estimated at USD4.2 trillion (FY 2008-09), but the current Bangladesh agro exports are mainly fresh products since the main items are fruits, vegetables, flowers and tobacco. Therefore, the sector needs to attract investment in terms of processing units-enabling products to amplify shelf lives and diversify into various secondary outputs from the same primary product. And exports aside, the current domestic market size is around USD4.5b already, and is expected to grow to $8.0b by 2020. The most important element of the agribusiness industry is its massive potential for job creation-the overall agro sector already employs a third

of the country's workforce. Growth in this sector can also be expected to stimulate growth in supporting other businesses, such as in storage, retailing and distribution. Even with falling levels of arable land, volatile climatic conditions and import needs of the sector, the agribusiness industry holds massive untapped potential-one that can be harnessed with adequate regulatory and infrastructural support.

Shipbuilding: The shipbuilding sector's export might seem low (USD46m in FY 2010-11), but this is a remarkable achievement given that the first export was only in 2008. And exports are growing fast. This sector has vast opportunities of local value addition, and exporters are already using certain local inputs-such as electrical cables and furniture. Bangladesh is carving out a name for making small ocean faring ships (10,000 DWt), and has received orders for over 40 ships ($600m) to be delivered by 2013 according to the Association of Export Oriented Shipbuilders. Although prices had fallen following recession in 2009, the global market has almost fully recovered. Access to the sea is a major advantage that Bangladesh has. Employees working at shipyards are not only earning good money, they are even being sought out by other countries.

Plastic: The plastic sector is yet another upcoming one, with export in FY 2010-11 at about $60m (50 per cent is scrap/recycled which mostly goes to China) up from about $35m in 2008-09. Newspaper reports suggest that employment in the sector is about 0.5m in 3,000 factories and unskilled labour is used widely by the sector. Most importantly, the plastic sector provides major backward linkage to light engineering, footwear, cables, and the real estate sector. Furniture: It has been estimated that Bangladesh has the potential to export furniture worth $40m per year in the next five years. The market is rapidly growing and more than 41,500 enterprises all over the country are employing about 180,000 people. Dhaka alone has 2000 enterprises employing over 40,000 workers. Production is highly labour intensive. China, India and USA are the main importers of Bangladeshi furniture, and export in the last FY was about $7.7m with a positive growth trend.

Home textiles: From just about $100m in FY 2007-08, the home textiles sector exported about $500m in FY 2010-11, and is expected to grow even further this year. Exporters are experiencing increasing demand and home textiles is one of the major sectors where Bangladesh is receiving orders diverted from China.

ICT/ software: Exports of soft ware in first seven months of the FY 2011-12 stood at $38.47m compared to $22.21m in the corresponding period of the last fiscal year. According to BASIS, total export at year end is expected to reach $60m.

Employment is around 25,000, and rising (over 524 firms registered with BASIS as of June 2012). Although this sector is presently unable to employ massive numbers of labour force, it has tremendous potentials in earning foreign exchange.

In identifying country-specific sectoral priorities there have been a lot of research already done but BUILD believes that the study has been able to assess sectoral strengths and possible barriers in a very simplistic way which can help suggest policies for further boost of the identified sectors, diversify exports, attract more investment and support upcoming trade and industrial policies for development of an integrated policy framework for sectoral development.

Export data cited in this article taken from EPB website

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