



ECONOMY OF TOMORROW



## The Economy of Tomorrow How to Produce Socially Just, Sustainable and Green Dynamic Growth for a Good Society Case Study of Bangladesh

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March 2014

- Bangladesh has been able to raise its GDP growth rate by at least one percent for each of the past three decades. The challenge now is to accelerate economic growth to eight to ten percent over the foreseeable future. In order to do so, the drivers of growth need to be better prioritized. Bangladesh should strategically capitalize on the advantages of its growing domestic market, accelerate its efforts to bring about structural change in the economy, put the needed infrastructure in place, better develop human capabilities, create a conducive environment for job creating businesses, and strengthen institutional, legal and administrative capacities.
- Bangladesh has achieved remarkable progress in reducing poverty by approximately two percent each year during the 2000s. However, extreme poverty remains persistent and income and wealth inequality have become major concerns. Strengthening the capacities of marginalized people through quality education, as well as the provision of good health services and measures to promote income earning capacity of people still living in poverty need to be prioritized.
- The increasingly open economy of Bangladesh must be prepared to take advantage of the opportunities emerging in regional and global markets through export and market diversification, moving up the value chain by raising labor and capital productivity, creating decent jobs and ensuring labor rights and workplace safety.
- For the future growth of Bangladesh to be dynamic and green, the utilization of natural resources in an environmentally sustainable manner, addressing the challenges arising from climate change, limiting ecosystem degradation, the conservation of biodiversity, enhancement of afforestation and integrated coastal zone management, and addressing environmental health problems needs to be placed high on the country's policy agenda.



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## 1. General Macroeconomic Overview

### 1.1 Past development of the key macroeconomic indicators

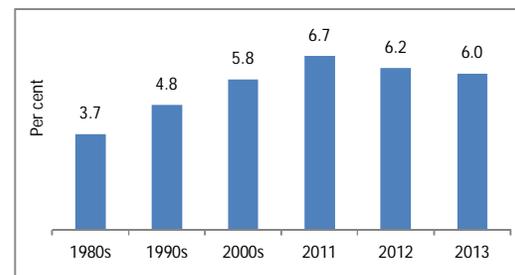
For a developing country, economic development hinges critically on its ability to ensure accelerated growth with opportunities for decent employment and gainful income for its citizens. It is broadly accepted that a fast pace of economic growth is a necessary driver for achieving sustained economic development of developing countries (Bhattacharya and Khan 2008; Rodrick 2013). Concurrently, there is however a growing acceptance, backed up by ample empirical evidence, that economic growth alone cannot achieve the desired objective of a just and equitable society. Indeed, the pattern of growth and nature of structural changes are keys to attaining growth with equitable and distributive justice (Bhattacharya and Khan 2013). While recognizing economic growth as a pre-condition for socioeconomic development, Rodrick (2013) emphasized the critical role of structural transformation in developing economies in the form of the emergence and expansion of sectors with higher productivity and through the movement of labor from low-productive traditional sectors to higher productive modern sectors. Indeed, the process of structural transformation in countries like Bangladesh is largely about developing productive capacities which will require higher capital accumulation, from both domestic and foreign sources (Bhattacharya and Khan 2013).

#### 1.1.1 Economic Growth

From an economic growth perspective, Bangladesh has been performing moderately well, particularly since the 1990s. For Bangladesh, the 1980s is often considered as

the decade of stagnation (Sobhan 1991). Economic growth increased from an average 3.7 per cent during the 1980s<sup>1</sup> to 4.8 per cent in the 1990s (Figure 1). The acceleration continued in the 2000s, and eventually crossed the threshold of 6 percent in FY2004. Since then, economic growth has remained slightly over 6 per cent, with FY2009 being an outlier year, when the economic performance of most developing and developed economies was adversely affected in the face of the global economic and financial crises.

Figure 1: GDP Growth



Source: Estimated from the Bangladesh Bureau of Statistics (BBS) data.

#### 1.1.2 Per Capita Income

A steady economic growth, coupled with restrained population growth, made it possible for Bangladesh to post a faster growth in per capita income since FY1990. In FY2013, per capita income (GNI) stood at USD 923.<sup>2</sup> It was less than USD 100 at the time of Bangladesh's independence in 1971. It is to be noted here that larger inflow of remittances from workers abroad has allowed Bangladesh to have a higher per capita income compared to its per capita GDP. Particularly during the last decade the large inflows of foreign remittances helped Bangladesh attain an accelerated pace of per capita income growth.

<sup>1</sup>The growth figures are measured per fiscal year (FY). The fiscal year in Bangladesh covers a period from July to June next. For example, FY1980 refers a period of July 1979 to June 1980.

<sup>2</sup>According to new estimates (base year 2005-06), the per capita national income in Bangladesh stood at USD 1,044.



### 1.1.3 Composition of the Economy

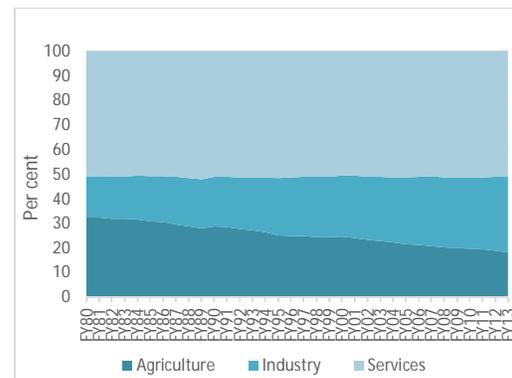
As regards the sectoral composition of the economy, Bangladesh experienced a steady shift in the share of major sectors in its GDP. A move away from agriculture and favoring the industrial sector took place over the last three decades. In FY1980, the share of agriculture in the GDP was 32.3 percent, which went down to 28.7 percent in FY1990, 24.6 percent in FY2000, and 18.1 percent in FY2013 (Figure 2). The reduced share of the agriculture sector was mostly picked up by the industrial sector. Its share increased from 16.6 percent in FY1980 to 20.2 percent in FY1990, 24.7 percent in FY2000, and 30.9 percent in FY2010. On an average, the industrial sector gained almost 4 percentage points as a share of GDP over each decade. Within the industrial sector, the growth of the manufacturing sub-sector was relatively higher, thanks to the high growth rates posted by the export-oriented manufacturing sector, particularly the readymade garments (RMG) sub-sector. The share of the manufacturing sector posted a rise from 10.8 percent in FY1980 to 12 percent in FY1990, 14.8 percent in FY2000, and 18.9 percent in FY2013. The service sector continues to remain the single largest contributor to the GDP. At the same time, the relative share of the services sector has been rather steady over these same years – about 48.4 percent in FY1980 and 47.6 percent in FY2013.

On the expenditure side, consumption remained the largest contributor to the GDP with the share of about 87.1 percent in FY1991 and 80.8 percent in FY2013. Investment or gross capital formation as a share of GDP increased from 17.6 percent in FY1981 to 23.1 percent in FY2001 and 26.8 percent in FY2013.

During the 1980s, investment remained stagnant due to falling private investment. Public investment however increased during the late 1980s when it increased from 4.5

percent of GDP in FY1985 to 7.2 percent of GDP in FY1990. Private investment picked up from 10.3 percent of the GDP in FY1991 to 15.8 percent in FY2001, and 19 percent in FY2010. Public investment as a share of GDP on the other hand declined from the peak of 7.4 percent in FY2000 to 5 percent in FY2010. During the last three years, public investment increased at a faster pace and reached 7.9 percent in FY2013. Domestic savings also increased from 12.5 percent of GDP in FY1981 to 20.1 percent in FY2010, thanks to the continuous decline in the dependency ratio (World Bank 2012). However, over the last three years, domestic savings have decreased due to a higher inflationary trend and reached only 19.3 percent in FY2013. National savings as a percentage of GDP also surged from 17.8 percent in FY1981 to 22.4 percent in FY2001 and to 29.5 percent in FY2013. A significant rise in national savings can be attributed to the rising inflow of foreign remittances. Over the last three decades, both exports and imports increased gradually as a share of GDP.

Figure 2: Sectoral Shares in GDP



Source: Estimated from the Bangladesh Bureau of Statistics (BBS) data.

However, the net export<sup>3</sup> as a percent of GDP increased from (-) 9.2 percent in FY1981 to (-) 8.2 percent in FY2013. This is a reflection of Bangladesh's success in increasing its export earnings at a pace that which was faster than its import payments.

<sup>3</sup>Net export is estimated as export earnings minus import payments.



#### 1.1.4 Drivers of Economic Growth

While identifying the drivers of economic growth for Bangladesh over the last three decades, a number of cross cutting factors have to be kept in mind. According to the World Bank (2012), the increased labor productivity has propelled economic growth in Bangladesh, particularly over the last two decades (1990s and 2000s). The economic growth decomposition analysis carried out by the World Bank in 2012 indicates that capital deepening, and to a much lesser extent, the growth of total factor productivity (TFP), were the most important contributing factors behind the growth of Bangladesh's labor productivity since the 1990s.

The industrial sector, particularly manufacturing, has been the main driver of the increase of economic growth in Bangladesh. In the manufacturing sector, the role of the RMG industry has been noteworthy, both in terms of Bangladesh's attainment of economic growth and its strengthened integration with the global economy. According to UNCOMTRADE data, in 2011, Bangladesh accounted for 4.8 percent of global RMG exports, a big increase from only 0.6 percent in 1990. Bangladesh has now emerged as the second largest RMG exporter in the world. Trade has become an important source of the national income.

Indeed, Bangladesh's export sector has been able to demonstrate a high degree of resilience compared to many other countries in the region in the face of the global financial crisis (Rahman *et al.* 2009; Rahman *et al.* 2010). Non-farm activities in rural areas, both involving industry and services sectors, have also played an important role in providing employment and income to a large section of the population.

Bangladesh also stands out among many Asian countries because of the progress the country has made in terms of enhancing its agricultural productivity. Cereal yield per hectare – which accounted for about 70 percent of agricultural value addition –

increased from 2,490 kilograms in 1990 to 4,143 kilograms in 2010 (ILO and ILS 2013). The only country which was able to register a higher increase in per hectare yield during the aforementioned period has so far been Vietnam (ILO and ILS 2013).

The higher productivity in cereal (particularly rice) production is attributed to a higher usage of irrigation and fertilizer for the cultivation of high-yield variety (HYV) *Boro* rice during the dry period, backed up by government support in the form of input price support.

Furthermore, the role of macroeconomic stability and several policy reforms need to be mentioned. Particularly during the 1990s, a set of comprehensive reform programmes were undertaken by successive governments which began when parliamentary democracy was introduced in Bangladesh following a decade long military rule during the 1980s.

One of the most important drivers of economic growth in Bangladesh is the country's social development. Bangladesh's successes in the areas of education, health and women empowerment are now globally acclaimed. The country's record in terms of formation of human capital and a greater participation of women in mainstream economic activities have received wide appreciation. The role of non-government organizations (NGOs) and microcredit operations, along with targeted development efforts of the government, were important in this context. Bangladesh is also among the top performers among the least developed countries (LDCs) in terms of attainment of the Millennium Development Goals (MDGs) (Bhattacharya *et al.* 2013b).

Another major factor contributing to economic growth in Bangladesh has been the gradual slowdown of population growth which means the proportion of the working age population has continued to rise, due to a faster population growth during the earlier decades, which translates into a lower dependency ratio today.



**Table 1: Labor Force and Employment Trends**

Indicator	2000			2010		
	Total	Male	Female	Total	Male	Female
Labor force (million)	40.7	32.2	8.6	56.7	39.5	17.2
Employed population (million)	39.0	31.1	7.9	54.1	37.9	16.2
Unemployed population (million)	1.7	1.1	0.7	2.6	1.6	1.0
Unemployment rate (%)	4.2	3.4	8.1	4.5	4.1	5.8
Underemployment (million)	6.5	2.3	4.2	11.0	5.5	5.5
Underemployment rate (%)	16.6	7.4	52.8	20.3	14.4	34.2
Unemployed and Underemployed (% of labor force)	20.0	10.5	56.6	24.0	17.9	38.0

**Source:** Based on the Labor Force Surveys (LFS) (various years), by the Bangladesh Bureau of Statistics (BBS).

### 1.1.5 Labor Market Developments

Bangladesh had a labor force of about 56.7 million in 2010. The labor force composition is dominated by men, with only 30.3 percent being women. However, the participation of women in the labor force has been on the rise – the share of women in the labor force in 2000 was only 20.9 percent. The labor force continues to be dominated by low-skilled workers with low or no education in 2010, 40.1 percent of the labor force has no education. However, gradual improvement is also visible in this regard – 58.7 percent of the labor force lacked education in 2000. Bangladesh has a very low unemployment rate of 4.5 percent according to the Labor Force Survey of the country (Table 1). However, the low rate is rather a reflection of the definition deployed. The unemployment rate is much higher among women in the labor force, although this gap is gradually narrowing.

More important is that low unemployment in Bangladesh is accompanied by high levels of underemployment. Underemployment was measured at 20.3 percent in 2010. The underemployment rate is much higher in the rural areas (22.7 percent) compared to urban areas (12.4 percent). At the same time, at the national level, it is higher for women (34.2 percent) compared to the male workforce (14.4 percent).

The agriculture sector, despite experiencing a steady decline in terms of contribution to the GDP, still absorbs 47.6 percent of the employed labor force. 35.4 percent of the labor force work in the service sector and 17.7 percent in the growing industrial sector. About two-thirds of women (64.8 percent) work in the agriculture sector. In total, most new employment opportunities generated during the last decade came from the growing services sector, followed by industry and agriculture. Nearly 70 percent of the additional services sector jobs were generated in the rural areas, more specifically in the wholesale/retail trade sector and in the transport and telecom sector (Rahman et al. 2011b). As an employment category, self-employment remained the largest form of employment in terms of numbers. It is important to note that most of the employment

(87.2 percent) in Bangladesh is in the informal sector. One of the encouraging developments concerning employment in Bangladesh has been the increasing female participation in the labor force. Between 2000 and 2010, the female labor force had indeed doubled, against a 39.3 percent growth in the overall labor force. At the same time, against a 38.7 percent increase in total employment during this period, female employment rose by 105.1 percent. The share of women in the labor force in 2010 stood at 30.3 percent (29.9 percent in total employment) compared to



21.1 percent (20.3 percent in total employment) in 2000.

A large share (36.8 percent) of young people (aged between 15-29 years) in the total labor force is one of the distinguishing features of Bangladesh's labor market. However, the youth labor force in Bangladesh has not been able to fully benefit from the economic gains of recent years. Despite rising educational attainments, youth unemployment remains high at 7.5 percent. It was of concern that young aspirants with higher educational attainment have been facing greater difficulties in finding a job compared to those with little or no education. As a matter of fact, the unemployment rate tends to rise with the level of education (ILO and ILS 2013). The unemployment rate was 12 percent among young people who have obtained a Secondary School Certificate (SSC) while the unemployment rate was 21 percent among youths with a postgraduate degree. One of the reasons behind this trend could be related to the skills mismatch between an increasingly qualified (educational attainment-wise) labor force and the availability of mainly low-skilled employment opportunities – mostly in the agricultural and manufacturing industries. The lack of a vocational stream in school education contributes to this worrying trend.

The situation is found to be even worse for the female youth labor force. The unemployment rate was higher for young women, at 8.5 percent. Young women had lower educational outcomes than young men joining the labor force. ILO and ILS (2013) estimated that, 94.6 percent of men between the ages of 15 and 29 years who are not in the labor force were enrolled for studies, compared to only 20.7 percent of women in 2010.

Overseas employment is a key component of Bangladesh's labor market, which helps to reduce the pressure on the domestic labor

market. Between 2006 and 2010 (between the last two Labor Force Surveys), 2.9 million people from Bangladesh had gone abroad for jobs. This number was about 40.2 percent of the incremental labor force over the corresponding period, a fact that signifies the importance of the overseas labor market for Bangladesh. However, a significant number among these emigrant workers are endowed with only low skills. Most emigrant workers are going to Middle Eastern countries such as Saudi Arabia, United Arab Emirates (UAE) and Qatar.

### *1.1.6 Wages*

A significant wage disparity exists between men and women in the workforce. In general, wages for men are found to be 42.5 percent higher than wages for women (World Bank 2013a). There are also significant differences between wages in urban and rural areas. The average real wage increased by 23.1 percent between 1999-2000 and 2005-2006; the highest increase was recorded in the manufacturing wages. However, during the latter half of the decade, real wages in the rural areas increased at a faster pace after the food price crisis in 2007. The World Bank (2013a) estimated that in 2001, workers in cities could buy about 10 kg of rice using one day's wage, while a rural worker's daily wage could afford to buy only about 6 kg of rice. In the face of the food price crisis in 2007, daily rice equivalent wages in urban and rural areas declined to about 5.5 kg and 4 kg of rice respectively. By 2011, the purchasing power of daily wages in both rural and urban areas had increased to the level of equivalent prices of 8 kg rice. Thus, urban real wages have actually gone down towards the end of the decade whereas rural real wages have increased. Observing these developments, Zhang et al. (2013) argued that the so called 'Lewis turning point', at which the labor market starts to shift in favour of workers, has perhaps arrived in Bangladesh.<sup>4</sup> Considering

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<sup>4</sup>The authors observed that an increase in real wages, particularly female wages, has accelerated since the late

2000s. Rising wages are most likely a result of the combination of more job opportunities in the non-farm



that human capital is the most important asset for the poor, this rise in real wages has boosted the poor's earnings, leading to poverty alleviation and an improvement of welfare.

### *1.1.7 Macroeconomic Stability*

One of the major successes of Bangladesh's macroeconomic management during the last two decades has been the macroeconomic stability that the country has experienced. Inflation in Bangladesh has remained well below double digits for most part of its post-independence history. On average, public savings in Bangladesh increased from 0.9 percent of the GDP in the 1980s to about 2 percent on average over the next decade-and-a-half and remained well above 1 percent towards the end of the 2000s (World Bank 2012). The overall budget deficit was financed through prudent external borrowing which kept the effective interest rate on public debt at less than 5 percent. The public debt-to-GDP ratio has been declining throughout the last decade to reach about 34.5 percent in FY2013. Outstanding domestic debt was about 16.8 percent in FY2013 while outstanding external debt was about 17.7 percent in FY2013. The current account balance has also been stable during the last two decades. Since adopting the floating exchange rate regime in 2003, the Bangladesh Bank has followed a market-based exchange rate policy that helped to smoothen the exchange rate volatility and contributed to building up of the foreign exchange reserves (World Bank 2012).

## **1.2 Present macroeconomic problems**

### *1.2.1 Stagnation in Economic Growth*

As was noted earlier, Bangladesh was able to register impressive and improving economic growth over the last three decades. Indeed, the average economic growth rate has

increased sequentially by one percentage point in each decade. The present government has set its aim to take the GDP growth rate further up to the level of 8 percent by FY2015, and 10 percent by FY2021 (GED 2011). During the last three years, despite maintaining a growth rate of over 6.0 percent, Bangladesh failed to accelerate its growth rate to newer heights of 7 or 8 percent. More importantly, economic growth has recently suffered a decline, for two consecutive years – from 6.7 percent in FY2011 to 6.2 percent in FY2012, and 6.0 percent in FY2013. Early indications suggest that this trend may continue in the current year (2014) and could come down to below 6.0 percent (CPD 2014).

### *1.2.2 Declining Private Investment*

Robust private sector investment is a prerequisite for economic growth. However, in FY2013 private investment as a share of GDP declined by one percentage points, from 20 percent in FY2012 to 19 percent in 2013. Private investment has mainly suffered on account of the weak infrastructure for the last few years. In FY2012, the central bank followed a monetary tightening policy in order to reduce the inflation rate from double to single digits. As a result, the inflation rate has come down, but at a cost. The policy had a negative impact on the credit flow (CPD 2013b). This was followed by prolonged political uncertainty before the national elections which has been holding back investors from investing more.

### *1.2.3 Weak Infrastructure*

Infrastructure deficiencies affect returns on investment, and also discourage new investment. Bangladesh has been suffering from acute shortages of electricity for the last several years; during the period 2007-2011 all kinds of new natural gas connections remained suspended (CPD 2011). Even

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sector, especially in the manufacturing sector for women (driven by the RMG sector), and a higher remittance flow, primarily from male workers overseas.



though the last five years, the electricity generation capacity has been increased by about 3,330 megawatts (MW) by both public and private sector, the gap between demand for and supply of electricity was as high as 1,200 MW. Although the government managed to increase electricity generation, the present strategy of favoring electricity generation from imported liquid fuel is neither a cost-effective method, nor is it sustainable. The share of value-added infrastructure services in total GDP has remained mostly unchanged, at about 11 percent since the 1980s, with insignificant changes in forms of infrastructure (World Bank 2012). In addition to this, access to land is a major impediment that discourages new investments, particularly in manufacturing. Large tracts of unused land are difficult to locate to set up new manufacturing industries. Property registration typically takes 245 days in Bangladesh, compared to 44 days in India, 57 days in Vietnam, 22 days in Indonesia, and only 2 days in Thailand (World Bank 2012).

#### *1.2.4 Emerging Weaknesses in the Banking System*

Over the past years Bangladesh has experienced a significant deepening of its financial market, with increasing participation of financial institutions and the introduction and diversification of financial tools. No doubt, the size of the industry has expanded in terms of total banks and their branches, deposits and credits, which in turn have contributed to the economic development of the country. However, the banking sector in Bangladesh has come under pressure in the recent past due to increased number of financial scams and the rising size of loan defaults. The soundness indicators concerning the banking sector performance reveal that since 2009 the overall performance of the sector has not been satisfactory. Capital to risk weighted assets is on the decline while the percentage share of

non-performing loans (NPL) to total loans is on the rise (Khatun 2013). Malpractices on the part of a number of commercial banks have also contributed to the weak performance of the banking system.<sup>5</sup> There is a need for further reform measures to streamline the activities of the sector to raise its performance. Oversight functions of the central bank need to be strengthened.

#### *1.2.5 Maintaining Macroeconomic Stability*

Maintaining macroeconomic stability has become more challenging for Bangladesh in the face of the recent volatility that the economy has experienced. During FY2011 and FY2012 the economy was confronted with a number of macroeconomic tensions reflected in a consumer price hike, rising bank interest rates and falling exchange rate of the national currency. These were underpinned by global economic shocks as well as by domestic policy and institutional weaknesses (CPD 2013a). Some of the macroeconomic measures put in place to correct these trends had undermined economic growth prospect. Under these circumstances, when policymakers were overly preoccupied with concerns of maintaining stability, it has become difficult to direct policy measures towards broad-based, inclusive and accelerated growth.

#### *1.2.6 Creating Jobs for a Growing Young Labor Force*

Although between the last two Labor Force Surveys (2006 and 2010), (average annual) growth of employment creation (3.4 percent) has been higher than the growth of the working age population (3.1 percent), the pace of employment generation (3.5 percent) has been slower than the growth of labor force (Table 2). As a result, 0.5 million additional people remain unemployed. Indeed, the World Bank (2012) estimates that the employment elasticity of growth has declined from 0.8 in the early 1980s to 0.4 in the late 2000s. This implies that accelerated

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<sup>5</sup>See Khatun (2013) for details.



economic growth will be required to provide gainful jobs for a growing young labor force. Each year 2.1 million people are joining the labor force in Bangladesh while 2.7 million (in 2010) are unemployed already. If the 11 million underemployed people are considered as well it becomes clear that providing sufficient and gainful employment in both domestic and external markets will remain a key challenge for Bangladesh. To address this challenge the supply and demand-sides of the labor market need to be better linked.

**Table 2: Annual Growth (%) (2006-2010) in Working Age Population, Labor Force and Employment**

Indicator	Total	Male	Female
Working age population (15+)	3.1	2.7	3.5
Labor Force	3.5	1.4	9.1
Employed population	3.4	1.2	9.4

Source: Estimates based on Labor Force Surveys (LFS) (various years), by the Bangladesh Bureau of Statistics (BBS).

### 1.2.7 Ensuring a Living Wage and Rights to the Employed Labor

Bangladesh is known worldwide for its cheap labor. Wages in the manufacturing sector are perhaps more sticky compared to wages in the agriculture sector. Indeed, ensuring a minimum living wage, allowing for a decent income, has been highly challenging even for workers in the RMG industry, the largest export-earning sector of the country. Limited trade union rights and weak collective bargain power were two of the major factors behind this. The nature of distribution along the value chain in the RMG production and a trade model that favours middlemen, prominent buying houses and retailers is another major reason for low wages that don't allow for a decent living of the workers. It has been strongly argued that workers should be ensured a fair share in the RMG value addition through ownership and institutional reforms (Sobhan 2013). Issues of labor rights, improved working conditions, workplace safety and security, and ensuring a

living wage, etc. have assumed greater prominence particularly in view of the Rana Plaza tragedy in April 2013 (Monitoring the Rana Plaza Follow-ups 2013).

### 1.2.8 Adverse Impact of Political Impasse

In view of a political culture of entrenched confrontational politics, over the recent past, Bangladesh has experienced continuing political agitations, in various forms such as general strikes and blockades. These have transmitted serious shocks to the economy. Indeed, political instability, particularly in the run-up to the national parliamentary election is not uncommon in Bangladesh. Bhattacharya et al. (2013a) showed that continued political conflicts caused a decline in domestic demand, lower investment, leading to a deceleration in trade-related activities and to an escalation in terms of social costs. In addition to tangible economic costs, there are intangible losses including the erosion of the country's image due to political violence. A major long-term impact arising from hartals is found to be in the form of the loss of the capital stock. Related to this, using the Computable General Equilibrium (CGE) model exercise in the Bangladesh context, Bhattacharya et al. (2013a) estimated that a 1 percent decline in capital supply could reduce GDP by 0.9 percent. In fact, all major macroeconomic indicators including household consumption, investment and employment creation would be adversely affected. Although a number of adjustment measures were deployed by both government and non-government agents in view of the increasing political agitations, the effectiveness of macroeconomic policy instruments to safeguard economic interests did not measure up to what they were supposed to achieve because most of these institutions also remained paralyzed.

### 1.2.9 Lack of Good Governance

Bangladesh has not been able to realize its full socioeconomic potential in absence of good governance and an accountable and transparent policy environment. A weak state



of governance was manifested in many ways including the boom and bust in the capital market of the country and big scandals in the banking sector. The capital market remains a key area to raise investible resources through raising equity. However, the capital market experienced significant volatility, mainly because of bad governance and insider manipulation, leading to an erosion of investors' confidence. In a similar fashion several banking sector scams have also contributed to the decreasing confidence of investors. In recent times, the Securities and Exchange Commission (SEC) of Bangladesh has finalised the demutualisation of the stock exchanges and the Bangladesh Bank has strengthened its oversight function and prudential management of the financial sector. These are positive signs.

#### *1.2.10 Slow Pace of Reforms*

Reforms and policy initiatives to raise the quality of developmental outcomes should be seen as an ongoing effort in a developing economy such as Bangladesh (CPD 2012). During the 1990s, Bangladesh had pursued its first generation reforms which led to an opening up of the economy which contributed to higher GDP growth. However, it is now felt that without successful second generation reforms leading to stronger institutions and institutional capacities, the economy will not be able to move towards an accelerated growth trajectory. Although a number of reform activities have been initiated in Bangladesh in recent times, their success have been rather limited due to the inability to undertake associated measures and making the reform programme a more comprehensive one with appropriate follow-up actions (CPD 2012). For example, public-private partnerships (PPP) were to be encouraged with the aim of stimulating investment in Bangladesh. Regrettably, progress over the past five years has been rather slow because of the slow pace of undertaking the needed initiatives in the areas of putting in place necessary institutional set-ups, designing relevant rules

and regulations and taking the concrete follow-up steps.

### **1.3 Likely future development**

The government of Bangladesh has voiced its ambition that the country should become a middle-income country by 2021. The Sixth Five Year Plan for 2011-2015 and the Outline Perspective Plan 2011-2021 (GED 2010; GED 2011) have targeted an ambitious growth trajectory towards this objective. Regrettably, the macroeconomic correlates have fallen behind the SFYP targets (CPD 2013a). It will therefore be difficult to achieve middle income country status if the current rate of six (plus) percentage growth rate cannot be accelerated in the coming years (World Bank 2012). Attaining the status of even a low middle-income country by 2021 would require a minimum of 7.0 percent annual growth over the remaining years until 2021. It is thus critically important to accelerate economic growth and create more gainful employment over the next few years. Mahajan (2005) identified the following factors which are currently holding back GDP growth in Bangladesh: the inability of the country to fully benefit from global integration, a lack of financial intermediation, and poor quality of governance, such as weak law and order and a cumbersome bureaucracy. Rahman and Yousuf (2010) also pointed out a number of constraints for Bangladesh's economic growth including low levels of human capital, poor infrastructure, and market failures in specific sectors, low levels of trade, corruption and cumbersome regulations.

It is reckoned that propelling Bangladesh to a higher growth trajectory would call for the implementation of economic and regulatory reforms along with a higher investment in physical infrastructure and human capital formation. Having secured a reasonable level of macroeconomic stability and having completed the first generation reforms listed above, Bangladesh will now need to focus on harnessing higher competitiveness and productivity through microeconomic reform



programmes (World Bank 2012). These reforms are needed to translate macroeconomic stability into accelerated and pro poor growth. Productivity growth, export diversification, attracting foreign direct investment (FDI) and creating employment are the areas that need heightened attention in this context. A key factor is a good infrastructure which is critical to improving productivity, and enhancing competitiveness of the Bangladesh economy in both domestic and global markets which would be reflected in higher domestic private sector investment and greater FDI flows.

**Table 3: Share (%) of Major Sectors in Total Value Added**

Sectors	FY2010	FY2013	FY2015 (Target)	FY2021 (Target)
Agriculture	20	18	16	15
Industry	29	31	35	40
Manufacturing	17	19	26	30
Service	52	51	49	45

**Source:** Estimated from the Bangladesh Bureau of Statistics (BBS) and Planning Commission data.

The structural transformation of the Bangladesh economy, one of the goals in the SFYP, will require an accelerated growth of the manufacturing sector (Table 3). Towards this end, an important step will be to strengthen Bangladesh's presence in global markets. Bangladesh is poised to exploit the long-awaited demographic dividend with its higher share of working-age population and a declining dependency ratio due to a growing labor force and a declining birth rate. Cheap labor is currently Bangladesh's most important comparative advantage. However, the abundant and growing labor force is currently underutilized. Bangladesh's competitors are becoming expensive places to do business. Bangladesh wage is currently half that of India, and less than one-third compared to China or Indonesia.

In the coming years China's exports of labor intensive manufacturing products are expected to decline in face of rising wages, labor shortages, the resulting need to move away from coastal belts to inner China and

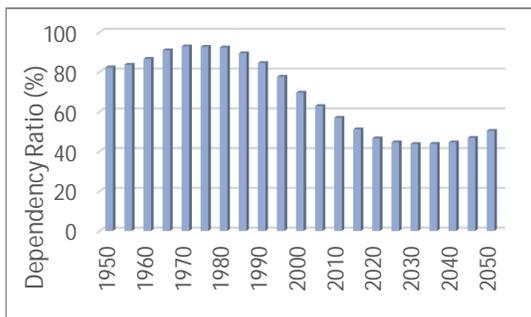
costly labor regulations. Indeed, capturing only one percent of China's existing manufacturing export market can double Bangladesh's exports of manufacturing commodities. It is possible for Bangladesh to take advantage of this low-cost edge it has over its competitors. In order to do so, Bangladesh will however need to break the infrastructure bottleneck. Another challenge is the fact that when productivity is low, labor no longer remains 'cheap'. The World Bank (2012) estimated that if Bangladesh can improve its business environment to half of that of India's level, the country could increase trade by about 38 percent. However, if Bangladesh takes too long to undertake these measures, its competitors such as Vietnam, India, Cambodia and some of the African countries will take over the markets that China is vacating, and will lose its chance to make use of the potential opportunities of the 'China plus one' policy of most major international buyers (particularly of apparels).

As hinted to above, with respect to the continued labor supply, according to the projected data of the United Nations Conference on Trade and Development (UNCTAD), an estimated 21 million people will be added to the working age population of Bangladesh between 2010 and 2020. This demographic dividend will continue to offer a great opportunity for Bangladesh over the coming 20-25 years. However, one needs to be mindful of the fact that this rapidly expanding group of potential workers also poses an enormous challenge in terms of providing adequate work opportunities for Bangladeshis. It is expected that after 2035 dependency ratios in Bangladesh will start to rise again (Figure 3). This has two policy implications for Bangladesh. First, the demographic dividend can only become an advantage if appropriate policy steps are taken and there is no room for delay. And second, Bangladesh will need to prepare for a higher dependency ratio in the future. In this context, it is particularly important for Bangladesh to devise a comprehensive strategy outlining how a universal social protection system can be adopted.



As many of the other in the group of 49 LDCs, Bangladesh's developmental aspiration is to graduate from its current LDC status. Bhattacharya and Borgatti (2012) suggested that, for Bangladesh, the further development of its human capital assets is the best strategy on its way towards graduation from its current LDC status. According to the projections made by the authors, Bangladesh could meet the graduation threshold by 2027, graduate out of the LDC group in 2033, and keep all the benefits linked to the LDC status until 2036. However, it may also be possible for Bangladesh to graduate earlier than estimated, provided that the country is able to strengthen its efforts towards higher public expenditure in human capital and by significantly increasing its investments in the social sector. However, a possible future graduation from the LDC status will mean that Bangladesh will lose the benefits the country currently enjoys as an LDC, for example with regard to trade privileges granted by the European Union to LDCs. Bangladesh therefore needs to prepare its graduation from LDC status carefully.

**Figure 3: Projection of Dependency Ratio in Bangladesh**



**Source:** Estimated from the United Nations Conference on Trade and Development (UNCTAD) data.

## 2. Income Distribution, Consumption Demand and Sustainable Development

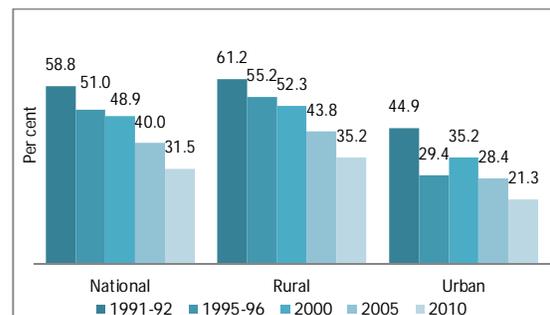
### 2.1 Past development of income distribution

While Bangladesh may be on track to achieve the MDG target of halving poverty by 2015,

there is a flip-side to this progress. The income distribution has tended to be asymmetrical as the Gini Coefficient demonstrates which has increased from 0.39 in the early 1990s to 0.45 in 2000, which further deteriorated to 0.47 in 2005 (BBS 2007), indicating a rising income gap between the rich and the poor. A marginal improvement has been observed in 2010 when the Household Income and Expenditure Survey (HIES) data indicated that the Gini Coefficient has declined insignificantly to 0.46 (BBS 2011). The recent trend of increasing income inequality is indeed a worrying phenomenon, and constitutes a key challenge for the future development of Bangladesh.

As mentioned before, Bangladesh has achieved remarkable progress in reducing poverty during the 2000s. According to the latest HIES of Bangladesh, the poverty rate declined by about one percentage point per annum during the 1990s, and by about two percentage points between 2000 and 2010, as measured by the Cost of Basic Needs (CBN) method. However, the poverty headcount rate remained high at 31.5 percent of the population in 2010, declining from 58.8 percent in 1991-92 (Figure 4). The absolute number of people in poverty, however, remained high at a staggering 45 million. It is generally recognized that the commodity price hikes of the recent past, particularly of rice, and the impact of the global economic shocks, have had significant adverse impact on the pace of reducing poverty (Rahman *et al.* 2010). Such developments have also adversely affected income distribution.

**Figure 4: Poverty Rate in Bangladesh**



**Source:** Prepared from the Bangladesh Bureau of Statistics (BBS) data

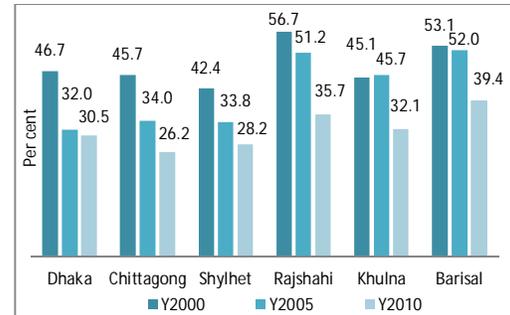


Historically, a major proportion of the population in Bangladesh resides in rural areas where poverty is still higher compared to urban areas. While the rate of poverty reduction was comparable across urban and rural areas, poverty continues to be mostly a rural phenomenon. The poverty rate in rural areas was 35.2 percent whereas 21.3 percent of urban residents remained under the upper poverty line in 2010. Over the last two decades, the poverty headcount ratio in rural and urban areas has declined by 17.1 and 13.9 percentage points respectively. In fact, poverty reduction in rural areas between 2000 and 2010 was faster compared to the achieved reduction in urban areas.

Regional disparity has been a common case all over the world and Bangladesh is no exception. For example the Rajshahi division has historically been the 'poverty pocket' in Bangladesh. Poverty estimates in 2005 highlighted the need for creating economic opportunities for narrowing the emerging gap between the East and the West of Bangladesh. Poverty headcount figures from the years 2000 and 2005 revealed that while there were large declines in poverty in all of the Eastern divisions (Chittagong, Dhaka and Sylhet), their Western counterparts (Barisal, Khulna and Rajshahi) had remained practically stagnant (Figure 5). Curiously, it appears that the second half of the 2000s provided the lagging regions with opportunities to catch up. Comparing the new poverty headcount figures from 2010 to those from 2005 reveals a reversal of regional poverty patterns. Not only did the Western divisions (Barisal, Khulna and Rajshahi) experience larger reductions in poverty (as measured by the poverty headcount ratio), they also managed to reach levels of poverty that are closer to those of their Eastern counterparts (Chittagong, Dhaka and Sylhet). Dhaka, the division with the lowest poverty rate in 2005, did not experience significant changes in its poverty headcount. There is a debate in Bangladesh as to which factors contributed to this reduction in regional disparity. Targeted government allocations

were no doubt one positive step. However, the phenomenon needs further investigation.

**Figure 5: Poverty Rate across Region (Divisions)**



**Source:** Prepared from the Bangladesh Bureau of Statistics (BBS) data.

According to the World Bank (2013a), labor income was the single most important contributor to poverty reduction during the last decade. Besides, the growth in labor income was mostly driven by increases in farm incomes. A lower dependency ratio, partly due to a decreased birth rate, was also among the drivers of poverty reduction. These two factors were also the two most important contributors to the regional poverty reduction patterns. However, there were qualitative differences in how growth in labor income occurred over the decade.

During the first part of the 2000s, increases in wages in the non-farm sector were the most important contribution to poverty reduction. The World Bank (2013a) identified three drivers of poverty reduction during 2001-2010: (i) workers moving away from agriculture and towards manufacturing and services; (ii) workers moving away from daily and self-employed work towards salaried jobs; and (iii) an increase in the level of education of the workforce. During the second half of the decade, there was more poverty reduction in the farm sector. In particular, the farm sector experienced a significant increase in labor income, which was not associated with higher levels of education or changes in occupation. This was largely due to an increase in rural real wages, which reduced poverty and the gap between the urban and rural wages.



## 2.2 Present debate about policies to change income distribution

### 2.2.1 Poverty Pockets in Bangladesh

The persistence of poverty pockets in Bangladesh tends to slow down the future progress of poverty alleviation. There are spatial features as regards extreme poverty incidence across various districts in Bangladesh (Khatun et al. 2012).<sup>6</sup> The existence of extreme poverty pockets in different parts of Bangladesh continues to make poverty persistent and visible, and undermines national efforts and records of poverty alleviation.<sup>7</sup> Chars (elevated land) in the basins of three major rivers – Padma, Jamuna and Teesta – constitute one of the most poverty-stricken region of the country. Similarly, ethnic groups in Bangladesh, particularly those located in the Chittagong Hill Tracts (CHT), are even more deprived of economic and social entitlements. In FY2010, Bandarban, the largest of the CHT districts, was one of the 10 extreme poverty-prone areas in Bangladesh. Significant risks emerging from climate change are a major poverty risk for people living in the coastal areas of Bangladesh. Sustainable poverty alleviation will need to consider all these poverty pockets, which may have diverse sets of problems to be addressed.

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<sup>6</sup>For example, the extreme poverty rate in Feni was only 4.8 per cent in 2005 whereas it was as high as 55 per cent in Nilphamari. It is, however, not always true that the most poverty-prone districts belong to the Western part of the country. Within the top 10 extreme poverty-prone districts, two districts, Mymensingh and Jamalpur, belong to Dhaka division.

<sup>7</sup>For example, munga, a seasonal famine in ecologically and economically vulnerable parts of North-Western Bangladesh, is not a new phenomenon. However, it became a part of the political debate and found its way into Bangladesh's Poverty Reduction Strategy Papers (PRSPs) in the last decade, and subsequently featured prominently in the SFYP document.

<sup>8</sup>Chowdhury (1994) determined that the difference between indirect taxes on the poorest (poorest 30 per cent of the rural population) and the richest income

### 2.2.2 Tax Policy for an Equal Economy

The effort to mobilise revenues in Bangladesh is one of the weakest in the region. In FY2013, revenue mobilisation accounted for only about 12.5 percent of the GDP while the tax-GDP ratio was about 10.8 percent. The weak mobilization of resources has made it difficult for the government to allocate more resources towards the social sector and to safety net programmes. The present structure of tax policies in Bangladesh only leaves limited space for influencing the distribution of income in the economy. The share of indirect taxes of the total tax revenue is significantly higher – about two-thirds of the total. The indirect tax system in Bangladesh is considered to contribute to the persistent inequality in Bangladesh.<sup>8</sup> On a welcome note, the share of income tax of the total tax collection has been on the rise in recent years. It is important that this trend continues to establish a more equitable fiscal policy in Bangladesh. In general, the personal income tax structure is progressive in nature. However, the coverage of income tax is rather limited. At present, only 7.5 lakh people pay their income tax – a very small proportion of the eligible population. Furthermore, the income tax structure has also been criticised due to the fact that the marginal tax burden for the lower income group was higher than that of the upper income group (Rahman and Kabir 2010).

groups (richest 30 per cent of urban population) in Bangladesh was roughly around one percentage point. This implies, the indirect tax structure of Bangladesh has had little impact on equalising income between the richest and poorest sections of society. The study also concluded that indirect taxation had little impact on narrowing the rural-urban per capita income gap and failed to address the spatial differences. Hossain (1995) also argued that the value added tax (VAT) system, introduced in Bangladesh in 1991, benefitted the richer income groups while it adversely affected the poorest section of the economy. Bhattacharya et al. (n.d.), using the input-output model for 2000, showed that the indirect tax system in Bangladesh was regressive in nature. The authors concluded that the poorest section paid relatively higher taxes as a percentage of their expenditure on different items compared to that of the richer section.



### 2.2.3 Inadequate Social Safety Net Programmes (SSNPs)

It is widely recognised that the ultra-poor are difficult to reach through standard development programmes. Consequently, poverty reduction must be supplemented by adequate social safety net programmes (SSNPs). While safety nets can provide immediate relief during emergencies, by ensuring employment, education and nutritional intake for the poor, these programmes can also play a leading role in addressing poverty and inequality in the long-run. A number of studies have concluded that, in the context of Bangladesh, transfer income from SSNPs was one of the rare equalizing sources of income (Bhattacharya and Khan 2008; Khan and Sen 2001; Khan 2006). Iqbal et al. (2008) found that SSNPs had a positive, albeit not very significant, impact on poverty reduction.

The Government of Bangladesh operates around 90 different SSNPs in Bangladesh. Khatun et al. (2010) classified SSNPs into four broad categories considering their nature, design and objectives: (i) Employment

Generation (both self-employment and wage employment); (ii) Conditional Transfers; (iii) Transfers; and (iv) Emergency Relief. SSNPs such as Employment Generation for the Hardcore Poor (EGHP), Food for Work (FFW), Vulnerable Group Development (VGD), Test Relief (TR), Rural Employment Opportunities for Public Asset (REOPA), and Rural Employment and Rural Maintenance Programme (RMP) provide wage employment, whereas self-employment programmes in Bangladesh are generally dictated by microcredit schemes. The conditional transfers are made to the targeted households with an aim to generate income in the short-run, and improve human development (e.g. education and nutrition) in the medium and long-run. Programmes such as Old Age Allowance, Allowances for the Widow, Deserted and Destitute Women, Honorarium for Insolvent Freedom Fighters, Assistance to the Fully Retarded, and

Maternity Allowance for the Poor Lactating Mothers are among the programmes which transfer cash or in-kind support to the targeted section of the society. Poorest segment of Bangladesh is the worst victim of natural calamities. The objective of emergency relief programmes, such as Vulnerable Group Feeding (VGF) and Gratuitous Relief (GR) is to help victims during sudden shocks, emergencies or disasters in order to prevent an erosion of consumption levels.

The design of many of these programmes is inadequate in terms of prioritisation as well as their respective reach to the poorest section of society. In fact, a number of programmes hardly recognise the ultra-poor as a special category among the poor sections of society. At the same time, operating a large number of programmes makes it cumbersome for the public administration. Some of these programmes are very similar in nature. For example, the programme titled Maternity Allowance for the Poor Lactating Mothers and the Allowances for Urban Low-Income Lactating Mothers – both aim at providing support to poor lactating mothers. Similarly, a number of wage employment generating programmes, e.g. EGHP, RMP and Employment for Ultra Poor in the Northern Region are very similar in nature. These programmes can be consolidated under one umbrella programme, which can help reduce administrative hassles and costs.

The absence of long-term comprehensive data makes it difficult to track the expenditure on SSNPs. Sobhan (2010) reported that the expenditure on account of SSNPs remained stable around 4 percent of total budget until a small rise in recent times. The World Bank (2006) estimated that during the period 1997 to 2005, on an average, the government expenditure on SSNPs was to the tune of 0.8 percent of the GDP and 5.7 percent of the total public expenditure. As a share of GDP, allocation for SSNPs increased to 2.5 percent in FY2011 (which also includes Pension for Retired Government Employees



and their Families).<sup>9</sup> The SFYP document proposed to increase public expenditures on SSNPs to 3 percent of GDP in FY2015 (GED 2011). Regrettably, the SSNP allocation as a percentage of GDP has declined over the past three years. The budget for FY2014 estimates the SSNP allocation to be 2.1 percent of the GDP. One also needs to be mindful of the fact that the allowances distributed under the SSNPs are rather low. For example, beneficiaries of the old age allowances are currently receiving less than USD 4 per month.

Indeed, Bangladesh appears to be spending far less on SSNPs than other regions. The World Bank (2006) showed that on an average South Asian economies spent 4 percent of GDP on SSNPs, whereas the expenditure in East Asia and Pacific was about 8 percent of the GDP. European economies maintained an expenditure equivalent to 20 percent of the GDP on social protection.

#### *2.2.4 Required Improvements in Coverage and Targeting of SSNPs*

Only a small proportion of the extreme poor are covered by the SSNPs in Bangladesh. Nevertheless, one needs to recognise the fact that the coverage of SSNPs has increased significantly between 2005 and 2010. According to HIES data, in 2005 only 13.1 percent of total households were covered under the SSNPs. The coverage increased to 24.6 percent in 2010. Due to the amount of different programmes, it is difficult to estimate the coverage of SSNPs in Bangladesh in terms of number of persons covered or persons-per-month benefitting criteria. It is also almost impossible to determine how many of the ultra poor benefit from the SSNPs. However, it can be concluded that even though the aggregate

coverage of the SSNPs was very low, it is on the rise in tandem with rising allocations and introduction of new programmes. Given the scarcity of resources, geographical targeting can be one approach which could improve the targeting of SSNPs. However, there is little evidence that a regional approach was actually considered in the overall design of the SSNPs.

From a humanitarian and an equity perspective, it is highly desirable that Bangladesh designs a universal social protection system along the lines of what already exists in some other developed and developing countries. The current constraint to do so stems from lack of adequate resource availability. A more disturbing feature of SSNPs in Bangladesh is the leakage, which is considerable. Mistargeting significantly undermines the distribution of benefits from SSNPs. Therefore, the targeting criteria should narrow the eligible population to a point where more than half of the target beneficiaries originate from the poorest section of the population (Rahman and Kabir 2010). The World Bank (2006) showed that 27 percent of VGD beneficiaries and almost 47 percent of the Primary Education Stipend Programme (PESP) beneficiaries were among the non-poor, and should not have been included in the programme. It was found that while identifying the poorest, the policymakers' approach was limited to the landless criteria only. Given the changing dynamics of the Bangladesh economy, policymakers will have to look beyond the traditional approach for a successful programme outcome.

In connection with the above, by analyzing HIES 2005 and 2010 data, the World Bank (2013a) made a number of important observations. *First*, the proportion of non-poor SSNP recipients increased from 44

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<sup>9</sup>As a matter of fact, the definition of SSNP is undergoing a number of changes. For example, Pension for Retired Government Employees and their Families was being operated, but was not recognised when a more comprehensive data on SSNP budget was presented in 2007. In FY2011, this programme accounted for 20 per cent of the total safety net budget.



percent in 2005 to almost 60 percent in 2010. *Second*, the share of total programme spending accruing to the poor dropped from 52.6 percent in 2005 to 35.3 percent in 2010 within this five year period. *Third*, the average transfer adequacy is also low, and has worsened over the years. On an average, the share of SSNP transfers to consumption of poor households has come down from 22 percent in 2005 to 11 percent in 2010. *Finally*, even though benefits were inadequate, if allocated to the poorest households, the total safety net budget could potentially reduce the level of poverty by as much as 4.3 percentage points. The above observations imply that not only the allocation and coverage, but also the design and implementation of SSNPs call for a serious reassessment by policymakers.

**Table 4: Poverty Headcount Rate (%) and Total Number of Poor (Millions) under Different Poverty Lines**

Year	Poverty Rate (%)				Number of Poor (Millions)			
	National	USD 1.25	USD 2.00	USD 2.50	National	USD 1.25	USD 2.00	USD 2.50
2010	31.5	43.3	75.8	85.7	46.8	64.3	112.7	127.5
2005	40.0	50.5	79.7	87.9	55.5	71.0	112.0	123.6
2000	48.9	58.6	83.9	90.5	61.7	75.9	108.7	117.2
1995	50.1	60.9	85.1	91.2	58.9	71.6	99.9	107.1
1991	56.7	70.2	92.7	96.6	61.7	75.7	99.9	104.1

Source: Adopted from World Bank (2013a)

### 2.3 Likely future development

Despite the remarkable successes with regard to its socioeconomic development over the past decade, Bangladesh may face a number of challenges in the next decade in further alleviating poverty.

*First*, dietary adequacy and diversity emerged as a major challenge during the last decade. Analysing the HIES 2010 data, the World Bank (2013a) suggested that the low dietary diversity remained a persistent problem in Bangladesh. Indeed, despite attaining a significant decline in consumption poverty, no significant change in nutrition intake was observed which was true across all income groups.

*Second*, among the poor living in regions which are affected by seasonal deprivation, the seasonality of consumption is still a recurring phenomenon. For these people seasonal migration is a key coping strategy. Social safety net expenditures are often not well targeted towards those most in need.

*Third*, poor households living in the poorest regions are less able to cope with climatic and economic shocks. According to HIES 2010 data, over half of the households in Bangladesh experience one or more shocks each year. Rural households are particularly vulnerable. It was observed that compared to their urban counterparts, rural households are more likely to deplete their productive assets or use high-interest loans from money lenders (World Bank 2013a)

When faced with climate-related shocks, an overwhelming majority of households are not able to effectively cope with these shocks.

The provision of sustainable support by the government to the affected households remains a key challenge.

*Fourth*, despite having significantly increased food grain production over the past years, poor households in Bangladesh continue to be vulnerable to food price shocks

(Raihan and Khan 2013). The nutritional intake of most poor people was negatively affected by price shocks in 2007-2008 since 74 percent of calories consumed by average households came from cereals for which prices went up. Indeed, rice alone represents more than 40 percent of total consumption for the poorest households. Jacoby and Dasgupta (2012) estimated that, in the short-run the rural extreme poor experienced a 22 percent decline in consumption while the



average impact on the non-poor was a 4 percent decline. It is evident that a significant section of population, who have graduated from below the poverty line, could be exposed easily to shocks and, as a consequence, fall back into poverty. Hence, the attainment of sustainable poverty reduction, in the backdrop of such shocks, still remains a challenge for Bangladesh.

*Fifth*, it appears that poverty numbers in Bangladesh are sensitive to the estimation method. In other words, a large number of people who are not poor according to the national poverty definition have clustered just above the poverty line. The World Bank (2013a) showed that 8.2 percent of the population (12.4 million people) lived within only ten percent above the poverty line in 2010. Thus moving from the national poverty line (which is equivalent to USD 1.09 per day) to the international USD 1.25 per day line increases the headcount ratio from 31.5 percent to 43.3 percent (Table 4). The number of poor rises by 37.7 percent (11.5 million) when the poverty line is increased by just 16 cents. Raising the poverty line to a more generous USD 2.5 per day increases the headcount ratio to 85.7 percent. Thus, while the CBN-based poverty headcount rate declined rapidly in the last decade, vulnerability has not. Hence, staggeringly large numbers of people are at the margin, indicating potential vulnerability.

### **3. World Market Strategy and Protection from External Shocks**

#### **3.1 Past integration into the world market**

Bangladesh has experienced wide ranging changes in trade and industrial policies over the past decades. It has shifted from a predominantly import-substituting trade and industrial strategy towards export-promotion and private sector-oriented trade and a corresponding industrial strategy. Until the early 1980s, Bangladesh had pursued mostly inward-looking, public sector-oriented policies with protectionist measures in the

form of quantitative restrictions (QR), restrictive import licensing, differentiated and a high rate of nominal tariffs, and an overvalued domestic currency (Rahman et al. 2012). This period experienced the nationalization of major industries such as jute, textile, and sugar. Gradually, Bangladesh started to pursue a number of trade reform initiatives to open up the economy; these reforms were mainly aimed at privatization of state-owned enterprises (SoEs), withdrawal of quantitative import restrictions, and reduction of tariffs. However, a major change of trade and industrial policies was only initiated in the beginning of the 1990s. The change was executed through a significant reduction of various customs duties and waivers in the tariff schedule, the removal of trade-related QRs, the elimination of import licensing procedures, and the unification of existing exchange rate regimes. During this period, Bangladesh took significant measures to promote exports. These included the duty-free import of machinery and intermediate inputs, subsidized interest rates on bank credit, cash compensation schemes, and an exemption from income tax and other taxes on a selective basis.

Bangladesh started reforming its financial sector in the mid-1990s. Interest rates were liberalized, the country went for a monetary policy that was more market-friendly, abolished priority sector lending, strengthened central bank supervision, improved debt recovery, and pursued capital market deepening (Bashar and Khan 2009). Bangladesh started to liberalise its capital account in 1997 by easing restrictions in the capital and in the money market, on derivatives, credit operations, direct investment, and real estate transactions. Bangladesh allowed personal capital movements and simplified the provisions specific to commercial banks and institutional investors (Bashar and Khan 2009). In recent times, Bangladesh has gone for further liberalization of the capital market; taking advantage of high foreign exchange reserves (more than USD 180 billion in February 2014) and as part of the International Monetary Fund's (IMF) conditionalities (Bangladesh is



now under the IMF-ECF (Extended Credit Facility) programme with a support of USD 1 billion over three years).

Bangladesh has been experiencing a rapid pace of global integration following the move towards liberalization in the beginning of the 1990s. In FY1991, total trade, remittances, official development assistance (ODA) and FDI was equivalent to about 25 percent of Bangladesh's GDP; by FY2013, this has increased to 64.4 percent (Table 5). During this time, the share of total trade, export, import, remittances and ODA in total GDP has increased steadily (Annex Figure 1).

**Table 5: Bangladesh's Degree of Openness and the Extent of Globalisation (USD Million and Percentage)**

Indicator	FY1991	FY2001	FY2010	FY2011	FY2012	FY2013
1. Exports (X)	1718	6468	16205	22924	24288	27027
2. Imports (M)	3472	9335	23738	33658	35516	37290
3. Remittances (R)	764	1882	10987	11650	12843	14461
4. ODA	1733	1369	2164	1777	2033	2786
5. FDI	24	355	913	775	995	1300
Total (1-5)	7711	19409	54007	70784	75675	82864
GDP (current price)	30975	47827	100365	111944	116074	128767
Trade Intensity ((X+M)/GDP*100)	16.8	33.0	39.8	50.5	51.5	49.9
Extent of Globalisation (%) (Total/GDP)	24.9	41.0	53.8	63.2	65.2	64.4
X as % of M	49.5	69.3	68.3	68.1	68.4	72.5
(X+R) as % of M	71.5	89.4	114.5	102.7	104.6	111.3
ODA as % of GDP	5.6	2.9	2.2	1.6	1.8	2.2
ODA as % of Exports	100.9	21.2	13.4	7.8	8.4	10.3
ODA as % of Exports and Remittances	69.8	16.4	7.9	5.1	5.5	6.7

**Sources:** Estimated on the basis of Bangladesh Economic Review Yearbooks (various years).

Hence, the importance of foreign trade for Bangladesh's economy has been on the rise over the past years and has been playing a significant role in Bangladesh's integration into the world market. In FY1991, Bangladesh's trade (exports and imports of goods) as a percentage of GDP was only 16.8 while the figure crossed half of GDP in FY2011 (Table 5).<sup>10</sup>

Besides, the changes of trade volume and trading patterns, the trade structure has also undergone significant changes. Over these years, The RMG sector has emerged as the single-most export earning sector of the country, thereby replacing the traditional sectors of jute and jute products.<sup>11</sup> A number of products (e.g. leather goods, footwear, pharmaceuticals, melamine, battery, plastic goods, etc.) have also been added to Bangladesh's export basket. However, their contribution to total export earnings remains very low. Since FY1991, Bangladesh's import basket has also experienced significant changes. At present, inputs for export-oriented industries capture a significant part of the import basket. Additionally, the relative importance of imports of agricultural commodities such as food grains, protein, edible oil, onion, lentils, etc. has also been on

the rise.

Bangladesh's imports have been increasing at a fast pace with a growing trade deficit over time (Figure 6); it has recorded a deficit of USD 7,010 million in FY2013. However, Bangladesh's current account balance has turned out to be positive continuously since FY2006 mostly due to the robust growth in the inflow of overseas remittance. Bangladesh has recorded a stellar performance in remittance earnings since the

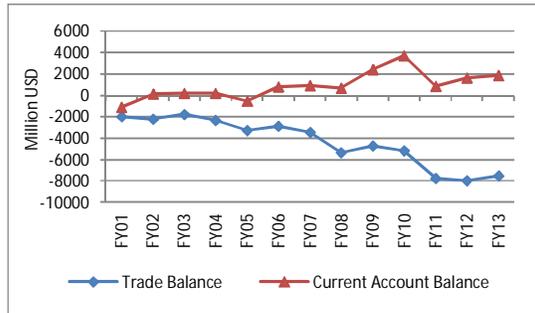
<sup>10</sup>Between FY1991 and FY2013, the share of export to total GDP has increased from 5.5 percent to 21.0 percent and the share of import to total GDP has increased from 11.3 percent to 29.0 percent (Annex Table 1).

<sup>11</sup>The contribution of RMG sector in Bangladesh's total export earnings increased from a mere 3 percent in FY1991 to 79.6 percent in FY2013.



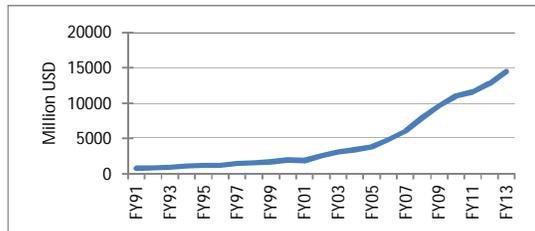
beginning of the 1990s. In FY1991, the inward remittance flow amounted to 764 million USD, which has increased to 14,461 million USD in FY2013 (Figure 7).

**Figure 6: Trade Balance and Current Account Balance**



**Source:** Bangladesh Economic Review Yearbooks (various years); Monthly Economic Trends, Bangladesh Bank (various months).

**Figure 7: Remittance Earnings**



**Source:** Prepared based on the Bangladesh Bank data.

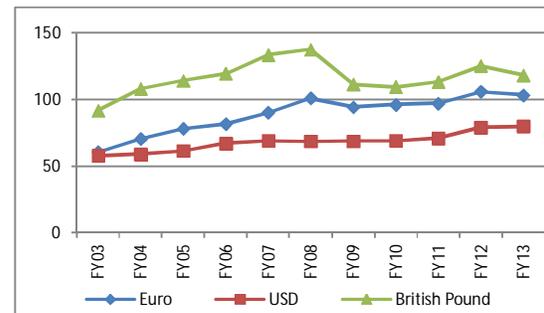
The inflow of FDI has also been on the rise over the past years. Bangladesh has achieved an expansion of FDI inflow from a lowly 24 million USD in FY1991 to a reasonably high 1,300 million USD in FY2013. However, the inflow has remained concentrated in only a few sectors such as telecommunications, banking, power, gas and petroleum, textiles and apparels.

Bangladesh entered the floating exchange rate regime in May 2003. Since then the Bangladeshi currency (Taka) has remained stable against the major foreign currencies (Figure 8). To ensure exchange rate stability, the Bangladesh Bank has often intervened in the market by purchasing US Dollars (USD) from the open market.

One of the salient features of recent transition of Bangladesh economy is that it

has significantly reduced aid dependence. In FY1991, the share of ODA to GDP was 5.6 percent, which has come down to 2.2 percent in FY2013.

**Figure 8: Exchange Rate of Bangladeshi Taka against Major Currencies**



**Source:** Prepared based on the Bangladesh Bank data.

To sum up, Bangladesh has coped with globalization reasonably well. In the process, Bangladesh has successfully made an important transition from a predominantly aid-dependent economy to a trading one.

### 3.2 The Present Debate about Integration in the World Market

#### 3.2.1 Full Fledged Capital Account Convertibility – Is Now the Time?

There is currently a debate among policymakers and academic experts whether Bangladesh should opt for a fully open capital account or not. The proponents of a full capital account convertibility argue that if a country becomes more economically integrated, it will need to become more financially integrated as well. Since Bangladesh's economy is now highly integrated into the global economy with the share of export, import, remittances, ODA and FDI to GDP being 65 percent in FY2012, time has come to go for capital account convertibility. However, the opponents of the idea argue that transitioning to full capital account convertibility will entail a number of risks: it could shift significant amount of domestic savings to other countries; highly capitalized foreign banks and profit maximizing multinational companies may enter the Bangladeshi market and create



uneven competition; toxic financial inflows and products could undermine the interests of the financial sector and the economy. As was noted above, Bangladesh has liberalized her capital account, to some extent, in recent years. However, the predominant idea as of now is that the country should not implement full convertibility immediately.

### *3.2.2 Supplementary Import Duty – Continue or Rationalise?*

Supplementary duty (SD) on import was the main para-tariff in Bangladesh. In FY2014, SD was set to earn 13.9 percent of the total customs revenue. In FY2013, 1,299 import items had SDs ranging from 20 percent to 500 percent. The government has imposed SD based on the intention of protecting domestic industries and preserving consumer rights. However, the opponents of the policy argue that a SD often becomes both trade and welfare distorting, hampers consumer choice and imposes an indirect tax burden on consumers. They are calling for the rationalization of existing SD structure. These opponents favour income tax and VAT as the primary instruments for domestic resource mobilization.

### *3.2.3 Adopting Transfer Pricing Regime – Is There an Urgent Need?*

Bangladesh is losing a considerable amount of tax and financial resources every year due to transfer mispricing. Transfer mispricing which includes illegal capital flows, trade mispricing, smuggling, fraud and other illegal cross-border transactions, and tax evasion, is unfortunately becoming a common practice in Bangladesh (Rahman et al. 2011a). It is becoming worse because of an increasing volume of international transactions, a growing presence of multinational enterprises, a high rate of corporate taxation, and the presence of transfer pricing in trade partner countries. Kar (2011) estimated that among the LDCs, Bangladesh has witnessed the highest amount of illicit financial flows between FY1990 and FY2008. According to the estimations in the paper, about USD 34.8

billion were lost during this period; this would be equivalent to USD 1.8 billion per year. Consequently, many experts are arguing for the adoption of a transfer pricing regime in Bangladesh. A number of Asian countries have already adopted this regime, including two South Asian countries, India and Sri Lanka. The adoption is expected to help the government in various ways – bringing down the loss of direct taxes, reducing the loss of VAT, putting a brake on capital flight, and discouraging profit shifting (Rahman et al. 2011a).

## **3.3 Likely Future Development**

Some Asian economies including South Korea, Malaysia, Thailand, China and India have achieved impressive economic growth rates by taking advantage of the world market. Although Bangladesh has also been able to register a good record in this regard, in the coming years the country will need to do more to strengthen its regional and global integration.

### *3.3.1 Export Diversification*

Bangladesh's export continues to suffer from a lack of diversification – at present, more than two-thirds of export earnings come from the RMG sector. Moreover, Bangladesh's export market is highly concentrated. In recent years, the combined share of the European Union (EU), USA and Canada in total export of Bangladesh has been about 90 percent. From this perspective, Bangladesh needs to diversify exports. The SFYP identifies a number of strategies: i) product diversification through creating supply-side capacities for new products which would enhance the export basket; ii) geographical diversification by widening the range of destined markets for exports; iii) diversification beyond the export of goods, into services, by seeking opportunities to expand non-merchandise exports; and iv) intermediate goods diversification.



### 3.3.2 Promotion from a Low-Wage Paradigm to a Higher Value Chain

Bangladesh is a labor surplus economy, however its labor productivity has been relatively low compared to many global competitors. For example, the labor productivity rate for polo shirts in Bangladesh was 13-27 pieces per person/day, while it was 18-35 pieces per person/day in China (World Bank 2013b). Moreover, the in-factory product rejection rate was higher in Bangladesh compared to China, Ethiopia and Vietnam.<sup>12</sup> Therefore, upgrading workers' skills through quality training will need to be given higher priority in the near future. Improvements in labor productivity will consequently raise labor wage. To enhance the competitiveness of the RMG sector, Bangladesh also needs to move up from low-end to high-end products (e.g. transform from being a simple male-wear producer to a producer of fashionable female wear). Moving up to a higher stage of the value chain will also require a more efficient and skilled labor force and a higher wages.

### 3.3.3 Ensuring Labor and Workplace Safety

The collapse of the Rana Plaza building in April 2013, which resulted in the death toll of 1,134 RMG workers, has demonstrated the urgent need for improved labor and workplace safety in Bangladesh. Poor working conditions and lower safety standards for workers has been a long-standing issue in Bangladesh which has to be addressed now

with due urgency. After the collapse of Rana Plaza, the international community has become more vocal with regard to improvement of labor rights, building safety, compliance standards and working conditions in Bangladesh. For example, the EU has launched a major global initiative for Bangladesh to improve labor rights, working conditions and factory safety. As per decision of the tripartite agreement between the EU, the International Labor Organization (ILO), and the government of Bangladesh as well as through an initiative by mostly European buyers (Accord) and US buyers (Alliance), a number of action plans have been developed after the Rana Plaza collapse to address different safety shortcomings in Bangladesh's export-oriented RMG sector (CPD 2014). Bangladesh will continue to require ongoing dedicated efforts to improve labor and workplace safe.

### 3.3.4 Building Necessary Trade-Related Supply Side Capacities

Adopting appropriate trade facilitation measures is necessary to increase the supply-side capacity of Bangladesh. Bangladesh was ranked 119th on the "trading across borders indicator" according to the World Bank Doing Business Report 2013. Bangladesh was ranked far behind Malaysia, China, and even Vietnam (Table 6). As a result, undertaking the needed trade facilitation measures including the adoption of harmonized customs procedures, computerization of the port services, adoption of a single window,

**Table 6: Investment Climate in Doing Business 2013**

Country	Ease of Doing Business Rank	Starting a Business	Getting Electricity	Getting Credit	Protecting Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts
Bangladesh	129	95	185	83	25	97	119	182
India	132	173	105	23	49	152	127	184
Malaysia	12	54	28	1	4	15	11	33
China	91	151	114	70	100	122	68	19
Vietnam	99	108	155	40	164	138	74	44

Source: International Finance Corporation (IFC).

<sup>12</sup>In-factory product rejection rate is 4-8 in Bangladesh, 2-3 in China, 2-5 in Ethiopia, and 1-3 in Vietnam (World Bank 2013b).



the standardization of documentation, and increasing warehouse/storage facilities at the border crossing points were called for on an urgent basis if Bangladesh was to enhance trade competitiveness.

### *3.3.5 FDI Promotion*

Attracting FDI was a key policy challenge for Bangladesh. The Perspective Plan developed by the Planning Commission identified a number of potential sectors such as information technology (IT)-enabled industries, textiles, pharmaceuticals, chemicals, automobile parts, footwear, etc. where FDI was especially desirable. Bangladesh has also planned to provide non-resident Bangladeshis (NRBs) special preferential treatment for encouraging investment in various sectors with high potentiality. However, Bangladesh is still not an attractive place for foreign investors. According to the World Bank Doing Business Report 2013, Bangladesh was ranked on only on the 129th place in terms of ease of doing business. Countries in direct competition for FDI with Bangladesh such as Malaysia, China, and Vietnam were ranked higher (Table 6). Bangladesh also had poor ranking in terms of other investment-related indicators such as access to electricity, access to credit, and enforcing contracts. The investment climate in the country will need to be significantly improved if increased levels of domestic and foreign investments in the country should be attracted in the future.

### *3.3.6 Policy Shifts towards Global Integration*

Bangladesh has been pursuing a policy of trade liberalization since the early 1990s. However, there is a need for further strategically calibrating trade policies in accordance with existing industrial policies. Bangladesh should design its trade policy in view of the need for strengthening domestic industrialization and establishing a stronger competitive presence in the domestic and global markets. Tariff liberalization and rationalization policies, tax incentives and

institutional measures should be pursued in a way that serves the demands of industrialisation of Bangladesh. Bangladesh should increasingly provide incentives and special support to non-RMG export, which have high trade potential, such as footwear and leather products, light engineering products (bicycle and electronics), pharmaceuticals, ceramics, jute goods, and ocean-going ship.

### *3.3.7 Taking Advantage of Regional Cooperation, Global Integration, and Shift from China*

In the future, Bangladesh will need to strategize in a manner that enables the country to realize the advantages originating from its membership of the World Trade Organization (WTO) and various bilateral and regional trade agreements. As an LDC, Bangladesh receives preferential market access in most of the developed countries. The WTO also has several provisions for the preferential treatment of goods and services from LDCs. The Ninth WTO Ministerial Conference in Bali in December 2013 has adopted several decisions to operationalize the services waiver for the LDCs. The extension of the implementation of the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) for LDCs and other WTO special and differential provisions will necessitate appropriate policy responses from Bangladesh to enhance the export of goods and services. The needed product and market diversification also calls for full utilization of various provisions under regional arrangements such as the South Asian Free Trade Area (SAFTA) and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). China's competitive advantage in labor-intensive manufacturing has started to erode, creating opportunities for Bangladesh. The strategy of major buyers under the 'China plus one' slogan should also be helpful to further strengthening manufacturing in Bangladesh. Bangladesh can be the place for manufacturing clothing, shoes, toys, and other labor-intensive products, which are



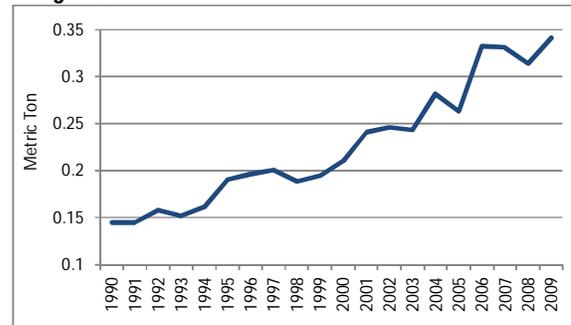
likely to be diverted from China in the near future.

## 4. Green New Deal and Ecological Problems

### 4.1 Overview of Ecological Problems

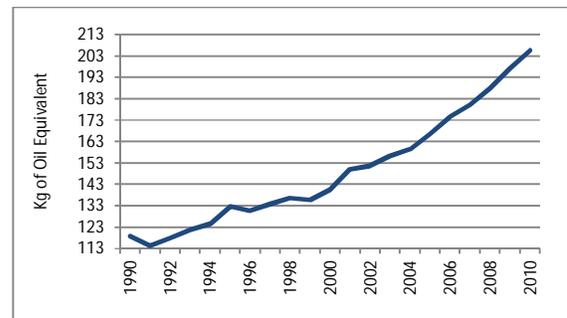
Over the past years, carbon dioxide (CO<sub>2</sub>) emissions have been on the rise in Bangladesh. Indeed, during the last two decades, emissions have increased three-fold, from 15,533 kilowatt (kW) in 1990 to 51,037 kW in 2009. Within this period, per capita CO<sub>2</sub> emissions have increased from 0.14 metric tonnes (MT) to 0.34 MT (Figure 9). The composition of CO<sub>2</sub> emission has also been changing. In 1990, the contribution of manufacturing industries and construction to overall emissions was 32.2 percent, which has come down to 23.3 percent in 2009; similarly, emissions from residential buildings and commercial and public services have reduced from 16.2 percent to 11.3 percent. On the other hand, the share of electricity and heat production of total CO<sub>2</sub> has increased from 32.7 percent in 1990 to 44.3 percent in 2009. Similarly, contribution of transport sector has increased from 12.2 percent to 14.8 percent over the same time (see Annex Figure 2 for detail). Bangladesh has also observed a steady rise in its per capita energy consumption throughout the last decades (Figure 10). It has risen from 119 kg of oil equivalent in 1990 to 205 kg of oil equivalent in 2010. The main contributor to this rise can be attributed to non-renewable energy consumption. For example, the contribution of fossil fuel of total energy consumption was 45.5 percent in 1990, which has increased to 71 percent in 2010.

**Figure 9: Per Capita CO<sub>2</sub> Emission in Bangladesh**



Source: Prepared from the World Development Indicators (WDI) 2012 data.

**Figure 10: Per Capita Energy Consumption in Bangladesh**



Source: Prepared from the World Development Indicators (WDI) 2012 data.

Even though Bangladesh's CO<sub>2</sub> emissions and energy consumption has risen over time, its contribution to the world CO<sub>2</sub> emission and world energy consumption is still very low. According to the World Bank, in 2009, Bangladesh emitted only 0.14 percent of global CO<sub>2</sub> emissions and consumed only 0.2 percent of global energy. Therefore, greenhouse gas emissions are not the major environmental concern in Bangladesh. Bangladesh's main environmental problems can be categorized into two broad groups: naturally generated environmental problems and manmade environmental problems. Major manmade environmental problems include the pollution of air, water and soil, the overutilization of groundwater, the conversion of wetlands into lands for agriculture and other commercial uses, and land degradation due to the unbalanced use of chemical fertilizers. Major naturally generated environmental problems are



floods and drought, river erosion, cyclones and storm surges, salinity ingress in coastal areas as well as arsenic contamination of groundwater.

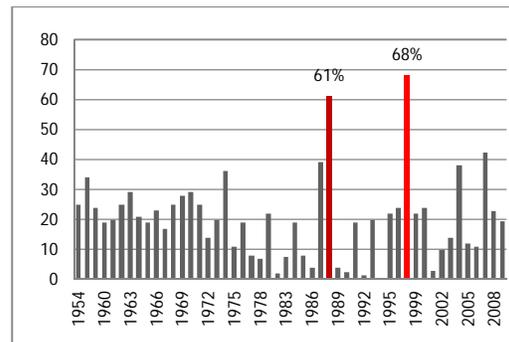
Among the manmade ecological problems, air, water and soil pollution cause the greatest concerns. Air pollution is mainly caused by uncontrolled emission from motor vehicles, industrial discharge, from the burning of fossil fuel and continuous development in housing and construction sector. Water and soil in Bangladesh are polluted by industrial effluent (textiles, tanneries, pulp and paper mill, and fertilizer), municipal waste, chemical fertilizer and pesticide, and oil and lube spillage from sea and river ports. The conversion of wetlands into lands for agriculture and other commercial uses is also a crucial problem in Bangladesh. The conversions have increased in the last few decades and also threaten location-specific biodiversity.

The high frequency of floods remains one of the most catastrophic naturally driven ecological problems in Bangladesh. Bangladesh is the sixth most vulnerable country prone to flooding in the world (UNDP 2004). In an average hydrological year, about a quarter of the country is flooded (Hofer 1998) though catastrophic floods affect about two-thirds of the country (Ahmad et al. 2000). The analysis of flood data of Bangladesh Water Development Board (BWDB) demonstrates that only light and very severe floods were observed in the last three decades (Figure 11). Severe floods which affected more than 38 percent of total land area of Bangladesh were observed in the years of 1987, 1988, 1998, 2004, and 2007. Among these, the floods of 1988 and 1998 inundated 61 percent and 68 percent of the total landmass of the country respectively. The occurrence of floods had a significant impact on agriculture and livelihoods in Bangladesh. River and rainwater floods damage agricultural produce, mainly *Aman* and *Boro* paddy and vegetables throughout the affected area. Floods also have an adverse impact on livestock, poultry and the fisheries sub-sectors of the country's agriculture.

During the recent flood of 2007, approximately 1.2 million acres of crops were destroyed or partially damaged (MoEF 2009).

Drought is another major naturally driven ecological problem in Bangladesh. Two critical drought seasons prevail in Bangladesh; these are the *Kharif* drought, and the *Pre-kharif* drought. The shortage of rainfall is the main cause of drought during the *Kharif* season while drought observed during the *Pre-kharif* season is due to the cumulative effect of dry days, higher temperatures, and low soil moisture. The impact of droughts on the agriculture of Bangladesh can be particularly severe. The *Kharif* drought hampers *Aman* production by reducing moisture content in the soil. Similarly, *Pre-kharif* drought hampers *Boro*, wheat, pulses and potatoes production in Bangladesh.

**Figure 11: Percentage of Flood Affected Areas in Bangladesh: 1954-2008**



Source: Bangladesh Water Development Board.

Cyclones and storm surges are further catastrophic natural disasters that occur in regular intervals in Bangladesh. Coastal floods induced by storm surges damage crops, reduce soil fertility, and bring significant losses of agricultural properties. The cyclone of 1991 claimed 140 thousand lives and led to a financial loss of 1.78 billion USD (Banglapedia). The cyclone Sidr in 2007 struck the south-west coast of Bangladesh with winds up to 240 kilometres per hour, causing 3,406 deaths and brought 1.1 billion USD worth of economic damages (GoB 2008).



The erosion of river banks is another environmental concern of Bangladesh. The immense pressure of the downward tide, current force and twirl, waves and tides, and a lack of trees on the riverbank cause erosion in coastal islands every year. It causes significant destruction to the socio-economic mechanism of Bangladesh. According to the Centre for Environment and Geographic Information Services (CEGIS), about 0.1 million people become homeless every year due to river erosion.

The salinity ingress in coastal areas is an important environmental problem in Bangladesh. It adversely affects crop production in coastal districts<sup>13</sup> where a substantial area of land is tidally affected by saline water. The salinity problem is expected to worsen in the future. The projected sea level rise (SLR) along the coastal areas of Bangladesh will be about 88 cm by the year 2100.

This would result in an increasing risk of coastal salinity (both soil as well as surface water, including drinking water from wells). The scarcity of saline-free drinking water will be even more pronounced (MoEF 2009).

The arsenic contamination of groundwater was one of the most acute of the environmental problems in Bangladesh. People in 59 out of the 64 districts of Bangladesh are suffering from arsenic contamination in drinking water. Seventy five million people are at risk and 24 million are potentially exposed to arsenic contamination (GoB 2013).

## 4.2 Present Debates to Solve Ecological Problems

Bangladesh's strategy is to not compromise on the need for accelerated economic growth and poverty reduction (GED 2010). Bangladesh needs to follow a low carbon development path in order to sustain growth.

However, policymakers in Bangladesh are facing a dilemma if they want to follow a development path which is both growth-enhancing and environment-friendly. At present, Bangladesh is being confronted with a host of conflicting solutions as regards addressing environmental problems. These concerns include issues of electric power plant implantation in Rampal and Rooppur, extraction of coal, and the promotion of the ship-breaking industry.

### 4.2.1 Having More Electric Power Plants is Urgent but at What Cost?

The shortage of electricity is adversely affecting Bangladesh's development. The per capita electricity consumption in Bangladesh is only 265 Kwh (kilowatt hour) in 2012 which is much lower than that of India (444 Kwh) and Pakistan (388 Kwh). Only 55.3 percent of households have access to electricity (BBS 2011). The government aims to reach a power generation capacity of 20 thousand mega watts (MW) by 2021 (GED 2010) and has decided to build a coal-based thermal power plant in Rampal of Bagerhat district and a nuclear power plant in Rooppur of the Pabna district. Environmentalists are however arguing that the Rampal plant be relocated to a place away from the world's largest mangrove forest, Sundarbans. They argue that the plant would produce significant amount of sulphur dioxide, radium, chromium, mercury, nitrogen dioxide, and seven hundred thousand tonnes of fly ash, which will pose threat to biodiversity, wetlands and to the wildlife of the Sundarbans. Opponents of the Rooppur nuclear power plant fear that accidents could happen in view of possible poor mismanagement of the plant and low safety standards. Consequently, millions of people could be exposed to high doses of atomic radiation, they argue. Furthermore, radioactive materials could contaminate large tracts of arable land.

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<sup>13</sup>Coastal districts constitute 20 per cent of the total area of the country.



#### 4.2.2 Coal: Open-Pit Mining or Closed-Pit Mining?

Bangladesh's energy use is highly concentrated with natural gas as the main source of energy. At present about 88 percent of the country's power is generated from natural gas. The contribution of coal in Bangladesh's power generation is 3.7 percent compared to the average figure of 37 percent in the world (Table 7). Bangladesh has discovered five coalmines in Barapukuria, Khalaspur, Phulbari, Jamalganj and Dighipara with reserves of 2.2 billion tonnes. However, these reserves remain largely unexploited. At present, Bangladesh is extracting coal only from the Barapukuria coalmine for running two power plants with 125 MW generation capacities. The government plans to extract coal from the Phulbari field by 2014 and from Khalaspur by 2021. However, environmental activists are protesting against coal extraction from these fields on the ground of environmental safety. Bangladesh has two options- open – pit mining or underground (closed-pit) mining to extract coals. However, both options will have significant adverse environmental impacts. Open-pit mining will cause significantly higher environmental damage. For instance, poor hydrological management in the form of faulty disposal of extracted water could lead to contamination and damage water bodies, as well as flora and fauna. In closed-pit mining, the environmental damage would be relatively low, but hydrological challenges will still be likely. However, open-pit mining allows greater extraction of reserves, in the range of 80-90 percent of the total, while underground mining would allow actual extraction in the range of only 20-30 percent of coal deposits (Raman 2011). Supporters of open-pit mining argue that since the rate of recovery is significantly higher, a part of the additional income from open-pit mining could be used to control environmental damage and for resettlement and rehabilitation purposes. Those who oppose open-pit mining argue that the environmental damage and the long-term impact of damage to land and resettlement/rehabilitation and loss of

livelihoods are too costly to recover (Rahman 2011).

**Table 7: Present Energy Mix in Bangladesh Compared to Global Position**

Energy Item	Bangladesh		Global	
	Current (%)	2021 (%)	Current (%)	2030 (%)
Gas	87.5	30.0	18.0	28.0
Oil	6.0	3.0	10.0	5.0
Coal	3.7	53.0	37.0	38.0
Hydro	2.7	1.0	17.0	4.0
Nuclear	0.0	10.0	17.0	19.0
Renewable	0.5	3.0	1.0	6.0

Source: Outline Perspective Plan of Bangladesh 2010-2021.

#### 4.2.3 Promote or Discard Ship-Breaking and Recycling Industry?

The ship-breaking and recycling industry has been a growing industry in Bangladesh. In 2012, 260 recyclable ships, with iron plates weighing 2.86 million tonnes, were imported. The main reason behind the success of this industry is the availability of long beaches and cheap labor, stable weather conditions, the high demand for recovered goods, and availability of linkage industries within a reachable distance all of which Bangladesh offers. At present the industry employs more than 30 thousand workers; it is the major supplier of scrap to over 250 local re-rolling mills in Bangladesh. However, according to environmental activists, the industry is environmentally devastating because it involves a number of environmental and human health hazards. Ships are made up of steel; various chemicals such as cadmium, lead, organotins, arsenic, zinc and chromium, and contain a wide range of hazardous wastes such as PCBs, asbestos, and several thousand litres of oil and grease as residual. These chemicals and wastes impose serious damage on the environment and pollute beaches, coastal waters, and seaside ecosystems. Environmental activists in Bangladesh had taken the issue to the court with the allegations that the ship-breaking industry is leading to dumping of hazardous materials along the coast line of Bangladesh and exposing workers to toxic substances. The court's verdict went in favour of the environmental groups. In 2010, the government suspended import of recyclable



ships for about a year. In 2011, the government then introduced new rules for ship-breaking formed a Ship Breaking Cell at the Ministry of Industries to implement these new rules. Consequently, the import of ships was allowed again. However, environmental groups are still calling for a ban on the industry on the ground that laws and regulations are not being monitored and enforced effectively.

#### 4.3 Strategy and Coherence of Industrial Policies in General

To pursue a sustainable development path is a constitutional obligation in Bangladesh. Article 18 A of the Constitution of Bangladesh mentions that “the state shall endeavour to protect and improve the environment and to preserve and safeguard the natural resources, biodiversity, wetlands, forests and wildlife for the present and future citizens.” Bangladesh’s government has given adequate attention to ensure this Constitutional right of the people. For example, it has prepared the Vision 2021 document<sup>14</sup>, and has dedicated a chapter outlining strategies to ensure an environment-friendly development in Bangladesh. It has outlined that protecting the environment, meeting the challenges arising from climate change, and addressing other environmental degradation issues would be a major focus of Bangladesh in the coming days. Bangladesh has also prepared an action plan titled the Bangladesh Climate Change Strategy and Action Plan (BCCSAP), adopted in July 2009 to ensure environment-friendly development (MoEF 2009). The action plan focuses on six areas: (i) food security, social protection and health; (ii) comprehensive disaster management; (iii) infrastructure; (iv) research and knowledge management; (v) mitigation and low carbon development; (vi) capacity building and institutional strengthening. Recently, the government has prepared a strategy plan for sustainable development titled National

Sustainable Development Strategy (NSDS) 2010-2021. This strategy document aims to ensure sustainable development of Bangladesh through preserving and conserving natural ecosystems and better protection from climate change and natural disasters (GoB 2013). Besides having a number of strategic documents, the government has passed a number of acts and policies in order to ensure green development. These are: the National Environment Policy 1992, the Environmental Conservation Act 1995, the Environmental Conservation Rules 1997, the National Water Policy 1999, the National Biodiversity Strategy & Action Plan 2004, the Biomedical Waste Management Rules 2008, and the Environment Courts Act 2010.

The NSDS has given special attention to the industrial sector. It aims to accelerate industrial growth without degrading natural capital. NSDS outlines a number of issues needed to achieve these goals. These are: i) integrating environmental considerations into industrial management practices; ii) encouraging private entrepreneurs to use cleaner technologies; iii) ensuring compliance with national environmental laws, rules and regulations; iv) raising public awareness for environmental protection; and v) placing emission reduction devices and effluent treatment plants (ETPs) while industries are operational.

Existing industrial policies in Bangladesh conform to the environmental objectives which have been articulated in various strategic documents. For example, the latest industrial policy of Bangladesh, National Industrial Policy 2010, aims to achieve accelerated growth in the industrial sector following an environmentally sustainable path. The policy declares the renewable energy sector (e.g. solar power and windmill), and the energy-efficient appliances development industry (e.g. manufacturing of energy-efficient electronic goods and

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<sup>14</sup>The Outline Perspective Plan of Bangladesh (2010-2021).



materials) as thrust sector along with another 30 sectors. The policy also aims to better control the activities of a number of environmentally sensitive industries. These are: i)

the natural gas and oil exploration, extraction and supply industry; ii) coal exploration, extraction and supply industry; iii) other mineral resources exploration, extraction and supply industry; iv) medium and large industry using natural gas and other minerals as raw material; and v) industries using heavy minerals accumulated from sea beach. The policy has identified the following tasks in order to ensure a low carbon industrial development in Bangladesh:

- i) The government will effectively implement the Environment Protection Act 1995 and other relevant legislations to ensure an environment-friendly industrial growth.
- ii) The government will assess the environmental hazards before allocating land and water resources for industrial projects. Towards this, a land satellite-based system which will track major risks related to industrial projects will be established.
- iii) Necessary measures will be taken for the proper running of ETPs and common ETPs in the industries.
- iv) The government will provide positive and proactive incentives to encourage small and medium enterprises (SMEs) and other large-scale industries to adopt environmentally sound manufacturing processes and practices.
- v) Emphasis will be given on attracting FDI in emission-reducing greenhouse gas projects. In this regard, the government will provide all facilities for setting up a waste recycling industry.
- vi) Preference will be given to foreign investment and NRB investment in solar-based power generation, windmill-based power generation,

biomass and geothermal-based power generation.

- vii) In view of ensuring climate-friendly technology transfer from developed to developing countries, the government will develop and offer a package of incentives for companies desiring to invest in environment-friendly projects, especially in projects to be established in PPP arrangement.

#### 4.4 Likely Future Development

In order to achieve accelerated economic growth with minimum environmental degradation, Bangladesh needs to take significant steps in the future. Following are the major likely steps, which can ensure a low carbon economic development of Bangladesh:

##### *4.4.1 Utilization of Natural Resources in an Environment-Friendly Way*

Bangladesh needs to better utilize natural resources such as land, water and mineral resources with minimal environmental distortion. Land degradation needs to be slowed down by reducing the use of chemical fertilizer, controlling the dumping of industrial affluent, and encouraging the use of balanced and organic fertilizers. Dependence on groundwater should be reduced and the use of surface water should be increased. Environment-friendly technologies should be used in extracting mineral resources such as gas and coal.

##### *4.4.2 Conservation of Biodiversity*

Bangladesh needs to strengthen efforts to protect and enhance biodiversity. In this regard, appropriate actions are needed to prevent the loss of rare species. However, Bangladesh does not have adequate information regarding the current status of biodiversity. In view of this, generating knowledge regarding the current state of biodiversity has become an urgent necessity.



#### 4.4.3 Non-Renewable Energy Use

Bangladesh needs to prudently utilize existing energy resources and plan to strengthen the use of non-renewable energy. In this regard, Bangladesh can promote and encourage the non-traditional use of energy use as nuclear power, solar energy, hydroelectricity, biogas and wind power.

#### 4.4.4 Afforestation and Integrated Coastal Zone Management

Bangladesh should strictly preserve existing natural forests; special attention should be accorded to the Sundarbans Reserve Forest. Coastal afforestation should be strengthened in order to create a coastal green belt. Effective implementation of the integrated coastal zone management plan is essential in the coming days because it will help reduce the risk of climate change-induced damage in the coastal districts. The proper implementation of this plan is likely to reduce salinization of water and land.

#### 4.4.5 Adaptation with regard to Agriculture

Bangladesh will need to deploy adequate research capacities for innovating drought, flood, saline and submergence-tolerant crop varieties in the coming days. Northern drought-prone region which requires intensive irrigation in rice production should be transformed into a non-rice crop growing zone, particularly in the dry season. Conversion of prime agricultural land for non-agricultural uses such as housing and industrialisation should be appropriately regulated.

#### 4.4.6 Addressing Environmental Health Problems

Bangladesh would need to adopt an appropriate strategy in reducing the dangerous effects on the health of citizens due to environmental degradation such as air, water and land pollution. Mitigating the arsenic problem and addressing the negative externalities of potential coal-based electricity production would be a great challenge for Bangladesh.

#### 4.4.7 Implementation and Enforcement of Environmental Rules and Regulation

Proper implementation and enforcement of various environmental rules and regulations is mandatory to reduce air, water and land pollution. A significant advancement is needed in this regard to ensure a sustainable development path in the future.

#### 4.4.8 Connecting with Global Initiatives

Bangladesh needs to reap benefits of the Green Climate Fund which has been established to support efforts of developing countries in relevant areas. Under the Green Climate Fund, developed countries plan to mobilise USD 30 billion until the year 2020 for developing countries and LDCs for adaptation and mitigation activities. Bangladesh should intensify efforts to appropriate its share from the fund immediately.

### 5. General Evaluation

At independence in 1971, Bangladesh was considered a 'test case' for development.<sup>15</sup> About four decades later, the development narrative about Bangladesh has changed in many important ways. Indeed, the country has developed a number of innovative modalities and institutions including the introduction of microcredits, the development of a large number of successful NGOs when it was difficult for the

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<sup>15</sup>Faaland and Parkinson (1976: 197) argued that "If development could be made successful in Bangladesh, there can be little doubt that it could be made to succeed anywhere else. It is in this sense that Bangladesh is the test case for development."



government to reach the grassroots level, building a labor-intensive manufacturing sector (especially RMG) and the export of low-skilled manpower by taking advantage of the global labor market which led to a high amount of remittances flowing back into Bangladesh.

More importantly, the people of Bangladesh have been successfully improving their living conditions when offered affordable solutions. One can mention a number of examples including the use of oral saline for diarrhoea treatment leading to a significant reduction of child mortality, the immunization of children using successful awareness building programmes, the attainment of almost hundred percent net enrolment ratio and gender parity in primary education (as a result of free primary education and free books). As a consequence, Bangladesh has achieved many of the key MDGs.

However, the economy still faces a number of challenges, particularly in view of the need for consolidating the past achievements and to ensure an improved livelihood for the marginalized population. In this connection, Bangladesh will need to put together a set of strategies which can propel the country towards an accelerated economic growth trajectory (Figures 12-14). While economic growth can be an important component towards the attainment of development outcomes, the attained growth will have to be sustainable, socially just and inclusive.

Moving towards an accelerated growth trajectory in a sustainable manner, Bangladesh will need to adopt a set of comprehensive policies. *First*, there is a need for consolidating the growth drivers which have generated good results in the past (discussed in Section 1.1.4). Bangladesh's development plans (SFYP and Perspective Plan) have appropriately identified manufacturing and high-valued services as critical sectors in taking the economy forward. Indeed, Bangladesh has the potential to be a key economy in the group of the 'next eleven emerging countries' by

building on its existing comparative advantages in the domestic and global context. Bangladesh will need to take advantage of its low-cost labor edge over other competitors. In this connection, a specific focus should be directed towards existing and additional export-oriented manufacturing sectors. Enhanced product and market diversification as regards export will be crucial in this context. More focus on research and innovation will be needed to facilitate product diversification and a structural shift towards higher value-added export items. *Second*, the provision of infrastructure will be critical in attracting more investment, especially FDI.

The weak supply of electricity and gas, and building adequate transport facilities in a cost-effective and sustainable manner has emerged as a challenge for Bangladesh's development. A comprehensive PPP initiative of the government to tackle infrastructure deficits has yet to deliver. This needs to be revitalized. Bangladesh will have to opt for low-cost fuel, either through import of coal or extracting the domestic reserves in an environmentally sustainable manner. The country needs to focus on significantly improving its business environment if investors are to come forward to the desired extent. Establishing new businesses and expanding the existing ones is becoming increasingly difficult in Bangladesh in the face of inadequacy of land, particularly for the manufacturing sector. In this context, the declared special economic zones (SEZs) need to be equipped with adequate infrastructure services. Trade facilitation should be given the highest priority to ensure good forward linkages of these investments to global markets. *Third*, existing skill shortages are becoming a binding constraint for economic growth in Bangladesh. Even the well-established RMG sector is finding it difficult to hire the required skilled labor. Continued efforts towards expanding the quality of education are required to cater to the domestic and external demands for Bangladeshi labor. Indeed, specific policies should be pursued to take advantage of the



emerging opportunities as regards overseas migration.

Overall, to ease the labor market pressures arising from the ongoing demographic transition and to realize the potential of the 'demographic dividend', Bangladesh will need to put more attention towards skill development of its rapidly expanding labor force. Linking skill development with market demand should also be a priority in this context. *Fourth*, without ensuring good governance at all levels including in the financial sectors (e.g. banking and capital market) it will not be possible to establish an investment-friendly environment. Curbing corruption should thus be high on the priority list. *Fifth*, a set of reforms is required to install dynamism and momentum in Bangladesh's growth path and mitigate the risk of an economic slowdown. Reforms that will strengthen institutional, legal and administrative capacities should be continued and not be a one-off event. Alongside necessary reforms, it will be important to reduce policy uncertainty; this is crucial to ensure an investment and development-friendly environment. A culture of inclusive political governance and tolerance are key to maintain Bangladesh's growth momentum. Whilst it is important to achieve an accelerated growth path in a sustainable manner, the quality of growth will be of no less importance. Ensuring growth is fairly distributed is a critical necessity to establish a just society in Bangladesh. In this context, Sobhan (2010: 11) has rightly urged for building a development process which needs to be "less dysfunctional, less unfair and more serviceable to the needs of millions of ordinary people." Indeed, a more equitable society can help stimulate domestic demand and contribute towards a sustainable growth outcome. If attention is drawn on adaptation of a socially just growth in the Bangladesh, one may take cognisance of the following set of strategies. *First*, strengthening the capacities of the marginalized people through enhanced labor productivity should be an integral part of the strategy so that they can

compete in the market process from a position of strength and demand fair wages.

Hence, it will be prudent to continue investments towards enhancing agricultural productivity and crop diversification, primary schooling and further human capital formation. Policies and programmes to deliver quality with regard to health and education services in an affordable manner to the vulnerable and poor will lead to higher living standards through improved productivity. *Second*, efforts towards women empowerment need to continue. Family planning programmes should focus more on poor households; the campaign to avoid early marriage and early parenthood of young girls should be strengthened. Well-directed educational stipend programmes that can incentivize female children transitioning from primary to secondary school have been proven to be helpful in the past. An awareness building effort must be put in place in order to bring changes in social attitudes towards women. Given the observed trends in the education status of women and the lower rate of women participating in the labor force compared to men, a focus on creating 'female-friendly' jobs, work environments and labor policies will help to facilitate a higher level of female participation in the labor force. *Third*, the existing budgetary policy and public resource distribution needs to be strengthened. Tax policies will need to lead to a fairer and more equal distribution of income. There should be a clear linkage between the SSNPs and poverty reduction, both in the short and medium to long-term. SSNPs need to be better targeted to ensure that benefits are primarily received by those most in need, and better tailored to answer the specific needs of the poor. The allowances provided by the different SSNPs need to be rationalised. To be able to address different crises more effectively, SSNPs will need to be better timed to more adequately address adverse effects of seasonal shocks.

Linking the pool of cash transfers to human development outcomes through conditional transfers is likely to improve the quality of



social protection expenditures and to help the poor to acquire better human capital. Similarly, linking the need of local level infrastructure with employment generation programmes will serve the dual purpose of income generation and higher productivity. *Fourth*, public service delivery mechanisms need to be restructured in a more just and equitable way. Poor and hard-to-reach vulnerable people should have better access to basic infrastructure including electricity, communication, water and sanitation in an affordable manner so that they can make full use of their potential.

The delivery of financial services in order to ensure credit facilities and savings instruments for the marginalized also needs to be strengthened further. *Fifth*, enhancing the welfare of workers and strengthening their rights should be an integral part of the country's industrial policy. An economic order, in which millions of workers will lead a life with lower than living wages in the name of export competitiveness cannot be a part of a just society. *Sixth*, empowering the excluded and marginalized sections of the population will be a key instrument in attaining a socially just economic growth path. An accountable governance system with democratic practices at all levels, and the collective bargain power of the working class needs to be established in order to distribute the outcome of the attained economic growth in a more equitable manner.

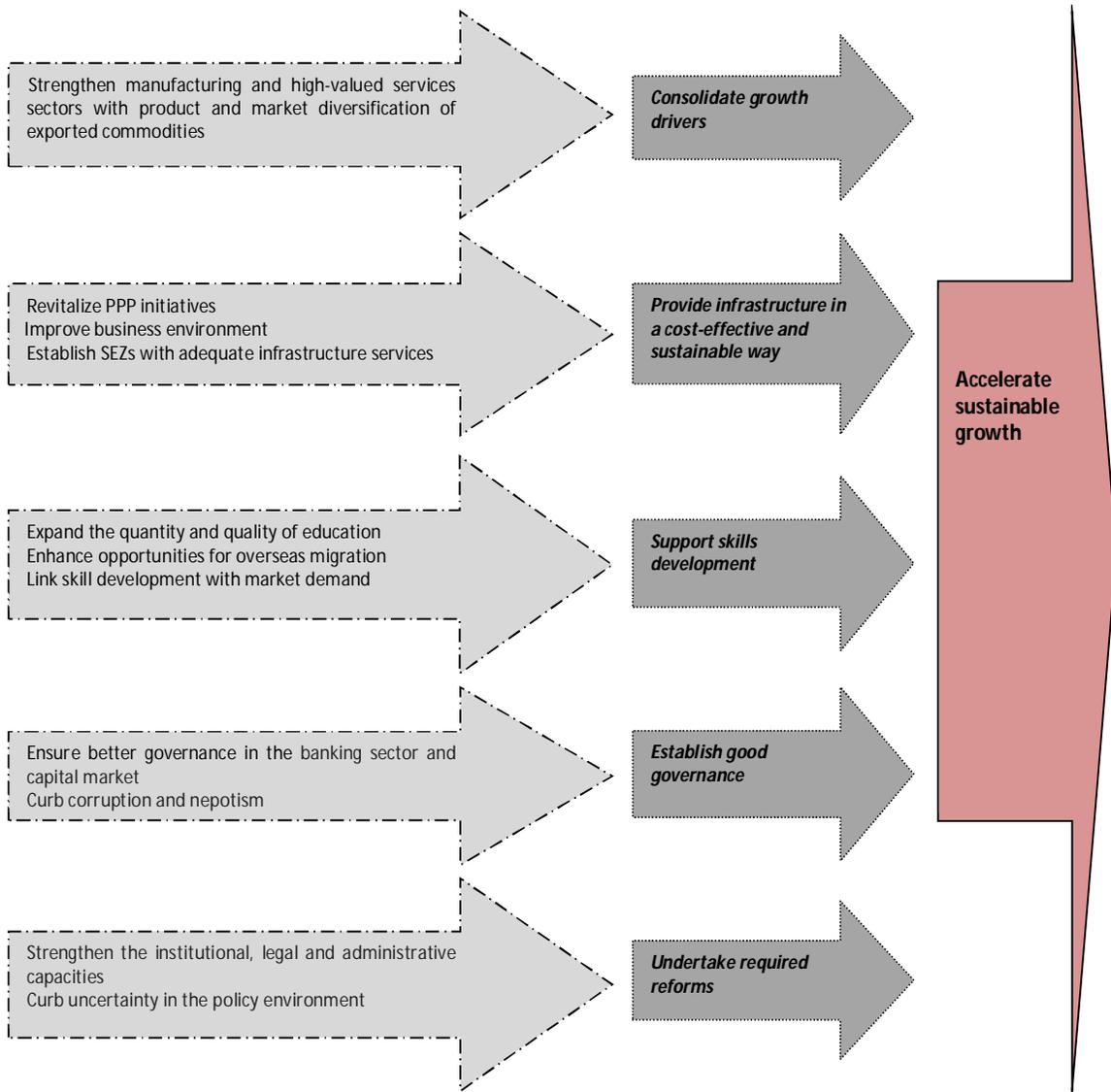
For future growth to be dynamic and green, the utilisation of natural resources in an environmentally sustainable manner, addressing the challenges arising from climate change, limiting ecosystem degradation, the conservation of biodiversity, the enhancement of afforestation and an integrated coastal zone management, as well as addressing environmental health problems are major challenges confronting Bangladesh in the coming decades. In order to accelerate economic growth without degrading the natural resources, Bangladesh will need to concentrate on the following issues. *First*, Bangladesh needs to effectively implement

the existing environmental acts and regulations. The recently developed "Global Green New Deal" initiative would require a revision of some of the existing policies and the adoption of new strategies. Bangladesh should comply with this effectively and with due urgency. *Second*, Bangladesh needs a long-term commitment to implement and coordinate "green investments". More particularly, significant investment will be needed for innovating green technology. Environment-friendly investments should get priority in both government and private financing. Green Banking practices need to be popularised. Bangladesh should flag the need of making trade in development-friendly green technology through active participation in the appropriate global fora. *Third*, Bangladesh needs to adopt environmentally sound manufacturing processes and practices in order to improve industrial policies with regard to environmental sustainability. Attracting FDI in emission-reducing projects may be a preferable option for this purpose. *Fourth*, creating green jobs (e.g. employment in solar, windmill, biomass and geothermal-based power plants) needs to be high on the policy agenda of both the government and the private sectors. Whilst Bangladesh's economy is currently facing a number of challenges, it has also achieved impressive successes over the last four decades.

The analysis of this paper shows that the policies of the country will need to undergo significant revisions in order for the economy to develop in a sustainable, socially just, progressive and forward looking manner. The recommendations put forward in the preceding sections ought to be implemented in a strategic and coordinated way which will require an enlightened political leadership.



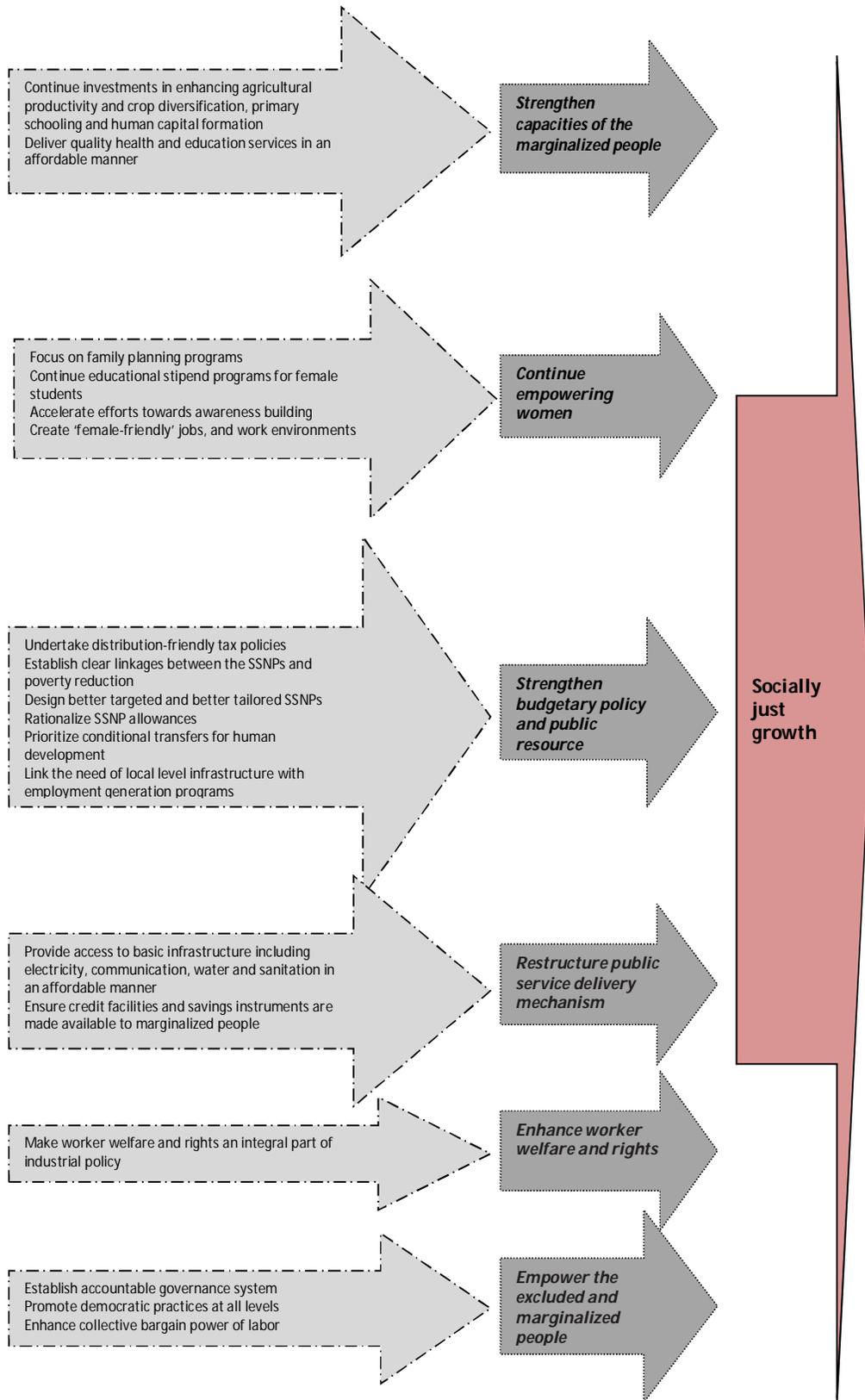
**Figure 12: Accelerated and Sustainable Growth**



Source: Authors' elaboration.



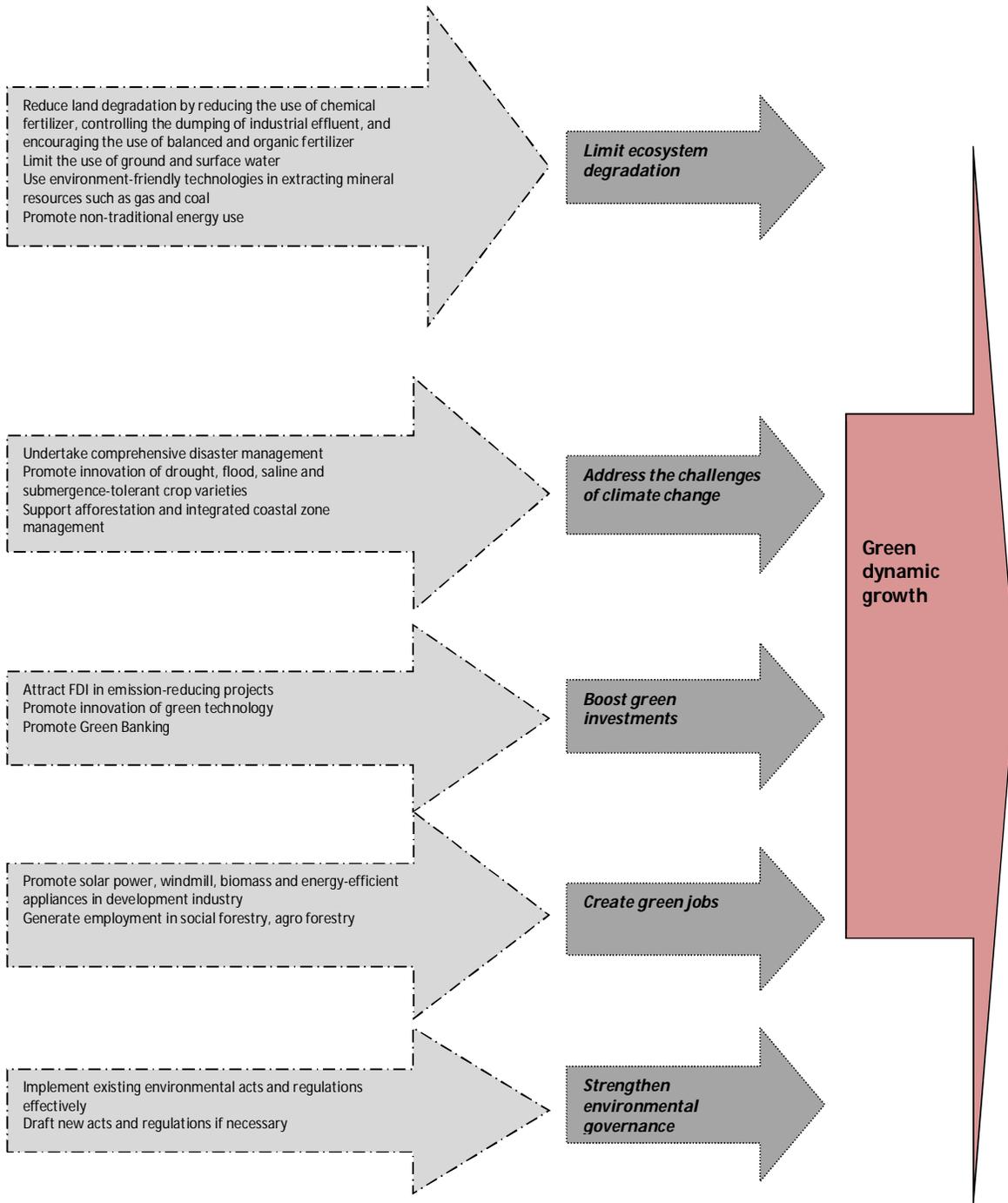
**Figure 13: Socially Just Growth**



Source: Authors' elaboration.



Figure 14: Green Dynamic Growth



Source: Authors' elaboration.



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## Acronyms

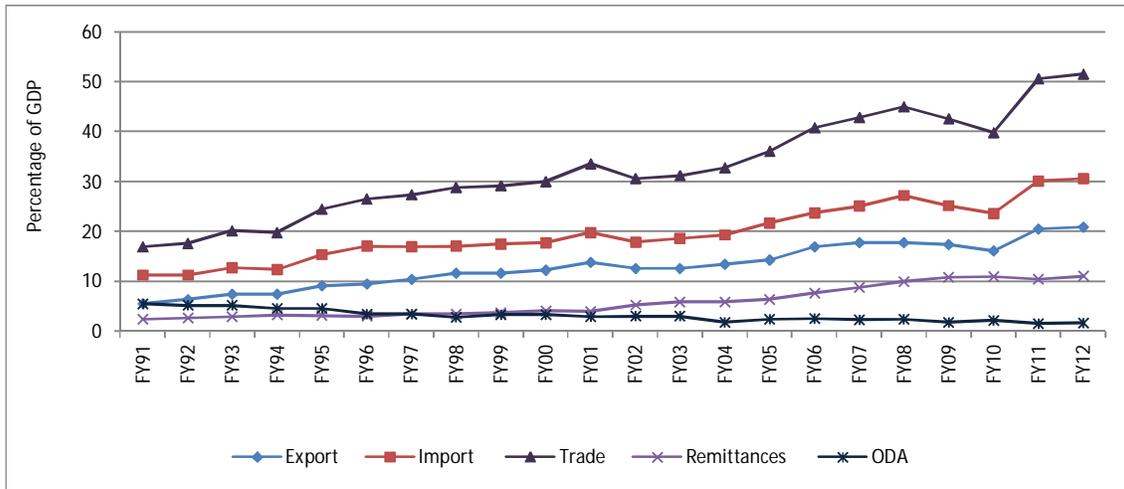
BBS	Bangladesh Bureau of Statistics
BCCSAP	Bangladesh Climate Change Strategy and Action Plan
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
BWDB	Bangladesh Water Development Board
CBN	Cost of Basic Needs
CEGIS	Centre for Environment and Geographic Information Services
CGE	Computable General Equilibrium
CHT	Chittagong Hill Tracts
CPD	Centre for Policy Dialogue
CO2	Carbon Dioxide
DoE	Department of Environment (Bangladesh)
ECF	Extended Credit Facility
EGHP	Employment Generation for the Hardcore Poor
EPB	Export Promotion Bureau (Bangladesh)
ETP	Effluent Treatment Plant
EU	European Union
FDI	Foreign Direct Investment
FFW	Food for Work
GDP	Gross Domestic Product
GNI	Gross National Income
GR	Gratuitous Relief
GoB	Government of Bangladesh
HIES	Household Income and Expenditure Survey
HYV	High-Yield Variety
IFC	International Finance Corporation
ILO	International Labor Organization
IMF	International Monetary Fund
IT	Information Technology
kW	Kilowatt
Kwh	Kilowatt hour
LDC	Least Developed Country
LFS	Labor Force Survey
MDG	Millennium Development Goals
MT	Metric Ton
MW	Mega Watt
NGO	Non-Government Organization
NPL	Non-Performing Loan
NRB	Non-Resident Bangladeshis
NSDS	National Sustainable Development Strategy
ODA	Official Development Assistance
PCB	Polychlorinated Biphenyl
PESP	Primary Education Stipend Project (Bangladesh)
PPP	Public-Private Partnership
PRSP	Poverty Reduction Strategy Paper
QR	Quantitative Restriction
REOPA	Rural Employment Opportunities for Public Asset
RMG	Readymade Garments
RMP	Rural Employment and Rural Maintenance Programme
SAFTA	South Asian Free Trade Area
SD	Supplementary Duty
SEZ	Special Economic Zone
SFYP	Sixth Five Year Plan
SLR	Sea Level Rise
SME	Small and Medium Enterprise
SSC	Secondary School Certificate



SSNP	Social Safety Net Programme
SoE	State-Owned Enterprise
TFP	Total Factor Productivity
TR	Test Relief
TRIPS	(Agreement on) Trade Related Aspects of Intellectual Property Rights
UAE	United Arab Emirates
UNCTAD	United Nations Conference on Trade and Development
USA	United States of America
USD	United States Dollar
VAT	Value Added Tax
VGD	Vulnerable Group Development
VGf	Vulnerable Group Feeding
WDI	World Development Indicators
WTO	World Trade Organization

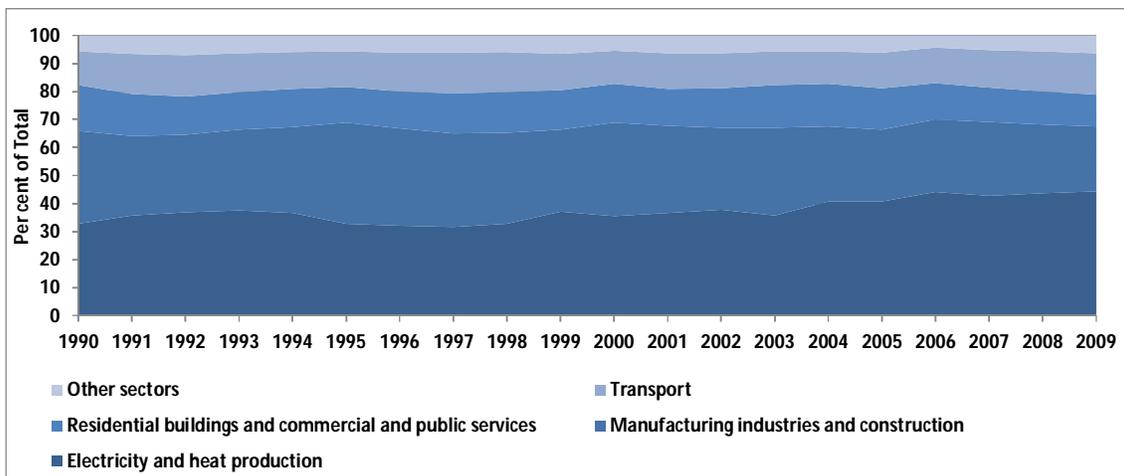


**Annex Figure 1: Export, Import, Trade, Remittances and ODA as Percentage of GDP**



Sources: Estimated on the basis of Bangladesh Economic Review Yearbooks (various years).

**Annex Figure 2: Sources of CO2 Emissions**



Source: Prepared based on the World Development Indicators (WDI) 2012 data.



**Annex Table 1: Bangladesh's Export, Import and Total Trade**

Year	Export (Million USD)	Export as % of GDP	Import (Million USD)	Import as % of GDP
FY1991	1,718	5.54	3,510	11.33
FY1992	1,994	6.36	3,526	11.25
FY1993	2,383	7.44	4,071	12.71
FY1994	2,534	7.48	4,191	12.38
FY1995	3,473	9.15	5,834	15.38
FY1996	3,882	9.53	6,931	17.02
FY1997	4,418	10.44	7,152	16.90
FY1998	5,161	11.72	7,520	17.08
FY1999	5,313	11.62	8,006	17.51
FY2000	5,752	12.21	8,374	17.77
FY2001	6,467	13.76	9,335	19.87
FY2002	5,986	12.58	8,540	17.95
FY2003	6,548	12.61	9,658	18.60
FY2004	7,603	13.46	10,903	19.30
FY2005	8,655	14.33	13,147	21.77
FY2006	10,526	16.98	14,746	23.79
FY2007	12,178	17.79	17,157	25.07
FY2008	14,111	17.73	21,629	27.18
FY2009	15,565	17.42	22,507	25.19
FY2010	16,205	16.15	23,738	23.65
FY2011	22,924	20.48	33,658	30.07
FY2012	24,288	20.92	35,516	30.60
FY2013	27,027	20.99	37,290	28.96

**Source:** Authors' calculation based on export data from Export Promotion Bureau (EPB), and import data from Bangladesh Bank.



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ECONOMY OF TOMORROW  
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