BANGLADESH

MORE AND BETTER JOBS TO ACCELERATE SHARED GROWTH AND END EXTREME POVERTY

A Systematic Country Diagnostic

October 25, 2015

WORLD BANK GROUP
South Asia Region

ABBREVIATION

ADM	Adaptive Delta Management	IRT	International Road Transport
ADP	Annual Development Programme	IWT	Inland Water Transport
AGPs	Apprenticeship Grants Programs	KCT	Key Construction Test
AL	Awami League	KM	Kilometer
ALMPs	Active labor market programs	kW	Kilowatt
ASA	Association for Social Advancement	LDCs	Least Developed Countries
BAU	Business as usual	LFS	Labor Force Survey
BBS	Bangladesh Bureau of Statistics	LGED	Local Government Engineering Department
BDT	Bangladesh Taka	LNG	Liquefied Natural Gas
BEPZA	Bangladesh Export Processing Zones Authority	LPI	Logistics Performance Index
BERC	Bangladesh Energy Regulatory Commission	LSCI	Liner Shipping Connectivity Index
BIWTA	Bangladesh Inland Water Transport Authority	NBR	National Board of Revenue
BNP	Bangladesh Nationalist Party	NGOs	Non-governmental organizations
BMET	Bureau of Manpower, Employment and Training	NFP	National Food Policy
BPDB	Bangladesh Power Development Board	NMCT	New Moorings Container Terminal
BR	Bangladesh Railways	MCF	Million Cubic Feet
BRAC	Bangladesh Rural Advancement Committee	MDGs	Millennium Development Goals
BST	Bulk Supply Tariff	M&E	Monitoring and Evaluation
CCT	Chittagong Container Terminal	MOC	Ministry of Commerce
CIP	Country Investment Plan	MoEF	Ministry of Environment and Forests
COEL	Center of Excellence for Leather Skill	MOU	Memorandum of Understanding
CPA	Chittagong Port Authority	MIC	Middle-income Country
CPIA	Country Performance & Institutional Assessment	MICS	Multiple Indicator Cluster Survey
DNCC	Dhaka North City Corporation	MRAs	Mutual Recognition Agreements
DPT	Diphtheria-Pertussis-Tetanus	MTIR	Mid-Term Implementation Review
DSCC	Dhaka South City Corporation	MW	Megawatt
EPB	Export Promotion Bureau	PCU	Passenger Car Units
ERD	Economic Relations Division	PFM	Public Financial Management
ETPs	Exchange Traded Products	POA	Price On Application
EU	European Union	PPP	Purchasing Power Parity
FDI	Foreign Direct Investment	PPPs	Public-Private Partnerships
FP	Family Planning	PPRC	Power and Participation Research Centre
FTA	Free Trade Agreement	PWC	Pricewaterhouse Coopers
FY	Fiscal Year	RCP	Representative Concentration Pathway
FYP	Five-Year Plan	RMG	Ready Made Garments
GBM	Ganges-Brahmaputra-Meghna	RTI	Right to Information
GDP	Gross Domestic Product	SCD	Systematic Country Diagnostic
GDW	Greater Dhaka Watershed	TB	Tuberculosis
GED	General Economics Division	TEUs	Twenty-Foot Equivalent Units
GOB	Government of Bangladesh	TFP	Total Factor Productivity
GON	Government of the Netherlands	TVET	Tech. & Vocational Education and Training
GNI	Gross National Income	TWH	Terawatt hour
GSP	Generalized System of Preferences	UN	United Nations
GTZ	German Agency for Technical Cooperation	UNDP	United Nations Development Programme
GWH	Gigawatt Hour	UNCTAD	UN Conference on Trade and Development
HDRO	Human Development Report Office	UNIDO	UN Industrial Development Organization
HIES	Household Income and Expenditure Survey	UAE	United Arab Emirates
ICD	Inland Clearance Depot	UK	United Kingdom
IDA	International Development Association	USA	United States Of America
IGC	Intergovernmental Committee	USD	US dollar
IFC	International Finance Corporation	VAT	Value Added Tax
IMF	International Monetary Fund	WDI	World Development Indicators
IT	Information Technology	WBG	World Bank Group
IOCs	International Oil Companies	WTO	World Trade Organization
IPPs	Independent Power Producers		

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KEY FINDINGS AND RECOMMENDATIONS

More and better jobs have enabled millions of Bangladeshis to move out of poverty. Bangladesh is among a select group of countries worldwide where the pace of GDP growth accelerated, poverty dropped and inequality fell over 2000 to 2010, as the economy underwent structural shifts accompanied by better job opportunities for men and women (box). Bangladesh made good use of the deep and elastic demand offered by the global economy to expand job opportunities in manufacturing. Remittances from workers abroad also emerged as an important source of income.

13.8m net new jobs added between 2002/03 and 2013; 10.5m new jobs outside agriculture vs. only 3.3 in agriculture

- share of manufacturing in employment up from 14 to 21 percent; share of agriculture now down to 45 percent

Women's employment up 7m (16.8m in 2013)

- gender gap narrowed, particularly among lower ages; women working in manufacturing up from 1.7m to 3.8m

In FY14, an estimated 8m Bangladeshis working overseas sent home $14.5b in remittances

Growth in Bangladesh has been broad-based due to improved opportunities in the labor market coupled with a demographic dividend resulting from earlier successes in reducing population growth and improving human development, enabling millions to move out of poverty. The pace of poverty reduction has picked up considerably: the number of poor people fell 17m between 2000 and 2010, compared to less than 1m decline during 1990-2000.

Looking ahead, the creation of millions of new and better jobs in industries where Bangladesh has a comparative advantage offers by far the most promising exit out of poverty. Economic growth will likely continue to be spurred by the relocation of labor-intensive production from other richer fast-growing countries like China. To help realize this potential, Bangladesh must ensure a policy environment conducive to faster job creation and growth; foundational priorities like macroeconomic stability, human capital accumulation, and better institutions and an enabling business environment will be key. In addition, Bangladesh must address the crucial infrastructure and policy impediments constraining it from moving to a higher growth path.

This SCD identifies five areas where concerted efforts over the next 3-5 years could have a transformative impact on accelerating the creation of more and better jobs in Bangladesh: (i) energy, (ii) inland connectivity and logistics, (iii) regional and global integration, (iv) urbanization, and (v) improved delta management. Power shortages and poor transportation infrastructure—ports, roads, railroads—make labor productivity in Bangladesh much lower than in China, India, and Vietnam. Bangladesh can also take better advantage of its location in the world's fastest-growing region and between India and China by eliminating policy distortions impeding faster integration with the world economy. The "pull effects" of export sector jobs in urban areas have created employment opportunities for the poor in construction and transport, but Bangladesh needs to do more to boost the productivity of its urban spaces, particularly Dhaka, which accounts for more than one-third of GDP. Finally, given nearly half the labor force continues to be employed in agriculture, higher land productivity, agricultural diversification, and reduced vulnerability in the delta region remain important challenges in the short- to medium-term.

- 40 percent of the population still has no access to electricity
- Road traffic between Dhaka and Chittagong (260km) can take up to 12 hours.
- Trade policies are heavily skewed in favor of domestic production
- Dhaka metropolitan area is ranked among world's 10 largest cities, but also among the world's 10 worst cities to live in.
- Climate change and delta management are an existential concern for Bangladesh

EXECUTIVE SUMMARY

1. Situated in a fertile low-lying river delta, Bangladesh combines high vulnerability to floods, tropical cyclones, earthquakes, and climate change with one of the world's highest population densities, with around 159 million people living in less than 150,000 sq. km. With the world's second lowest per capita income in 1975, it was labeled "the test case for development" in view of the formidable development challenges it faced. Nevertheless, Bangladesh has proven to be remarkably resilient, developing well beyond initial expectations, and has made very good progress with poverty reduction. GNI per capita has grown from around US$100 in 1972 to US$1,314 in 2015, and the country crossed the World Bank threshold for the lower-middle-income group in 2015. Five striking achievements of Bangladesh since its independence merit special mention:

- Impressive achievements of a pro-active family planning program, which helped lower total fertility from over 6 children per woman in the 1970s to 2.1 in 2011: Even though Bangladesh's population increased by about 15 percent between 2000 and 2010, the working age population expanded even more rapidly, by 25 percent. This "demographic dividend" offers a promising, albeit short and one-time, window of opportunity for Bangladesh to enact policies and promote investments to raise human capital and productivity of these citizens entering the workforce.
- Improved food availability: Thanks to the uptake of high-yield varieties, improved availability of fertilizer and other key inputs, and better irrigation, domestic rice production (the main food crop) has risen from around 12.3m metric tons in the 1980s to 37.6m metric tons in 2014.
- Stronger disaster-coping mechanisms, as evidenced by reduced impact of recent storms, cyclones, and floods: The government, with active community participation, has devised effective strategies to mitigate the damage of natural disasters, including early warning and response systems and countless cyclone shelters in coastal areas across the country.
- Development of the extensive rural road network built in the 1980s by the Local Government Engineering Department: This network blurred the rural-urban divide and helped develop a continuum linking Dhaka, Chittagong, other secondary cities, towns, market centers, and villages.
- Special initiatives taken to tackle gender inequality and promote women's empowerment:[1] This included a schooling system that expanded girls' education, mobilization of women by NGOs, and—more recently—their proactive recruitment by the readymade garments (RMG) industry.

GOOD JOBS: KEY DRIVERS OF PROGRESS IN THE POST-2000 PERIOD

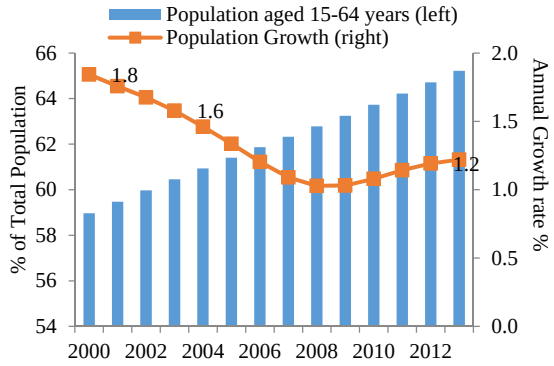
2. Annual GDP growth in Bangladesh averaged about 6 percent over 2005 to 2015, notwithstanding the adverse impacts of the global recession, oil price rise, unrest in the Middle East (an important destination for Bangladeshi migrants) and local natural disasters. Several factors explain the resilience of the economy to global shocks, including strong macroeconomic fundamentals at the onset of the crisis, strong growth of exports and remittances, and relatively under-developed and insulated financial markets. The pace of poverty reduction also picked up considerably since 2000, and Bangladesh is amongst the select group of countries which have experienced a modest decline in inequality in the post-2000 period. The main drivers of faster GDP

[1] Amartya Sen has attributed Bangladesh's success in this particular regard to the "general determination in post-independence Bangladesh to target the elimination of female disadvantage". *What's happening in Bangladesh?* http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)62162-5/fulltext

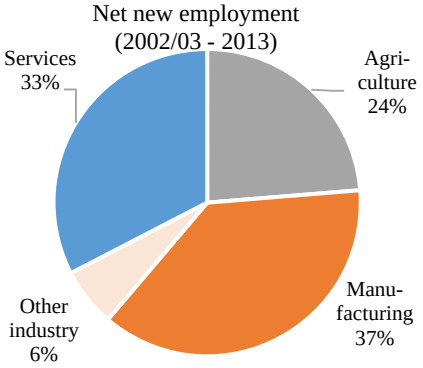
growth and poverty reduction observed between 2000 and 2010 have included (i) the ongoing demographic transition that has led to an increased share of working-age population, (ii) key structural shifts in the economy, including better wage and salaried employment opportunities for workers in the manufacturing and services sectors, (iii) higher agricultural incomes, and (iv) higher remittances. Key factors behind these remarkable improvements include not just economic reforms and good macroeconomic management, but also special attention to gender equality, education, health outcomes, and family planning.

Main Drivers of Progress Since 2000

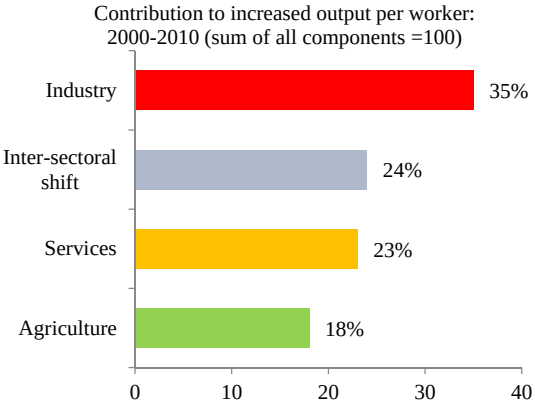
Demographic Dividend: lower population growth has led to a higher working-age population share



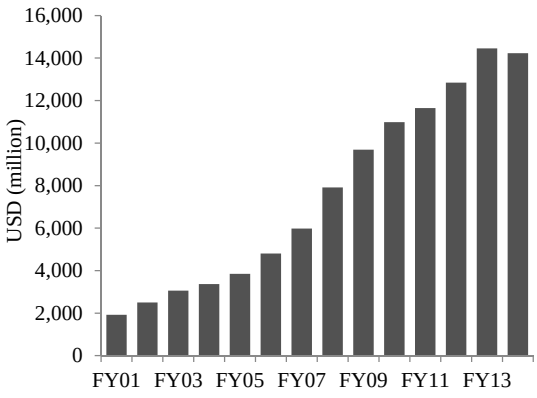
Most new jobs added recently have been in the manufacturing and services sectors



Contribution to increased output per worker: 2000-2010 (sum of all components =100)



Agriculture contributed nearly one-fifth of the higher output per worker in 2010 vs. 2000



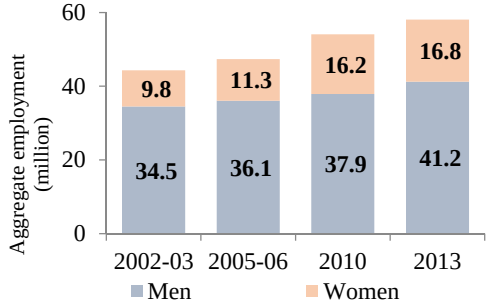
Remittance inflows from overseas workers have recorded double-digit annual growth since 2000

3. **The economy has undergone important structural shifts.** The manufacturing sector in Bangladesh has been the largest single contributor to growth, and its share in GDP has risen from 13 percent in 1981 to 17 percent in 2015. Industry's contribution to growth peaked from about 1 percentage point in the 1980s to 2.7 percentage points in 2015. The share of the services sector has stabilized at 53-54 percent of GDP, and its contribution to GDP growth has risen from around 2 percentage points in the 1980s to over 3 percentage points in the 2000s. By contrast, agriculture's share in GDP has come down from 30 percent in 1981 to 15 percent in 2015, and its contribution to GDP growth was below 1 percentage point throughout most of the past three decades. Growth in industry came largely from manufacturing and construction, while that in the services sector was broad-based, led by wholesale and retail trade and transport, storage and communication.

4. **These structural shifts have been accompanied by improved job opportunities for both men and women.** Several key changes have taken place in Bangladesh's labor market since 2000, including a gradual decline in the share of total employment in agriculture and strong employment growth in urban areas. Successive labor force surveys confirm that three-quarters of the new jobs added in Bangladesh between 2002/03 and 2013 were in the non-agricultural sector. Of the estimated 14m net new jobs created over this period, 10.5m were outside agriculture; accordingly, the share of the workforce engaged in agriculture fell from 52 percent to 45 percent, while that in manufacturing rose from 14 to 21 percent. One-half of the net increase in total employment was due to women's increased participation in the workforce: the total number of employed women increased sharply from 9.8m in 2002/03 to 16.8m in 2013 (Figure). The gender gap in labor force participation rate narrowed, particularly amongst lower age-cohorts, as did the gender gap in wages.

5. **Bangladesh has made good use of the deep and elastic demand offered by the global economy to expand job opportunities in the manufacturing sector.** The largely export-driven readymade garment (RMG) sector in Bangladesh has provided very good employment opportunities for young women and contributed to their empowerment. While the manufacturing sector overall (i.e., RMG and other industries) continues to employ more men than women, the number of jobs for women in the sector more than doubled between 2002-03 and 2013. Bangladesh is now the world's second largest exporter of readymade garments after China, making it unique among low-income countries in its high share of manufactured goods in exports. The share of exports in GDP has more than trebled since 1981. In FY14, exports of the ready-made garment sector exceeded US$24 billion, and the sector employed an estimated 4m workers, mostly women, many of whom were from poor rural areas. The potential rewards of continued export-led job creation and growth are extremely high: if Bangladesh were to capture 20 percent of China's current garment exports, its total exports would more than double, creating millions of new jobs in the economy.

An equal number of men and women joined Bangladesh's workforce between 2002/03 and 2013



Source: Labor Force Surveys, various rounds. BBS.

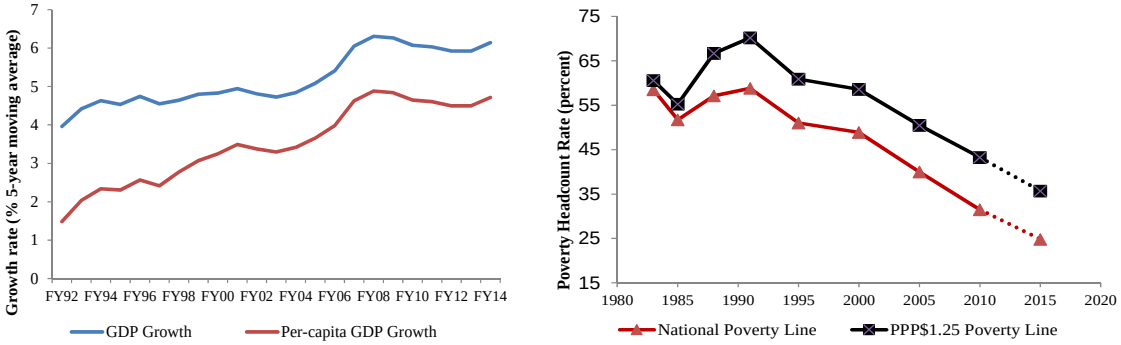
6. **Remittances from workers abroad have also emerged as a significant source of income.** In many areas of rural Bangladesh, remittance incomes from family members working abroad represent both a significant proportion of household income as well as a substantial source of fund inflows into the local economy. Agriculture is no longer the dominant source of income in rural areas (Ahmed, forthcoming); instead, rural households now draw a substantially larger proportion of their incomes from non-agricultural activities and transfers from both local and foreign migrant workers. With an estimated 8m citizens working abroad, overseas remittances to Bangladesh exceeded US$14 billion in 2013-14 (FY14), equivalent to about 8 percent of GDP, or nearly double the share a decade ago. That said, while Bangladesh is among the world's top ten remittance receiving countries, it has the lowest remittance per worker amongst this group because of the low level of education and skills of the typical migrant worker.

Triple Payoff: Faster Growth, Fewer Poor, Better Human Development

7. **Bangladesh is among the select group of countries worldwide that have recently experienced both faster growth as well as a modest decline in inequality.** GDP growth has risen

from an average of 4.7 percent per annum in the 1990s to 5.6 percent in the 2000s, and to over 6 percent since 2010 (figure). Higher labor incomes and rising remittances have been extremely important drivers of broad-based growth. Inequality in rural areas, where about 70 percent of Bangladesh's population resides, remained more or less unchanged between 2000 and 2010 while inequality in urban areas trended downwards. With a Gini index of per capita consumption of about 0.3 at the national level, inequality in Bangladesh is lower than in Nepal, India, Sri Lanka, Indonesia, and most other East Asian countries. Thanks to its much-improved economic performance since 2000, poverty projections indicate Bangladesh has surpassed the Millennium Development Goal of halving the incidence of extreme poverty between 1990 and 2015. Between 2000 and 2010, the number of poor based on the national poverty line fell by more than 17 million, compared to a decline of less than one million between 1991-92 and 2000, making this decade the most remarkable period in its history in terms of fastest-ever growth and poverty reduction.

GDP growth rate and pace of poverty reduction has picked up appreciably since the 2000s



***Note**:* Poverty estimates based on HIES data except those for 2015 which are based on projections).

8. **Significant achievements in human development over the years have contributed towards improving labor market prospects for workers, which in turn have spurred demand for education and skills.** Bangladesh is world-renowned for its non-governmental organizations (NGOs) like BRAC and ASA, and microfinance institutions like the Grameen Bank, which have pioneered innovative mechanisms to provide services to the poor. The country has made remarkable progress in improving human development indicators, including life expectancy, fertility, infant and child mortality, education, immunization rates, and sanitation. Successive governments have exhibited willingness and flexibility to work with NGOs to experiment with community-based approaches to service delivery, and have achieved notable successes in several areas. In 1991, the educational attainment of Bangladeshi women was among the lowest in the world (80 percent illiteracy, 33 percent secondary school enrollment). However, through massive expansion of schools, targeted stipends to bring the poorest and girls into schools, and continued investments in education, female primary school enrollment rates are now higher than those in Pakistan, Nepal, and Bhutan, and about the same as in India. This has helped set in place a virtuous cycle in Bangladesh whereby better-educated women now have significantly better labor market prospects than before, and increased labor force participation by women in turn leads to better human development outcomes as well as higher demand for more and better education and skills.[2]

[2] The vast majority of Bangladesh's RMG workers are rural women, who were introduced to formal employment through this sector (Afsar 2001, Kabeer and Mahmud 2004). Increased employment helped improve several key outcomes, including women's bargaining power within the household, fertility choices, and investments in children's education (Kabeer 2001, Hossain 2012, Heath and Mobarak 2014). Heath and Mubarak (2014) estimate that about 15 percentage

Significant Poverty Reduction Challenges Still Remain

Despite Bangladesh's noteworthy development achievements, many Asian countries have done much better since 1980 (see Table below) and so Bangladesh remains one of Asia's poorest countries, with constrained public services and comparatively weak institutions. Moreover, even if its economy were to continue to grow as rapidly as it has since 2000—i.e. much faster than it ever has before—simulations indicate that the poverty rate in the country would fall to 15-20 percent by 2030—good progress indeed, though nevertheless still well short of what is required to eliminate extreme poverty by 2030. In 2010, 31.5 percent of Bangladesh's population (around 48m people) lived below the national poverty line; about 45 percent still did not have access to electricity. Today, pockets of high poverty persist across the country, particularly in places with poor infrastructure and where the population has low human capital and skills. Despite good progress with poverty reduction and other MDGs, Bangladesh's under-nutrition burden is one of the highest in the world. Interventions to increase access to water and sanitation, better rural road connectivity, and improved social services remain very important for poor people.

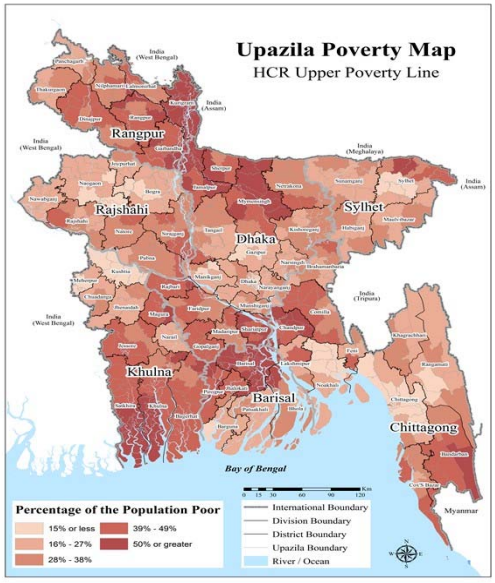
While Bangladesh has done well, many other countries did much better over the same period

	GDP per capita (current US$)			GNI per capita (Atlas method, current US$)		
	1980	**2013**	**% (annual)**	**1980**	**2013**	**% (annual)**
China	193	6,992	11.5	220	6,740	10.9
South Korea	1,778	25,998	8.5	1,900	25,870	8.2
Sri Lanka	273	3,281	7.8	280	3,180	7.6
Indonesia	529	3,624	6.0	500	3,740	6.3
India	272	1,455	5.2	280	1,530	5.3
Philippines	685	2,788	4.3	700	3,300	4.8
Bangladesh	223	954	4.5	220	1,010	4.7
Pakistan	303	1,282	4.5	350	1,360	4.2

Source: World Development Indicators (accessed on October 20, 2015).

Despite encouraging recent developments in the labor market, nearly half of all workers remain in agriculture, and an overwhelming majority still languishes in the informal sector. Unemployment rates are higher among the youth compared to the overall population. While rural areas continue to account for the bulk of the poor, the share of the poor population living in urban areas has been increasing over the past two decades, as more people move from rural areas in search of better employment and income generating opportunities. In 1991, the urban poor accounted for 10 percent of the national poor population; in 2000, this share had risen to 14.4 percent, and further to 17.7 percent by 2010. Between 1991-92 and 2010, the number of poor people residing in urban areas increased by 2.1 million; by contrast, the total number of rural poor declined by 17 million over the same period. Rapid urbanization has adversely impacted economic performance and general livability of urban settlements. In Dhaka alone, an estimated 3m people live in urban slums, where the standard of living and environmental conditions are generally worse than in rural areas.

Considerable spatial variation in poverty incidence



Despite Bangladesh's relatively compact land area, upazila-level poverty maps reveal considerable spatial variation in poverty incidence. Mapping the results of a recently concluded exercise to prepare more disaggregated poverty estimates reveals considerable variation in poverty incidence within each division (see adjacent Figure). For instance, while the poverty rate in the five poorest upazilas in Rangpur division is more than twice as high as the national average, the poverty rate in the ten richest upazilas is lower than the national average. Similarly, poverty incidence in selected upazilas in the ecologically-vulnerable southwest region are much higher than the national average.

point of the national gain in girls' school enrollment rate can be attributed to the growth of the RMG industry since rural families kept girls in school due to cognitive skill requirements of garment industry jobs.

9. As highlighted in the Seventh Five Year Plan background paper on ending extreme poverty, **the agricultural labor market in Bangladesh tightened significantly in the decade of 2000s**, which led to an increase in the real agricultural wage rate. Three main channels were the primary contributors: (a) relocation of farm labor to rural non-farm sectors; (b) relocation of rural labor to urban activities through the "pull effects" of urbanization, creating employment opportunities for the extreme poor in labor-intensive construction and transport activities; and (c) jobs for the poor created in the manufacturing sector. Robust inflows of remittances from overseas workers contributed to spurring the creation of non-farm employment opportunities in rural areas.

More and Better Jobs are Needed for Faster Progress on Twin Goals

10. **Looking ahead, accelerating the ongoing employment shift of casual workers and small farmers engaged in agriculture into salaried employment in more dynamic and remunerative sectors of the economy offers by far the most promising exit out of poverty.** Jobs are atop the development agenda for both citizens and policy makers in Bangladesh. The labor force is growing by 3.1 percent per annum—1.3 times the South Asian average and 1.7 times the global average—and 21m people are projected to enter the workforce between 2015 and 2025. Nearly one-half (45 percent) of the country's estimated 58m workforce is engaged in the agricultural sector, which contributes about one-fifth of GDP. About 34 percent is employed in the services sector, which contributes about one-half of GDP; the rest—i.e., 20 percent—works in the industrial sector, which contributes over 30 percent of GDP. Gross output per worker is thus nearly four times as high in industry and services compared to agriculture.

11. Given the **importance of creation of more and better jobs in the Bangladeshi context**, the main role of public policy should be to help ensure that the conditions are in place for strong private sector led job creation and growth, to understand why there are not enough good jobs, and to remove or mitigate the constraints that prevent the creation of more of those jobs. The Bangladesh Systematic Country Diagnostic (SCD; see Box) classifies priority areas for action into two main groups: (i) foundational priorities—i.e., those which are pre-requisites for faster job creation and growth, and (ii) key public policy areas where concerted action over the next 3-5 years could have a transformative impact on the pace of progress towards eliminating poverty and boosting shared prosperity.

What is an SCD?

Two years ago at the 2013 Spring Meetings in Washington DC, the Board of Directors of the World Bank Group representing its 188 member countries endorsed ambitious goals to end extreme poverty and promote shared prosperity. The first goal is a global target of reducing the extreme poverty rate – i.e., the percentage of people living on less than $1.25 per day in purchasing power parity (PPP) adjusted terms – to 3 percent by 2030. The second goal is a country level target to promote shared prosperity – i.e., to foster income growth of the bottom 40 percent of the population in every country.

This Systematic Country Diagnostic (SCD) aims to identify key priorities for Bangladesh to reduce extreme poverty and boost shared prosperity. In line with the World Bank Group's new country engagement model, the findings of this SCD will provide inputs for the preparation of an upcoming Country Partnership Framework, which will outline the WBG's engagement to help Bangladesh achieve these twin goals.

12. **This report identifies five key areas where concerted efforts over the next 3-5 years could have a transformative impact on accelerating the creation of more and better jobs:** (i) energy, (ii) inland connectivity and logistics, (iii) regional and global integration, (iv) urbanization, and (v) delta management. Broad consensus already prevails among key stakeholders in Bangladesh on the importance of each of these areas, as evidenced by the high priority accorded to them in the

government's latest Five Year Plan as well as the support voiced for each of these in the public consultations carried out across different parts of Bangladesh as part of the SCD preparation process. This report goes beyond presenting just a diagnostic per se, and also includes a number of recommendations and suggestions on how best to tackle these challenges.

13. **An extensive body of work clearly shows how access to infrastructure in Bangladesh is an important determinant of both agricultural and non-farm incomes in rural areas.** To date, Bangladesh has largely neglected investment in infrastructure. **P**ublic investment in (hard) infrastructure was less than 2 percent of GDP, and it lags far behind its regional competitors in infrastructure quality (Table). By contrast, total investment in hard infrastructure in China, Thailand, and Vietnam exceeded 7 percent of GDP. Those countries also invested another 7-8 percent of GDP in education, training and health. Unless infrastructure bottlenecks in Bangladesh are addressed in a timely manner, they risk becoming increasingly important constraints limiting future growth prospects. WBG estimates indicate that reaching sustained 7.5-8.0 percent growth rates will require significant increases in investment to at least 33 percent of GDP, including an increase in infrastructure investments to around 10 percent of GDP per year.

Infrastructure Quality in Bangladesh Lags Behind its Regional Competitors

Country	Country Ranking	Infrastructure Score (Overall)	Electricity	Roads	Railroad	Port
China	46	4.7	5.2	4.6	4.8	4.6
Thailand	48	4.6	5.1	4.5	2.4	4.5
Sri Lanka	75	4.0	4.8	5.1	3.7	4.2
Vietnam	81	3.7	4.2	3.2	3.0	3.7
India	87	3.6	3.4	3.8	4.2	4.0
Cambodia	107	3.1	3.0	3.4	1.6	3.6
Pakistan	119	2.7	2.1	3.8	2.5	4.4
Bangladesh	127	2.5	2.5	2.9	2.4	3.7
Myanmar	137	2.1	2.8	2.4	1.8	2.6

Source: World Economic Forum, Global Competitiveness Report 2014-15; Ranking out of 144 countries.

1. The Energy Sector

14. **Even though electricity generation capacity has doubled since 2009, Bangladesh continues to need more electricity for its development.** In July 2015, Bangladesh generated 7,923 MW of electricity from an installed capacity of 11,532 MW (excluding captive power), a quantity that is inadequate to sustain middle- or high-level economic activity for a nation of almost 160m people. At the same time, only 72 percent of the population had access to electricity, and per-capita electricity consumption of 348 kWh per year was one of the lowest in the world. In light of these basic facts, the availability and reliability of power is a key concern for businesses: surveyed on 15 factors that comprise the business environment, Bangladeshi firms rated electricity second highest as a constraint to their operations (after political instability, and– ahead of finance and corruption). More specifically, 28 percent of firms surveyed identify electricity as their top obstacle and 52 percent identify it as a major constraint to doing business. In the 2014 *Doing Business* report, Bangladesh was also ranked the lowest out of 189 economies on the "Getting Electricity" indicator. Domestic firms face ten times as many outages in a typical month as the average for all countries for which Enterprise Survey data are available, and five times as many as the average for low-income countries. There was a 22 percent shortfall in meeting peak capacity in FY13, and 13 percent in non-peak demand. At the same time, energy demand is projected to rise nearly five-fold to over 190 TW hours by 2030.

15. **Gas is critical for the power sector in Bangladesh, since it fuels 70 percent of generation.** However, World Bank estimates suggest that domestic gas production will peak at 3,000 mmcfd in 2017 and then begin to decline. Exploration of additional domestic gas is now a priority, particularly offshore. In the meantime, LNG imports will likely be required soon to fuel existing gas-fired plants as well as those under construction. Given Bangladesh's over-reliance on natural gas, power supply diversification is also a key need. Other issues facing the power sector include: (i) the dual challenge of massive investment in new capacity while simultaneously facing an increasing cost of supply; (ii) enhancing private sector investment (despite early success in attracting private investors, only one new large independent power producer has started operation in Bangladesh in the last decade); (iii) raising current end-user gas prices to parity with prices in neighboring countries and regional benchmarks (currently they are well below parity); and (iv) managing the increase in fuel oil use by rental power plants and independent power companies, which has resulted in a nearly three-fold increase in the average cost of power supply (a cost that has not been fully passed on to consumers).

16. Chapter 3 of this report provides a number of specific suggestions and recommendations on priority actions for the energy sector to support Bangladesh achieve sustained growth, enhance access for the forty percent lacking power, and contribute to faster poverty reduction.

2. Inland Connectivity and Logistics

17. **Bangladesh needs to accelerate the economic transformation of its rural areas; and improving connectivity is key.** There is a wealth of evidence on the role of improved inland connectivity on raising agriculture productivity, promoting the movement of the workforce from farm to non-farm employment, and reducing poverty. Research using household-level panel data shows rural road investments in Bangladesh have reduced poverty significantly through higher agricultural production, higher wages, lower input and transportation costs, and higher output prices, and also led to higher girls' and boys' schooling.[1] Adequate attention to ensuring this network is properly maintained and developed and further integrated with the larger transport network remains an important public policy priority. In particular, Bangladesh needs to move away from the "build, neglect, rebuild" mindset, and instead ensure enough funding is available for maintenance. In addition to investments in rural roads, the country also needs to improve east-west connectivity, particularly connecting the southwest to Dhaka.

18. **In addition, Bangladesh can enhance its international competitive edge by improving logistics.** High logistics costs are an implicit tax that biases the economy away from exports, and limit access to imported inputs and final goods. There is significant evidence on the impact of logistics costs on trade. Chittagong port, which handles nearly 85 percent of the country's merchandise trade, is plagued by labor problems, poor management and lack of modern equipment, and is the only major port in South Asia that has not implemented the landlord port model. Similarly, railway and road networks connecting the ports with hinterland are underdeveloped and beset with logistical problems that impose significant costs on firms. Air transport is also inefficient, due to congestion and lack of capacity at the air terminal. The Dhaka-Chittagong corridor is Bangladesh's most important trade link, but it is extremely congested and its current performance hinders export growth. The government's role in the transport sector is worth reviewing, particularly regarding logistics services. Finally, as the report argues, Bangladesh should improve physical connectivity with India, but priority should be to remove the policy constraints to seamless cross-border movement of cargo.

3. Regional and Global Integration

19. **Export-led growth has served Bangladesh well; there remains significant potential for further expansion in this crucial area.** An extensive body of evidence has documented the benefits that accrued to Bangladesh's economy from trade liberalization in the 1990s. There is, however, still a large unfinished trade reform agenda. Thus far, Bangladesh's strong success in exports has primarily been based on low-skill, low-wage-based competitiveness in garments, which dominate the export basket. However, this strategy does not guarantee continued growth in exports, given the pressures of global competition and the possible emergence of future competitors with a better wage-productivity combination. The example of Vietnam shows the benefits of accelerated export-oriented development, moving in the space of 25 years from being one of the poorest countries in the world to a lower-middle income one, with FDI and trade playing a dominant role in the economy: exports and imports each form 90 percent of GDP, with exports more than seven times as much per capita as Bangladesh today. Bangladesh is well placed to expand manufacturing exports given its geographic proximity to two of the world's most populous countries, as well as other fast-growing economies. Finally, attracting more FDI in the country would help upgrade technology and improve export market linkages, thereby improving upon an area where Bangladesh has had only limited success to-date.

20. **Bangladesh needs an export-led strategy that builds on existing labor-embedded exports and focuses on diversifying products, skills, and markets.** Faster export growth will require both consolidating on strengths in RMG through further expansion and moving to higher-value garments, as well as a gradual diversification into other manufacturing areas such as pharmaceutical products, non-leather footwear, light-engineering goods, and ship-building, plus other areas such as information technology and IT-enabled services.[2] As elaborated later in this report, the 2013 Diagnostic Trade Integration Study outlines a four-pronged strategy to enhance the integration of Bangladesh's economy with regional and global markets: (i) breaking into new markets through better trade logistics and exploitation of regional trading opportunities, (ii) breaking into new products through a more neutral and rational trade policy, concerted efforts to spur private investment, and strategic development and promotion of services trade, (iii) improving worker and consumer welfare, and (iv) building a more supportive environment for export growth, including strengthening the institutional capacity for strategic policymaking aimed at increasing international competitiveness and bringing focus and coherence to the government's reform efforts.

4. Urbanization

21. **Urban population growth in Bangladesh has recently been faster than in most other South Asian countries**, with employment opportunities being by far the most important attraction for incoming migrants from rural areas and other smaller urban settlements. It is well known that urban density can help businesses to prosper, as long as the agglomeration advantages of network effects and economies of scale outweigh the disadvantages of congestion, pollution and other negative externalities. As noted earlier, export-led growth has been a powerful engine for job growth in Bangladesh's urban areas. The "pull effects" of export sector jobs in urban areas have also created additional employment opportunities for the poor in construction and transport, which have been powerful drivers of poverty reduction. But the adverse consequences of rapid urbanization, such as the fast-deteriorating living conditions, are now becoming prominent and need to be addressed: UNESCAP estimates indicate that about 70 percent of the urban population in Bangladesh lives in slums (twice as high as India), with poor quality housing that is often located in precarious areas.

In addition, improving urban transport in response to increasing congestion has emerged as a key challenge. Both economic performance and general livability of urban settlements has been adversely impacted due to inadequate and poor quality of urban transport infrastructure and services. Developing transport systems requires policy and institutional reforms to ensure better planning, and coordination among the various government departments and agencies entrusted with their completion. Institutional development programs are required to re-align institutions to urban transport functions and strengthen their capacity.

22. **Improved municipal governance and revenue enhancement will be key to improve productivity, livability, and inclusiveness of urban settlements.** Municipal governments in Bangladesh are heavily dependent on central government grants, which account for over 85 percent of their development expenditures. The financial resource for urban development is very limited: less than 1 percent of GDP is spent on urban infrastructure development, compared to about 4 percent in China during the 1990s when urbanization was comparable to Bangladesh's current rate. Even much more developed cities like New York budget 5 percent of their GDP to urban development. As argued later in this report, local governments in Bangladesh should be granted greater financial autonomy and responsibility. Moreover, the current municipal service provision models are worth reviewing, especially service providers' institutional capacity and performance. Finally, a key public policy priority is to increase the economic density of Dhaka, which currently accounts for over one-third of Bangladesh's GDP, as well as of other urban areas across the country.

5. Adaptive Delta Management

23. **Bangladesh's major rivers and its long shoreline on the Bay of Bengal have shaped its comparative advantage and determined the location, nature, and pace of its development.** The rivers have conferred unquestionable benefits to transport, trade, agriculture, and livelihoods, but also pose significant risk through recurrent floods, erosion and water pollution. The long coastline has enabled sea-bound trade and created opportunities for Bangladesh to be a transportation hub for countries in its hinterland—including particularly northeast India, Nepal, Bhutan and southwest China—but it has also brought the risk of cyclones, storm surges and tsunamis, saline intrusion, and incessant hydromorphic modification of coastal land areas. Moreover, the associated risks will grow greater with climate change, raising the frequency and severity of extreme events. In fact, in 2014, Bangladesh was ranked the most climate-vulnerable country in the world. For Bangladesh, growth will be sustainable only if it accompanied by better resource management and particularly adaptive delta management: the threats to the Ganges-Brahmaputra-Meghna delta, which covers about 100,000 sq. km in Bangladesh and West Bengal in India, are existential, particularly when they are exacerbated by climate change, and so adaptive delta management should be integrated in all aspects of planning and sector development—including agricultural practices, water supply and sanitation, the placement of energy and transport infrastructure, and indeed the location of all public and private infrastructure.[3]

24. **Although increased investment in infrastructure for land and water management has reduced vulnerability in rural areas in recent years, strengthening and expanding existing delta infrastructure is needed to reach optimal levels of resilience.** To this end, the government is preparing the Bangladesh Delta Plan 2100, an integrated and holistic long-term plan to ensure

[3] Even though Bangladesh's response to these challenges has achieved some encouraging results, strengthening and extension of the current delta-infrastructure is required to protect the population, economic assets and future investments.

safe living and sound economic development in Asia's largest and the world's most populated delta country. A key aspect of this endeavor will be the adoption of an adaptive delta management approach to enable robust decisions to be made that affect all aspects of life and livelihood development, based on several future scenarios. Adaptive delta management will help to ensure that investments in all sectors anticipate long-term uncertainties in climate change and socio-economic growth, and limit over- or under- investment. In addition, it is particularly important (i.e., in terms of making prudent decisions on resource allocations) that impacts on long-term developments like climate change and socio-economic growth are fully integrated into delta management and development planning more generally.

25. **One sector that is particularly sensitive to the successes and failures of delta management is agriculture.** Since nearly half of the labor force in Bangladesh continues to be employed in agriculture, and much of that labor force is poor, for poverty reduction to continue in Bangladesh delta management needs to continue to support higher land productivity, crop diversification, and reduced vulnerability. Bangladesh has recently done remarkably well in agricultural productivity growth – largely on account of technical change. Key drivers have been liberalization of input markets, adoption of modern varieties, increasing use of machinery, greater access to markets and price hike of agricultural products. Looking ahead, a top priority for Bangladesh is to shift away from a relatively narrow focus on staple crop productivity towards meeting the fast-growing demand of Bangladeshis for a more diverse, sophisticated, and nutritious diet. There is significant potential to further increase productivity and incomes in agriculture while making it more climate resilient and nutrition-sensitive. An important part of the economic and ecological sustainability is to assist farmers in improving the effectiveness in the use of inputs. Farm level evidence shows that a large share of farmers are overusing fertilizers (well beyond technical recommendation levels, and to the point of not yielding any additional output). In addition to increased agricultural productivity and diversification, the main drivers of growth in the rural non-farm sector will likely remain connectivity and proximity to urban areas.

FOUNDATIONAL PRIORITIES:

26. The previous section discussed five areas (energy, inland connectivity, trade integration, urbanization, and delta management) where sustained achievement in addressing bottlenecks could result in transformational growth of 8% or more, creating more and better jobs and lifting greater numbers out of poverty. But growth and job creation also depend critically on Bangladesh sustaining and extending its achievements in establishing the foundations for growth. These foundations include (i) maintaining sound macroeconomic management, (ii) consolidating and deepening its exemplary achievements in human development, and (iii) further expanding a supportive environment for increased private investment. In each of these areas, Bangladesh has done well in the past, but past success cannot be taken for granted or expected to continue without effort, and so these areas will continue to require sustained policy attention.

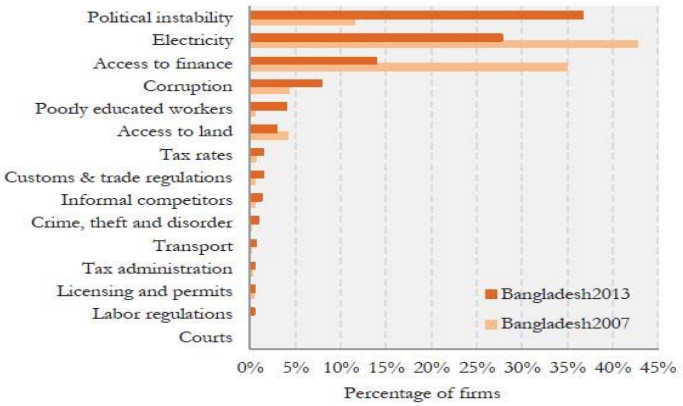
27. **Strong Macroeconomic Fundamentals:** In achieving and sustaining increasing levels of growth over the past few decades, Bangladesh has benefited from generally prudent management of fiscal and monetary policy, and the resultant macroeconomic stability it has generated. Looking ahead, this solid foundation needs to be strengthened and deepened. Key macroeconomic management challenges for the government include strengthening the tax system, both policy and administration-related aspects, to make it more efficient, transparent, and fair, improving the health of the financial sector and enhancing financial intermediation, and better implementation of the

Annual Development Program. Successful implementation of the 2011-2016 Tax Modernization Plan, through which the government plans to increase tax collection by about 3 percent of GDP, will be key to providing the additional public resources to spur growth, especially much-needed investments in infrastructure, as will improvements in the income tax and customs code to enhance equity and efficiency. Improved performance of state-owned commercial banks is also important and can be achieved in part by implementing the Action Plan the government has developed with IMF support. Finally, improved public investment management is needed to strengthen the link between government policy priorities and resource allocation, and in turn between resource allocation and performance.

28. **Human Development Challenges:** While Bangladesh has had remarkable success in enhancing access and equity in education, striving to universalize access for the remaining hard-to-reach children is an important policy imperative. Notwithstanding notable achievements in nearing universal access to primary education, attaining gender equity at the primary and secondary education levels well ahead of the MDG target for 2015, marked reduction in repetition and dropout rates, and reasonably high levels of completion in primary education, gross enrollment rates of the poor lag those of the non-poor. Out of 10 primary students who enter school in Bangladesh, only about 7 or 8 students reach grade 5, and only 5 reach grade 10. Children living in urban slums in particular suffer from both demand and supply-side constraints.

29. Improving skills and productivity are crucial to Bangladesh's quest to accelerate economic growth and create more and better jobs in the formal sector for its expanding workforce. Ensuring further improvements in the quality of education can help propel the economy into the next phase of higher productivity-led growth. International experiences show that improvement in quality of education has a much larger impact on economic and social development than increases in access without increases in quality. Yet learning achievements continue to be quite low in Bangladesh: for instance a recent assessment of literacy and numeracy in grade 5 indicates that only 25 and 33 percent of grade 5 students master Bangla and Mathematics competencies, with students from poor households generally doing much worse. Learning inequities begin early, and continue throughout students' lifetimes. Nearly 90 percent of the labor force in Bangladesh is informal and has low levels of education and less than 5 percent of the current workforce has tertiary education. Due to lack of standards and limited partnerships with the active labor market, technical and vocational education and training and the higher education system in Bangladesh are not equipped to respond to changes in demand and quality standards both in the domestic labor market and overseas where the vast majority of Bangladesh's emigrant workers are employed in low-skilled jobs.

30. **Institutions and Business Environment:** Bangladesh has experienced a variety of forms of government since its independence in 1971, including military rule. Following the reintroduction of the parliamentary system in 1991, power has, until recently, alternated between the two main political parties, the Awami League and the Bangladesh Nationalist Party. While successive governments have generally exhibited strong commitment to poverty reduction and human development, divisive and confrontational politics have created policy uncertainty and hampered efforts to address critical problems requiring long-term engagement. A comparative analysis of the Bangladesh Enterprise Surveys in 2007 and 2013 reveals that political instability has secured the position of top-most concern of businesses (figure). Looking ahead, many Bangladeshi institutions are not adequately equipped to address key challenges the country faces as it fast approaches middle income status, as they were established when it was at much lower levels of income. Stronger public sector institutions are needed to manage Bangladesh's larger and more complex economy. Moreover, accelerating economic progress will require going into a more complicated phase of reforms that address a whole range of factors adversely affecting investment incentives and production efficiency, including corruption. Difficulties faced by investors in gaining access to serviced land is one of the key such obstacles and constraints impeding higher private investment.

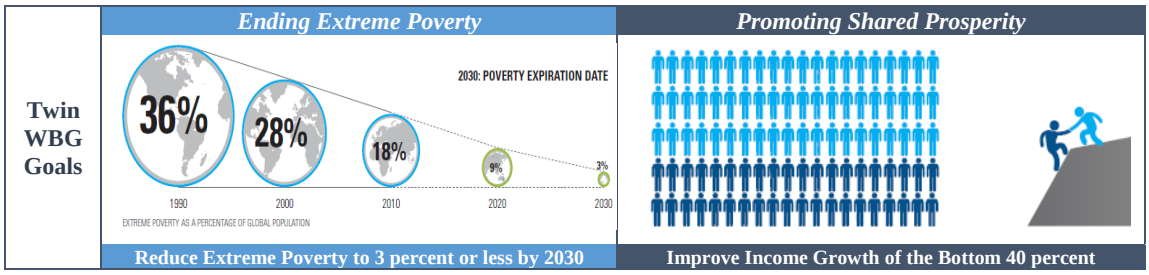


31. **This SCD aims to identify why there are not enough good jobs in Bangladesh, what conditions would help to promote strong private-sector-led growth and job creation, and what can be done to remove or mitigate the constraints that prevent those conditions from obtaining**. To this end, it divides priority action areas into two main groups: (i) foundational priorities, which are pre-requisites for faster growth and job creation, and which Bangladesh has addressed reasonably well in recent years; and (ii) transformational areas, where concerted action over the next 3 to 5 years could have a transformative impact on the pace of progress towards eliminating poverty and boosting shared prosperity—but also where Bangladesh has tended to lag behind its Asian peers. These latter include (i) energy, (ii) inland connectivity and logistics, (iii) regional and global integration, (iv) urbanization, and (v) delta management. Key stakeholders in Bangladesh already largely agreed on the importance of each of these areas, and they feature prominently in the government's Seventh Five Year Plan (completed in 2015). The remaining sections of this SCD delve into each of these foundational and transformative areas in greater detail, presenting not only a diagnostic of each area but also suggestions on how best to tackle the challenges identified.

1. INTRODUCTION AND OUTLINE

1.1 Rationale and Main Objectives

1.1 **Two years ago at the 2013 Spring Meetings in Washington DC, the Board of Directors of the World Bank Group representing its 188 member countries endorsed ambitious goals to end extreme poverty and promote shared prosperity.** The first goal is a global target of reducing the extreme poverty rate – i.e. the percentage of people living on less than $1.25 per day in purchasing power parity (PPP) adjusted terms – to 3 percent by 2030. The second goal is a country level target to promote shared prosperity – i.e. foster income growth of the bottom 40 percent of the population in every country (Figure). Since 6 percent of the world's poor live in Bangladesh, good progress here will be very important to attain the first WBG goal. Both goals are also highly relevant for the country: in 2010 over two-fifths of Bangladesh's population lived in extreme poverty (i.e. below $PPP1.25 per person per day): thus in the short run a focus on ending extreme poverty is the same as that on promoting shared prosperity—the two goals come together.



1.2 **The main objective of this Systematic Country Diagnostic is to help identify the most critical constraints and opportunities facing Bangladesh as it works to end poverty and boost shared prosperity.** In addition to serving as a public good for the government, civil society, research and academic community, and local and international development partners, the findings of the SCD will be used as key inputs in the preparation of the WBG strategy, the Country Partnership Framework, which will outline how the Bank Group's engagement in Bangladesh can best contribute towards achieving the twin goals. The report draws upon wide-ranging analysis carried out on Bangladesh not just by the World Bank but also by other institutions and individuals, including the various background papers commissioned by the Planning Commission for the Seventh Five Year Plan. A series of consultations were also conducted for the SCD in November 2014 to solicit views of different stakeholders, and to help validate the main findings of the report.

1.2 Country Context and Development Achievements

1.3 Situated in a fertile low-lying river delta at the confluence of the mighty Jamuna, Padma, and Meghna rivers, Bangladesh combines high vulnerability to floods, tropical cyclones, earthquakes, and climate change with one of the world's highest population densities, with around 159 million people living in less than 150,000 sq. km. The Sundarbans mangrove forest covers about 6,000 sq. km. of southwest Bangladesh, while some hilly tracts flank its northeastern and southeastern borders with India and Myanmar. The salinity-prone southern region, whose 710 km coastline includes the world's longest unbroken natural beach in Cox's Bazaar, provides around 30 percent of its total cultivable land. About 31 percent of Bangladesh's population resides in urban areas; about 5 percent lives in the national capital Dhaka and around 2 percent in Chittagong, the main port city. However, the country's high population density means that the distinction between

urban and rural areas is often quite fuzzy; cultivable landholdings are small (0.7 acres on average), and even households living in exclusively rural localities rely on non-farm incomes for their livelihood, particularly during the two lean seasons (September to mid-November and mid-January to February) when many rural residents move to other nearby areas in search of work.

1.4 **Bangladesh has experienced a variety of forms of government since its independence.** The Awami League (AL) and Bangladesh Nationalist Party (BNP) have largely dominated the political landscape. Bangladesh returned to electoral democracy in 1991 after the fall of a military government, following which the AL and the BNP have rotated power through mostly free and fair polls. Until 2014, elections since 1991 were held under a caretaker government system that was adopted as part of the Constitution in 1996. In 2011, the ruling AL amended the Constitution, abolishing the system of having a caretaker government to oversee national elections. Demanding the restoration of the caretaker government provision, the opposition BNP boycotted the national elections in January 2014. Consequently, largely unopposed, the Awami League won the election for the second consecutive term. Whilst in power, both parties have generally exhibited strong commitment to the country's long-term development agenda, but its implementation has, at times, been driven by short-term opportunistic decisions.

1.5 **Bangladesh has proven to be remarkably resilient and developed well beyond expectations at the time of its independence.** The adverse impact of the protracted and deadly war it experienced at its birth in 1971 was exacerbated by a devastating famine in 1974, with estimates of losses due to starvation and disease ranging from 500,000 to 1.5m people. With the world's second lowest per capita income in 1975, the country was labeled "the test case for development" in view of the formidable development challenges it faced. However, Bangladesh has sustained accelerating growth for the past three decades, and has made excellent progress in human development. It is world-renowned for its non-governmental organizations like BRAC, ASA, and microfinance institutions like the Grameen Bank, which have pioneered innovative mechanisms to provide services to the poor. Successive governments have exhibited willingness and flexibility to work with NGOs to experiment with community-based approaches to service delivery, and have achieved notable successes in several areas. Despite starting well behind India in 1971, Bangladesh today, with less than 60 percent of India's income per capita, ranks above it in most human development indicators, as well as above many other low- and lower middle-income countries with similar or better initial conditions at the time of its independence (Table 1.1).

Table 1.1: Social Indicators for Bangladesh and Comparator Countries

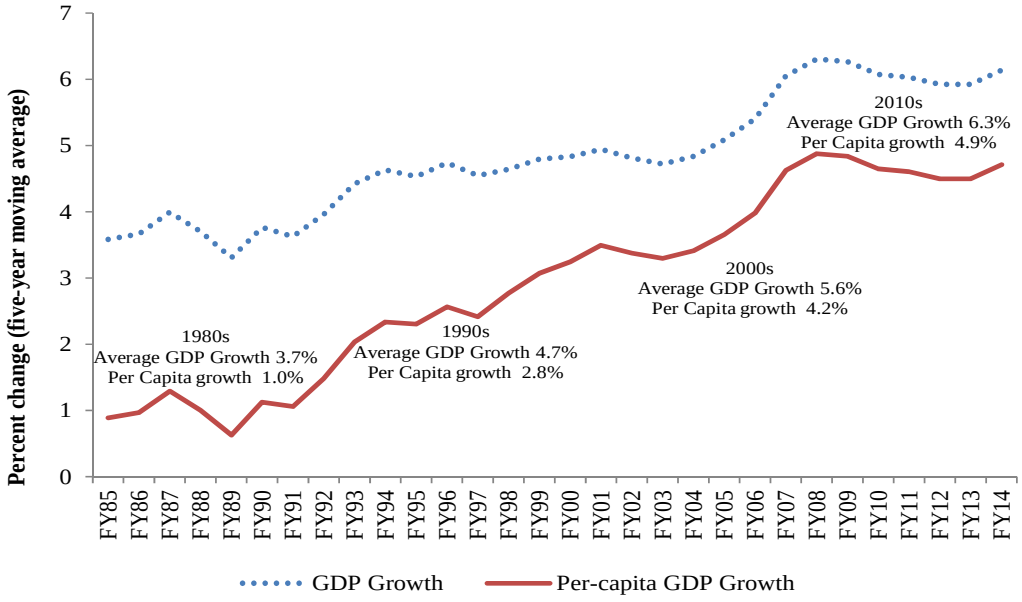
Indicator		Bangladesh		India		Low-income countries		Lower middle-income countries	
		1971	2013	1971	2013	1971	2013	1971	2013
GDP per capita (constant US$ 2005)	[1971-2013]	304	713	272	1,164	376	402	441	1,202
Life expectancy (years) at birth	[1971-2013]	47	71	50	66	46	59	52	67
Infant mortality rate	[1971-2013]	149	34	141	41	151	56	129	43
Total fertility rate	[1971-2013]	6.9	2.2	5.4	2.5	6.7	5.0	5.6	2.3
Mean years of schooling of adults	[1985-2013]	2.4	5.1	2.4	4.4	2.3	4.0	3.1	5.4
DPT child immunization rates (%)	[1985-2103]	2	95	18	83	28	77	25	82
Access to improved sanitation (%)	[1991-2013]	36	59	17	39	13	27	30	51
Prevalence of undernourishment (%)	[1991-2013]	33	17	24	15	40	27	25	14

Source: WDI (accessed on Oct 20, 2015). Mean Years of schooling: Barro and Lee (2013) UNESCO (2013b) and HDRO estimates. Low and lower middle income groups comprise countries with per-capita GNI <$1,045 and $1,046-$4,125 respectively in 2015.

1.6 **Five striking achievements of Bangladesh since independence merit special mention:**

- Improved food availability: thanks to uptake of high-yield varieties, improved availability of fertilizer and other key inputs, and better irrigation, domestic rice production (the main food crop) has risen from around 12.3m metric tons in the 1980s to 37.6m metric tons in 2014.[3]
- Stronger disaster-coping mechanisms, evidenced by reduced impact of recent storms, cyclones, and floods; the government, with active community participation, has devised effective strategies to mitigate their damage, including early warning and response systems and countless cyclone shelters.[4]
- Development of the extensive rural road network built in the 1980s by the Local Government Engineering Department, which blurred the rural-urban divide and helped develop a continuum linking Dhaka, Chittagong, other secondary cities, towns, market centers, and villages.[5]
- Impressive achievements of the pro-active family planning program, which helped lower total fertility from over 6 children per woman in the 1970s to 2.1 in 2011;
- Special initiatives taken to tackle gender inequality and promote women's empowerment,[6] including a schooling system that expanded girls' education, mobilization of women by NGOs, and—more recently—their proactive recruitment by the fast-growing readymade garments (RMG) industry.

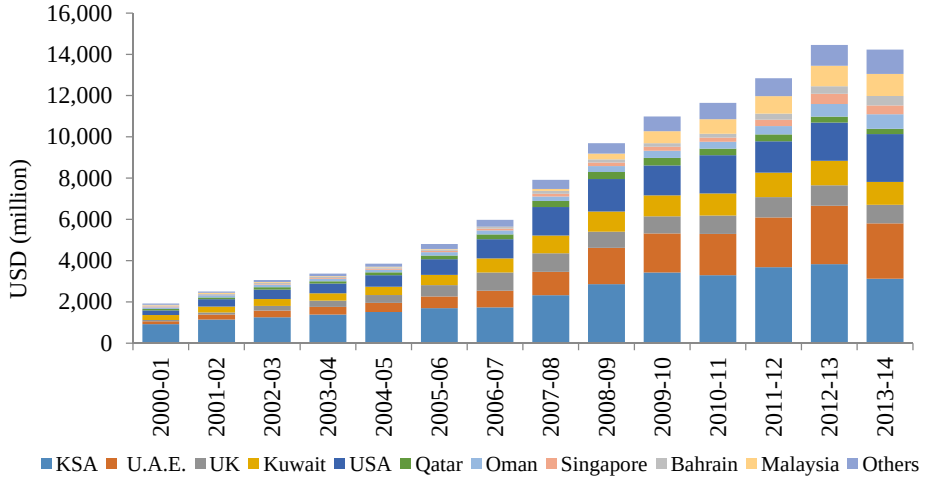
Figure 1.1: Trends in GDP Growth Since 1985



Source: World Bank staff estimates based on data from the Bangladesh Bureau of Statistics.

1.7 **GDP growth in Bangladesh has accelerated during the past three decades.** Annual growth of gross domestic product (GDP) has risen from 3.7 percent in the 1980s to 4.8 percent in the 1990s and 5.6 percent in 2000s, and over 6 percent since 2010 (Figure 1.1). Bangladesh's gross national income (GNI) per capita has grown more than tenfold, from around US$100 in 1972 to US$1,314 in 2015, and is now poised to pass the threshold currently used to classify countries into the middle-income country group. While growth in GNI in the 1980s and 1990s came almost entirely from growth in GDP, remittances from workers abroad have emerged recently as a significant source of income for Bangladeshis during the past decade (Figure 1.2).

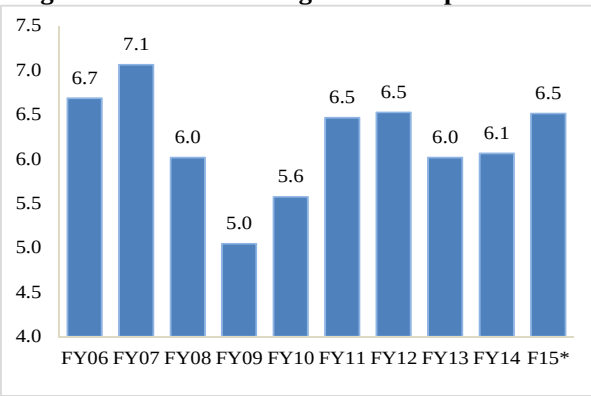
Figure 1.2: Increased Remittance Inflows



Source: Bangladesh Bank

1.8 **Bangladesh's economy has performed well over the past decade.** Annual GDP growth averaged about 6 percent (Figure 1.3), notwithstanding the adverse impacts of the global recession, oil price rise, unrest in the Middle East (an important destination for migrants) and local natural disasters. Several factors explain the resilience of the economy to global shocks, including strong macroeconomic fundamentals at the onset of the crisis, strong growth of exports and remittances, and relatively under-developed and insulated financial markets. Bangladesh's exports have doubled their world market share between 1995 and 2012. The RMG sector has been a key contributor, with its share of total exports rising from 53 percent in FY95 to more than 80 percent in FY14. Garments exports reached a high of US$24.5 billion in FY14. Bangladesh is now the world's second largest garment exporter, making it unique among low-income countries because of the high share of manufactured goods in its exports (90 percent vs. ~20 percent in comparator countries in 2012). With an estimated 8m citizens working abroad, overseas remittances exceeded US$14 billion in 2013-14 (FY14), equivalent to about 8 percent of GDP (i.e. nearly double their share a decade earlier). The agriculture sector has also been a useful contributor to economic growth in Bangladesh, accounting for nearly one-fifth of the higher output per worker in 2010 vs. 2000.

Figure 1.3: Robust GDP growth over past decade



Source: Bangladesh Bureau of Statistics. *Provisional

1.9 **The country has achieved very good progress since 2000 in reducing extreme poverty and boosting shared prosperity.** Based on PPP$1.25 global poverty measure, the number of poor in Bangladesh fell from around 77m to 65m—a drop of 12 million (Table 1.2)—at a rate that was 60 percent faster than in the rest of the developing world, excluding China. As elaborated later in this report, Bangladesh is one of the few countries in South Asia where inequality fell between 2000 and 2010. Increases in the share of the working population along with rising labor incomes were the two most important contributors to the decline in poverty over the past decade.

Table 1.2: Recent Progress in Reducing Poverty: 2000 – 2010

Poverty line	2000	2010	Poverty Decline
Upper national poverty line (Tk. 1,600 per person per month)	48.9 percent (65 million people)	31.5 percent (48 million people)	17.4 percentage pts. (17 million people)
Lower national poverty line (Tk. 1,300 per person per month)	34.3 percent (45 million people)	17.6 percent (27 million people)	16.7 percentage pts. (18 million people)
International poverty line (PPP$1.25 per person per day)	58.6 percent (77 million people)	43.3 percent (65 million people)	15.3 percentage pts. (12 million people)

Source: WBG staff estimates based on population data for Bangladesh from WDI (updated 04/14/2015).

1.10 **Population growth has slowed considerably during the past thirty years**, falling from an average of 2.7 percent per year in the 1980s to around 1.4 percent in the 2000s.[7] Consequently, even though the country's population increased by about 15 percent (19m people) between 2000 and 2010, the working age population rose even faster by 25 percent. The beneficial impact of lower dependency rates was augmented by increases in women's labor force participation rates, which rose from 25 percent in 2000 to 34 percent in 2010. WBG estimates indicate that demographic factors—i.e. changes in the age, gender, and regional composition of the workforce—contributed at least 25 percent of the poverty decline.[8] This "demographic dividend" offers a promising, albeit short and one-time, window of opportunity to enact policies and promote investments to raise human capital and productivity of the expanding workforce.

1.11 **Growth in labor incomes was an important contributor to the faster poverty reduction observed over the past decade.** Even though the 15+ years working-age population of Bangladesh rose by more than 22m people between 2002-03 and 2013, the employment rate (i.e. the share of employed among the working-age population) actually increased during the same period (Table 1.3), testament to the strength of labor demand, which more than kept up with the large increase in supply. Bangladesh underwent rapid expansion in job creation in industry and services, which helped usher important structural changes in the economy, including a gradual decline in the relative size of the agricultural sector and a corresponding rise in importance of the services and industry sectors. This structural shift was also accompanied by movements away from daily and self-employed work towards increased salaried employment.

Table 1.3: Size and Composition of the Working-Age Population

	2002-03	2005-06	2010	2013
Total population 15+ years of age (millions)	**80.9**	**84.6**	**95.6**	**103.3**
Inactive (not in the labor force) (millions)	34.5	35.1	38.9	42.6
Economically active (million)	46.4	49.5	56.7	60.7
Employed (million)	44.3	47.4	54.1	58.1
Unemployed (millions)	2.1	2.1	2.6	2.6
Employment rate (percent)	54.8%	56.0%	56.6%	56.2%

Source: Labor Force Surveys, various rounds. Bangladesh Bureau of Statistics

1.3 Climate Change-Related Challenges

1.12 **Bangladesh's location at the tail-end of the Ganges-Brahmaputra-Meghna delta renders it especially vulnerable to the adverse impacts of climate change.** Two thirds of the country is less than five meters above sea level, hence susceptible both to sea level rise and tidal flooding during storms (Box 1).[9] Climate change will cause significant changes in river salinity in the southwest coastal area by 2050, and will like lead to significant shortages of drinking water in the coastal urban areas, scarcity of water for irrigation for dry-season agriculture, and significant changes in the coastal aquatic ecosystems.[10] By 2050, estimates indicate that the number of poor affected will increase by between 2.9 million and 5.2 million, depending on the scenario.[11]

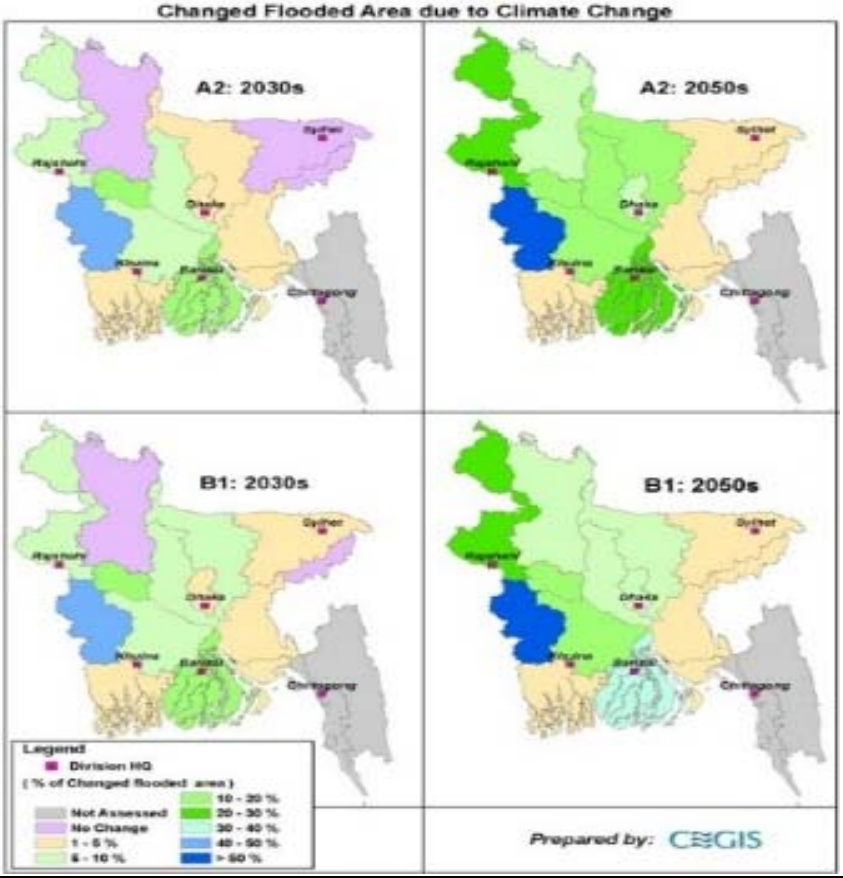
Box 1: Climate Change in Bangladesh - Today and Tomorrow

The Global Climate Risk Index 2010, covering the period 1990 – 2008, assesses Bangladesh as the most vulnerable country to extreme climate events; it estimates that, on an average, 8,241 people died each year in Bangladesh while the cost of damage was US $ 1,189 million per year and loss of GDP was 1.8% during the period. According to the Ministry of Environment and Forests, the country currently loses 1.5% of its GDP due to increased frequency and intensity of natural disasters as a result of climate change.

The climate of Bangladesh can be characterized by high temperatures, heavy rainfall, high humidity, and fairly marked three seasonal variations like Hot Summer, Shrinking Winter and Medium to Heavy Rains during the Rainy season. The likely implications for Bangladesh due to climate change include:

Sea Level Rise (SLR) and Coastal Inundation: Bangladesh is vulnerable to current coastal hazards and anticipated Sea Level Rise (SLR) because of its low elevation. Drainage congestion and water logging are already an alarming problem in Bangladesh and likely to be exacerbated by SLR and increased river flooding. It is reported that inundated areas might increase up to 3 percent (2030s)and 6 percent (2050s) primarily in coastal low lying areas (0 – 30 cm, Khan et al., 2006, using upper estimates of SLR). Large uncertainties are associated with regional to district level estimates of inundation which is due to the compounding effects of the variable rates of uplift and sedimentation, river flooding and erosion. Siltation is gradually increasing due to SLR. As a result of reduced upstream flow, the silt flocculate/deposit in the riverbed which restricts removal of excess water from the countryside and causes drainage congestion.

Tidal Flooding: A recent study 'Climate Change Impacts on Food Security in Bangladesh' assessed future flooding scenarios for Bangladesh (Yu et al., 2010). In this study, MIKE 11 and MIKE BASIN models were used for generating river flow, discharge and finally flooding. The figure below illustrates the percentage changes in flooded area in each sub region due to climate change in the 2030s and 2050s.

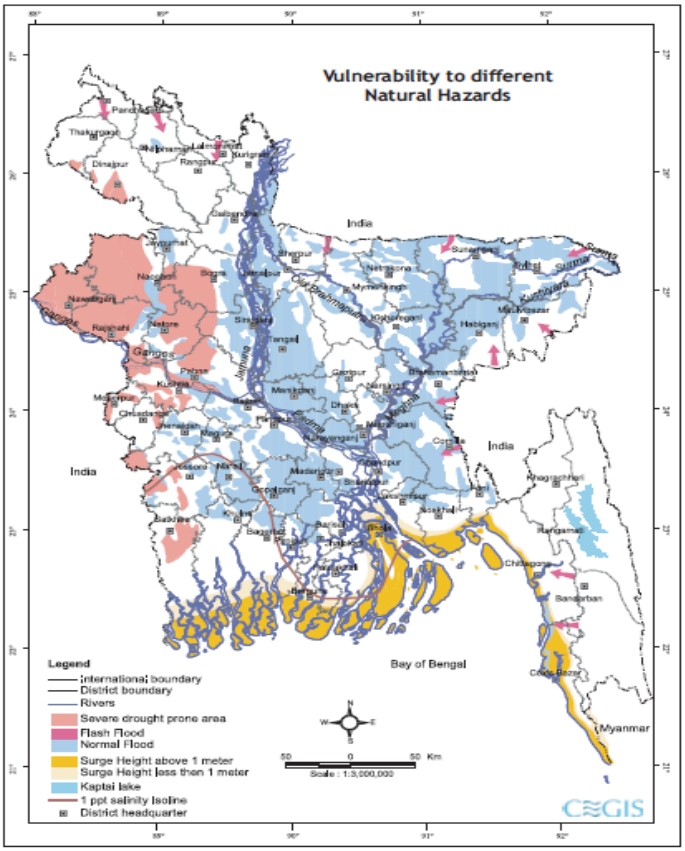


Salinity Intrusion: Saline water intrusion is highly seasonal in the coastal area of Bangladesh. In 2007, Institute of Water Modelling (IWM) and CEGIS jointly carried out a study on "Investigating the Impact of Relative Sea-Level Rise on Coastal Communities and their Livelihoods in Bangladesh" and assessed that in base condition about 10 percent of coastal area is under 1 part per thousand (ppt) salinity and 16 percent area is under 5 ppt salinity and this area will increase to 17.5 percent (1 ppt) and 24 percent (5 ppt) by 2050 considering 88 cm sea level rise. So, there will be an increase of around 8 percent in the area under 5 ppt salinity levels due to sea level rise.

Cyclones and Storm Surges: Tropical cyclones accompanied by storm surges are among the major disasters that occur in Bangladesh and severely damage lives and standing crops in the study area. Roughly, three to seven severe cyclones hit the coastal area each decade. Tropical cyclones and surges are the major threats to the coastal areas, causing loss of human lives and livestock and severe damage to crops and properties. During last 125 years, more than 42 cyclones had hit the coastal areas and 16 cyclones have occurred in the last 25 years.

Rainfall, Drainage, and Water logging: The rainfall is likely to increase by about 26 percent in the month of March - May; and 13 percent in the month of June- August (4th IPCC). As a consequence, flooding inundation will change demanding efficient drainage for crops. Almost 80% of the total area of the country is prone to flooding.

Increasing Temperature: Average monsoon-season maximum and minimum temperatures have been increasing at the rate of 0.05°C and 0.03°C, respectively. Between 1985 and 1998, an increasing trend of about 1°C in May and 0.5°C in November has been observed. By 2050, mean temperatures across Bangladesh is projected to increase somewhere between 1.4°C and 2.4°C. The warming is projected to get more pronounced between the months of December and February. Seven out of 10 summers will be abnormally hot. Heat waves will break record temperatures, above 45°C. Northern Bangladesh will shift to a much hotter climate regime.



1.13 The cascading effects of more variable rainfall and higher temperatures will impact most aspects of life and the economy,[12] including leading to (i) reduction of yields of major crops; (ii) growing scarcity of water, with the need to balance more variable water supplies with increased demand; (iii) economic losses and damage to high-value infrastructure, particularly in the cities and vulnerable coastal belt; (iv) an increase in the incidence of heat-related, water-borne and vector-borne diseases; (v) increased social disparities among vulnerable groups; and (vi) loss of ecosystems—for instance, hazard mapping indicates that a 45cm rise in the sea level would destroy 75 percent of the Sundarbans.

1.14 **Despite efforts to increase resilience, climate related disasters continue to result in large economic losses.** Bangladesh was affected by 228 weather-related hazards between 1994 and 2013. Losses caused by specific events can have a huge impact on the economy and individual livelihoods. Cyclone Sidr in 2007, for example, resulted in damages of US$1.7 billion, or 2.6 percent of GDP. About half the losses were in the housing sector, followed by agriculture and infrastructure.[13] Cyclone Aila in 2009 affected 3.9m people with an estimated damage of assets of US$270 million.[14] Seasonal droughts in Bangladesh most commonly affect the northwestern region, which receives lower rainfall than the rest of the country. These droughts have a devastating impact on crops and thereby also affect the food security of subsistence farmers. Seasonal hunger or 'Monga' caused by them last until the rice harvest in November-December. Rainfall during this season is expected to decrease further due to climate change, resulting in increasing droughts. Consequently, the moderately drought affected areas will become severely drought-prone areas within the next 20-30 years. Between 1960 and 1991, there were 19 drought years, which affected up to 47 percent of Bangladesh's land area and 53 percent of its population.[15]

1.4 The Government's Development Strategy and Five Year Plans

1.15 The management of public finances in Bangladesh is concentrated in the hands of two central agencies, the Ministry of Finance which is responsible for the recurrent budget and the Planning Commission which prepares the Five-Year Plan (FYP) and Annual Development Plan (ADP). FYPs are indicative in nature, as ADP allocations are done annually to ensure consistency with available resources, effectiveness of implementation, and evolving global environment.[16] The Planning Commission also has the lead responsibility for the national development strategy, and for ensuring that a robust set of cross-sectoral and sector strategies are in place.

1.16 The present government's Vision 2021 and associated Perspective Plan 2010-2021 aim to transform Bangladesh to the first stages of a middle income economy, and to reduce the incidence of poverty from 40 percent in 2005 to 15 percent by 2021. The Sixth FYP covers FY11-15, is the government's main instrument for the implementation of the Vision 2021 and Perspective Plan. It highlights the importance of developing strategies, policies, and institutions to enable Bangladesh to accelerate growth and reduce poverty, which it argues in turn will require sustainable productive employment for the growing labor force, and a substantial increase in investment. Other key strategic elements of the Plan are to pursue an environmentally sustainable development process, and to also tackle the challenges of ensuring good governance for sustainable development (Box 2). The government will soon publish its Seventh FYP to help guide its ADP starting July 2015. The Planning Commission is leading the preparation of this report, for which it has commissioned 28 thematic background studies that have recently been completed.

Box 2: Key Strategic Focus Areas of the Sixth Five Year Plan (FY11-FY15)

Employment

- Strategies and actions on both the labor demand (driven primarily by economic growth) as well as the supply side (labor force growth and quality);
- Jobs for new entrants + enable substantial labor transfer to formal sector (nearly 4/5ths of the labor force employed in low-income low productivity jobs in the informal sector).
- Labor-intensive manufacturing is key (domestic + export markets); emphasis on sub-contracting & small rural enterprises (furniture, toys, footwear, consumer durables).
- Reduce trade barriers (e.g. like China, Korea, India, Vietnam, Thailand), plus foster greater and more effective regional cooperation.
- Enhance income-earning opportunities in agriculture by raising land productivity and increased diversification of production (crop + non-crop). 2008-15 National Food Policy
- Employment abroad and remittances: continue support for export of low-skills manpower, plus also direct efforts towards improving skills through education & training
- Harness ICT to improve total factor productivity: Digital Bangladesh initiative; technology transfer from abroad through strategic partnerships with foreign investors.
- Better land-use policies & administration; develop rural townships; tackle problems of unplanned urbanization,
- Problem of lagging regions & high inequality: build assets of the poor, increase returns to these assets, along with complementary infrastructure and better safety nets; gender dimension.

Investment

- Raise rate of investment from 24.4 percent to 32.5 percent of GDP to tackle infrastructure constraints (power, transport), and finance HD (one-fifths public, four-fifths private);
- Most financing (90:10) to come from domestic sources (higher national savings); also need critical financing from foreign sources (1/3 FDI), including PPPs.

Environmentally sustainable development

- Conservation and maintenance of natural resources; reduce air and water pollution; liberate encroached rivers, water bodies, forest areas and khas land.
- Climate change: melting of Himalayan glaciers, intensified natural calamities, water scarcity: loss of livelihood, coastal submergence (17% of BD) leading to large-scale displacement of people.

Good governance

- Capacity constraints in public administration, occasional weaknesses in economic management, corruption: Need reforms of core institutions, public administration capacity-building, strong anti-corruption strategy.
- Four main pillars: (i) strengthen civil service; (ii) promote devolution to local governments; (iii) strengthen PPPs; (iv) reform planning and budgetary processes.

Source: Sixth Five Year Plan: Part 1: Strategic Direction and Policy Framework, Planning Commission, Ministry of Planning, Government of Bangladesh.

1.5 Information Sources

1.17 This report draws upon information and analysis from a wide range of different sources. Bangladesh has a fairly robust national statistical system, which publishes poverty and inequality estimates every 4-5 years. The Bangladesh Bureau of Statistics (BBS) conducts the Household Income and Expenditure Survey (HIES), the main data source for official poverty related statistics. This report makes extensive use of the poverty and inequality analysis from various World Bank

Poverty Assessments for Bangladesh, in particular the 2002 and 2013 reports from which the poverty estimates and welfare-aggregate based analysis presented in this report are taken.[17] The analysis has been supplemented using latest Poverty Maps prepared to obtain more geographically-disaggregated poverty estimates using a combination of household survey and census data, a quick assessment of recent developments in the labor market using preliminary data from the labor force survey conducted in 2013 and earlier rounds, and the main findings of the ongoing WBG study on recent changes in the rural economy to help identify the key drivers behind the emerging trends.[18]

1.18 The report also extensively draws upon (and updates) the key findings of the World Bank's 2012 Growth Report,[19] the World Bank's 2013 Diagnostic Trade Integration Study (DTIS) prepared in collaboration with the Ministry of Commerce, the Education Sector Study, as well as the World Bank's Dynamics of Rural Growth study (forthcoming).

1.19 Finally, the report also draws upon various other country and regional studies by the World Bank and other development partners in Bangladesh, the background papers commissioned by the Planning Commission for the Seventh Five Year Plan, as well as other books, reports, papers, and articles on Bangladesh by local and international researchers.

1.6 Roadmap for the Rest of the Report

1.20 Chapter 2 reviews Bangladesh's progress in reducing extreme poverty and boosting shared prosperity, and summarizes the key challenges that the country faces in its quest to attain the twin goals. Grounding in this diagnostic, the chapter outlines the key priorities for action identified by the SCD (i) areas where concerted action over the next 3-5 years could have a transformative impact on progress towards achieving the twin goals, and (ii) foundational priorities that are pre-requisites for a policy environment conducive to faster job creation and growth.

1.21 Chapter 3 reviews various areas where Bangladesh has already done quite well in the past, but which nevertheless require sustained attention because of they are foundational prerequisites for a policy environment conducive to faster job creation and growth. These include (i) key macroeconomic and fiscal management challenges, (ii) consolidating gains in human development, and (iii) better institutions and a supportive business environment.

1.22 Finally, Chapter 4 concludes by presents the five key areas identified by the SCD—energy, transport, regional and global integration, urbanization, and adaptive delta management—where concerted efforts over the next 3-5 years could a transformative impact on accelerating the creation of more and better jobs in Bangladesh. Broad consensus prevails among key stakeholders in Bangladesh on the importance of each of these five key areas. The biggest-value added of this chapter is likely that it goes beyond presenting just a diagnostic per-se, and also includes a number of specific recommendations and suggestions on how best these challenges can be tackled.

2. TWIN GOALS: ASSESSING PROGRESS, CHALLENGES, AND PRIORITIES

2.1 This chapter reviews Bangladesh's progress in reducing extreme poverty and boosting shared prosperity, and summarizes the main drivers that have contributed to these trends. To help illustrate the key challenges that the country faces in its quest to attain the twin goals, it also presents a profile of the poor, along with projections of the expected decline in poverty incidence up to 2030 assuming the present growth rates continue into the future. Grounding in the diagnostic presented, the chapter also summarizes the key priorities for action identified by the SCD to accelerate progress towards the twin goals. These priorities are classified into three main groups: (i) foundational priorities—i.e. those which are a pre-requisite for an environment conducive to growth, (ii) key areas where concerted action over the next 3-5 years could have a transformative impact on progress towards achieving the twin goals, and (iii) other supporting priorities.

2.1 Reducing Extreme Poverty

2.2 **Bangladesh is on-track to achieve the Millennium Development Goal of halving the incidence of extreme poverty between 1990 and 2015.** Projections based on the elasticity of poverty reduction to GDP growth calculated using the latest available 2010 HIES data indicate the national poverty rate fell to around 25 percent in 2015, less than half the 58.8 poverty headcount rate in 1991-92 (Table 2.1). Survey-based estimates of poverty incidence show that the pace of poverty reduction in Bangladesh has picked up considerably during 2000–2010 compared to that observed during the 1990s, making this decade the most remarkable period ever in the country's history. The number of poor people in Bangladesh (upper poverty line) fell by more than 17 million during this decade, compared to a decline of less than one million between 1991-92 and 2000.

Table 2.1: Long-Term Poverty Trends: 1990 – 2015

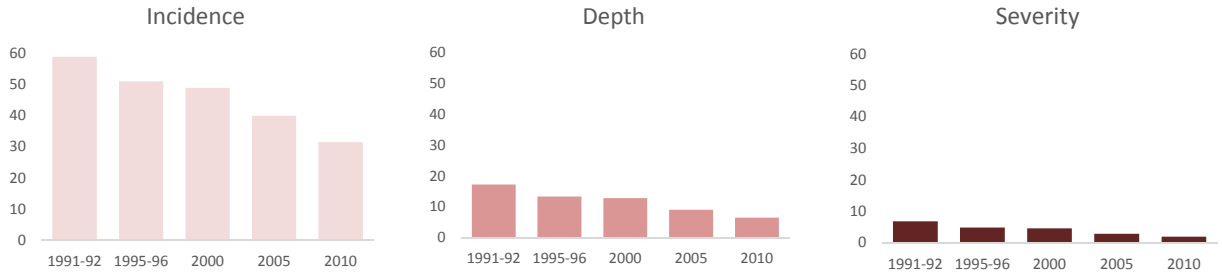
	Poverty Headcount Rate (percent)					
	1991-92	**1995-96**	**2000**	**2005**	**2010**	**2015***
Upper Poverty Line						
National	**58.8**	**51.0**	**48.9**	**40.0**	**31.5**	**24.8**
Urban	44.9	29.4	35.2	28.4	21.3	
Rural	61.2	55.2	52.3	43.8	35.2	
Lower Poverty Line						
National	**42.7**	**34.4**	**34.3**	**25.1**	**17.6**	**12.9**
Urban	23.3	13.7	19.9	14.6	7.7	
Rural	46.6	38.5	37.9	28.6	21.1	
PPP$1.25 Poverty Line	**70.2**	**60.6**	**58.6**	**50.5**	**43.3**	**35.7**

Source: 2002, 2013 Poverty Assessments, World Bank. PPP$1.25 estimates are from PovcalNet. * 2015: Poverty projections using the PPP$1.25 poverty line are WBG estimates, while the poverty projections based on the national upper poverty line and lower poverty line are from the Draft 7th Five Year Plan document (page 8).

2.3 **Measures of the depth (poverty gap) and severity of poverty (squared poverty gap) reveal a similar pattern of improvement.**[20] Trends in these measures broadly mirror observed changes in the poverty headcount rates, suggesting that even among the poor, a greater share of people were closer to the poverty line in 2010 than they were at the beginning of the decade. The ratio of the depth of poverty to the headcount rate (i.e. 6.5/31.5) in 2010 indicates that, on average, the poor fell nearly 21 percent short of the poverty threshold—i.e. the poor consume at a level equal to only 79 percent of the cost of basic needs. However, the same ratio was ever larger earlier: 26 percent in 2000 and 29 percent in 1991-92. At the national-level, the depth of poverty in 2010 was

less than one-half that in 1991-92 while the severity of poverty was less than one-third its 1991-92 level—significant improvements have occurred in Bangladesh since 1991-92 with respect to the incidence, depth and severity of poverty (Figure 2.1).

Figure 2.1: Trends in the Incidence, Depth, and Severity of Poverty: 1990 - 2010



Source: 2002, 2013 Poverty Assessments, World Bank.

2.4 **Other corroborating evidence of improvement in material well-being:** Comparing basic asset and amenity indicators from the 2000 and 2010 HIES shows significant improvements for both the overall population and the poor (Table 2.2). As the data show, housing conditions have improved substantially, in particular the proportion of households having walls and roofs made of corrugated iron sheets and cement and those using sanitary latrine facilities. Improvements for roofs and safe latrine facilities were more substantial among poor households. Finally, more households had access to a phone line, electricity services, and owned a television set in 2010 than in 2000. The HIES data also show that 38.4 percent of Bangladesh's population was moderately calorie deficient in 2010, down from 40.4 percent in 2005; the percentage of people suffering from severe calorie deficiency declined even faster from 19.5 percent in 2005 to 16.1 percent in 2010.[21]

Table 2.2: Trends in Basic Assets and Amenities

	All households		**Bottom 5 Deciles**		**Bottom 3 deciles**	
	2000	*2010*	*2000*	*2010*	*2000*	*2010*
Livestock ownership (%)	35.2	39.8	33.6	41.7	31.6	42.9
Wall of dwelling*	37.7	63.6	21.4	53.1	17.4	47.5
Roof of dwelling*	76.4	91.9	68.1	88.4	64.5	86.4
Safe latrine use (%)	52.0	75.1	35.2	64.7	29.4	59.1
Electricity connection (%)	31.2	55.2	14.6	39.1	10.0	28.5
TV ownership (%)	15.8	35.8	3.6	18.1	1.8	10.8
Phone ownership (%)	1.5	63.9	0.1	46.2	0.0	36.3

Source: HIES 2000 and 2010. * Percent with cement / CI sheet.

Trends in GDP growth

2.5 **Key structural shifts:** As noted earlier annual GDP growth in Bangladesh has risen from 3.7 percent in the 1980s to 4.8 percent in the 1990s and over 6 percent since 2010. This acceleration in economic activity has been accompanied by important structural shifts in the economy. The manufacturing sector has been the largest single contributor to growth in the past two decades, and its share in total GDP has risen from 12.8 percent in 1981 to 16.9 percent in 2015 (Table 2.3). Industry's contribution to growth peaked from about 1 percentage point in the 1980s to 2.7 percentage points in 2015. The role of services in the growth process has also been quite important in the period up until 2010, after which its share in total GDP has stabilized at around 53-54 percent. The contribution of services to GDP growth rose from around 2 percentage points in the 1980s, on

average to 2.2 percentage points in the 1990s and further to over 3 percentage points in the 2000s. Wholesale & retail trade; transport, storage and communication; and financial services together account for nearly half of the service sector GDP. A stable share of services and rising share of industry brought down the share of agriculture from 29.9 percent in 1981 to 14.8 percent in 2015. The contribution of agriculture to aggregate growth in GDP remained below 1 percentage point throughout most of the past three decades. Growth in industry came largely from manufacturing and construction, while that in the services sector was broad-based, led by wholesale & retail trade and transport, storage and communication. In agriculture, crops and horticulture were the dominant (albeit volatile) source of growth.

Table 2.3: Sectorial Shares of GDP (percent)

	FY81	FY90	FY00	FY10	FY15
Agriculture	**29.9**	**27.8**	**22.7**	**17.0**	**14.8**
o/w Crops & horticulture	21.5	18.2	12.7	10.2	8.4
Industry	**18.7**	**19.0**	**22.3**	**25.0**	**26.6**
o/w Manufacturing	12.8	12.1	14.0	16.1	16.9
Construction	4.8	4.7	5.7	6.2	6.8
Services	**48.9**	**49.8**	**50.6**	**53.5**	**53.7**
o/w Wholesale and Retail Trade	12.8	12.1	12.7	13.4	12.8
Financial Services	1.3	1.3	1.7	2.9	3.7
Transport and Communication	9.8	9.1	7.8	10.1	9.5
Import Duty	**3.3**	**3.4**	**4.4**	**4.5**	**4.8**

Source: Bangladesh Bureau of Statistics

2.6 **GDP growth has been driven by growth in labor productivity resulting from capital deepening and human capital accumulation.** GDP growth can be decomposed into growth in GDP per working-age person; demographic changes; and population growth. While population growth in Bangladesh has slowed, the proportion of working-age population has continued to increase due to faster population growth in the earlier decades. As a result, changes in the ratio of working-age-to-total population have contributed to growth since the 1980s. However, population growth and demographic change have accounted for only a small part of the variation in GDP growth over the past three decades. Instead, Bangladesh's economic growth over this period has been driven by growth in GDP per working-age person. The post-1990 acceleration in growth is almost entirely driven by changes in labor productivity (Table 2.4). Using growth accounting to decompose increases in output per worker (labor productivity) to ascertain the contributions from accumulation of physical and human capital per worker and residual measure of the change in total factor productivity (TFP), WBG estimates show that both capital deepening and (to a much lesser extent) TFP were important for growth. Human capital accumulation was also a contributory factor.

Table 2.4: Decomposition of GDP Growth

	1981-85	1985-91	1991-96	1996-2003	2003-06	2006-09	2009-13
Growth in:							
Real GDP per capita	3.3	6.7	13.2	21.7	14.9	15.5	21.1
Labor Force Participation	2.4	3.2	-8.7 *	12.8	2.7	5.1	7.8
Labor Productivity	0.9	3.4	23.9	7.9	11.9	9.9	12.3

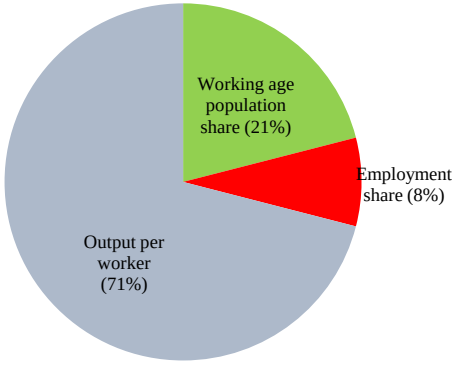
Source: Bangladesh Bureau of Statistics and Sixth Five Year Plan. *This reflects Changes in the definition of labor force that was later reversed.

2.7 As the 2013 Poverty Assessment shows, a simple decomposition of changes in per-capita GDP attributable to (i) changes in share of the working age population, (ii) the overall employment rate, and (iii) output per worker reveals some interesting insights into the relative importance of

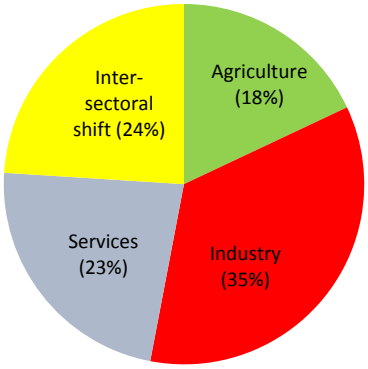
each of these factors. Higher productivity (i.e. output per worker) contributed 71 percent of the per-capita GDP growth between 2000 and 2010 (Figure 2.2A), changes in the share of the working-age population accounted for 21 percent, and changes in the employment rate for the reset. While the increase in output per worker was especially large in the industrial sector (Figure 2.2B), agriculture and services also experienced significant increases.[22] About 24 percent of the increase in output per worker was associated with inter-sectoral shifts in the workforce, in particular the outflow of workers from low-productivity daily wage work in agriculture to jobs in services – a phenomenon related to rural-urban migration and the expansion of non-farm employment. The share of agriculture in total employment fell from 51 percent in 2000 to less than 47 percent in 2010.

Figure 2.2: Decomposition Analysis: Changes in GDP from 2000 to 2010

A. Contribution to Changes in GDP per capita



B. Contribution to Growth in Output per Worker



Source: HIES 2000, 2010. World Development Indicators

2.8 **Exports and private investments were the key drivers of expenditure growth.** The share of consumption in total expenditure has declined, though it still accounted for over 75 percent of GDP in FY15 (Figure 2.3). The share of private consumption declined from 81.4 percent in 1981 to 72.3 percent in 2015, while the share of exports in GDP increased from 4.6 percent to 17.2 percent over the same period. The share of private investment in GDP increased from 14.5 percent in 1981 to 17.3 percent in 2000 and the share of public investment increased from 4.1 percent to 6.6 percent in the same period. While private investment continued to rise in the succeeding decade, albeit at a much slower pace, public investment declined to 4.7 percent in 2010 (Figure 2.4). However, it has started to rise since, and reached 6.9 percent in 2015.

Figure 2.3: Expenditure Share (% of GDP)

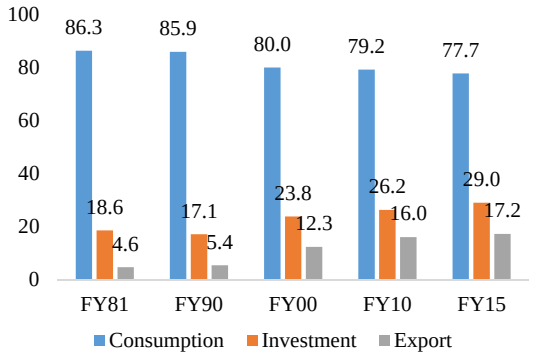
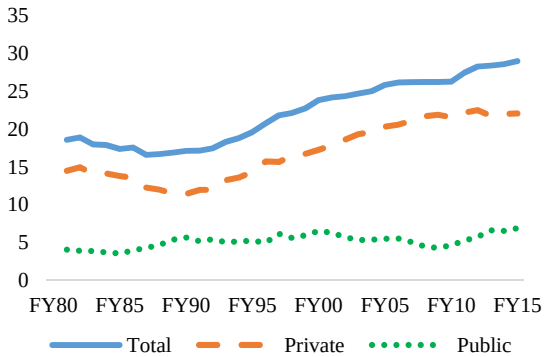


Figure 2.4: Investment Rate (% of GDP)



Source: Bangladesh Bureau of Statistics

2.2 Boosting Shared Prosperity

2.9 **Bangladesh is amongst the select group of countries worldwide that experienced a modest decline in inequality between 2000 and 2010**, as measured by the Gini index of real per-capita consumption (Table 2.5). Inequality in rural areas, where about 70 percent of the population continues to reside despite relatively rapid urbanization recently, remained more or less unchanged during this period, while inequality in urban areas trended downwards. With a Gini index of about 0.3 at the national level, inequality in Bangladesh is lower than in Nepal, India, Sri Lanka, Indonesia, and most other East Asian countries.

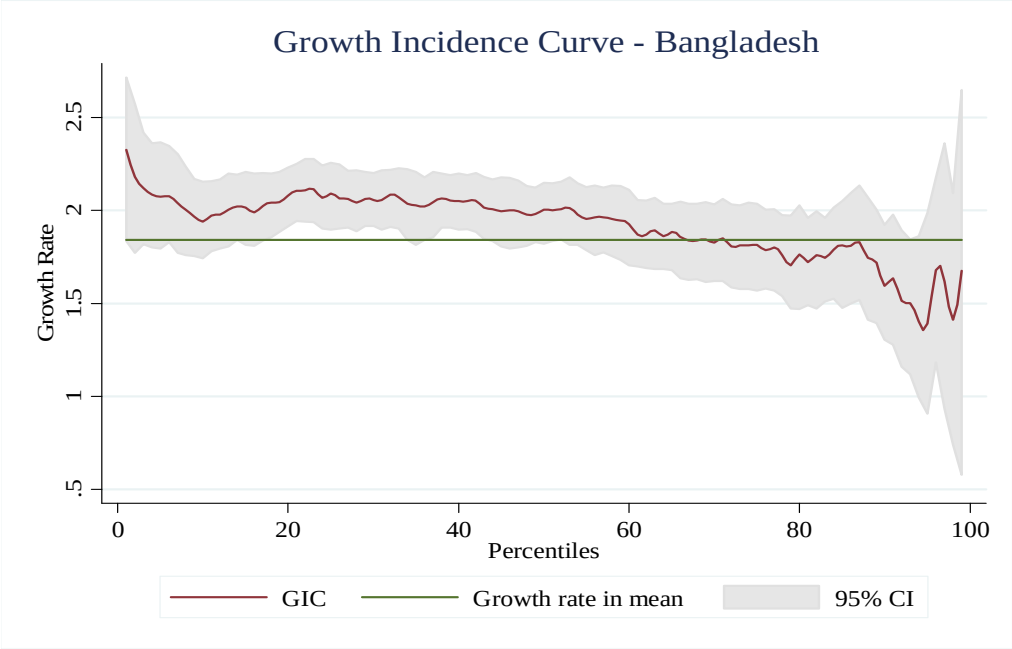
Table 2.5: Income Inequality in Bangladesh: 2000 – 2010

	2000	2010
Gini (National)	0.307	0.299
Rural	0.271	0.273
Urban	0.368	0.330
Population share		
Rural	80%	74%
Urban	20%	26%

***Source*:** HIES 2000 and 2010

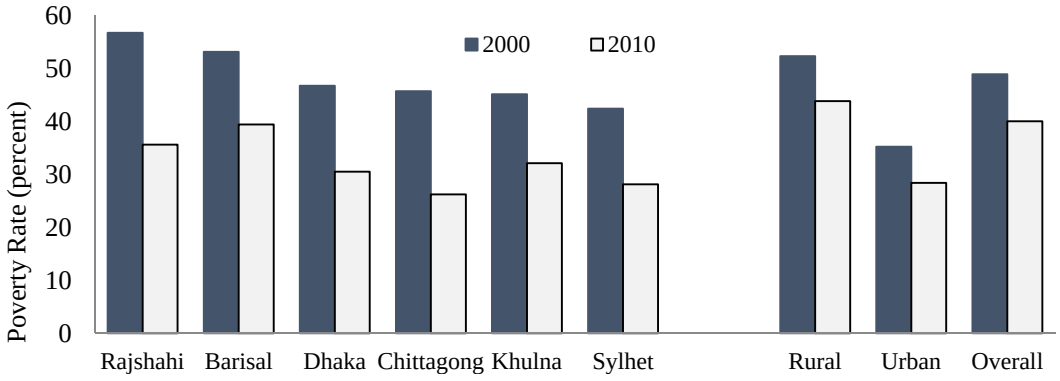
2.10 **Growth incidence curves** (GIC) display growth rates at each percentile of the consumption distribution and are a useful tool to examine whether growth was shared across the spectrum of rich and poor. The GIC for Bangladesh reveals that the growth in per-capita consumption between 2000 and 2010 was equitably distributed across the income distribution, and in fact shows that real per capita consumption of the segment of the population up to the 60th percentile grew at a faster rate than the average pace across all income groups (Figure 2.5). This in turn is another way of illustrating the decline in the Gini index of per-capita consumption between 2000 and 2010.

Figure 2.5: Broad-Based Income Growth: 2000 - 2010



Source: WBG staff estimates based on 2000 and 2010 HIES data.

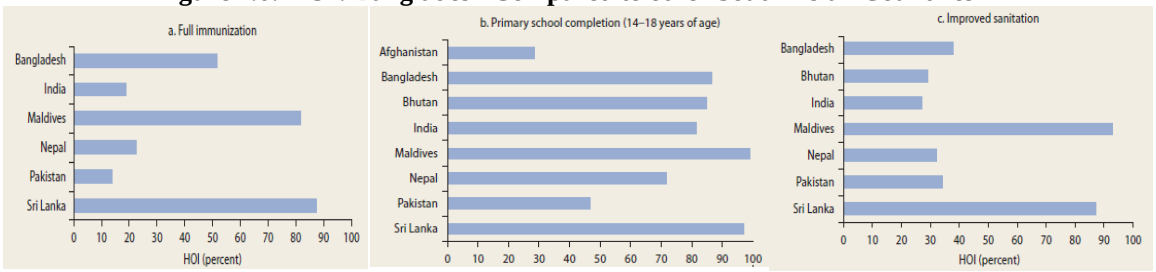
… and resulted in lower poverty rates across all divisions, and in both urban and rural areas.



Source: WBG staff estimates based on 2000 and 2010 HIES data.

2.11 **Other indicators also suggest that inequality in Bangladesh is lower than in many other South Asian countries.** According to various human opportunity indices (HOI), widely used measures of inequality in access to services, opportunities in education, health, and sanitation in Bangladesh are generally better than in India, Pakistan, Nepal, and Afghanistan, though not as good as in Sri Lanka and the Maldives (Figure 2.6). Access to health and education has improved over the past decade, particularly so in the case of access primary education. Moreover, synthetic panels based on household surveys conducted between 2005 and 2010 indicate that upward economic mobility in Bangladesh is quite high—similar to that in the United States and Vietnam.[23]

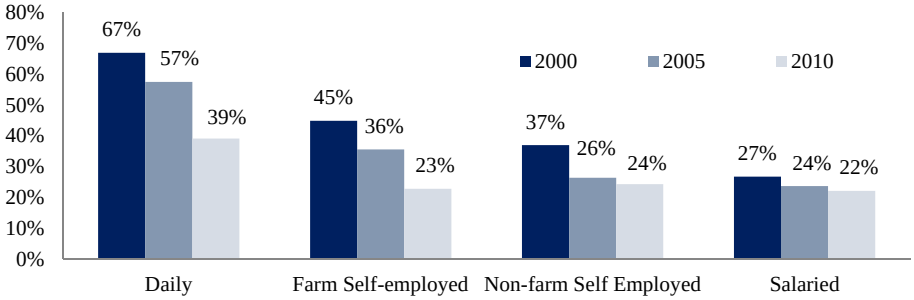
Figure 2.6: HOI: Bangladesh Compared to other South Asian Countries



Source: World Bank (2014) *Addressing Inequality in South Asia* based on latest available DHS data.

2.12 **The beneficial impact of robust broad-based growth between 2000 and 2010 is evidenced by significant reduction in poverty incidence for all major occupational groups.** For instance, while the poverty rate among daily wage workers (39 percent) was higher than all other major occupational groups in 2010, it declined considerably between 2000 and 2010 (Figure 2.7). Non-poor workers in 2010 tended to be salaried employees or self-employed outside of agriculture, where poverty rates were 22 percent and 24 percent, respectively. Poverty headcount rates among the agricultural self-employed declined from 45 percent in 2000 to 23 percent in 2010. With regard to poverty by sectors of employment, most poor workers were still employed in the agricultural sector, while another one-quarter were employed in the services sector. Similarly, even though the incidence of landlessness in rural areas rose between 2000 and 2010, poverty rates declined for all classes of households—i.e. regardless of how much land they owned (Table 2.6).

Figure 2.7: Poverty Incidence by Type of Worker



Source: HIES 2000, 2005, and 2010.

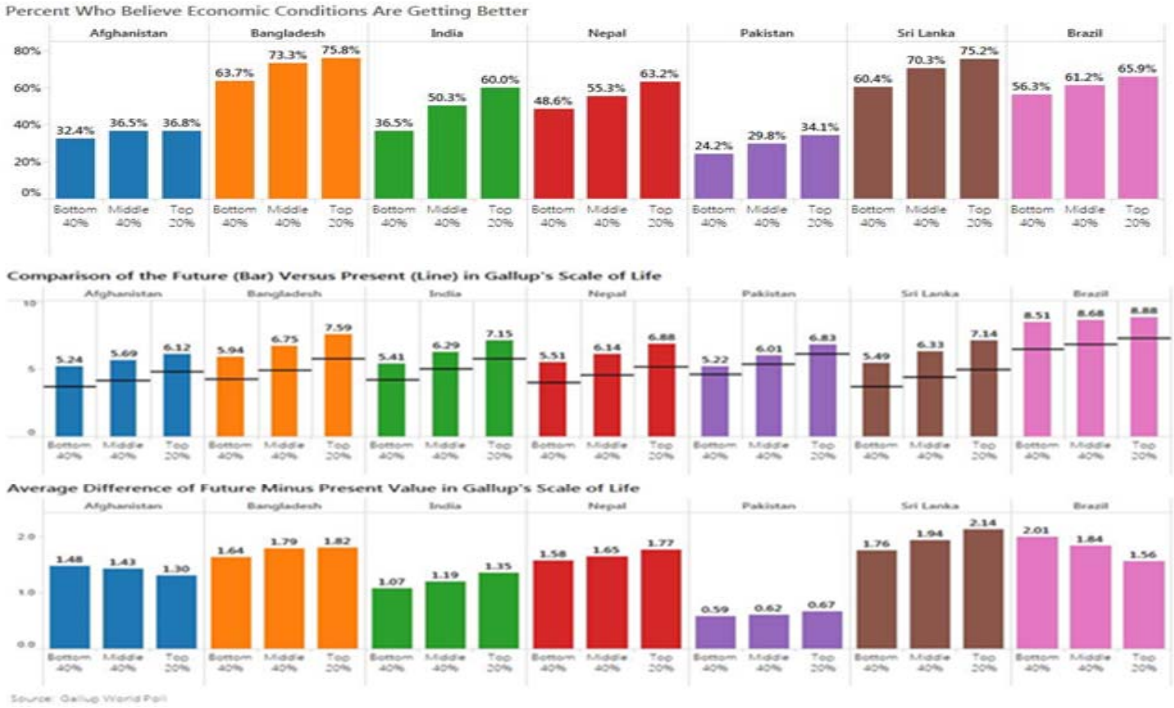
Table 2.6: Trends in Poverty by Land Ownership in Rural Areas

Size of Landholding	Poverty Rate (Percent)		Population Distribution	
	2000	2010	2000	2010
Landless (<0.05 acres)	63.5	45.6	48.0	50.9
Functionally landless (0.05-0.5 acres)	59.7	34.6	13.0	15.9
Marginal (0.5-1.5 acres)	47.2	25.0	17.5	18.0
Small (1.5-2.5 acres)	35.4	16.8	9.2	6.8
Medium/large (2.5 acres or more)	20.7	9.7	12.4	8.4
Overall	**52.3**	**35.2**	**100.0**	**100.0**

Source: 2013 Poverty Assessment, World Bank.

2.13 **Good progress with economic growth and poverty reduction is also reflected in considerable optimism about the future**, as revealed by the Gallup Poll. When asked whether they believed economic conditions were getting better, more than two-thirds of the respondents interviewed in Bangladesh agreed, a higher proportion than in all other South Asian countries, except Sri Lanka. Similarly, when asked about their assessment of future well-being versus the present, average scores for Bangladesh were amongst the highest in South Asia (Figure 2.7).

Figure 2.8: Most Bangladeshis Believe Economic Conditions are Getting Better

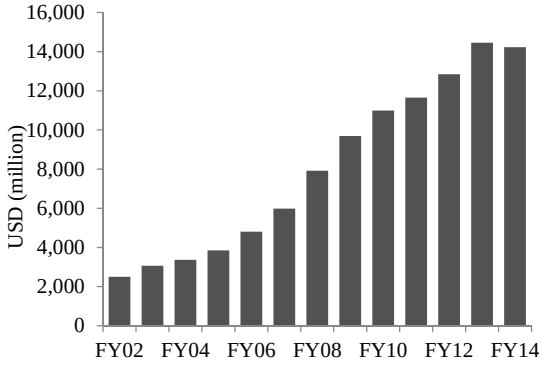


Main drivers of progress with reducing poverty and boosting shared prosperity

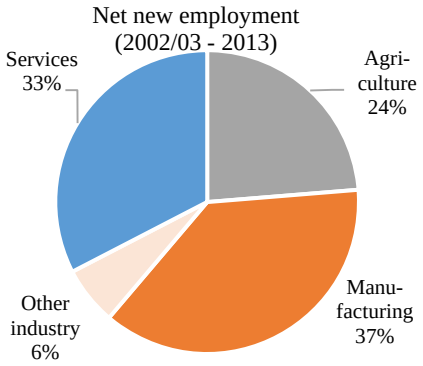
2.14 The drivers of faster GDP growth and poverty reduction during the new millennium have included (i) higher remittance transfers from overseas workers, (ii) key structural shifts in the economy, including better wage and salaried employment opportunities for workers in the manufacturing and services sectors, (iii) higher agricultural incomes, and (iv) the ongoing demographic transition that has led to an increase in the share of working-age population.

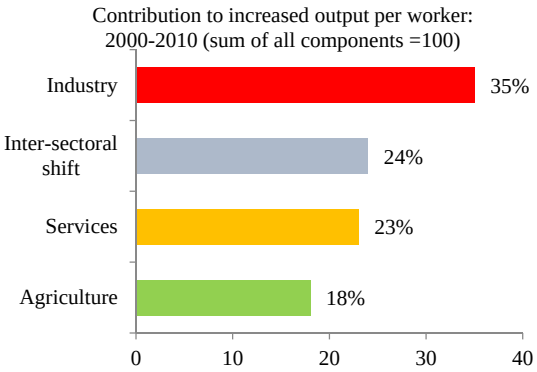
Figure 2.9: Main Drivers of Progress Since 2000

Remittance inflows from overseas workers have recorded double-digit annual growth since 2000

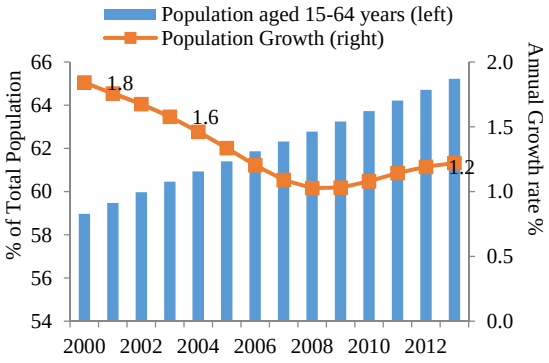


Most new jobs added recently have been in the manufacturing and services sectors





Agriculture contributed nearly one-fifth of the higher output per worker in 2010 vs. 2000



Demographic Dividend: lower population growth has led to a higher working-age population share

Source: Bangladesh Bank, WBG staff estimates based on LFS, National Accounts and population data from BBS.

- In FY14 an estimated 8m Bangladeshis overseas sent home $14.5 billion in remittances (equivalent to about 8 percent of GDP); these remittances contribute a large share of household income for many, and are also a significant source of inflows into the local economy.
- Bangladesh's economy has undergone important structural shifts, including a gradual rise in the importance of services and industry; agriculture's share in total employment fell from around 52 percent in 2002-03 to 45 percent in 2013. These changes have been accompanied by a shift away from daily and self-employed work towards wage and salaried employment.[24]
- Even though most households now draw a much larger share of incomes from non-agricultural activities,[25] farming remains an important source of livelihood for Bangladesh's rural poor, many of whom have benefitted from higher agricultural incomes due to better farm-to-market access resulting from improved road infrastructure and rural-urban connectivity, better input

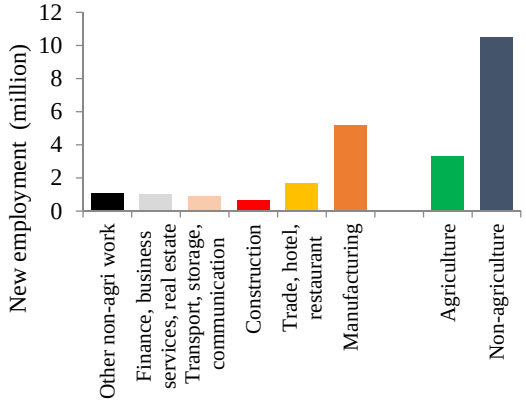
supply and higher crop yields, as well as improved terms of trade for agriculture.

- A higher share of the population is now in the 15-59 years working-age group, a shift that explains over one-fifth of the increase in GDP per capita between 2000 and 2010. The employment rate has also risen (i.e. a higher share of this age-group is now working), accounting for nearly one-tenth of the observed GDP per-capita increase.

Recent developments in the labor market

2.15 **Net employment in the non-agricultural sector rose by more than 10m between 2002-03 and 2013, far outstripping the 3.3m increase in agriculture.** Consistent with the rapid growth in the industry and service sectors, several important structural changes have occurred in the labor market since 2000, including a gradual decline in share of total employment in agriculture; employment growth in urban areas; and a movement away from agriculture, toward industry and services. As successive LFS rounds confirm, three-quarters of the new jobs added in Bangladesh between 2002/03 and 2013 were in the non-agricultural sector (Figure 2.7). Of the estimated 14m net new jobs created over this period, 10.5m were outside agriculture; accordingly, the share of the total workforce engaged in this sector fell from 52 percent to 45 percent, while that in manufacturing rose from 14 to 21 percent.

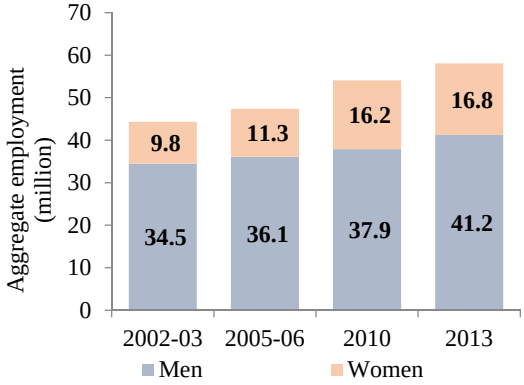
Figure 2.10: Employment Increase: 2002/03 – 2013)



Source: 2002/03 and 2013 Labor Force Surveys, BBS.

2.16 **One-half of the net increase in total employment over this period has been due to women's increased participation in the workforce.** The total number of gainfully employed women increased sharply between 2002/03 and 2013 (up 7m to 16.8m in total in 2013; Figure 2.8). The gender gap in labor force participation rate narrowed, particularly amongst lower age-cohorts, as did the gender gap in wages. Hossain, Sen and Sawada (2013) attribute these improvements to a combination of factors, including the spread of microfinance and garment industry jobs that facilitated women's self-employment and wage employment, respectively. While the manufacturing sector continued to employ more men than women, the number of jobs for women in this sector more than doubled between 2002-03 and 2013 (up 2.1m to 3.8m in total in 2013). The RMG sector has provided a vibrant venue for employment of young women (various estimates suggest 66-90 percent of all RMG workers are female) and contributed significantly to their empowerment and voice.[26] The proportion of female workers has increased across several other off-farm sectors,

Figure 2.11: Size of the Workforce by Gender



Source: Labor Force Surveys, various rounds. BBS.

including mining and quarrying, health and social work, wholesale and retail trade, real estate, transport, storage and communication, construction, and banking and finance.

2.17 **Gender wage differentials have narrowed.** While both male and female real wages increased steadily during 2000-2010, the relative increase in the real wages of men has generally been smaller than that of women, therefore narrowing the gender gap. In 2010, females still made only 86-88 percent of men's wages (Table 2.7).[27]

Table 2.7: Female to Male Wage Ratios: 2000 – 2010

		Rural Peak Season		Rural Off-peak		Urban Areas	
		2000	2010	2000	2010	2000	2010
Nominal Wages	Male	70	194	56	155	113	270
	Female	48	142	40	113	72	232
	Ratio	0.69	0.73	0.71	0.73	0.63	0.86
Real Wages (BNPI)	Male	165	194	131	154	250	253
	Female	113	141	94	113	159	223
	Ratio	0.69	0.73	0.72	0.73	0.64	0.88

Source: WBG estimates based on 2000 and 2010 HIES

2.18 This summary of the main drivers of Bangladesh's good progress with reducing poverty and boosting shared prosperity is consistent with the conclusions of the background analysis commissioned by the government for its Seventh FYP (Box 3).

Box 3: Drivers of Improvements in Extreme Poverty

In Bangladesh, agricultural labor market has tightened significantly in the recent decade of 2000s, which has led to an increase in real agricultural wage rate. The rice wage per day remained stagnant for the most part in the 1980s and increased only modestly in the 1990s (from 3.5 kg in 1990/91 to 4.5 kg in 1999/90). The real breakthrough, however, came in the second half of the 2000s, when rice wage per day rose to the 8-10 kg range during 2008-13.

The tightening of the agricultural wage labor market witnessed in the 2000s has been contributed principally by three channels: (a) relocation of farm labor to rural non-farm sectors; (b) relocation of rural labor to urban activities through the "pull effects" of urbanization, creating employment opportunities for the extreme poor in labor-intensive construction and transport activities; and (c) jobs for the poor created in the manufacturing sector.

Creation of additional non-farm employment opportunities, via non-farm diversification in rural areas and rapid urban growth sustained by robust flows of overseas remittance and manufacturing export growth, led to increased out-migration (seasonal and permanent) of labor.

Migration contributed to the rise in agricultural/rural wages for workers who remained behind in agriculture/rural areas. The evidence is also indicative of considerable indirect positive well-being effects of international migration for those who remain behind in rural areas.

International migration is recognized as a key driver of economic growth. Remittances from abroad together with manufactured exports have been instrumental in supporting the above structural shifts in national output.

Source: Excerpts from *Ending Extreme Poverty in Bangladesh*. Background paper prepared for the Planning Commission for the Seventh Five Year Plan.

2.3 Twin Goals: Main Challenges for Bangladesh

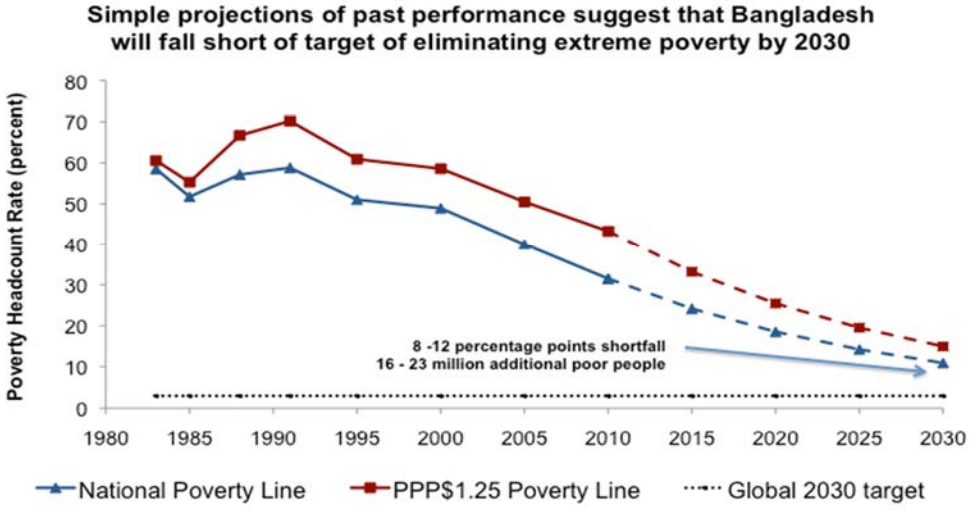
2.19 **Despite Bangladesh's remarkable development achievements, significant challenges remain in its quest to eliminate extreme poverty.** It remains one of the poorest countries in the region, with constrained public services and comparatively weak institutions, and though it has done fairly well in recent years, many others, e.g. China, Sri Lanka, and Vietnam, have done much better (Table 2.8). Moreover, even if Bangladesh's economy were to continue to grow as rapidly as it has since 2000—much faster than it ever has before this period—simulations indicate that the poverty rate would fall to 15-20 percent by 2030—good progress indeed, though nevertheless still well short of what is required to eliminate extreme poverty by 2030 (Figure 2.12).

Table 2.8: Income Levels: Bangladesh and Comparator Asian Countries: 1980 – 2013

	GDP per capita (current US$)			GNI per capita, Atlas method (current US$)		
	1980	**2013**	**% (annual)**	**1980**	**2013**	**% (annual)**
China	193	6,992	11.5	220	6,740	10.9
South Korea	1,778	25,998	8.5	1,900	25,870	8.2
Sri Lanka	273	3,281	7.8	280	3,180	7.6
Vietnam	239*	1,909	7.7	220**	1,740	9.0
Thailand	683	5,741	6.7	710	5,320	6.3
Indonesia	529	3,624	6.0	500	3,740	6.3
India	272	1,455	5.2	280	1,530	5.3
Philippines	685	2,788	4.3	700	3,300	4.8
Bangladesh	223	954	4.5	220	1,010	4.7
Pakistan	303	1,282	4.5	350	1,360	4.2

Source: World Development Indicators (accessed on Oct. 20, 2015). *Data for 1985; ** 1989.

Figure 2.12: Poverty Projections Until 2030

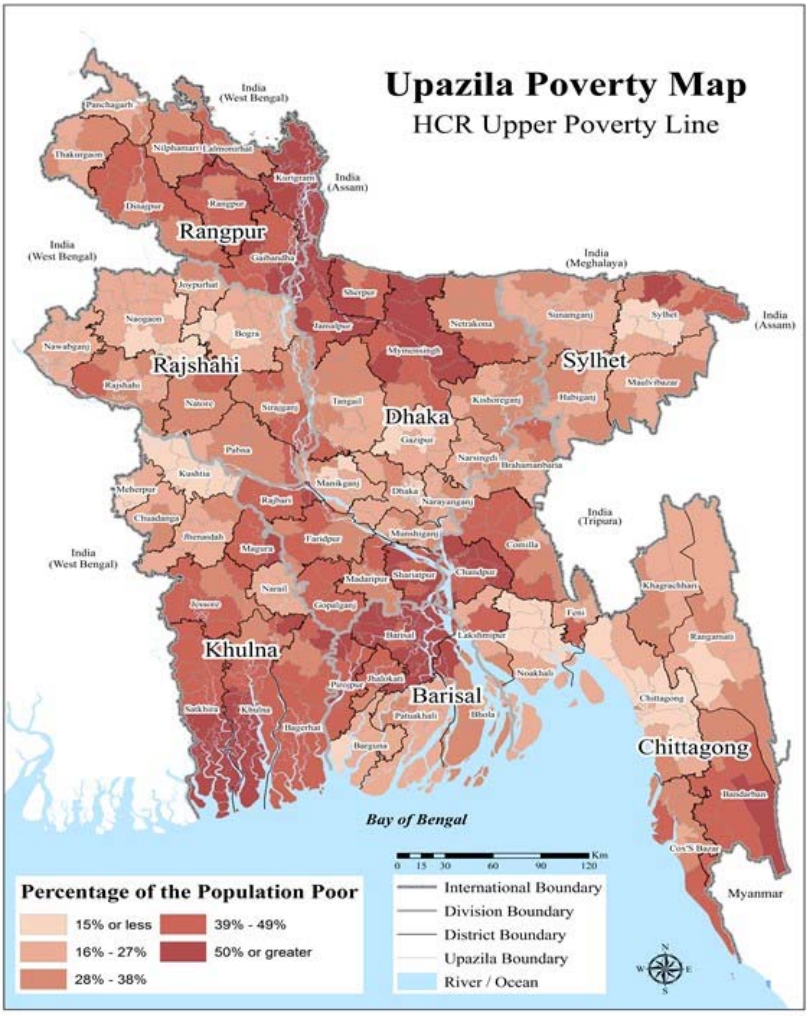


Source: WBG staff estimates based on poverty-GDP elasticities from the 2013 Poverty Assessment.

2.20 **Despite Bangladesh's relatively compact land area, upazila-level poverty maps reveal considerable spatial variation in the incidence of poverty.** The BBS, WBG, and World Food Program have recently completed work on deriving poverty estimates for key sub-national administrative units (*zilas* and *upazilas*) using data from the 2010 HIES and 2011 Population Census. Mapping the results reveals that, in addition to differences in poverty rates between

divisions, there is also considerable variation within each division (Figure 2.13). For instance, while the poverty rate in the 5 poorest upazilas in Rangpur division is more than twice as high as the national average, the poverty rate in the 10 richest upazilas is lower than the national average. More worryingly, preliminary analysis based on comparing the poverty map obtained from the 2010 HIES and 2011 Population Census with the poverty map prepared using the 2000 HIES and 2001 Population Census suggest that poverty rates may in fact have increased in a few districts in Bangladesh in the south-west (Satkhira, Bagerhat, Jessore, and Jhalokati) as well as in the north (Sherpur) and east (Comilla, Narayanganj) between 2000 and 2010.[28] Further work is needed to verify and better understand these spatially disaggregated trends.

Figure 2.13: Upazila-Level Poverty Map for 2010



Source: *Poverty Maps of Bangladesh, 2010. Key Findings,* World Bank, BBS, WFP (2014).

2.21 **To-date Bangladesh has neglected investment in infrastructure.** As elaborated in more detail later in this report, an extensive body of work clearly shows how access to infrastructure in Bangladesh (in particular electricity and roads) is an important determinant of both agricultural and non-farm incomes in rural areas, and is an important factor explaining the high spatial variation in poverty incidence across different parts of the country.[29] In Bangladesh, public investment in (hard) infrastructure was less than 2 percent of GDP, and it lags far behind its regional competitors in

infrastructure quality (Table 2.9). By contrast, total investment in hard infrastructure in China, Thailand, and Vietnam exceeded 7 percent of GDP. Those countries also invested another 7-8 percent of GDP in education, training and health. Unless infrastructure bottlenecks in Bangladesh are addressed in a timely manner, they risk becoming increasingly important constraints limiting future growth prospects. WBG estimates indicate that reaching sustained 7.5-8.0 percent growth rates will require significant increases in investment to at least 33 percent of GDP, including an increase in infrastructure investments to around 10 percent of GDP per year.[30]

Table 2.9: Infrastructure Quality in Bangladesh Lags Behind its Regional Competitors

Country	Country Ranking	Infrastructure Score (Overall)	Electricity	Roads	Railroad	Port
China	46	4.7	5.2	4.6	4.8	4.6
Thailand	48	4.6	5.1	4.5	2.4	4.5
Sri Lanka	75	4.0	4.8	5.1	3.7	4.2
India	87	3.6	3.4	3.8	4.2	4.0
Cambodia	107	3.1	3.0	3.4	1.6	3.6
Pakistan	119	2.7	2.1	3.8	2.5	4.4
Bangladesh	130	2.8	2.5	2.9	2.4	3.7
Myanmar	137	2.1	2.8	2.4	1.8	2.6

Source: World Economic Forum, Global Competitiveness Report 2014-15; Ranking out of 144 countries.

2.22 **The poor have in Bangladesh become more urbanized due to rapid and increasing rural-to-urban migration over the past two decades.** Bangladesh's urban population has recently grown faster than all other South Asian countries barring Nepal. Greater internal migration in response to better job opportunities was by far the most important factor behind this phenomenon.[31] While rural areas continue to account for the bulk of the poor, the share of the poor population living in urban areas has been increasing over the past two decades, as more people move from rural areas in search of better employment and income generating opportunities. In 1991, the urban poor accounted for 10 percent of the national poor population; in 2000, this share had risen to 14.4 percent, and by 2010, they accounted for 17.7 percent of the national poor. Between 1991-92 and 2010, the number of poor people residing in urban areas increased by 2.1 million; by contrast, the total number of rural poor declined by 17 million over the same period (Table 2.10).

Table 2.10: Number of Poor People in Rural and Urban Areas

	1991-1992	2000	2010
National Poor (million)	61.7	61.7	46.8
% of total population	56.8%	48.9%	31.5%
Rural Poor (million)	55.5	52.7	38.5
% of national poor	90.0%	85.4%	82.3%
% of total population	51.1%	41.8%	25.9%
Urban Poor (million)	6.2	8.9	8.3
% of national poor	10.0%	14.4%	17.7%
% of total population	5.7%	7.1%	5.6%

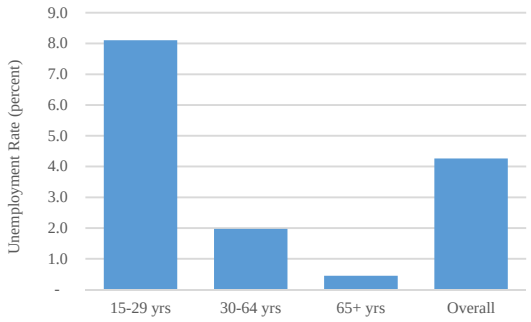
Source: Bangladesh Bureau of Statistics.

2.23 **Rapid urbanization has adversely impacted economic performance and general livability of urban settlements**,[32] which suffer inadequate and poor quality of services, in particular housing, transport, water supply, and sanitation. The annual outputs of Dhaka and Chittagong fall well short of what would be expected for metropolitan areas with such high

population densities. According to UNESCAP estimates, about 70 percent of Bangladesh's urban population lives in slums (twice as high as in India), often in poor quality housing located in precarious areas.[33] Increased urban congestion has also emerged as a key challenge. Apart from the well-known problems besetting Dhaka and Chittagong, other second-tier cities and municipalities also pose important policy challenges: unlike Dhaka and its peri-urban areas which have emerged as important garment centers, they have yet to find their comparative advantage and their economies remain reliant on the services sub-sector, with weak industrial bases.

2.24 **Unemployment among youth is considerably higher than the national average.** The 2013 Labor Force Survey shows that unemployment rate is much higher among those aged 15 to 29 years (8.1 percent) compared to other age groups (Figure 2.14). A majority of the youth in Bangladesh are trapped in low-wage, labor intensive, and insecure informal work.[34] This is especially the case for poor youth since having formal secondary education—which is largely out of their reach—is a key determinant of accessing remunerative wage employment.[35] An interesting feature of the labor market is that informal employment is also prevalent in formal sector enterprises, i.e. some formal sector workers accept employment without formal contracts. Once locked into informal employment, there are limited opportunities to upgrade skills or to access job placement services to break out and enter the formal sector. Increasing the employability of the youth to join the formal sector would lead to even more significant gains in labor productivity and thereby generate growth in labor income and reduce poverty.[36]

Figure 2.14: High Youth Unemployment Rates



Source: 2013 Labor Force Survey, BBS.

2.25 **Despite encouraging developments in the labor market in recent years, nearly half of the workforce remains engaged in agriculture, and an overwhelming majority continues to languish in the informal sector.** According to the 2010 LFS, 7 out of every 8 workers in Bangladesh were employed in the informal sector, with the proportion being over 90 percent in the case of female workers.[37] In 2013, about 45 percent of Bangladesh's workforce was gainfully employed in the agricultural sector (Table 2.11), contributing about one-fifth of GDP. About 34 percent was employed in services, which contributed about one-half of GDP; the rest—i.e. 20-21 percent—worked in the industrial sector, which contributed 30 percent of GDP. Gross output per worker in the industrial and services sectors was nearly four times as high as in agriculture.

Table 2.11: Total Employment (million) by Sector and Gender

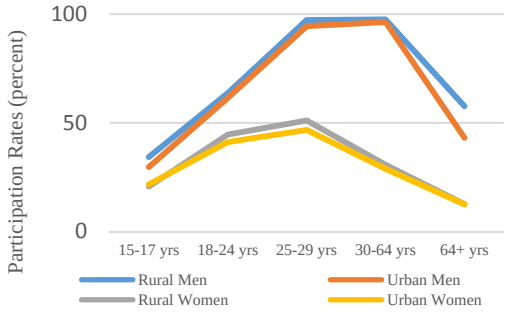
	2002-03			2013		
	Men	**Women**	**Total**	**Men**	**Women**	**Total**
All Sectors	**34.5**	**9.8**	**44.3**	**41.2**	**16.8**	**58.1**
Agriculture	17.2	5.8	22.9	17.2	9.0	26.2
Non-agriculture	17.3	4.1	21.4	24.0	7.8	31.9
Manufacturing	2.6	1.7	4.3	5.7	3.8	9.5
Other Industry	1.6	0.1	1.7	2.4	0.2	2.6
Services	13.1	2.3	15.3	16.0	3.8	19.8

Source: 2002/03 and 2013 Labor Force Surveys, BBS.

Gender and Jobs

2.26 **Even though women's participation in the workforce has risen since 2003, the gender gap remains quite large.** The female labor force participation rate (FLFPR) in 2013 was less than half that for men (34 vs. 82 percent); the gender gap in participation between men and women is lowest in city corporations, followed by rural areas, and widest in other urban areas (39, 48, and 54 percentage points respectively).[38] Gender gaps in participation are lowest among the youth, but rise sharply among older age groups (Figure 2.15) and warrant further investigation to understand the causes. One explanation could be the systematic underreporting of women's home-based work. Other explanations focus on social and cultural factors that traditional labor supply models cannot explain. For example, marriage has a depressing effect on FLFPR, and age at marriage in Bangladesh has changed very slowly (Shuler and Rottach 2010). Similarly, despite the fact that overall fertility decline in Bangladesh has been associated with a range of positive outcomes (e.g., early education and sex preference), it has had a limited impact on FLFPR and other deeply rooted practices such as dowry. Norms of status and seclusion and the pressure to marry off daughters so that the responsibility of their safety shifts to the husband continues to be a binding constraint.

Figure 2.15: Labor Force Participation Rates For Men and Women



Source: 2013 Labor Force Survey, BBS.

Box 4: Measuring women's home-based work

One explanation for the low FLFPR in Bangladesh is that women's work is underreported in labor force surveys, an issue that has received increased attention in recent years. Mahmud et al. (2011) show that the official statistics collected by BBS tend to underreport economic activities performed by women, mainly because of social perceptions about what constitutes "work." The authors argue that the official definition BBS uses is designed to capture adult male full-time economic activity, where home-based work typically performed by women) is not easily classifiable into the occupational codes, employment status or industry categories used. Further, LFS enumerators typically interview male household heads, who might be unaware of women's home-based work or how long each activity takes, while the time provided for conducting the interviews is often insufficient to capture a large number of home-based activities on which women spend "only a few hours" per day. Although the official definition of paid work does not explicitly exclude home-based work,1 discretionary use of terms such as "sufficient number of hours per day" and "work on a regular basis" prevent home-based work from being counted. Women's paid work on livestock and poultry rearing, crafts and kitchen gardens, and unpaid work for own consumption, gets underreported.

In recent years, civil society in Bangladesh has taken steps toward developing more inclusive and socially accepted definitions of work (ILO 2006, Huq 2013). In order to illustrate the extent to which the BBS's FLFPR estimates excludes women's work, Mahmud et al. (2011) conducted a sample survey in eight districts of Bangladesh. Using the same definition used by the BBS, they found FLFPR in 2010 to be over 30 percentage points higher than the one suggested by the official labor force survey, at 67 percent. The authors found considerable variation in the nature of FLFP across districts, with the gap between their findings and the official LFS estimates of FLFPR being the largest in districts where home-based expenditure-saving and seasonal work were common. Interestingly, they found that underreporting was partly caused by women respondents, who were reluctant to report market work performed inside the home, work for household consumption or work that took short periods of time (such as an hour's work), because they considered these to be regular, insignificant activities. This highlights the need for redefining the perceptions of what constitutes "work," not only among researchers who enumerate labor market outcomes, but also among the female workforce itself.

Source: Mahmud et al. 2011, ILO 2006, Huq 2013.

2.27 **Participation of women in the labor market in Bangladesh does not automatically result in a higher status for them.** For instance, women's participation in nontraditional roles may open up new areas of risk and vulnerability.[39] As highlighted earlier, most employment in Bangladesh continues to take place in the informal sector where female workers are overrepresented.[40] Even women employed in formal sector jobs are more likely than men to be stuck in low paying jobs due to occupational segregation.[41] The share of working men in each employment category (regular, self-employed, day laborers, employer) has generally been about twice as large as the share of working women. The only exception is unpaid work where a much larger share of women are classified as an unpaid family member relative to men. According to the Time Use Pilot Survey (BBS 2013), an average employed women spent 3.6 hours on household work and 5.2 hours on paid work on a typical day, whereas an average employed men spent only 1.4 hours on household work and 6.9 hours on paid work. Amongst the unemployed, women spent 6.2 hours on household work and 1.3 hours on leisure, while men who spent only 1.2 hours on household work and 2.2 hours on leisure. Such differences in favor of men held across all occupations, education levels, divisions, and urban/rural.[42] These patterns draw attention to the double burden faced by women in the productive economy and the reproductive economy.[43]

2.28 **Bangladesh would benefit from both better research on female employment as well as pilots to understand what works.** Significant gaps remain in our understanding of what would increase women's employment in Bangladesh. While there is greater evidence of women's labor supply decisions, there is hardly any information on the demand for female labor, other than in the garment sector. For instance, the fact that unemployment rates for educated women are so high indicates that these women do want to work, but for some reason, find it difficult to get the jobs they want. The chances that in addition to wages, women may be more likely to enter the labor market if they had access to housing and safe transportation are quite high. Similarly, their care responsibilities, especially childcare, can often be overwhelming for them; childcare facilities in Bangladesh are very limited, and institutional child care is practically non-existent. Finally, while age at marriage is an important correlate of women's market decisions and in Bangladesh women are married early, what would increase age at marriage is not very well understood.

2.4 Setting and Validating Priorities

2.29 **Looking ahead, accelerating the employment shift already underway of casual workers and small farmers engaged in agriculture to salaried employment in more dynamic and remunerative sectors of the economy offers by far the most promising exit out of poverty.** Jobs are atop the development agenda for both citizens and policy makers in Bangladesh. The labor force is growing by 3.1 percent per annum—1.3 times the South Asian average and 1.7 times the global average—and 21m people are projected to enter the workforce over the next decade. About 45 percent of the country's estimated 58m workforce is engaged in the agricultural sector, which contributes about one-fifth of GDP. About 34 percent is gainfully employed in the services sector, which contributes about one-half of GDP; the rest—i.e. 20 percent—works in the industrial sector, which contributes over 30 percent of GDP. Gross output per worker is thus nearly four times as high in industry and services compared to agriculture.

2.30 **More and better jobs are atop the development agenda for both citizens and policy makers in Bangladesh.** Jobs remain a critical concern in the country: the labor force is growing by 3.1 percent per annum—1.3 times the South Asian average and 1.7 times the global average—and 21m people are projected to enter the working age population over the next decade. Looking ahead, accelerating the employment shift already underway in Bangladesh of casual workers and small farmers engaged in agriculture to salaried employment in more dynamic and remunerative sectors of the economy offers by far the most promising exit out of poverty (Box 5). The main task for the SCD, therefore, is to identify those key areas where concerted efforts by the government and other stakeholders would yield the highest payoffs through accelerated job creation in the more dynamic off-farm and urban manufacturing and services sub-sectors of the economy.

Box 5: Jobs as Key Drivers of Future Poverty Reduction

Potential welfare effects for the farm workers in switching to urban jobs are far greater than in case of switch to rural non-farm jobs. While diversification within rural areas, of course, continues to be important for rural extreme poverty reduction, the other factor of the "pull effects" of the urban sector both as a growth accelerator and a source of jobs for the extreme poor is going to be increasingly more important compared to the rural non-farm sector.

First, the extreme poverty reduction proceeded on a faster pace in urban areas than in rural areas. The 2013 Economic Census indicates much greater diversity and depth of economic activities in urban areas, with indication of significant growth of business and industrial establishments in peri-urban areas and secondary towns beyond just the Metropolitan areas. Rising Fixed (land) costs in megacities, improved inter-city connectivity and availability of cheap labor (including female wage labor) are contributing to this process. Economic growth unleashed demand for real estate sector/construction and transport activities, which, in turn, generated demand for domestic (migrant) labor, benefiting the extreme and chronic poor. In short, urbanization has already played an important role in overall fast decline in rural incidence of poverty, including rural extreme poverty.

Second, the challenge policymakers need to face is to provide policy support to rural extreme-poverty reduction through sustainable urbanization. The latter demands putting emphasis on enhancing temporary migration opportunities by improving inter-city connectivity and within-city multi-modal transport, and by encouraging relocation of urban jobs increasingly outside of the growing Metropolis to the secondary cities. The latter would be important to reduce congestion costs while at the same time exploiting agglomeration economies associated with rapid urbanization. Policy emphasis should be on building urban futures for the rural poorest through "extension of the urban sector itself". This requires, among others, prioritizing urban infrastructural development for improved connectivity, and investing in human capital of the rural poorest and their families.

Third, the rural-urban relocation of labor also benefitted from the growth of export-oriented manufacturing such as the ready-made garments sector, which employs about 4m workers (75 percent of which are first-generation women workers mostly from poor families). Export-led industrialization has a very important role to play in rural poverty reduction, including extreme poverty reduction, an aspect that has remained inadequately studied in the literature.

Source: Excerpts from Ending Extreme Poverty in Bangladesh. Background paper prepared for the Planning Commission for the Seventh Five Year Plan.

2.31 **An extensive body of work clearly shows how access to infrastructure in Bangladesh is an important determinant of both agricultural and non-farm incomes in rural areas.** To-date Bangladesh has neglected investment in infrastructure. Public investment in (hard) infrastructure was less than 2 percent of GDP, and it lags far behind its regional competitors in infrastructure quality (Table). By contrast, total investment in hard infrastructure in China, Thailand, and Vietnam exceeded 7 percent of GDP. Those countries also invested another 7-8 percent of GDP in education, training and health. Unless infrastructure bottlenecks in Bangladesh are addressed in a timely manner, they risk becoming increasingly important constraints limiting future growth prospects. WBG estimates indicate that reaching sustained 7.5-8.0 percent growth rates will require significant increases in investment to at least 33 percent of GDP, including an increase in infrastructure investments to around 10 percent of GDP per year.

Infrastructure Quality in Bangladesh Lags Behind its Regional Competitors

Country	Country Ranking	Infrastructure Score (Overall)	Electricity	Roads	Railroad	Port
China	46	4.7	5.2	4.6	4.8	4.6
Thailand	48	4.6	5.1	4.5	2.4	4.5
Sri Lanka	75	4.0	4.8	5.1	3.7	4.2
India	87	3.6	3.4	3.8	4.2	4.0
Cambodia	107	3.1	3.0	3.4	1.6	3.6
Pakistan	119	2.7	2.1	3.8	2.5	4.4
Bangladesh	130	2.8	2.5	2.9	2.4	3.7
Myanmar	137	2.1	2.8	2.4	1.8	2.6

Source: World Economic Forum, Global Competitiveness Report 2014-15; Ranking out of 144 countries.

2.32 The **SCD prioritization** has relied on a thorough review of the main obstacles and key constraints impeding faster job creation. The team has drawn upon information from various sources, including a review of existing reports on Bangladesh by the WBG and other development partners, in-depth analysis of the latest available household- and firm-level surveys, background papers commissioned by the Planning Commission for the Seventh Five Year Plan along with other work by local researchers. The main role of public policy is to help ensure that the conditions are in place for strong private-sector-led growth, to understand why there are not enough good jobs for development, and to remove or mitigate the constraints that prevent the creation of more of those jobs. As the 2013 World Development Report has noted, "Jobs are the cornerstone of economic and social development". The report provides useful guidance on assessing priorities for sustained job creation by outlining a three-layered policy approach:[44]

- ***Fundamentals:*** Because jobs improve with development, providing higher earnings and benefits as countries grow rich, a prerequisite is to create a policy environment conducive to growth. Macroeconomic stability, an enabling business environment, and human capital accumulation are among the key such fundamentals.[45]
- ***Labor and other supportive policies:*** The government should strive to avoid two cliffs: distortionary interventions that impede the creation of jobs in cities and in global value chains, and the lack of mechanisms for protection for the most vulnerable workers.[46]
- ***Priorities:*** Policies should remove the market imperfections and institutional failures that prevent the private sector from creating more good jobs for development.[47]

2.33 The Bangladesh SCD classifies priority areas for action into two main groups: (i) foundational priorities—i.e. those which are pre-requisites for faster job creation and growth, and

(ii) key policy areas where concerted action over the next 3-5 years could have a transformative impact on the pace of progress towards eliminating poverty and boosting shared prosperity. Table 2.12 summarizes the five key areas where concerted efforts over the next 3-5 years could have a transformative impact on accelerating the creation of more and better jobs: (i) energy, (ii) inland connectivity and logistics, (iii) regional and global integration, (iv) urbanization, and (v) improved delta management. Chapter 4 goes beyond presenting just a diagnostic per-se, and also includes a number of recommendations and suggestions on how best to tackle these challenges.

Table 2.12: Summary of Key Priorities for Action Identified by the SCD

Policy Area
PRIORITY AREAS WITH POTENTIALLY TRANSFORMATIVE IMPACT ON TWIN GOALS
Energy sector: key challenges include constrained electricity and natural gas supply, unsustainable short-term solutions, poorly targeted subsidies and significant fiscal burden, and distorted market signals. Priority reforms pertain to increase generation capacity and enhance access to those lacking power.
Inland connectivity and logistics: key priorities include upgrading and integrating key transport corridors (in particular the Dhaka-Chittagong highway), improving management of the port, reviving inland water transportation, and better maintenance of existing assets.
Regional and global integration: considerable untapped/unexploited potential to capture higher share of manufacturing sector jobs moving out of higher income countries by reviving stalled trade reform agenda; help make migration more remunerative, affordable, inclusive, and safe.
Urbanization: key policy challenges include addressing binding constraints to competiveness and livability, especially for the poor (e.g. connectivity, efficient land use, public services and amenities); reduce environmental externalities (air and water pollution)
Adaptive delta management: promote higher agricultural productivity and greater diversification; long-term planning needed for better land and water use, natural resource management; revitalize and strengthen key infrastructure to protect the population, reduce vulnerability, and secure growth.
FOUNDATIONAL PRIORITIES
Macroeconomic stability and related cross-cutting challenges: Key challenges include higher revenue mobilization through tax policy and tax administration reforms; better implementation of the Annual Development Program; improve health of the financial sector and enhance financial intermediation.
Human development: Address next generation challenges related to malnutrition, quality of public service delivery, skills of the workforce; increase public funding for health and initiate pragmatic agenda for achieving universal health coverage; extend coverage of the social protection programs to the urban poor
Institutions and business environment: Stronger institutions needed to manage the larger more complex economy, meet the aspirations of a more diverse and heterogeneous population, and to ensure that the prevailing business environment is conducive to higher investment and growth.

2.34 **Some areas where Bangladesh has already done well nevertheless require sustained policy attention, as they are pre-requisites for ensuring an environment conducive to growth and faster job creation.** For example, even though the government has done quite well with macroeconomic and fiscal management, key challenges ahead include strengthening the tax system to boost revenue generation and make it more efficient, transparent, and fair; improving the health of the financial sector and enhancing financial intermediation; and improving public investment management and implementation of development projects. While Bangladesh has made very good progress in improving overall access to elementary education and basic health services, the next set of challenges pertain to tackling the more difficult issues of reaching the remaining hard-to-reach excluded population and improving service quality, as well as tackling more complex challenges, such as malnutrition, that require multisectoral interventions. A plentiful supply of food will not

nourish a person whose water is contaminated and who is infected by a disease environment propagated and sustained by inadequate water quality and sanitation facilities. With regard to the business environment, accelerating economic progress will require going into a more complicated phase of reforms that address a whole range of factors that adversely affect investment incentives and production efficiency. Chapter 3 discusses such "foundational priorities" in more detail.

2.35 **Broad consensus prevails among key stakeholders in Bangladesh on the importance of each of the five transformational priorities identified by the SCD**. For instance, the government's Sixth FYP accords very high priority to employment generation, and highlights the critical importance of raising the rate of investment to tackle infrastructure bottlenecks, particularly in the power and transport sector. Citing the examples of China, Korea, Vietnam and Thailand, it also stresses the importance of reducing trade barriers to foster greater and more effective regional cooperation. The Plan also highlights the need for better land-use policies and administration to tackle the problems of unplanned urbanization and develop rural townships. The FYP also discusses the importance of ensuring environmentally sustainable development and tackling the challenges posed by climate change. The Mid-Term Implementation Review (MTIR) of the Sixth FYP was completed in 2014 to evaluate the interim results achieved against quantitative benchmarks. Its findings confirm the continued relevance of each of these five main areas (Box 6).

Box 6: Mid-Term Implementation Review of the Sixth Five Year Plan

The MTIR highlights Bangladesh's progress in transforming its rural-based agrarian economy to a more modern urban-based manufacturing and services based one, but also acknowledges the shortfall in targets to accelerate GDP growth to 8 percent by FY15. It notes with concern the large rise in marginal cost of electricity, and the failure to diversify sources of primary fuel by increasing domestic production of gas and coal. It calls for the future program to be based on least-cost expansion path, along with renewed efforts to institute a national coal policy and invest more resources in gas exploration and production. The MTIR acknowledges that performance is lagging in all areas of transport (roads, bridges, railways, and ports). Finally, it also emphasizes that further efforts are needed to strengthen resilience and minimize the adverse impacts of natural disasters on people's livelihood. Long-term planning through the proposed Delta Region Project, along with substantial public investment will be needed to achieve these objectives.

For more details, please see *Mid-Term Implementation Review of the Sixth Five Year Plan of Bangladesh* General Economics Division, Planning Commission, Government of Bangladesh (March, 2014).

Consultations for the SCD:

2.36 The World Bank Group office in Bangladesh organized a series of consultations in Dhaka, Sylhet, Chittagong, and Jessore with different stakeholders in November 2014. The main purpose of the consultations was to solicit the views of different stakeholders for the SCD, which in turn would help inform the formulation of a new WBG Country Partnership Framework for Bangladesh for the period FY 2016-2020. Various types of groups were consulted in different locations, including representatives of civil society, non-governmental organizations, the media, the private sector, members of the local chambers of commerce, and other such groups.

2.37 In every consultation, irrespective of its location, some common issues emerged as priorities. The stakeholders stressed on infrastructure development to sustain growth, emphasizing in particular the completion of the Dhaka-Chittagong four lane highway which they considered as lifeline of the economy. Stakeholders also gave paramount importance to improve rail and inland water connectivity. Modernization of Chittagong port was viewed as a priority area. Lack of urban

management, specially the traffic in Dhaka is viewed as a bottleneck to Bangladesh's growth. For Bangladesh to benefit from its demographic dividend, many stakeholders talked about the importance of investing in quality of education and creating a skilled labor force.

2.38 A centralized administration, lack of capacity of government institution and insufficient results-orientation in bureaucracy, and the debilitating role of corruption were also highlighted as major impediments to development. The stakeholders, especially those outside Dhaka, stressed the importance of decentralization and strengthening local government. Throughout the consultations, the need for creating more growth poles beyond Dhaka became apparent. Apart from the common priority issues for Bangladesh, some unique to specific stakeholder groups or locations were also discussed. For example, the private sector representatives in Dhaka urged to create Economic Zones. In Jessore, the stakeholders spoke about the importance of agricultural marketing infrastructure to increase farmers' incomes and promote diversification into high value crops.

2.5 Knowledge Gaps

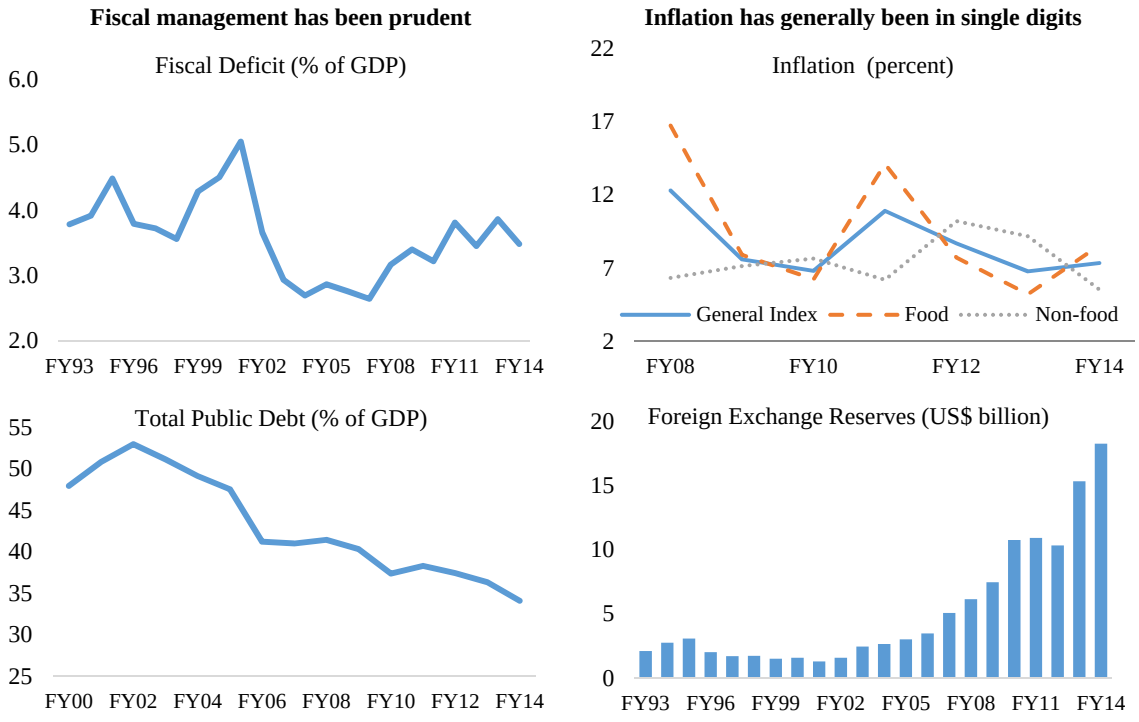
2.39 This SCD identifies five key knowledge gaps that warrant policy attention and work: related to (i) labor markets, (ii) fiscal challenges, (iii) land markets, (iv) public service delivery, and (v) gender-related issues.

- ***Information on labor market:*** Higher frequency and better quality data are needed on the labor market, including on unemployment, underemployment, earnings, working conditions, as well as richer firm-level data and analysis to better-understand the dynamics of the labor market;
- ***Fiscal challenges:*** Further work is needed to quantify and better understand how Bangladesh should address the fiscal challenges it faces (i.e. increase tax revenues plus mobilize private financing needed for higher investment in physical infrastructure, health, education, etc.);
- ***Land markets:*** Given that land markets in Bangladesh are characterized by significant hurdles and large transaction costs (both formal and informal), more analytical work is needed both to better-understand how these various obstacles and constraints manifest themselves, and how best can they should be tackled to enable new manufacturing units and better jobs to emerge;
- ***Quality of public service delivery:*** While Bangladesh has made good progress in improving access to public services, better data are needed to assess variations in the quality of public service delivery as a first step to devising effective strategies to tackle prevailing inequalities;
- ***Gender assessment:*** As the SCD argues, Bangladesh would benefit from both better research on female employment as well as pilots to understand what works. Further work is needed in this regard to better understand core issues of gender inequality and social inclusion.

3. FOUNDATIONAL PRIORITIES

3.1 As noted in Chapter 2, the main role of public policy is to help ensure that the right conditions are in place for strong private-sector led growth, to understand why there are not enough good jobs for development, and to remove or mitigate the constraints that prevent the creation of more of those jobs. While Bangladesh has done well in the past in ensuring the right conditions are in place for strong sustained growth and poverty reduction—i.e. (i) good macroeconomic management of the economy, (ii) laudable human development achievements, and (iii) a business environment conducive to increased private investment—each of these foundational areas continue to require sustained policy attention. For example, even though the government has done quite well with macroeconomic and fiscal management, key priorities looking ahead include strengthening the tax system; improving the health of the financial sector and enhancing financial intermediation; and improving public investment management and implementation of development projects. Similarly, while Bangladesh has made excellent progress in improving access to elementary education and basic health services, the next set of challenges pertain to reaching the remaining hard-to-reach excluded population and improving service quality, plus tackling more complex challenges, such as malnutrition that require multisectoral interventions. Finally, with regard to the business environment, accelerating economic progress will require, as discussed in more detail later in this chapter, going into a more complicated phase of reforms that address a whole range of factors that adversely affect investment incentives and production efficiency at present.

Figure 3.1: Selected Macroeconomic Indicators



The debt-to-GDP ratio has declined

Foreign exchange reverves have risen steadily

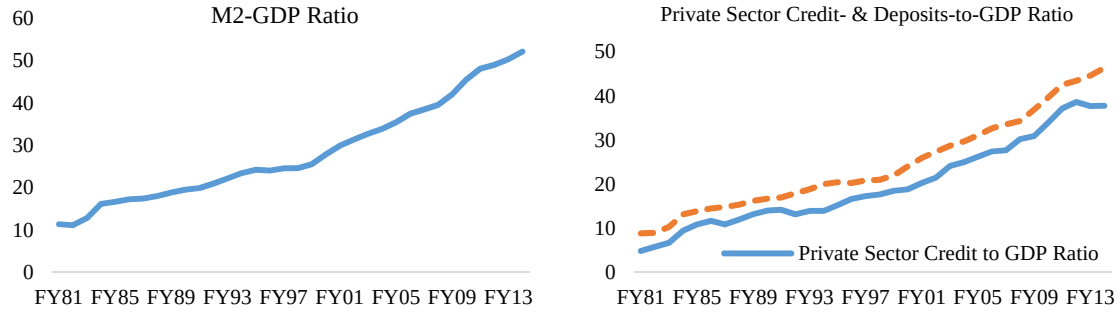
Source: Ministry of Finance, Bangladesh Bank, and IMF

3.1 Macroeconomic Stability

3.2 **Generally prudent management of fiscal and monetary policy, and the resultant macroeconomic stability Bangladesh has enjoyed over the past decade, has served it well in its quest for higher growth.** Bangladesh has received favorable ratings from international agencies like Moody's and Standard and Poor's, reflecting its good track record in macro-economic management (Figure 3.1)). Inflation was contained well below double-digits most of the time. Bangladesh is the only country in South Asia with positive public savings. In addition, the overall budget deficit has been financed through prudent external borrowing that has kept the effective interest rate on public debt at less than 5 percent. Recourse to monetary financing of deficit has been used as a very short-term measure that has typically been quickly reversed. The public debt-to-GDP ratio declined throughout the last decade. Since adopting the floating exchange rate regime in 2003, the Bangladesh Bank has followed a market-based exchange-rate policy that ensured smoothing out exchange-rate volatility and building up foreign exchange reserves. Monetary policy allowed monetary aggregates to expand in line with growth in demand for credit in the private sector and price stability.

3.3 Rising levels of financial development in Bangladesh (Figure 3.2) have caused higher investment rates and per capita GDP by enhancing both the level and efficiency of investment.[48] Moving away from a financial system that relies heavily on nationalized banks, administered interest rates and directed credit helped channel national savings into investment, thus fostering growth. Rahman (2007) has studied the association of financial development with investment as a share of GDP and per capita income and found that they broadly moved together, reflecting a close association among financial development, investment and per capita income during the period.[49] The study showed that financial development has a positive and statistically significant long-term impact on both the investment-GDP ratio as well as on per capita GDP in Bangladesh. A one percent positive shock to financial development (credit-to-GDP ratio in this case) generates about 0.7 percent positive impact on investment-GDP ratio and about 0.6 percent positive impact on per capita income, meaning more domestic credit to the private sector generates more investment activities and hence more per capita income.

Figure 3.2: Financial Deepening in Bangladesh: 1980 – 2015



Source: Bangladesh Bank.

3.4 Looking ahead, key **macroeconomic and fiscal management challenges** include improving the health of the financial sector and enhancing financial intermediation, strengthening the tax system to make it more efficient, transparent, and fair, and better implementation of the Annual Development Program (ADP).

- Continued implementation of the Action Plan developed by the government with IMF support will be needed to improve the performance of state-owned commercial banks; in particular through strengthening corporate governance, human resources, and risk management capacities, installing professional management from the private sector, and bringing these banks under Bangladesh Bank's full control and supervision.
- Successful implementation of the 2011-2016 Tax Modernization Plan, through which the government plans to increase tax collection by about 3 percent of GDP, will be key to provide the additional public resources to spur growth, especially much-needed investments in infrastructure (see Chapter 4).
- Improved public financial management, in particular better implementation of public investment through the ADP and enhanced fiscal risk management of state-owned enterprises, is needed to strengthen the link between policy priorities and resource allocation, between resource allocation and performance, and for efficient use of resources for service delivery.

Strengthening financial stability and enhancing financial intermediation

3.5 **There is well established literature that shows the importance of a strong financial sector and economic growth.** A strong financial sector is essential to support private sector competitiveness, sustain growth, economic diversification, and job creation. Conversely, instability in financial markets can have high costs, as evidenced in the costs of financial crises – the global financial crisis of 2008 pushed 120 million people below the poverty line and created 22 million new unemployed persons in just one year in the aftermath of the crisis. Disruptions in the banking sector can: have a negative impact on the real economy; lead to a credit squeeze; cause a 'flight to safety' of deposits; and enhance the risk of contagion within parts of the financial system. Similarly lack of adequate financial intermediation, constrains productivity, entrepreneurship and growth.

3.6 **For Bangladesh, a well-functioning financial sector is critical** - whether it is access to finance for its exporting and small and medium sized firms that account for a significant share of employment, savings, credit and insurance services for its farmers or financing of its infrastructure projects in the energy or transport or other critical sectors. While broadly financial markets have developed over the years, key concerns remain in particular, strengthening financial stability and enhancing financial intermediation. Not addressing these will lead to significant challenges in achieving progress in the priority areas of the SCD.

3.7 **Financial stability:** In terms of financial stability, Bangladesh's financial sector faces risks on account of weaknesses in the state-owned commercial banks (SOCBs) which account for a quarter of the assets of the banking system. With over 70 percent of financial system assets in the banking system, banking assets to GDP at 77 percent and deposits to GDP at 60 percent, risks in the SOCBs are systemically significant. While these risks have not materialized yet, the health of the SOCBs is such that this remains a possibility. The overall governance and asset quality of the financial sector also pose threat to the financial sector stability. Integrity of the financial sector has been compromised by banking sector loan scams and embezzlements, weaknesses in the regulatory and supervisory frameworks continue and while regulators have built capacity over the years, there is a need to enhance this further.

3.8 **Confidence of the public in SOCBs remains high, perhaps due to strong implicit government backing assumed by actors.** There was an initial phase of liquidity crunch in late

2012, but SOCBs now continue to operate normally (with some checks on lending imposed by Bangladesh Bank) and attract deposits which have grown by around 10 percent over the past year. Moreover, SOCBs have once again become net lenders in the interbank call money market. However, this situation masks potential liquidity issues that may arise due to possible future shocks. Consequently, allowing the current situation to continue without taking steps to address underlying problems is fraught with risks. Deposits of tens of millions of Bangladeshis are ultimately at stake, including many from rural areas and the lower income segments that the SOCBs have reached out to. Recent financial sector crises have taught us that pre-emptive measures are more effective and less costly than the more reactive, ex-post, crisis response measures during bank rescues.

3.9 **Financial intermediation:** Alongside poorly performing public banks, access to credit has been identified as one of the top barriers for doing business in Bangladesh (Doing Business 2015). Only 31 percent of adults in Bangladesh have access to a bank account (Findex, 2014). In addition, financial inclusion remains particularly daunting for certain groups including women, small and medium enterprises (SMEs), and farmers. Further, undeveloped insurance (insurance premiums are only 0.94% of GDP) and pensions markets, and long term capital markets, means that sources of long term financing – so critical to meet the country's infrastructure needs – are limited and constitute severe impediments to creating jobs, financing Bangladesh's crippling infrastructure deficit, managing risks and vulnerabilities.

3.10 **Recommendations:** *On stability, strengthening SOCBs, including their governance, and enhancing overall supervisory and regulatory capacity are critical initiatives to be undertaken.* Capitalization of banks – which has been pursued in recent years, likely needs to be continued, together with deep reforms. These would include reforms to strengthen corporate governance in the SOCBs and bring them out of political influence and under the full supervision and control of Bangladesh Bank, strengthen risk management, internal control mechanisms, and human resources.

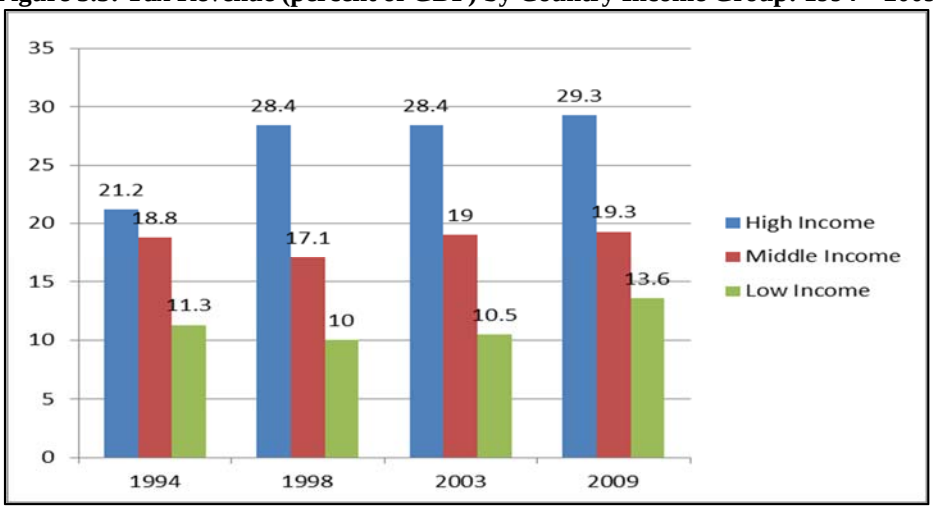
3.11 *On access, formulating a national financial inclusion strategy and increasing access to financial services is key.* For that to happen, several constraints need to be addressed. They include: creating an enabling environment for facilitating access to finance among neglected segments, such as women entrepreneurs; alleviating supply-side institutional capacity constraints to foster the development of a diverse and appropriate set of financial products especially for MSMEs; increasing the capacity of enterprises to operate and access credit; promote the scaling up of digital financial services through mobile banking, e-wallets, and digital payments. Fundamental financial infrastructure bottlenecks (such as an underdeveloped payment and settlement systems, credit information bureau and collateral registry) also need to be overcome to foster financial inclusion.

3.12 *Developing a sustainable long-term financing market* will require concerted efforts to (i) increase financial institutions' appetite and capacity to make their foray into long-term financing businesses; and (ii) ensure the availability of funds for financial institutions to develop their long-term finance portfolio. The latter calls for the development of well-functioning insurance, pension and bond markets since commercial banks expose themselves to asset-liability mismatch in their balance sheets (in extending long-term financing) due to lack of investment opportunities. Moreover, the weak regulatory and supervisory framework in the insurance sector needs to be tackled to provide adequate risk management opportunities for a more diverse financial system.

Upgrading both tax policy and tax administration

3.13 The level of tax collection in Bangladesh was 10.4 percent of GDP in 2012, up from the average of 8.3 percent of GDP during 2004-2009. Despite this improvement, Bangladesh is below other low income countries—only Afghanistan (tax-to-GDP ratio of 6.7 percent), Myanmar (3.2 percent), Central African Republic (6.2 percent) and Ethiopia (8.1 percent), are performing worse (Figure 3.3). At this level, tax revenue provides an insufficient and unstable base of domestic source revenues to finance higher investments to build human capital and improve physical infrastructure.

Figure 3.3: Tax Revenue (percent of GDP) by Country Income Group: 1994 – 2009



Source: World Bank classification and World Development Indicators.

3.14 **Tax Policy Reform:** As announced in the Finance Minister's FY15 budget speech last year, recent tax policy reforms, which will be deepened in the coming years, include enactment and implementation of the new VAT law, development of a new Income Tax law and the revision of the Customs Act during the tenure of this Parliament. As the NBR Modernization Plan notes, the Income Tax Ordinance of 1984 has become out of date and complicated over time due to several amendments through successive Finance Acts. The VAT Act of 1991 is badly in need of reform to move it from an excise based system towards a true VAT. The Customs Tariff is also in need of restructuring and the Customs Act, 1969 needs to be modernized. The envisaged tax policy reforms will be crucial to improve both the progressivity of the tax system as well as increase collections.

3.15 **Weak Tax Administration:** As in many other countries, tax compliance risks in Bangladesh are high and weaknesses in tax administration contribute to this problem. The National Board of Revenue (NBR) is organized along three administrative wings ("type of tax"): Income Tax, Value Added Tax, and Customs, which historically have operated almost independently and provide little support to each other. These rigid structures do not encourage an integrated approach to different categories of taxes and segments of taxpayers. NBR is staffed by poorly trained and low paid officials. Low salaries, in combination with paper and administrative based assessment system with little oversight or differentiation of functions, provide incentives for corruption and tolerance of tax evasion. Staff dealing with large taxpayers or multinational companies engaged in aggressive tax planning are frequently considered and paid on par with other tax administrators, and equipped with only basic IT infrastructure, although requirements of this type of positions are highly complex and specialized. This is in spite of the fact that when dealing with large taxpayers,

mistakes by tax administrators, or inclination to corruption motivated by low pay, can be extremely costly when auditing tax returns that run into the tens or hundreds of millions of dollars.

3.16 **Low level of automation and weak IT systems:** The current business model characterized by low level of automation is unsustainable in a climate in which the government counts on better revenue collections and lower compliance costs to ensure fiscal stability and promote a more internationally competitive economy. The range of electronic services provided to taxpayers is underdeveloped, while the existing information system and governance of financial information is weak, fragmented, and inadequate to effectively support operations. IT systems are not supportive of all core business processes, nor adequate to support new functionalities or developments.

3.17 **Main recommendations** to help improve the system include:

- *Introduce the "function-based" organizational structure and taxpayer segmentation approach.* Modern tax administrations have moved towards streamlined and function-based organizations and have introduced taxpayer segmentation approach, i.e. develop different strategies for administering different categories of taxpayers in order to better utilize and allocate resources.
- *Address the human resource gap as a key factor of success in modernizing tax administration*. Addressing human capacity gap implies that a tax administration reform should include significant amount of training. Consequently, the capacity building strategy of the NBR needs to be aligned with the reform priorities, the current conditions of the organization, business reengineering processes and the IT developments.
- *Introduce and enhance Information Technology improvement*. The NBR is planning to put in place a series of IT operational tools which encompass inter alia IT systems for an Integrated VAT Management System, e-filing, e-payment, e-audit, etc. Some institutional underpinnings need to be implemented in parallel to set the institutional basis for efficient and reliable use of the IT operational tools. They include changes in NBR's organizational structure with a special focus on the reengineering of core processes, improvement of human resource management, and monitoring mechanisms. This would allow NBR to better match IT systems and capacity with current maturity levels of the organization.
- *Align business process reengineering with upgrading of information technology capabilities.* The rapid spread of the IT is enabling tax administration to be more efficient in processing information in a more reliable and timely way and providing taxpayers with a wide array of electronic services. The NBR is conducting a substantial process reengineering and standardization of tax procedures particularly for the VAT, which will lead to the design and implementation of a new institutional and governance framework. It will be important to align IT improvements with the governance change produced by the business process reengineering efforts, ensuring that IT improvements are integrated into the broader reform efforts and become a reliable and efficient support tool.

Improving public investment management

3.18 **Increasing the scale, quality, and efficiency of public investment will be important for Bangladesh to achieve sustained economic growth.** The government has set itself the target to increase the investment rate to at least 33 percent of GDP, including an increase in infrastructure investments to around 10 percent of GDP per year during the period 2011-2021. However,

increasing the quantity of public investment will only have the desired effect if efficiencies in the public investment management (PIM) systems are enhanced concurrently. Despite the well-documented significance of investment levels to sustain economic growth, Bangladesh devotes a smaller percentage of GDP to investments than other countries in South Asia. Over time, different governments have allocated public resources broadly in accordance with Bangladesh's development priorities of improving social services and advancing rural development. However, while broad inter-sectoral allocations of resources reflect strategic priorities, the country has not made significant enough investments in infrastructure to support higher economic growth. Infrastructure deficits constrain returns to private investment. Scaling up investments, in particular in infrastructure, could therefore be an important means of achieving sustained economic growth.

3.19 **Limitations in its PIM systems and practices may prevent Bangladesh from reaching its growth targets.** The efficiency of PIM is constrained by fragmented institutional arrangements with limited coordination. The regulatory framework for PIM comprises a diverse set of laws, ordinances, executive orders, and some constitutional provisions: parts of it are inconsistent and outdated and would benefit from revisions. The government's capacity to undertake proper project design and selection, implementation, and evaluation is limited, resulting in a range of problems, including: (i) limited links between the ADP and strategic development objectives; (ii) the development of a project pipeline based on an approval process outside of the budget cycle that does not reflect the budget and capacity constraints; (iii) substantial delays in project execution, resulting in time and cost overruns; (iv) persistent under execution of the ADP; and (v) insufficient allowance for the cost of operations and maintenance in project planning.

3.20 **The connection between various existing strategy documents, the development budget, and individual investment projects is not strongly developed.** Currently, the national priorities outlined in the Five Year Plan are not systematically translated into sectoral or ministry-level operational plans. This can result in disconnects between higher-level multi-annual development plans and actual programming and budget decisions. This issue is further exacerbated by the fact that the Executive Committee of the National Economic Council (ECNEC), the highest national body overseeing public investment, focuses strongly on individual investment projects, while dedicating less time to fulfilling a high-level, strategic and portfolio-based oversight role.

3.21 **While formal project preparation processes are well-documented and understood within the government, they are not fully adhered to, particularly in terms of timing.** They can also often be undermined by informal practices. There is currently no system of preliminary screening of initial project proposals and the technical capacity to design and appraise high quality projects is generally limited (though there is variation both within and across sectors). The political context in which project selection and approvals take place further limits incentives to produce technically high quality projects.

3.22 **The ADP, the main instrument for public investment, is assembled in an incremental manner, with limited consideration of strategic priorities, portfolio consistency, availability of resources and future cost implications.** Project selection is conducted throughout the year without systematic regard to the impact of newly-approved projects on the medium-term cost of the ADP portfolio. Guidance provided to Line Ministries and agencies to aid in the preparation of their ADP submission does not effectively focus new project proposals on high priority areas. A lack of medium-term planning in the ADP process has limited efficiency in resource allocation and

project implementation, resulting in the under-funding of ongoing projects for the sake of adding more projects to the portfolio. Insufficient attention is given to the future costs of operations and maintenance and of completing the implementation of ongoing projects. A system of Forward Baseline Estimates, within which many of these issues could potentially be addressed, is planned but has not yet been introduced. The quality and effectiveness of the ADP, which averages more than one thousand projects/programs annually, has significant potential for improvement.

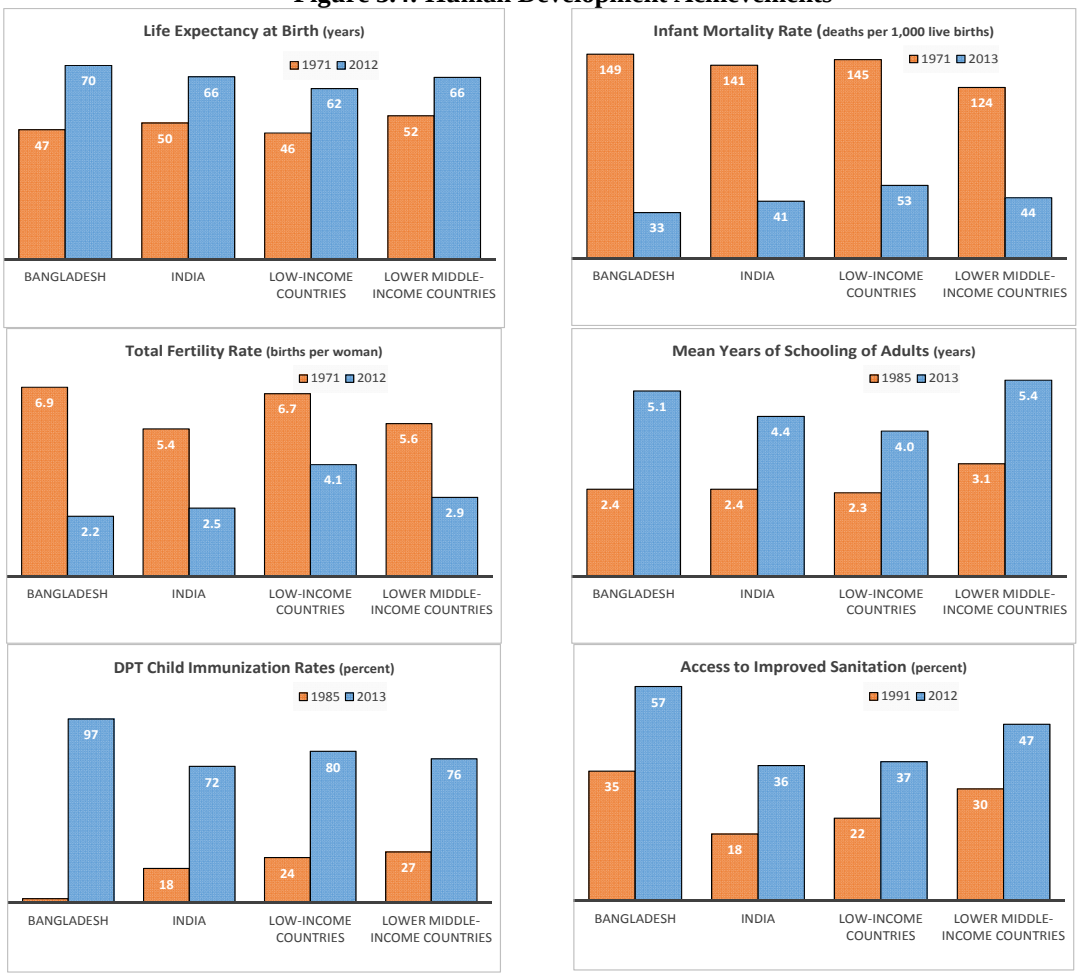
3.23 **Reform Opportunities:** Drawing on the experiences of other countries, the government could consider focusing its reform efforts initially on a small number of priority areas considered most critical for reform outcome. In this respect, three areas are proposed as possible starting points.

- **Introduce a multi-year Public Investment Program to ensure a closer match between approved investment projects and the availability of financial resources.** This shift could also improve the linkage between ADP and revenue budget, especially with respect to ensuring adequate funding for operations and maintenance and appropriate trade-offs between maintenance and new projects. A multi-year PIP based on three key elements: (i) top-down ceilings/resource envelope at ministry level; (ii) bottom-up project proposals from MDAs; and (iii) a prioritization process, which results in the approval and selection of the highest value projects within the funding constraints, could reinforce the alignment between longer-term planning, one-year programming and budget preparation. To ensure efficient allocation of resources among projects, and an overall reduction in the project portfolio, the ADP could be reviewed and rationalized prior to introducing the Multi-Year PIP. The rationalization exercise could result in low priority and low performing projects being discontinued. This could create fiscal space for higher priority projects.
- **Strengthen project design, appraisal, and approval capacities and systems to increase the quality of the investment portfolio and ensure timely achievement of development targets.** This reform is essential to the successful introduction of a multi-year PIP. With the demand generating factors in place, well-designed and systematically appraised investment projects are more likely to generate positive economic returns within the envisioned timeframe. To this end, guidelines governing the design, approval and revision of project documents should be revised to ensure consistency with procurement guidelines that are generally perceived as being of high standard. Restricting the financing of new projects through a stringent approval process would prevent the investment program from being overloaded and thereby ensure a better utilization of the available fiscal space.
- **Institutionalize the PIM reform agenda by establishing effective consultation and coordination mechanisms could be considered a prerequisite for successful reform.** Any reform effort requires a clear strategy, a political champion supported by a capable reform team and well-established consultation and coordination mechanisms to ensure a high level of coordination among all relevant stakeholders. To achieve this objective, establishing a dedicated PIM Reform Unit within the Programing Division merits consideration, along with a joint technical committee between the Planning Commission and the Ministry of Finance.

3.2 Consolidating Gains in Human Development

3.24 Bangladesh has had remarkable success since independence in 1971 in improving various human development indicators, including life expectancy, fertility, infant and child mortality, access and equity in education, immunization rates, and access to sanitation (Figure 3.4).

Figure 3.4: Human Development Achievements



Source: WDI. Mean Years of schooling: Barro & Lee (2013) UNESCO (2013b) HDRO estimates. Low- and lower-middle income countries: those with per-capita GNI <$1,045 and $1,046 - $4,125 respectively (2015).

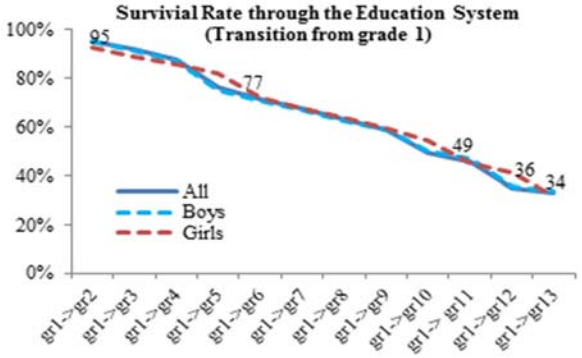
Education: Access, Quality, and Skills

3.25 **Building on Laudable Achievements:** Bangladesh's education system is large, catering to over 30m students. The country has done remarkably well in enhancing access and equity in education, with notable achievements in nearing universal access to primary education, attaining gender equity at the primary and secondary education levels well ahead of the MDG target for 2015, marked reduction in repetition and dropout rates, and reasonably high levels of completion in primary education. In 1991, the educational attainment of Bangladeshi women was among the lowest in the world (80 percent illiteracy, 33 percent secondary school enrollment). However, through massive expansion of schools, targeted stipends to bring the poorest and girls into schools, and continued investments in education, female primary school enrollment rates are now higher than those in Pakistan, Nepal, and Bhutan, and about the same as in India.

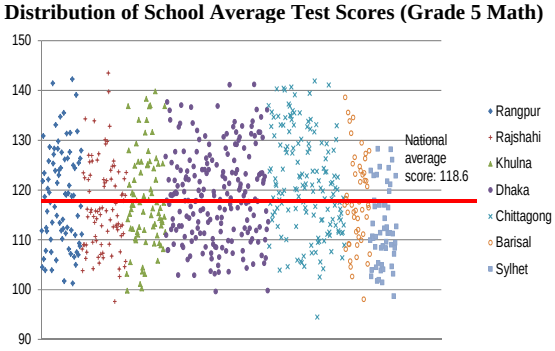
3.26 **Key challenges:** Given its remarkable success in enhancing access and equity in basic education and economic growth pattern of labor-intensive manufacturing and remittance-led growth, Bangladesh is at a crossroads. Ensuring further progress through improving access to higher education and skills development training as well as enhancing the quality of education can help propel the economy into the next phase of higher productivity-led growth, and sidestep the low wage/low productivity trap. Striving to universalize access for the remaining hard-to-reach children, to reform the examination system to improve quality of education and to ensure strong foundational skills for the labor force will go a long way to help realize these aspirations.

3.27 ***Access and Equity:*** Even though inequity in primary enrollment fell by half from 2000 to 2010, gross enrollment rates of the poor lag those of the non-poor by 6 and 31 percentage points at the primary and secondary levels respectively. Repetition and dropout rates have fallen recently, but remain high: out of 10 primary students who enter school, only about 7 - 8 students reach grade 5, and only 5 students reach grade 10 (Figure 3.5a). About 5m children of primary school age are still out of school, either because they did not enroll or dropped out early, mostly due to poverty. Children living in urban slums in particular suffer from both demand and supply-side constraints.

Figure 3.5: School Retention and Quality of Education



Source: 2009 Multiple Indicator Cluster Survey.



Source: National Student Assessment, 2011.

3.28 ***Quality:*** International experiences show that improvement in quality of education has a much larger impact on economic and social development than increases in access without increases in quality. Learning achievements continue to be quite low: a recent assessment of literacy and numeracy in grade 5 indicates that only 25 and 33 percent of students in grade 5 master Bangla and Mathematics competencies respectively. Learning inequities begin early, and continue throughout students' lifetimes. While students from poor households do worse than those from wealthier backgrounds, the study found larger performance disparities among schools rather than among students within a school (Figure 3.5b). Most quality issues are attributable to factors within the purview of policy reform—e.g. an important determinant of learning within schools is the quality of the teacher. The current teaching style of lecturing and reading textbooks rewards rote learning rather than encouraging creative thinking and problem-solving skills. Many teachers do not have much training and suffer poor morale due to low prestige and career progression opportunities.

3.29 ***Skills Development:*** Improving skills and productivity are crucial to Bangladesh's quest to accelerate economic growth and create more and better jobs in the formal sector for its expanding workforce. Yet, 88 percent of labor force is informal and has low levels of education and less than 5 percent of the current workforce has tertiary education. Labor market demand for more educated

and better skilled workers has led to rapid increase in the demand for post-secondary education (tertiary colleges, universities and technical and vocational education and training (TVET)). In 2010, about 0.5m students were enrolled in 2,800+ TVET institutions. About 70 percent (3m) of tertiary students were enrolled in 1,731 private and public colleges affiliated with the National University, while the rest study in public and private universities. The higher education system is not equipped to respond to changes in demand and quality standards in the labor market for a variety of factors including limited finance and weak collaboration with the labor market.[50] While international migration has become increasingly important for Bangladesh's economy, the vast majority of emigrant workers continue to be employed in low-skilled jobs.

3.30 **Policy Directions:** To attain universal access, the government should identify the remaining hard-to-reach primary school-age population and develop specific policies and programs to address their needs, in particular by (i) addressing the needs of children in urban slums; (ii) scaling up successful stipend schemes, and (iii) partnering with non-government organizations to expand provision of early childhood development services through public financing. Reducing repetition and dropout rates and improving transition rates will require a two-pronged approach of improved quality and relevance of education along with support for disadvantaged children.

3.31 Examination reforms will be crucial to improve quality and send a clear message about what the system values in learning: strong literacy, numeracy, and problem-solving skills. The government should consider setting national learning goals, monitoring these goals consistently, and using results of high-quality learning assessments to enhance accountability and inform policies. Articulating and consistently measuring standards of performance for service delivery by institutions and teachers will also be important, along with devolving centralized authority and promoting school-based management. Improving the quality of the teaching force (through adequate deployment, development, incentives for performance, enhanced ability to innovate, etc.) will need to be at the center of this reform. Improved coordination is crucial and could be attained through inter-ministerial and/or inter-agency task forces with clearly specified responsibilities.

3.32 The priority for Bangladesh's skills-development agenda is to develop strong foundational cognitive and non-cognitive skills, through a high quality early child development and basic education system, as well as to improve the quality and relevance of teaching-learning in higher education and TVET institutions. Promoting research and innovation in higher education institutions remains critical in ensuring the system's and its graduates' relevance in the global knowledge economy (Box 7). Smoother transition between schooling and the labor market, and use of tracer studies to check relevance of skills developed and measure progress in acquiring non-cognitive skills are also required. Support for continuous and targeted skills-building for current employees in formal and informal employment is crucial. Jobs and skills are interrelated and the direction of influence is mutual: one way to describe the relationship between them is "*Jobs need skills, pull skills, and build skills.*"

Box 7: Measuring Skills to Support Policy Analysis

The Skills Towards Employability and Productivity (STEP) program provides a set of core surveys and implementation materials to build comparable country databases on skills that can be used for country-level policy analysis. STEP consists of two survey instruments that collect information on the supply and demand for skills. Both surveys drew on similar surveys fielded in Peru, Lebanon, the United States, and other OECD countries and on extensive consultations with a panel of experts. They were developed, piloted and fine-tuned over a period of one year before being implemented in a first wave of seven countries in 2012 and a second wave of six countries in 2013.

An important aspect of the STEP surveys is the use of a multi-dimensional concept of skills that goes beyond educational attainment to capture human capital more comprehensively. Three broad types of skills are measured. ***Cognitive skills*** are defined as the "ability to understand complex ideas, to adapt effectively to the environment, to learn from experience, to engage in various forms of reasoning, to overcome obstacles by taking thought." Literacy, numeracy, and the ability to solve abstract problems are all cognitive skills. ***Socio-emotional skills,*** sometimes referred to in the literature as non-cognitive skills or soft skills, relate to traits covering multiple domains (such as social, emotional, personality, behavioral, and attitudinal). ***Job-relevant skills*** are task-related (such as computer use) and build on a combination of cognitive and socio-emotional skills.

STEP's goal is also to measure human capital stocks, that is, skill supply. All adults, whether they work or not, are therefore asked a similar set of questions to measure labor force potential as well as skills used. The STEP household survey therefore collects background information on a participating household as well as detailed information on a randomly selected individual within the household (ages 15 to 64) regarding his or her skills acquisition history, educational attainment, work status and history, family background, and health. (Under skills acquisition history, the survey gathers detailed information on the individual's field of study of all reported degrees and certificates and any participation in apprenticeships, continuing education, or training). The household survey includes three unique modules to measure different types of skills: (i) an assessment of reading literacy designed to identify levels of competence at accessing, identifying, integrating, interpreting, and evaluating information; (ii) a battery of self-reported information on personality traits and behavior (conscientiousness, extraversion, self-control, decision making, and aggressive behavior) as well as risk and time preferences; and (iii) a series of questions on task-specific skills that the respondent possesses or uses in his or her job.

On the employer's side, STEP measures both work requirements and reported skill difficulties as indicators of the demand for skills, potential skill shortages, and work performance for sampled sectors of activity. National economic well-being is the outcome of the relative quality of the levels and match between the population and employment opportunities. The employer survey gathers information from a random sample of employers on hiring, compensation, and termination and training practices, as well as enterprise productivity. The survey includes questions to identify (i) employers' skill needs and utilization; (ii) the types of skills employers consider most valuable and the hiring mechanisms; and (iii) the tools used to screen prospective job applicants. The survey uses the same skills concepts and definition as those used in the household survey, a feature intentionally designed to facilitate analysis of skills gaps and mismatches.

The simultaneous measurement of skill stocks and job demands on both household and employer surveys is designed to give some indication of the levels of skill utilization and mismatch using comparisons of parallel measures relating to persons and jobs. Thus, both the household and employer surveys contain detailed measures of required education and experience and of the required skills in reading, writing, math, problem solving, interpersonal/socio-emotional traits, technology use, and manual work required by jobs. Comparing the worker- and job-side results will give some indication of the extent of any mismatch between the skills workers possess and those demanded by employers.

Source: Gaëlle Pierre, Maria Laura Sanchez Puerta, Alexandria Valerio and Tania Rajadel *STEP Skills Measurement Surveys. Innovative Tools for Assessing Skills* . Social Protection and Labor Discussion Paper 1421, The World Bank, Washington DC.

Youth Employment: The Case for Active Labor Market Programs

3.33 The lack of basic literacy, numeracy and non-cognitive skills limit the ability of young people in the informal sector to be gainfully employed by the formal sector. A second constraint is the lack of information on available jobs, required qualification, and expected earnings. Workers often have to rely on informal network to obtain such information. Insufficient information not only incurs large search costs but also lowers matching quality due to adverse selection. Women face an

additional constraint emanating from social and cultural norms that help to maintain gender segregation in formal sector jobs. On the supply side, key constraints include insufficient demand for workers due to a mismatch between industry needs and skills of the new entrants into the labor force, and high employer costs associated with identifying the right workers based on needs.

3.34 The segmentation between skills/training programs and labor markets prevent matching of industry demands with appropriate supply of workers. Improving employability of the youth requires multiple platforms to facilitate school-to-work transition. Just as skills training needs to be closely linked with employers' demand, intermediation services are required to help with job placement. Currently there are very limited efforts in Bangladesh between industry and education or training providers to match student skills with jobs. Recent analysis suggests less than 1 percent of students find jobs through employment support provided by educational institutions, and less than 1 percent find jobs through jobs fairs. The majority of workers, including those who migrate overseas, find jobs through informal networks with little or no matching with their education or skills. These constraints suggest that increasing gainful formal sector employment among young people will involve a combination of labor market interventions traditionally found in Active Labor Market Programs (AMLPs) and the involvement of the private sector.[51]

3.35 Such interventions need to be customized to country context and needs. In the case of Bangladesh this implies having a two-pronged strategy with customized interventions to overcome barriers to entry into the domestic and overseas labor markets respectively. Apprenticeship programs (Box 8), which help to impart competency-based skills to fulfill qualifications required for specific jobs,[52] is one type of AMLPs that has the potential to promote youth employability in the domestic formal sector. The advantages of apprenticeship programs is that by combining skills training with placement, they help overcome informal asymmetries and reduce transaction costs associated with identifying the right workers. Despite legislation in place that promotes apprenticeships in enterprises with more than 50 employees via tax incentives (Chapter XVIII of the Labor Act 2006), very few enterprises appear to avail of this opportunity. Such programs are essentially offered by large firms through their own initiatives, thereby undermining the competitive edge of smaller firms that are less able to incur the costs of locating workers.

Box 8: The German Apprenticeship Model

Apprenticeships are an integral part of Germany's dual education system. Finding employment without having completed an apprenticeship is almost impossible. For some particular technical university professions, apprenticeships are often mandatory. There are 342 recognized trades (Ausbildungsberufe) where an apprenticeship can be completed in Germany. They include for example doctor's assistant, banker, dispensing optician, plumber or oven builder.

The dual system means that apprentices spend about 50-70 percent of their time in companies and the rest in formal education. Depending on the profession, they may work for three to four days a week in the company and then spend one or two days at a vocational school (Berufsschule). This is usually the case for trade and craftspeople. For other professions, usually which require more theoretical learning, the working and school times take place blockwise e.g. in a 12–18 weeks interval. These Berufsschulen have been part of the education system since the 19th century.

In 2001, two thirds of young people aged under 22 began an apprenticeship, and 78 percent of them completed it, meaning that approximately half of all young people under 22 have completed an apprenticeship. One in three companies offered apprenticeships in 2003. In 2004 the government signed a pledge with industrial unions that all companies except very small ones must take on apprentices.

3.36 Given the nascent nature of a number of industries and high worker turnover, collective apprenticeship programs may be one option to develop the kind of skilled workers industries require. For example, the leather industry in Bangladesh has developed its own apprenticeship program, the Center of Excellence for Leather (COEL), which serves as one point service center for skills development and productivity enhancement.[53] Other such industry-led apprenticeship projects could help overcome the current segmentation between the demand and supply of industry-specific skills while enhancing the employability of workers. Setting up similar initiatives will require public investments to develop a tiered system of apprenticeship focused on a range of industries spanning from semi-skilled to highly skilled professions. Bringing together businesses, educational institutions and government, practical study courses will have to be developed to allow people to combine skills training/academic knowledge from a university with practical on-the-job experience.[54] The costs of such programs will have to be shared by the government and employers.

3.37 Since the curricula are developed by both employers and educational institutions, these types of "Apprenticeship Grants Programs" (AGP) help to overcome the segmentation between the demand and supply side while having a welfare impact on the apprentices.[55] Developing a flagship AGP for Bangladesh could begin with identifying certain common skills that all industries need both at home and abroad. Lessons from such successful initiatives as COEL suggest that for AGPs to be successful, the demand for setting up a particular type of apprenticeship will depend on market demand and the willingness of employers to invest in building their own skilled workforce. This suggests that such an initiative should be based on a three-way collaboration between the government, an employers' platform (e.g. employers' federation) and education and technical training centers to develop a set of technical and degree apprenticeships to help meet demand for the top ten skills sought by the domestic labor markets.

3.38 ALMPs targeted for promoting employment in overseas markets could involve a customized skills training and migration information system to facilitate overseas job intermediation. Improving safer and more remunerative overseas migration will require providing potential migrant workers the necessary means to (i) make accessing skills easier as well as make their skills and qualifications recognizable in destination countries, and (ii) match the skill needs of the overseas employers. This requires targeting a set of job markets in a set of overseas destinations where the demand for these jobs exist. Given the education profile of the Bangladeshi labor force, in the immediate term focusing on a set of low skilled professions coupled with life skills and language training would be an appropriate start. The important aspect would be ensure that these training programs are provided by institutions with the necessary accreditation based on common competency standards that is recognized by the destination countries. Once potential migrant workers complete these training, a BMET web portal containing information on them could help to match their skills with the demand as generated through the main overseas recruitment platform, Bangladesh Association of International Recruiting Agencies (BAIRA).[56]

The Health Sector: Main Issues and Challenges

3.39 During the last few decades, Bangladesh has made remarkable progress on most health outcomes, especially maternal and child health, and is on track to achieve the MDG goals 4 (reduce child mortality) and 5 (improve maternal health). The maternal mortality ratio has declined by 40 percent since 2001, to 194 deaths per 100,000 live births in 2010. The under-five child mortality rate has declined by 29 percent since 2004, to 53 deaths per 1,000 live births in 2011 (NIPORT

2011). These achievements are the result of health policies related to immunization, oral rehydration salt therapy, and family planning, and can also be attributed to non-health policies and interventions, such as the increase in female literacy, access to microcredit, access to safe drinking water, and rural infrastructure development (Chowdhury et al. 2013).

3.40 However, health outcome gaps vary considerably by income group, plus the health system now faces new challenges due to rapid urbanization, shifts in the burden of disease, and climate change. For example, the percentage of children who are stunted among the poorest quintile (above 50 percent) is much higher than the national average. As noted earlier, the share of the poor living in urban areas has been rising rapidly. Moreover, in contrast to many other countries, health outcomes for the poor in Dhaka are worse than they are for the rural poor, especially among those living in urban slums. Changing patterns of employment also pose new challenges—for instance, the RMG work environment exposes workers to health hazards that may result in injuries, respiratory diseases, cancer, musculoskeletal disorders, and communicable diseases, since factories often house scores of women in poorly ventilated areas filled with textile dust (Saha et al. 2010).[57] Communicable diseases such as respiratory infections and tuberculosis were among the predominant causes of death in Bangladesh in 2010. However, the country is undergoing a rapid demographic and epidemiological transition, with an increasing adult and elderly population and the associated increase in chronic or non-communicable diseases, including injuries (El-Saharty 2013). Six of the top 12 causes of death in 2010 were chronic diseases,[58] and they are on the rise.

3.41 Total public and private health expenditure, as a share of GDP, is one of the lowest in the region. Bangladesh spent 3.5 percent of its GDP on health in 2012, much lower than the average for low-income countries (5 percent). Government health expenditure comprised just one-third of total expenditures and has been stagnant over the past decade, at about 0.9 percent. Using the rating system proposed by Ajay and Cashin (2010), Table 3.1 presents an overview of likely prospects for increasing fiscal space for health over the next 3-5 years.[59]Out-of-pocket (OOP) expenditure in Bangladesh are about three times higher than the 20 percent limit suggested by World Health Report 2010 to ensure financial protection. Most of this private spending finances the provision of care by private providers, with the bulk of spending going to private pharmacies and medicine retailers, and the rest going to a diverse range of medical providers, including traditional birth attendants, unqualified medical practitioners, physicians' clinics, and private hospitals.

Table 3.1: Forecast of Potential Sources of Fiscal Space for Health: 2015 – 2019

Macroeconomic Conditions	GDP growth projected to increase to 7 percent in 2019. Counterfactual scenario projects a significant increase in public resources for health in absolute terms, but a reduction in relative terms.	Moderate
Fiscal Policy	Public revenue as a percent of GDP is assumed to grow, as tax collection efficiency improves, by 0.5 percent increase per year.	Limited/ Moderate
Re-prioritization of health in the budget	The government's allocation to the health sector has been about 4.3 percent of the public budget and is expected to remain at that level.	Limited
Efficiency gains via "low-hanging fruit"	Creating fiscal space through efficiency gains in the delivery system via low-hanging fruit is limited. Overall, the absenteeism rate is low, procurement of drugs and maintenance of equipment is above 60 percent, and occupancy rates at hospitals are high.	Limited
Efficiency gains from targeting and pooling	Targeting health interventions to bottom 40 percent may generate efficiency gains if resources are redirected based on cost-effectiveness. Allocative formulas/payment models based on need will be required.	Moderate
	Fiscal space may further be created by encouraging prepayment/insurance schemes for the population above the poverty line, for example, the top quintiles and the formal employed sector.	Moderate

Source: World Bank (forthcoming) *Fiscal Space for Health in Bangladesh.*

3.42 The background paper on health strategy for the preparation of the Seventh FYP highlights the government's vision to achieve universal health coverage as part of the upcoming Sustainable Development Goals, and outlines the Ministry of Health and Family Welfare's mission to promote and sustain health and nutrition, with containment of the population. In a paper prepared for a special issue of The Lancet on innovation for Universal Health Coverage, a number of public health experts have called for "a second generation of health-system innovations" in Bangladesh "to develop a multipronged strategic approach that: responds to existing health-care needs in a way that assures affordable, equitable, high-quality health care from a pluralistic health system; anticipates health-care needs in period of rapid health and social transformation; and addresses underlying structural issues that otherwise might hamper progress" (Box 9).[60]

Box 9: Innovation for Universal Health Coverage

A pragmatic reform agenda for achieving universal health coverage in Bangladesh should include development of a long-term national human resources policy and action plan, establishment of a national insurance system, building of an interoperable electronic health information system, investment to strengthen the capacity of the Ministry of Health and Family Welfare, and creation of a supra-ministerial council on health. Greater political, financial, and technical investment to implement this reform agenda offers the prospect of a stronger, more resilient, sustainable, and equitable health system.

Action 1: Develop a national human resources policy and action plan	Encourage investment in training institutes for non-physician health-care workers (midwives, nurses, and paramedics) and increase their deployment Reorganize tasks and responsibilities to make more effective use of nurses and community health workers, especially in health promotion and prevention services Implement incentives to rectify health workforce shortages and target hard-to-reach areas and disadvantaged populations—e.g., link postgraduate admission with service in rural areas, ensure sufficient financial and social support, set up training facilities in poorly served areas, and encourage high-quality private-sector provision
Action 2: Establish a national insurance system	Raise public expenditure on health to 2% of the gross domestic product from the present 1% Enable large-scale pilots of health insurance schemes in the NGO sector Introduce insurance-based prepayment for poor people (up to 100% subsidized) and formal-sector workers (mandatory, including the ready-made garments sector) and offer non-poor people the opportunity to enroll Introduce user fees in public and non-governmental organization (NGO)-run secondary and tertiary facilities to incentivize participation in the national insurance scheme Establish a strong regulatory body for health insurance that is independent of the Ministry of Health and Family Welfare and also acts as a purchaser of health services Continue government purchasing of non-existent services by contracting out to the private or NGO sector Develop policies and regulations to enable public-sector facilities to compete with private-sector providers within the health insurance system in supplying high-quality secondary and tertiary services Create an independent body for mandatory licensing and accreditation of all facilities in the public, NGO, and private sectors (incl. diagnostic centers and pharmacies), and where appropriate, link with mentoring and supervision system
Action 3: Build and interoperable electronic health information system	Introduce electronic individual medical records Strengthen and ensure interoperability of medical information systems in the public and NGO sectors, and encourage use in the private sector Bring the entire country under an effective vital statistics registration system based pm lessons from existing projects Provide Ministry of Health Family Welfare and district and sub-district managers with geographical information system-based applications to track and monitor service provision and ensure effective coverage Establish a personnel management system to ensure transparency and efficiency in human resources management
Action 4: Invest to strengthen the capacity of the Ministry of Health and Family Welfare	Develop and implement a national health package that includes highly effective and cost-effective interventions as the core of the shift to comprehensive health care Strengthen quality and coverage of facility services with pay-for-performance systems, task shifting, and contracting out Establish effective regulatory mechanisms under the Ministry of Health and Family Welfare to ensure accountability, coordination, and quality of health service provision
Action 5: Create a supra-ministerial council on health	Clarify constitutional obligations of the state with respect to health care (e.g. what services should be available for free) Promote research and innovation around effective intersectoral action Create intersectoral goals, policies, and laws that promote complementary health actions needed in different sectors Undertake periodic reviews of budgetary needs to achieve national health goals

Source: Alayne M Adams, Tanvir Ahmed, Shams El Arifeen, Timothy G Evans, Tanvir Huda, Laura Reichenbach, for the Bangladesh Lancet Team *Innovation for universal health coverage in Bangladesh: a call to action.* The five actions above are proposed for implementation over the next 1-5 years.

Towards a multi-sectoral approach to improving nutrition security

3.43 Given the significant economic costs of under-nutrition and its potential to slow development, the government should take urgent action to raise nutrition levels and support related investments. The prevalence of stunting and underweight in Bangladesh has fallen over the last two decades, and it now has lower rates of stunting than several of its neighbors (India, Nepal, Bhutan, Pakistan, and Afghanistan). Nevertheless, the stunting rate is still one of the highest in the world, and MDG nutrition targets will likely stay out of reach under current practices and policies. About 43 percent of children under the age of 5 are stunted (low height-for-age); 41 percent are underweight (low weight-for-age); and 17 percent are wasted (low weight-for-height). In addition, one in five infants is born with low birth weight—i.e. below 2.5 kg (UNICEF, 2009). Even in the richest households, over one quarter of children are undernourished (2007 DHS). Investing in nutrition is the "best buy" for economic development. There is ample evidence that nutrition interventions, particularly targeting pre-school age children, rank amongst the top investment priorities to confront long-term development challenges (Copenhagen Consensus, 2008, 2012).

3.44 Vitamin and mineral deficiencies impact wellbeing and are widespread in Bangladesh, but have simple remedies. For instance, one-fifth of preschool aged children and one-quarter of pregnant women are deficient in vitamin A, which can be eliminated through supplementation and dietary diversification. Similarly, 47 percent of preschool aged children and pregnant women are anemic; providing iron-folic acid supplementation of pregnant women and multiple micronutrient supplements to infants and young children are effective strategies to improve the iron status of these vulnerable subgroups. While around 84 percent of households in Bangladesh now consume iodized salt, over half a million infants remain unprotected from iodine deficiency disorders.

3.45 Key factors contributing to under-nutrition include:

- **Low birth weight:** Approximately 40 percent of babies are born with a low birth weight and are more likely to continue to be malnourished during childhood.
- **Poor water and sanitation:** In Bangladesh, poor water and sanitation affects personal hygiene, latrine use, insufficient hand-washing, the inability to keep food clean, and unsafe refuse disposal. These all increase the burden of disease.
- **Low status of women** is a central factor in malnutrition. Women generally have less freedom to make decisions about what, how, and when to feed their children. Social values about independent behavior and social interactions also compromise the quality of childcare.
- **Dietary quality:** Though Bangladesh is now self-sufficient in rice, improvements in food availability have not translated into positive effects on maternal health and child nutrition. Low dietary diversity and lack of equitable distribution of food has led to vitamin and mineral deficiencies and under-nutrition.
- **Sub-optimal feeding practices:** Fewer than half of all newborns receive breast milk within one hour of birth; less than half of all infants under six months are exclusively breastfed. During the important transition period between six and nine months of age, one-quarter of infants are not fed appropriately with both breast milk and other solid foods.
- **High disease burden:** Close to 1 in 5 child deaths are due to diarrhea. Under-nutrition increases the risk of falling sick. Moreover, undernourished children who fall sick are much more likely to die from illness than well-nourished children.

3.46 The economic costs of under-nutrition include direct costs such as the increased burden on the health care system, and the indirect costs of lost productivity. Children who are undernourished between conception and age two are at high risk for impaired cognitive development, and are more likely to die before the age of 5, which can adversely affect the country's productivity and growth. Childhood anemia alone is associated with a 2.5 percent drop in adult wages (Horton, S. and Ross, J., 2003). Bangladesh loses over US$700 million annually to vitamin and mineral deficiencies. Scaling up core micronutrient interventions would cost less than US$65 million per year. Returns on investment are as high as 8–30 times the costs (Horton, S. et al, 2009).

3.47 **Nutrition is a multisectoral problem with multisectoral solutions.** The immediate causes of high malnutrition are related to food and nutrient intake and to health. The underlying causes are embedded in the household and community level context in which nutrition occurs. Issues such as agricultural practices and climate change, lack of access to and availability of clean water and sanitation, health services, girl's education and gender issues, social protection, and social safety nets further impact these underlying causes. The basic causes of under-nutrition are rooted in institutional, political, and economic issues. Direct actions to address the immediate causes of under-nutrition can be further enhanced by intervening into some of the underlying causes. For example, in addition to supporting improved infant and young child feeding practices, addressing gender issues through health, agriculture or education programs can have a powerful impact in preventing under-nutrition, by reducing women's workloads and allowing them more time for child care. Similarly, in addition to providing micronutrient supplements to address vitamin and mineral deficiencies, improving food security, and enhancing hygiene and environmental issues can improve nutrition outcomes among children.

3.48 **Policy recommendations to scale up nutrition:** While line ministries need to implement their own programs, there needs to be joint, or at least well-coordinated, evidence-based planning to achieve complementary nutrition interventions aimed at particular geographic areas.

- Establish and resource a high-level mechanism (i.e. above line ministries) to coordinate, plan and monitor progress in all nutrition programming.
- Develop a multi-sector National Nutrition Strategy and a fully costed Plan of Action for Nutrition with a common results framework.
- Scale-up well-designed, convergent programs by focusing nutrition-specific and nutrition-sensitive interventions, which are complementary across sectors, for targeted geographical areas (lessons from Peru and Brazil).
- Mainstream nutrition-sensitive interventions in the agriculture sector (including livestock and fisheries) and in the social protection sector (cash transfers and safety net programs).

Improved social protection to meet changing needs

3.49 A high share of poor households continue to rely on agricultural labor or petty informal sector activities for their livelihood, and remain vulnerable to seasonal fluctuations in output and other such risks. As workers move to more formal jobs in the expanding manufacturing and services sectors, they will gradually be less vulnerable to such risks— higher wage incomes and earnings means greater ability to save and build assets to serve as a safety cushion—but they will face new challenges: jobs in the non-agricultural sector, especially those in the private sector, are more vulnerable to economic downturns. Bangladesh will need a stronger social protection system

designed to meet these new challenges. An important policy challenge will be to extend the coverage of social assistance programs, which are presently only in rural areas, to the urban poor. Planning for fiscally responsible pension reform to support an aging population should also be accommodated in the design of a comprehensive social protection system (see Annex).

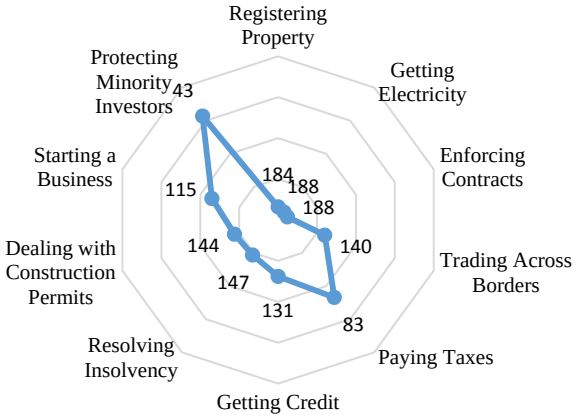
3.3 Supportive Institutions and Business Environment for Private Sector-led Growth

3.50 **Policy reforms in Bangladesh have helped unleash private-sector initiatives in several sectors over the past three decades.** These reforms toward creating a more market-based economy had a varied pace of implementation across sectors and over different periods. The experiment with the state-controlled economy after independence was reversed from the mid-1970s through gradual deregulation and liberalization to foster a process of private sector-led development. Bangladesh embarked on market-oriented liberalizing policy reforms towards the mid-1980s, with a more comprehensive reform program introduced in the early 1990s, coinciding with the transition to parliamentary democracy from semi-autocratic rule. Successive governments since then have on balance built on these reforms, representing a significant departure from the historical stance that favored government ownership and market intervention.

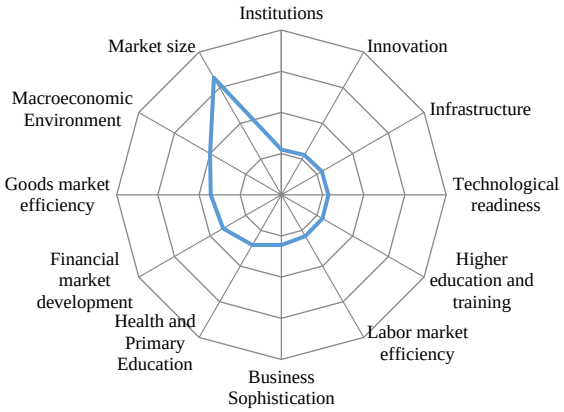
3.51 **Looking ahead, accelerating economic progress will require going into a more complicated phase of reforms that address a whole range of factors adversely affecting investment incentives and production efficiency.** As an illustration, despite several recent reform initiatives, Bangladesh continues to secure lower positions in Doing Business rankings. In 2015, Bangladesh has not only slipped 3 positions (ranking 173 out of 189 countries) compared to previous year, it also recorded negative progress in terms of Distance to Frontier. Its overall DB performance in Distance to Frontier (46.84) is lower than India (53.97), Pakistan (56.64), Sri Lanka (61.36) and South Asian Regional Average (54.56). Many Bangladeshi institutions are not adequately equipped to address key challenges the country faces (see Annex) as it fast approaches middle income status, as they were established when it was at much lower levels of income. Stronger institutions are needed to manage the country's larger and more complex economy.

Figure 3.6: Significant Scope for Further Improvements in the Business Environment

Bangladesh: Doing Business 2015



Bangladesh: Global Competiveness Index

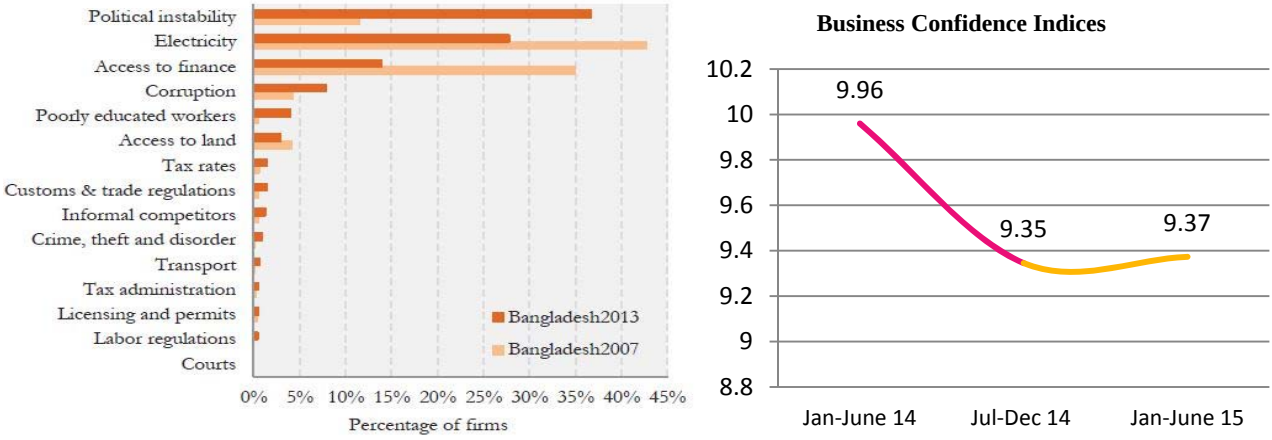


Source: WBG Doing Business; Global Competitiveness report 2014-15, World Economic Forum.

3.52 **Bangladesh ranked 110 out of 148 countries in the Global Competitiveness Report**, and 131 out of 178 countries in the Index of Economic Freedom for being 'mostly unfree' and lagging in effective rule of law and protection of property rights. According to GCI, Bangladesh's competitive strengths of a large market, stable macro-economy, and efficient and improving markets for goods, finance and labor, coupled with improving health and education – are all drivers or preconditions for investment growth. However, the growth potential of investment is constrained by the weaknesses – weak institutions, poor infrastructure, and a difficult environment for technology and innovation – represented by the upper right quadrant of the graph. While regulatory environment is important, it is also imperative to take a deeper look into these enablers which all underscore the need for Bangladesh to improve a number of factors before it takes off.

3.53 **A comparative analysis of the Bangladesh Enterprise Surveys in 2007 and 2013 reveal that political instability has secured the position of top-most concern of businesses.** Getting electricity still remains the key obstacle, followed by access to finance and corruption in obtaining licenses and utility connections. The Business Confidence Survey (BCS) by the private sector led platform BUILD reports a decline in business confidence over the past year. The decline in business confidence is again associated with political instability leading to higher cost of transportation and dip in investments by private sector. This has resulted in poor perception of businesses about legal and business environment. While private sector perceived access to finance in a more favorable way compared to previous period, businesses eventually changed their investment decisions though businesses seemed to have an improved perception about trade facilitation and taxation. This largely stems from a number of reforms in the recent years such as improved/electronic tax payer services, a number of tax policy improvements in both in direct tax and VAT, and introduction of streamlined trade clearance procedures such ASYCUDA world.

Figure 3.7: Top-Most Concerns of Businesses and Recent Trends in Business Confidence

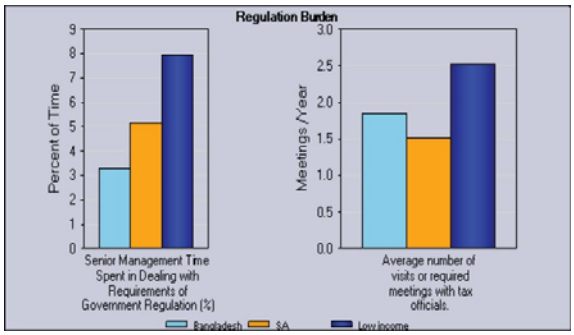


Source: Bangladesh Enterprise Surveys; Business Confidence Survey 2014, BUILD.

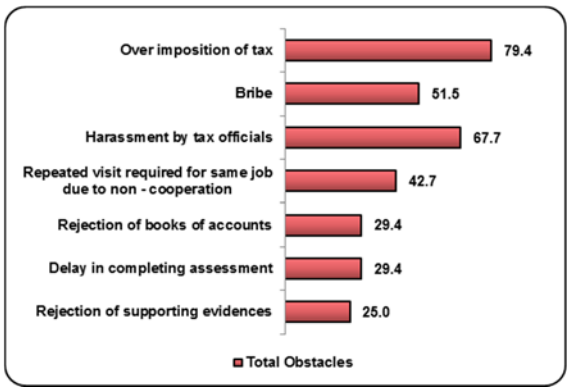
3.54 **Excessive regulations and weakness in institutional frameworks affect business environment.** Weaknesses related to Institutional framework are reflected in outdated and at-times conflicting rules, laws and regulations that govern the interfaces between government and businesses. The complexity of laws and regulations is evident in BOI's online inventory of business law, which lists 56 laws relevant to the private sector. Of these, 26 were enacted before the year 2000 – 3 date back to the 19th century, and 12 predate the independence of Bangladesh. Even laws

enacted in the 1990s and 2000s are minor updates – the Companies Act was amended in 1994 to include a few new provisions related to audits, but the fundamental sections of the law remain from the original Act from 1913. New laws also remain only partially implemented. For example, the Competition Act was enacted in 2012 – however, this Act, which impacts anti-competitive practices and therefore directly relates to consumer wellbeing, remains unimplemented. This outdated legal framework leads directly to a complex licensing environment for business.

3.55 The weak institutional framework impacts not only business to government interfaces, by increasing the time and cost burdens of regulatory compliance, but also has an indirect impact on business operations. Due to the high time and cost burdens of compliance, many firms tend to remain informal, and these informal firms pose a challenge to the business practices of the formal private sector – in fact, practices of informal firms are the 9th top constraint to business as measured by the WBG 2013 Enterprise Survey. In addition, informal businesses result in many significant economic and social costs for a wide range of economic actors. An easier compliance environment and regulatory incentives are needed to encourage greater rate of formal enterprise formation.



3.56 **Paying tax in Bangladesh is plagued with numerous policy and administrative complexities.** *Doing Business 2015* reports that, on average, firms in Bangladesh make 21 tax payments a year, spend 302 hours a year filing, preparing and paying taxes and pay total taxes amounting to 32.5 percent of profits. Globally, Bangladesh stands at 83 in the ranking of 189 economies on the ease of paying taxes and performs better (73.98) on distance to frontier as compared to India (55.53), Sri Lanka (55) and South Asia Regional average (63.4). This is also reflected in Business Confidence Survey, 2015 where the firms have expressed their confidence with a hope of simplified taxation rates and reform in Value Added Tax system. Recently the Government of Bangladesh has introduced electronic tax registration system, which has made tax registration possible in less than 1 day and at no cost. This has further impacted the starting business indicator of Doing Business, where firms can register faster than before due to automated tax registration system. Nevertheless, the legal status of firms and the Tax Perception and Compliance Cost Survey, 2012 (WBG) validate the fact that there would have further rooms for investment and growth and more firms would have become formal enterprises if tax regime was simplified.



3.57 **Emerging sectors get the brunt of excessive regulations and "curse of the innovator".** Institutional frameworks are generally weak for the private sector as a whole, with problems more pronounced at the sector-specific level. Different sectors face differing regulatory burdens, which further encourage informality; a few sectors with powerful voice such as RMG have managed to advocate their way into a simpler regulatory environment, many other sectors and their representative associations do not have access to the knowledge of best practices, experience or ability to identify/advocate reforms to their regulatory environments. Uneven and non-coordinated regulations hamper not only domestic market growth, but also impede export market expansion for several 'next to RMG' sectors. In addition, there is a "curse of the innovator": innovative industries first suffer not only from the absence of a clear regulatory framework under which they are governed, but instead are subject to motley of other sectors' frameworks when they start operations. Once they start demonstrating profit and scaling up, these sectors again come under the microscope of the regulator, who often seek to develop new regulations to guide their operations.

3.58 **One of the major infrastructural constraints faced by investors is access to land.** The complicated process of registering purchased land requires an extensive overhaul of the land records management processes within the government. The absence of land banks means that investment promotion agencies do not have accurate records or information on available chunks of land that could be used for commercial/industrial purposes. The Government addressed this issue by establishing economic zones, starting with Export Processing Zones (EPZs), followed by Industrial Estates under the Bangladesh Small and Cottage Industries Corporation (BSCIC) and recently by Special Economic Zones (SEZs). However, the productive EPZs are already full and have long waiting lists. On the other hand BSCIC estates were established due to political considerations instead of feasibility studies, and the vast majority lies empty with a wealth of serviced industrial land that investors cannot access. Finally, the difficulty in procuring sufficient swathes of land for SEZs means that it is often difficult to package SEZs for investors to develop and operate. Land allocation also has a societal implication: because of the growing population and its food requirements, agricultural land cannot be sacrificed for industry. Therefore, there is no alternative to providing serviced industrial land to ensure investment can take place – the challenge lies in identifying the land parcels and allocating them effectively.

3.59 **Poor enforcement of contracts bundled with higher regulatory compliance cost and issues with electricity shuns away FDI.** Bangladesh has a burdensome commercial court litigation process that most businesses find frustrating, costly and a key impediment to business operations. According to DB 2015, on average it takes 1,442 days to enforce a contract and the financial cost of enforcement is as high as 67 percent of the claim. As compared with this, it takes only 400 days in Vietnam and 453 days in China to enforce a contract; the financial cost is 29 and 16 percent respectively. The performance gap between Bangladesh and the best performer is commensurately much larger: 150 days to resolve a conflict involving only 9 percent of the cost of claim. The high transaction costs of compliance with the regulatory regime in these three areas are a fundamental reason for the very low ease of doing business ranking and the relatively low inflow of FDI in Bangladesh. Bangladesh amended the Code of Civil Procedure (CPC) back in September 2012 where mediation was made mandatory for all civil cases including commercial cases, but to operationalize the concept an administering mediation rule is required. Successful implementation of the court-annexed mediation would also require building necessary capacity of the judiciary and creating required pool of ADR service providers.

3.60 **An area of particular concern in Bangladesh relates to current scenario regarding debt resolution and business exit.** IMF data on aggregate non-performing loans and Doing Business recovery rates illustrate that loan recovery is limited and value destruction is high. Moreover, in light of the overburdened courts, Doing Business data also demonstrates that it takes over four times longer to close a business in Bangladesh than it does on average in OECD countries. This means that it takes years for distressed businesses to fully exit the market, and for creditors to be repaid. Methods for debt recovery that are out-of-court therefore provide potentially faster and more cost-effective alternatives, something that is particularly essential for SMEs that cannot afford overly bureaucratic and financially onerous procedures.

3.61 **Weakness in institutional capacity undermines sustainability of reforms and makes interoperability a concept yet to be fully materialized.** Institutional capacity failures manifest themselves in various ways. On one hand, the government's capacity to engage the private sector, understand their constraints and take steps to remove these constraints is limited not only by the presence of mistrust between government and business, but also by the inability of the private sector firms to elucidate their problems and advocate effectively for their needs. Weak capacities manifest themselves in various other ways. Coordination failures exist within the government when implementing complex multi-agency reforms. These can prolong the time required to implement reforms, but also can derail or mitigate reform efforts altogether. Poor implementation capacities also mean that even the best of reform intentions can get derailed – without strategic diagnostic and implementation support, reform efforts can result in incomplete or ineffective reforms.

3.62 **Recently, many Government agencies have taken steps to simplify, streamline and automate a variety of G2B processes;** the current Government's Digital Bangladesh initiative provided a significant impetus towards these efforts. However, a lack of process reengineering knowledge within the government may mean that automation of business processes results in the current process moving to a digital form, thereby not removing the opportunities for rent-seeking but more importantly meaning that the private sector does not experience the benefits of reform. An example of such a reform is the automation of the Factory Registration process – although the application process was moved online, the submission form did not function properly – as a result, all users had to revert to the original offline system, which itself was fraught with corruption.

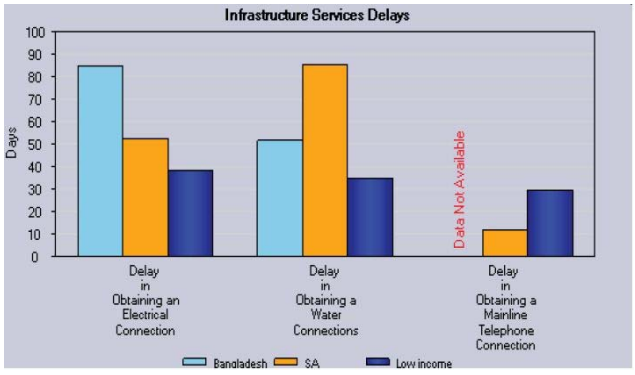
3.63 Finally, **capacities to attract strategic investments remain poor**. The Board of Investment, established originally as an Investment Promotion Agency, focuses most of its effort on regulation, meaning that identifying priority sectors, designing a shelf of projects, targeting priority investors and converting investor interest into actual investment is very poor.

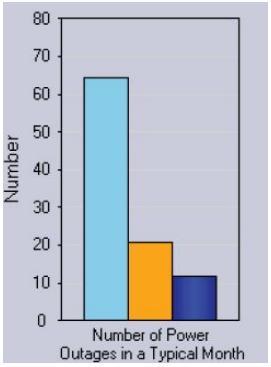
3.64 **Regulatory enforcement remains a major hurdle making implementation of laws and regulations challenging.** As demonstrated by the recent tragedies in the garments sector, such poor enforcement can have a significant impact on not just business and investor perceptions, but more importantly on labor and environmental standards. This challenge is exacerbated by an unclear and uncertain inspections regime. The current regime does not comply with the principles of risk-based inspections and therefore focuses not on actual risk posed on society but rather on the convenience of inspectors. As a result inspections become tools for rent-seeking, creating regulatory burdens on business and delivering negative impacts on society, citizen and business. Recent accidents not only cost the nation invaluable human lives, but also endanger competitiveness and access to the

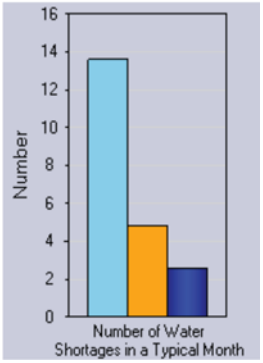
important US and Europe markets, foreign investment into the sector and continuity of facilities such as GSP, which has already been withdrawn by the US for certain products.

3.65 **Trading across borders is burdened with high cost and time for trade.** According to Doing Business report, it took about 28.3 days to export (costing USD 1281) and 33.6 days to import (costing USD 1515 per container) considering time required for document preparation, customs and port processes. In contrast, the best performers could complete the processes in 6 days and 4 days respectively for export and import with their containers costing around USD 400. A detailed diagnosis (T&C, WBG 2014) of Chittagong Port indicates that it takes about 11 days 9 hours and 45 minutes from the time the vessel arrives to the time the imported good is released. Similarly, it takes 4 days 22 hours and 38 minutes from the time the cargo reaches the port to the time it is released for export and loading on the ship. A significant amount of time is taken in dealing with other government agencies. Typically, these delays arise from obtaining relevant certifications, for example SPS, TBT and other certifications, rules of origin, valuation, etc. These certification processes can benefit from process simplification and automation, to conform to relevant agreements or international best practices. These delays impede Bangladesh from participating effectively in global value chains. The government has recently rolled out ASYCUDA World, an efficient automated system for customs assessments, which has resulted in some improvement. However, significant improvement will require introducing National Single Window, and more streamlined trade related regulatory procedures.

3.66 Infrastructural constraints are rooted in absence of strategic planning and investment along with conducive policies for private sector participation. Infrastructure remains critical in competitiveness of Bangladesh. While getting electricity has its unique issues, other infrastructure have their due share of problems. The following graph from the Enterprise Survey captures the delays in obtaining infrastructure services in Bangladesh as compared to South Asian and low

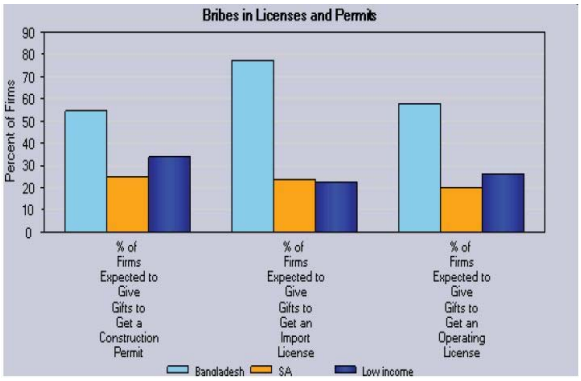






income countries. The number of outages and shortage of water supply per months are also serious obstacle for businesses in contrast with other South Asian and low income countries.

3.67 **The high hidden costs remain a major hindrance to doing business.** Bangladesh ranked 139 out of 140 countries on irregular payments and bribes in the Global Competitiveness Index rankings 2015-16. Around 60 percent of respondents in the 2013 BES indicated that an informal gift or payment was requested when obtaining an operating license. Similarly, almost 50 percent of firms experienced at least one bribe payment request among six possible regulatory or utility transactions. The fact that despite automation of export and import registration, the concerned authority wants to keep the process manual can be easily associated with 77 percent of firms reporting a bribe solicitation when obtaining an import license which is the highest percentage amongst all countries.



4. FIVE POTENTIALLY TRANSFORMATIVE PRIORITY AREAS

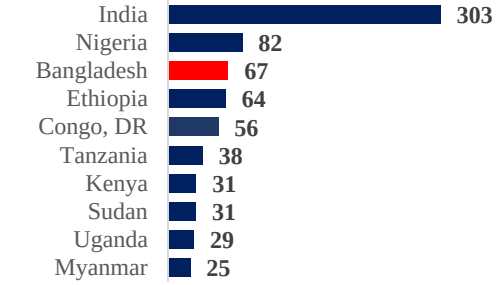
4.1 The SCD identifies five key areas—(i) energy sector, (ii) inland connectivity and logistics, (iii) regional and global integration, (iv) urbanization, and (v) improved delta management—where concerted efforts by the government and other stakeholders would yield the highest payoffs through accelerated job creation in the more dynamic off-farm and urban manufacturing and services sub-sectors of the economy. Broad consensus already prevails among key stakeholders in Bangladesh on the importance of each of these areas, as evidenced, for instance, by the high priority accorded to them in the Sixth FYP. This chapter goes beyond presenting just a diagnostic per-se, and also includes a number of recommendations and suggestions on how best to tackle these challenges.

4.1 The Energy Sector

4.2 **Numerous studies in Bangladesh have clearly established how the availability of electricity boosts growth, reduce poverty, and improve living conditions** (Khandker et al. 2012, 2013, and 2014; and Barkat et al., 2002). Access to electricity increases economic development opportunities through improved lighting, permits the use of household appliances, and, for industries and agriculture, increases productivity by allowing the use of electric tools, machinery, and grid-powered irrigation. A 2012 study showed that access to electricity increased rural households' incomes by as much as 21 percent, resulting in a corresponding drop in the poverty rate of about 13 percentage points in Bangladesh over a nine year period. A 2009 study showed that gross income of electrified commercial units in rural areas (shops, small businesses) increased 2.8 times between 2005 and 2009 compared with little change in non-electrified commercial units. A positive impact has also been found on women's mobility, employment, and participation in decision-making processes in Bangladesh (Barakat et al., 2002). A 2005 evaluation of the impact of grid electrification has shown that increased access to electricity in rural areas has increased income opportunities and enabled better education, particularly for females, and increased women's social awareness and sense of security.

4.3 **Access to electricity in Bangladesh was only around 60 percent in 2014, and per-capita electricity consumption of 294 kWh per year is one of the lowest in the world.** While access in urban areas is close to complete coverage, only about 42 percent of rural households have access to electricity, leaving 13m rural households without power. Industry and the commercial sector accounted for almost half of power consumption in FY13, while agriculture accounted for a relatively small share of electricity consumption (3 percent). Hence, the availability of power and the quality of supply largely impact industry and the commercial sector, which are also the sectors responsible for the bulk of value-added for the economy.

Figure 4.1: Population Without Electricity (mln)



Source: International Energy Agency

4.4 **The availability and reliability of power supply is a key concern for businesses.** Of the 15 areas of the business environment, firms in Bangladesh rated electricity second highest as a constraint to their operations after political instability -- ahead of finance and corruption. In fact, 28 percent of firms surveyed consider electricity their top obstacle; and 52 percent identify

electricity as a major constraint to doing business.[61] In the latest Doing Business report (2014) prepared by the World Bank, Bangladesh was ranked the lowest out of 189 economies on the "Getting Electricity" indicator. Firms in the country face ten times as many outages in a typical month as the average for all countries for which Enterprise Survey data are available and five times as many as the average for low income countries. Bangladeshi manufacturing firms and service providers reported that they experienced 68 outages per month in 2013 with an average duration of one hour per outage, implying that businesses on average suffered from power outages for 70 hours per month or 840 hours per year.

4.5 **Back up generation imposes a significant cost.** Firms report significant output losses due to inadequate electricity supply: in 2013 manufacturers and the service sector reported losses of 3.8 and 3.5 percent of annual sales respectively. Consequently, most Bangladeshi firms invest in back-up generation: 63 percent own or share a generator. This mitigates some of the actual impact of power outages on output, but the additional expense impacts the firms' cost of production. The cost of electricity generated using diesel or fuel oil is higher than that of electricity generated from imported coal or gas fired plants and this cost could be avoided had planned grid-connected capacity come online. Investment in Liquefied Natural Gas (LNG) or imported coal-based grid-connected electricity generation to replace the back-up generation requirement of manufacturers and service providers could potentially result in US$135 -US$190 million in economy-wide savings.[62] Data from the World Bank Enterprise Survey of 2013 indicate that outages resulted in an output loss of nearly 3 percent of GDP in Bangladesh that year. A rough back-of-the-envelope calculation indicates that outages resulted in output losses of US$ 4,300 million and unemployment of about 1.4 million people.

Despite a significant increase in power generation capacity in the past 5 years, the gap between demand for power and the available supply is growing.

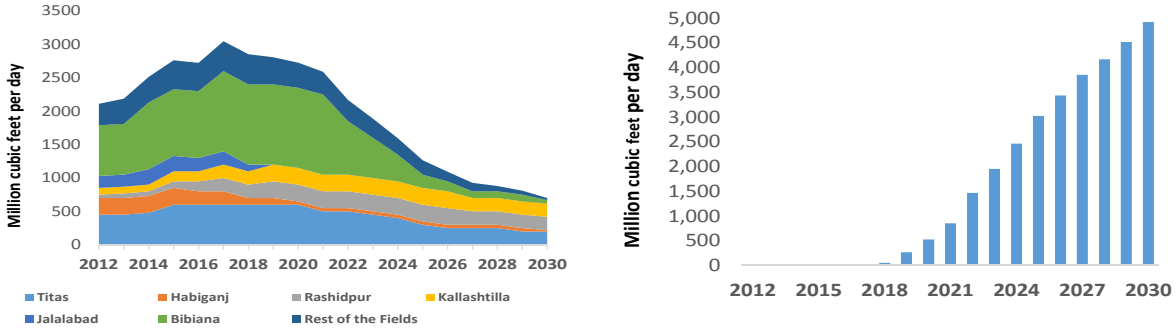
4.6 **Generation capacity has doubled since 2009 and both availability of electricity and the number of consumers served have grown steadily over the last decade.** Generation capacity grew from approximately 5 giga watts (GW) in 2009/2010 to about 10.6 GW in late 2014. A significant part of this increase came from short term contracts with 'rental' power plants as well as the coming on-line of investments in generation capacity made early in the decade. Power sales to rural consumers have grown by about 11.7 percent annually over the last ten years with an average of 425,000 new consumers per annum getting access to the grid over the last three years alone. A large reduction in system losses has contributed to this, with transmission and distribution losses going down from 28 percent in 2002 to 14 percent in 2013.

4.7 **However, the country continues to face a significant shortage of power.** In FY13, there was a shortfall in peak capacity of 22 percent and 13 percent in terms of meeting non-peak demand – the highest level of demand served in 2013 was only 6,675 MW. Energy requirements are projected to rise nearly five-fold to over 190 tera watt hours (TWh) by 2030 from the 2013 level as efforts to increase access to grid electricity (presently only 53 percent of the population) bear fruit and in view of 6 percent per annum projected economic growth. This means Bangladesh would need nearly 30 GW of reliable and efficient base-load generation capacity by 2030.

4.8 **Electricity supply is constrained for several reasons, the most important of which being limited investment in new base-load generation capacity and inadequate fuel supply.** Many power plants are decades old and operate below their rated capacity due to inadequate

attention to operations and maintenance, and with reduced output of electricity per unit of fuel. Efficient, combined-cycle gas power plants make up only 2.4 GW of the approximately 7 GW of gas–fired capacity. The average efficiency of the aging gas generation fleet is 34 percent, well below the 50-60 percent efficiency of new build plants. Historically, natural gas accounted for 70 to 90 percent of power generation in Bangladesh since it had relatively abundant onshore gas reserves. World Bank estimates suggest that domestic production will peak at 3,000 mmcfd in 2017 and then begin to decline. Currently operating fields will not be able to meet existing demand let alone supply sufficient fuel to sustain the 10 percent growth in power demand seen between 2006 and 2011. Even today, many plants do not operate at full load due to a shortage of gas; around 1.5 GW of gas-fired capacity cannot run to its full dispatch potential.

Figure 4.2: Declining Domestic Gas Production and Projected Shortage



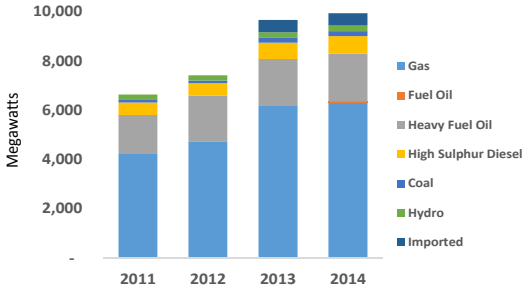
Gas Production from Operating Fields **Projected Gas Shortage**

Source: Consulting Services for Preparation of Implementation and Financing Plan for Gas Sector Development, Dorsch Consult (India) Private Limited 2012. World Bank Estimate

4.9 **Short-term solutions for power supply have been unsustainable.** As many of the large Independent Power Plants that were contracted since 2008/09 have not yet been commissioned and many have been delayed in reaching financial closure, as an interim measure, the government signed 3-5 year contracts with private suppliers for 2,300 MW of generation capacity in diesel or furnace-oil fired 'rental' plants. While these plants came on line quite rapidly, liquid-fuel based power generation is much more expensive than that generated by large coal or gas fired plants. This has pushed up the average cost of power produced, from which the government has tried to protect consumers to some extent at a large fiscal cost. Though these were supposed to be short-term plants, the contracts for all existing rental plants were renewed in late 2014 for another 3-5 years as the large base load plants are yet to come into operation.

4.10 **Gas is critical for the power sector since it fuels 70 percent of current generation.** Looking ahead and noting that despite the lack of substantial reserves natural gas consumption accounts for 56 percent of total energy supply, gas will remain an important element of the fuel mix in the foreseeable future, initially to fuel the base-load capacity that would otherwise be stranded and later to fuel peaking plants. In the absence of domestic gas, the country will need to import LNG and invest in the necessary infrastructure for

Figure 4.3: Power Generation Capacity



Source: Power Development Board (Der-rated year-end)

imports while continuing to depend on the supposedly temporary expedient of liquid fuel rental plants in the short term. This is also an opportunity to re-think gas pricing policies and improve incentives for investment in exploration and production of domestic gas as well as plan for an accelerated diversification of sources of power supply away from domestic gas. An additional priority is upgrading the existing gas fleet to even 50 percent efficiency – World Bank estimates indicate this could create up to 3GW of additional capacity at a cost of US$1100/kW.

4.11 **Exploration for additional domestic gas is now a priority, particularly offshore.** Given the magnitude of the investment required for gas exploration and the high risks and specialized technical expertise needed, International Oil Companies (IOCs) would be expected to be involved both onshore and offshore. However, till recently, IOCs were restricted to offshore exploration based on the rationale that the national exploration company (BAPEX) is technically capable of onshore exploration itself. BAPEX has very limited technical, human resource, and financial capacity, which has constrained onshore exploration. Partly as a result, Bangladesh has not been able to substantially increase the onshore reserve base since 1998. IOCs have been invited to bid for offshore (shallow and deep-water) exploration blocks (more risky and 4-5 times more expensive than onshore), but contract terms are considered unattractive. In fact, IOCs have said that under these terms their operations are financially unviable. With maritime boundaries having recently been agreed, the government has initiated contracting for a seismic survey of Bangladesh's territorial waters in order to generate information on locations with potential and is reviewing the standard production sharing contracts it offers prior to announcing a new bidding round for exploration and production. Deep-water offshore exploration by IOCs has thus far yielded slightly more than 2 trillion cubic feet of additional gas reserves.

4.12 **LNG imports are likely to be required in the near future to fuel existing gas-fired plants as well as those in the pipeline.** Availability of LNG will release idle gas capacity and permit the government to retire some of the rental plants which rely on fuel oil, which is not only polluting but also more expensive than LNG. Importing LNG will also warrant a re-examination of pricing policies in view of the fiscal implications of shielding consumers from the full cost of imported gas. It should be noted that the import of 500mmcf/d of LNG will likely cost between US$2 to $3 billion or more per year, depending on the price of gas, which is substantially more than the US$1.3 billion consumers paid for 2,300mmcf/d of gas in 2011.[4]

4.13 **The government has expressed its intention of exploring all options to address the current shortage of power and get onto a sustainable path for power sector development.** These options range from import of power from neighboring countries; implementation of demand side energy efficiency measures; the conservation of domestic gas; exploration and development of new domestic gas fields; import of LNG; and even the use of coal in super critical thermal plants. Each of these options brings its own set of implementation considerations including relating to potential policy and institutional changes.

4.14 **Given the over-reliance on natural gas, power supply diversification is a key solution.** Because non-renewable energy is limited in Bangladesh, it is critical to ensure energy security by increasing the use of renewable energy, which is more environmentally friendly. Moreover, the expansion of the use of renewable energy might reduce the importation of energy: this would have

[4] Bangladesh Natural Gas Pricing Framework. AECOM 2012.

a positive impact on the country's balance of payments and the overall economy. However, there is limited potential for large scale renewable energy generation given land constraints (for solar PV) and moderate resource availability (for wind). Bangladesh has been selected in the second phase of the Scaling up Renewable Energy (SREP) Program for Low-income Countries and an investment plan is currently being drafted looking at the resource potential and the barriers for scaling up renewable energy. While the application of large-scale renewable energy technologies has been limited so far, Bangladesh has done remarkably well in renewable energy based distributed generation with more than 3.5 million solar home systems (SHS) installed as of May 2015 providing access to electricity to more than 18 million people in remote rural Bangladesh where grid electricity network is difficult or expensive to extend.

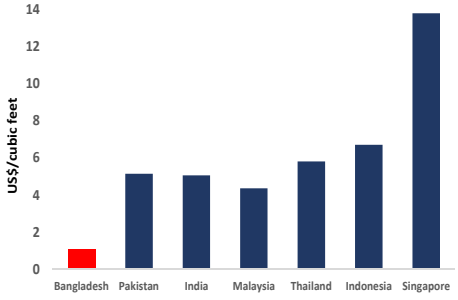
Challenges: Investment, Procurement, Costs and Pricing

4.15 **Bangladesh's power sector faces the dual challenge of massive investment in new capacity while simultaneously facing an increasing cost of fuel.** In order to meet the "Government Policy" target of 33 GW peak demand in 2030, generation capacity has to reach at least 40 GW.[63] This implies a three-fold increase in capacity, i.e., maintaining the same growth rate of capacity development achieved in the last 5 years over the next 15 years. World Bank estimates indicate that meeting even a 25 GW peak demand target will require $11-46 billion in new generation capital expenditure, depending on the supply options chosen. In view of the country's endowments, future base-load electricity generation will depend on expanding (onshore/offshore) domestic gas production and some form of imported energy – coal, LNG, or imported electricity. In addition to the capital expenditure requirement noted above, the operating expenditure for purchasing imported fuel/electricity will be significant for all three options and even new offshore gas is likely to be considerably more expensive than the current price of domestic gas.

4.16 **Despite early success in attracting private investors, only one new large independent private producer has started operation in the last decade.** Private investment and commercial financing are recognized as important complements to government efforts to increase generation capacity. Still, several large projects promoted by private sponsors have failed to reach financial closure and others have been considerably delayed, forcing continued reliance on rentals. Among other issues, concerns about the award process and quality of sponsors have colored market perceptions of the viability of many of the IPPs offered. It is critical to improve the process to ensure that competent sponsors with proven track records and strong financial capacity are selected.

4.17 **Current end-user gas prices remain well below those in neighboring countries and regional benchmarks and far from the opportunity cost of gas** (Figure 4.4). This not only limits incentives to conserve gas and implement efficiency measures but it does not provide the right signals for use of gas in the highest value sectors, reduces producer interest, and fails to generate income for the government. While global gas prices have been on the decline since the middle of 2014, LNG imports will still likely cost

Figure 4.4: Gas Prices by Country



Source: Asian Development Bank (2013)

at least US$8 to US$10/mcf which is significantly higher than the current average price of US$1.65/mcf that consumers pay for natural gas.

4.18 **The increase in fuel oil use by rental plants and independent power companies has resulted in a nearly threefold increase in the average cost of power supply, which has not been fully passed on to consumers.** The change in the generation fuel mix over 2010-2013, with liquid fuel moving up from 5 to 28 percent of peak generation, has significantly increased the average cost of electricity. The real cost of power will eventually decline as the large gas- and coal-fired power plants come online, but that is still a few years away, and tariff increases will continue to be necessary until then. The government has demonstrated a commitment to such increases: there have been regular adjustments in power tariff following a process of public hearings that is conducted by the regulator, BERC, as part of the tariff setting process. However, the tariff is still below cost recovery levels. The increase in average cost of power has been handled by the government allowing a gap to form between the bulk supply tariff that the distribution utilities pay to the Bangladesh Power Development Board (BPDB), the single buyer in the sector, and the price that BPDB pays to generate and purchase power, and then compensating BPDB with a subsidy to make up the difference. The gap between the cost of service and consumer payments is unlikely to go down until the short-term rentals are replaced by low cost base load power plants and/or retail tariffs are adjusted to reflect the cost of electricity services.

Table 4.1: Rising Unit Cost of Power

	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Average per unit cost of power (BDT/kWh)	2.36	2.55	2.62	4.20	5.36	6.70

Source: Bangladesh Power Development Board

4.19 **The fiscal cost of protecting consumers from the true cost of power is high.** Despite increasing the BST by a total of 80% in phases since February 2011, the direct budgetary transfer to BPDB from the government of Bangladesh was BDT60 billion (around $800 million) in FY14, approximately 0.7% of GDP and 5% of total government budgetary spending. This is a nine-fold increase from the transfer of approximately $90 million per year from FY07 to FY09. Petroleum products, used by the rental plants, are also subsidized with the total budgetary transfer to the Bangladesh Petroleum Board amounting to around $1 billion per annum in FY12-14.

Table 4.2: Cash and Loan Subsidies for Power and Petroleum Products

		FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014
		Actual	Actual	Actual	Actual	Actual	Actual	Revised
Bangladesh Power Development Board	US$ million	89.1	148.8	145.4	549.7	789.1	584.0	799.6
	Percent of current spending	*1.13%*	*1.62%*	*1.48%*	*5.16%*	*7.21%*	*4.50%*	*5.26%*
Bangladesh Petroleum Corporation	US$ million	534.7	221.6	131.7	549.7	1061.3	1764.9	963.4
	Percent of current spending	*6.79%*	*2.41%*	*1.34%*	*5.16%*	*9.69%*	*13.60%*	*6.34%*

Source: Ministry of Finance. "Medium Term Macroeconomic Policy Statement from 2014-15 to 2016-17" Table 3.7A: Cash and Loan Subsidies (Billion Taka)

Priority actions for the sector to be able to support Bangladesh in achieving sustained growth, enhancing access to the forty percent lacking power and contributing to poverty reduction.

- ***Fast track options that are either already in implementation, or can be initiated with minimal effort in the short term.*** This includes releasing 1,400-1,700 MW of additional supply capacity (by mid-2017) through re-powering, demand side management and power imports to augment new generation capacity. An additional priority is to accelerate the first 500 mmcfd of LNG imports since that can free up most, if not all, of the existing stranded gas- fired power generation capacity.

- ***Form a concrete implementation plan to achieve the 20 percent Energy Efficiency Target.*** This has the potential to save $15 billion in system costs over 2015-2030. A World Bank/GTZ study in 200964 identified a number of promising residential and industrial energy efficiency measures for both power and gas. Even the most basic five options for power could shave 440 MW off the peak and over 1,500 GWh off the energy requirement annually. Rolling load shedding and the high investment and operating costs of back-up diesel generation units would suggest that a proper demand side management program would pay for itself and get ready acceptance from consumers. Reduction of existing high levels of auxiliary consumption from power stations through a basic audit, refurbishment and modernization program is also a win-win solution.

- ***Prioritize investment in domestic gas exploration activities.*** This can add 400 TWh over baseline projections between 2015 and 2030. The opportunity cost of not having sufficient gas means potentially greater reliance on LNG ($19 billion in additional (discounted) supply costs over the next 15 years) or imported fuel oil. A Gas Sector Master Plan that weighs options and develops a road map for sector investment should be prepared.

- ***Diversify fuel mix to enhance energy security.*** Bangladesh's dependence on natural gas for two-thirds of generation and the projected depletion of proven gas reserves together make it imperative for Bangladesh to obtain more gas, both through imports and through ramped up exploration, and to diversify the mix of fuels used for generation. A policy for exploiting other thermal resources (e.g. coal) should be developed in concert with a strategy to harness renewable sources of power—a start has been made through the off-grid renewable energy-based access program. The recent import of power from India is a welcome development (discussions are also underway with Nepal and Bhutan). Bangladesh is also looking to Myanmar as a source of gas and power, and can play a critical role in championing the development of a regional market and power pool.

- ***Large-scale (3-12 GW) power imports as a first stage in the development of a Regional Power Market should form the core of the power system master plan.*** A key early activity is identification of transmission routes from Bhutan, Nepal and Myanmar and investment in the same. As the power exchange between Bhutan and India and now the initial year of operation of the India-Bangladesh link show, there is great promise for this to be a reliable long term base load supply option. The groundwork to expand power trading to the next level has been laid. Next steps include a technical feasibility study of the power corridor for transshipment of 6 GW of power across Bangladesh and exploration of the true potential of wider power trading with other neighboring countries, including Myanmar.

- ***Reduce the fiscal burden.*** Market-based pricing of key inputs such as natural gas and petroleum products along with end-user electricity tariffs that cover efficient production costs will help greatly in reducing dependence on the exchequer. Work is required on the following: (a) permitting bulk supply tariffs to reflect the market price of generation, (b) retail tariff reform to provide greater certainty to investors, and (c) lower priced renewal of rental contracts, since capital costs have been paid down. To date some contracts have been renewed on a 'no power no payment' basis, while some rental prices have come down, more should be done to reduce the cost of rental power and eventually phase it out. Permitting the price of domestic gas to reflect the international price would signal scarcity and provide incentives for conservation and efficient use. It would also help ensure that planned use of imported gas does not create an even greater fiscal burden than currently exists. Finally, subsidies need to be targeted to the poor, and preferably delivered through direct transfers, rather than below-cost tariffs.

4.2 Inland Connectivity and Logistics

4.20 **Bangladesh needs to accelerate the economic transformation of its rural areas; and improving connectivity is key.** As highlighted in Part 1, growth in labor incomes in Bangladesh was an important contributor to faster poverty reduction over the past decade, with productivity increase in the agriculture sector and the outflow of workers from low productivity daily-wage work in agriculture to jobs in services being significant drivers of such change. Still around 80 percent of the poor live in rural areas, where agriculture continue to be the dominant sector of employment and household income, but closely followed by non-farm activities. Also considerable spatial variations in the incidence of poverty between the east and the west, and across upazilas exist. Hence, if Bangladesh wants to eliminate extreme poverty, it needs to deepen the economic transformation of rural areas across the entire country. There is a wealth of evidence on the role of improved inland connectivity on raising agriculture productivity, promoting the movement of the workforce from farm to non-farm employment and reducing poverty in Bangladesh. Box 10 presents findings from impact evaluations of several completed transport interventions in the country.[65]

4.21 **Bangladesh also needs to enhance its competitive edge in international markets, and improving its logistics is key**. A more dynamic export-oriented manufacturing sector in Bangladesh has the potential to create more and better jobs to accelerate the pace of poverty reduction and provide better lives for its citizens. High logistics costs can be seen as an implicit tax that biases the economy away from exports, and limit access to imported inputs and final goods. There is significant evidence on the impact of logistics costs on trade. For example, Limao and Venables (2001) found that a 10 percent reduction in transport costs can increase trade flows by 25 percent. Bangladesh ready-made garment sector is now faced with increasing competition and the challenge of delivering exports to meet continuously decreasing order cycles. There is ever growing pressure for a more efficient logistics system in the country.

Limited rural-urban and inter-urban connectivity are a key binding constraint to poverty reduction

4.22 **Despite past expansions of the transport network, poor inland connectivity is still hindering further economic transformation in rural areas.** Although the road network in Bangladesh is extensive – about 300,000 km long, with a density of 1.9 km per 1,000 people[66] – it provides sub-optimal accessibility. World Bank estimates indicate that only 37 percent of rural

households live within two km of an all-weather road (i.e. one that is motorable all year round), compared to 61 percent in India and Pakistan. As a consequence, access to markets can be difficult and costly for rural households under adverse weather conditions. This problem is likely to worsen over time due to the impact of climate change on the Bangladesh Delta. Roads are also often too narrow for the traffic they carry resulting in congestion and delays. According to the study Dynamic of Rural Growth in Bangladesh (World Bank, 2015b), traders of high value agricultural products rank poor road condition and road blocks as the two most severe constraints to business operations. The same study show that transport costs are major sources of variable costs for all traders. For instance, transport and handling costs account for 45 percent of wholesale traders' variable costs and 35 percent of the variable costs for retail traders of brinjal. For all types of traders of brinjal, the costs of damage and loss are also very high (40 percent of variable costs). About 30 percent of traders surveyed reported transport congestion and another 26 percent reported transport delays as the main reasons for product loss/damage. Looking to the future, continued investments in road infrastructure are a high priority.

Box 10: Impact of Improving Connectivity in Bangladesh

Improved inland connectivity increased the competitiveness of farm and non-farm enterprises in rural areas of Bangladesh. Impact evaluations of several completed transport interventions in Bangladesh confirm the benefits of inland connectivity improvements. These studies show significant decrease in travel time (above 50 percent in some cases) and transport costs (for example, per km. average passenger fares decreased 8-39 percent on improved roads vs. 88-134 increase on control roads), and consequent increase in passenger and freight movement in the improved roads. Khandker et al. (2009) found transport cost for taking agricultural production to market fell by about 25 percent. Such improvements in connectivity triggered increases in the average yield per hectare of various agricultural cash crops – 42 percent (LGED, 2010), increases in the value of the basket of agriculture production – 8 to 22 percent – due to more production or shifts to higher value crops, and increases in output prices– 2 to 3 percent. Khandker et al. (2009) also found a decrease in the cost of agricultural inputs, particularly fertilizer. Hence, improving rural roads increased gross output per worker. The same studies show that improved inland connectivity also increased the average number of enterprises along roads, with non-agro enterprises increasing the most.

Increases in productivity and competitiveness of agriculture and non-agriculture firms due to road investments yielded increases both in fulltime employment and in wages. For example, in villages with improved connectivity the number of fulltime employed household members increased by 2 and 1 percent for male and female, respectively, compared with decreases of more than 25 percent observed in similar areas but without improved connectivity (LGED, 2010). In the case of wages, men's daily agriculture wage increased by 11 percent in some villages, while men's daily non-agriculture wage increased by 19 percent in other villages, in both cases due to improvement of rural roads (Khandker et al, 2011). The employment effects on non-agricultural wage work are found to be stronger in the longer term. As the authors point "this suggests a feedback effect between off-farm work and rural road development, where road improvements foster markets that become increasingly diversified across sectors." The economic transformation of rural areas caused by better access to input and output markets improves the income generating capability of households. The average monthly household income rose by almost 60 percent in villages with increased connectivity (LGED, 2010). Finally, strengthening the income generating capability of households through better inland connectivity was found to reduce moderate and extreme poverty by roughly 1 percent yearly (Khandker et al, 2009).

Improved inland connectivity also lowered barriers to investments in human capital. Several studies found increases in school enrollment due to improved connectivity. A recently finished rural road improvement project had positive impacts on education (LGED, 2010), with enrollment of children under 16 years old increasing by about 10 percent due to better connectivity. Two other programs were found to increase enrollment in secondary schooling by 14 percent for boys and more than 20 percent for girls. Khandker et al. (2011) find the effects on schooling to be attenuated in the longer term, which could be explained by the lack of proper maintenance of roads. Improvement of rural road communication and transports played a vital role in improving access to sanitation and hygienic behavior including having sanitary latrine, using soap and garbage disposal. Improved inland connectivity thus has cross generational impact on poverty reduction.

4.23 **Bangladesh needs to improve east-west connectivity, particularly connecting the Southwest to Dhaka.** The geographic east-west divide of the country due to the Jamuna and Padma

rivers is seen in the poverty incidence figures, with this being 6 percentage points higher in the west than in the east in 2010. At present the only connectivity between Dhaka and the Southwest and South Central regions is through ferries, which is less reliable and more limited than through bridges. The Jamuna Multipurpose Bridge, connecting the northwest region with the eastern section of the country, had significant impacts on villages in the northwest region (Bayes, 2007). Connecting the southwest with the eastern section of Bangladesh through the Padma Bridge can similarly be expected to have a major impact on job creation, poverty reduction and human capital accumulation. Using the differences in poverty rates and accessibility to economic centers across thanas, Bankespoor et al. (2014) estimate that a 1 percent increase in market access could lead to a 2.6 percent reduction in future poverty. The authors find that the Padma Bridge could reduce poverty by about 0.6 percent. This is a conservative estimate given that the analysis does not fully capture the potential economic transformation of the southwest region and the rest of Bangladesh.

4.24 **Increasing the competitiveness of medium and small cities in Bangladesh is important for economic activity to be more evenly distributed across the country.** Secondary cities have a very low employment density (employment per square kilometer), which is 25 and 16 percent that in Chittagong and Dhaka, respectively. Secondary cities are service-based economies, with a arrow and declining industrial base, while Dhaka and Chittagong are primarily industrial cities. As the study of the garment industry by Muzzini and Aparicio (2013) has shown, distance to other garment firms and inadequate access to transport infrastructure, including the port, together with lack of skilled workers are the main disadvantages of firms in secondary cities compared to those located in Dhaka and Chittagong. Closely related to urban-rural connectivity is the need to focus on secondary cities that remain poorly connected; they are potential drivers of economic activity and better jobs.

Box 11: Economic and poverty impact of safer roads

The road safety situation in Bangladesh is serious and with a disproportionately large impact on the poor. According to police data, road crashes in the country claim about 4,000 lives a year. However, a study conducted during 2001 estimated the number of road deaths and serious injuries to be 34 times that officially reported (Aeron-Thomas et al, 2004), and that the poor were involved in over half of all road deaths (54 percent), with pedestrians accounting for almost half of these deaths, mainly due to lack of adequate pedestrian infrastructure. The study also found that about 70 percent of poor rural families suffering a road death saw their income decrease compared to 50 percent for non-poor rural families. In the case of seriously injured victims, fewer rural poor were able to return to their job (56 percent vs. 75 percent of non-poor) and spent on average twice as many days searching for a new job than non-poor. The impact of road crashes on the economy is a serious issue: annual socio-economic costs of road safety are estimated to be around 2 percent of GDP. Bangladesh should follow the recommendations from UN Decade of Action for Road Safety to improve its performance in this area.

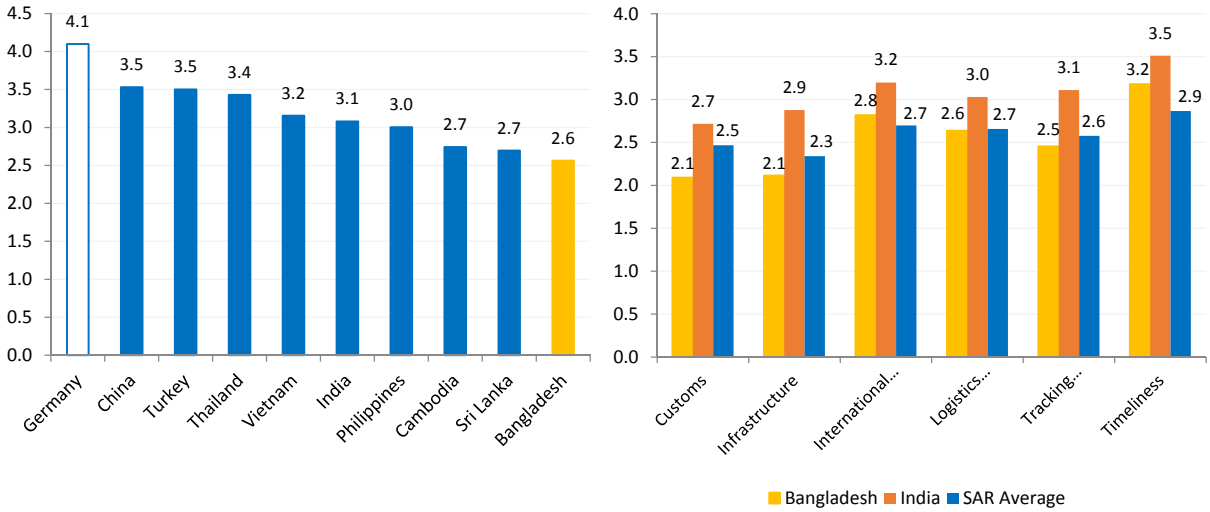
Sustainability of investments comes with increased maintenance and enhanced governance

4.25 **Bangladesh needs to move away from the "build, neglect, rebuild" mindset.** The quality of roads is poor: only 25 percent of the road network is paved, and about 40 percent of the main roads (National and Regional highways, and *Zila* roads) are in good condition (World Bank, 2010). In 2011, only about 23 percent of the maintenance requirements in rural roads were being met. A similar problem arise in other modes of transport, such as IWT, where unmaintained waterways, particularly in rural areas, have reduced navigability by modern mechanized vessels. Under-spending on maintenance of infrastructure has direct and indirect costs. Without regular maintenance, physical infrastructure can rapidly fall into disrepair, requiring expensive

reconstruction to bring it back to adequate standards. For example, the cost of full reconstruction of roads that have been poorly maintained is, on average, at least three times the cost of maintenance (World Bank, 2005). Lack of adequate maintenance triggers a progressive deterioration of the quality of the infrastructure services, which hurts users (e.g., higher costs because of imperfect and costly substitutes, worse social outcomes in health and education) and development outcomes. In the overall transport sector in Bangladesh, maintenance expenditures in real terms have remained broadly stable over the last decade. Looking forward, with increasing investment expenditure, this raises the question as to the ability to maintain new capital investments and their sustainability.

4.26 **Bangladesh should ensure enough funding is available for maintenance; but most importantly, enhance governance, particularly monitoring mechanisms of maintenance spending.** While funds for new construction are sometimes easier to obtain and implement, those for maintenance are more difficult as they need to be sustained on a regular basis. Different mechanisms can be implemented in different transport sectors to improve maintenance. In the road sector, some governments have adopted or considered adopting a "road fund" type of arrangement for supporting maintenance. Under such arrangements, maintenance funds are assured from a mandated tax on gasoline and diesel and are deposited into an assured and independently operated fund, possibly overseen by a Board that includes the public sector, or the private sector, or both. Most importantly, weak governance, particularly regarding selection of roads to receive maintenance and monitoring of spending, plays a significant role in the poor condition of roads in Bangladesh, which the government needs to address. For example, there are striking differences in investments in rural development projects among districts. While part of the differences could be due to higher population and size, these two factors are unlikely to explain the large differential.

Figure 4.5: Logistics Performance Index: **Bangladesh and Comparator Countries**



Source: World Development Indicators, 2015. Data shown are for 2014.

Efficient logistics are needed to enhance Bangladesh's competitive edge in exports, lower imports costs, and develop a more dynamic export oriented manufacturing sector.

4.27 **Bangladesh's cost advantage resulting from low labor cost is reduced or sometimes offset by poor logistics performance.** Efficient logistics reduce costs and delays for exports and expedite imports of consumer goods, but also of foreign inputs used in the domestic production. In

particular, superior logistics performance offers a competitive advantage in an era of increasing globalization, more production sharing across countries, and shortened product lifecycles. Despite some progress in improving its logistics performance, Bangladesh still lags behind its main competitors, especially when it comes to infrastructure and customs. Even though it performs above the South Asia average in terms of timeliness and international shipments, it generally ranks below India (Figure 4.5). Moreover, Bangladesh's logistics lag behind its peers in the garment sector, and far behind Germany, which is the world's best performer. To date, low wages have benefitted Bangladesh's RMG exports and have partially compensated for poor logistics performance. However, to ensure general growth of exports, logistics performance in Bangladesh will need to improve considerably.

4.28 **The Dhaka-Chittagong corridor (DCC) is the most important trade link in Bangladesh, but its current performance hinders exports growth.** Estimates indicate it directly serves regions accounting for more than half the national population, 57 percent of GDP, and more than two thirds of the country's import and export flows. The importance of the logistics infrastructure and services along the DCC cannot be underestimated. The Port of Chittagong is the main seaport in Bangladesh through which almost all import and export cargo is routed – in 2013, Chittagong handled over 90 percent of the total container traffic in Bangladesh. However, the performance of the logistics infrastructure and services along the DCC is so weak that if nothing is changed to improve the overall import/export process, a physical ceiling may be reached in a couple of years. At that point, gridlock could occur, with even longer delays in getting containers in/out of port and inland terminals, limiting the growth of the RMG sector.[67] Consequently, supply chain bottlenecks along the DCC, including the inland transportation bottlenecks must be resolved quickly even to support current growth rates.

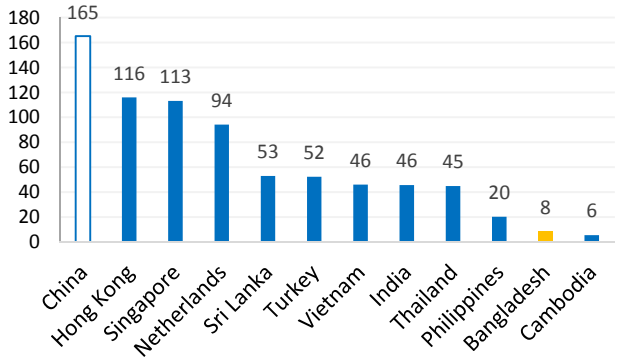
4.29 **Air transport is inefficient due to congestion and lack of capacity at the air terminal.** Airfreight is used mostly by the garment industry, usually at the buyer's request, and sometimes in the case of a missed ocean shipping date. There are problems with ground handling and management of the air cargo terminal at the airport in Dhaka, performed by a subsidiary of the national carrier, Biman Airlines. The terminal area is often congested, partly due to increasing cargo volumes but also due to poor performance in the handling and clearance processes.

Poor port performance hampers Bangladesh competitiveness

4.30 **Bangladesh suffers from limited connectivity to main shipping routes.** The Port of Chittagong, which handled a total of about 1.5 million 20 foot equivalent units (TEUs) of imports and exports in 2013, is the 5th largest container port in South Asia in terms of throughput. However, Chittagong with its 9.1 meters of water depth is much shallower than the other main ports in the region – e.g. Colombo has a water depth of 18m at its newest terminals; Karachi, will have 16-18 meters at its newest terminal; and JNPT will have 14 meters. This means that Bangladesh's exports have to be carried in feeders to the region's hub ports of Colombo, Singapore and Tanjung Pelepas

to link up with deep sea services. In contrast, the exports of India, Pakistan and Sri Lanka, all of which have deep water, can use direct services to their main markets. According to the Liner Shipping Connectivity Index, Bangladesh ranks second to lowest in comparison to its garment-exporting peers, and far below high performers in Southeast Asia and Europe (Figure 4.6). Liner connectivity is important since most overseas trade in manufactured goods is moved in containerized regular "liner" shipping services.

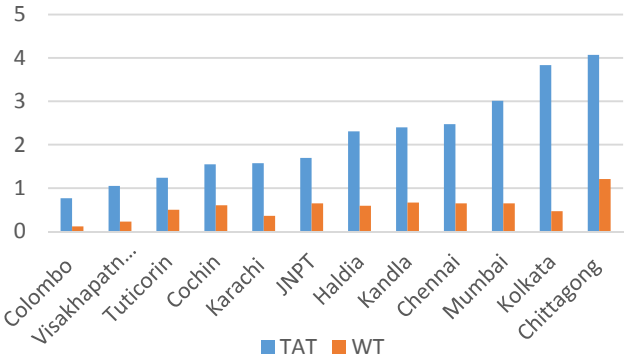
Figure 4.6: Liner Shipping Connectivity Index (2014)



Source: World Development Indicators, 2015.

4.31 **Chittagong's performance is well short of the benchmarks for efficient container terminals in South Asia and elsewhere in the world.** The operational performance of Chittagong compares poorly with that in the rest of South Asia. The average vessel turnaround time (i.e., the time a vessel spend in port) and pre-berthing waiting time in Chittagong have been the highest in the region during the 2000-2012 period (Figure 4.7). The container handling speeds are in the range 12-15 boxes per crane hour compared with 25 at efficient modern ports and over 30 at premier league ports. Dwell times for containers (i.e. the time spent in port) averaged 17 days in 2012. They have come down from 25 days in 2005 but are still well above the 3-4 days typical of efficient ports. Exports take twice as long to load as imports causing delays and unpredictability in ships departure times. This can result in failure to catch the deep-sea services to the US and Europe. The main reasons for the delays include customs procedures; the transfer of cargo from container to covered vans on the quay; and slow processing of documentation and payments by importers (World Bank 2104).

Figure 4.7: Average operational performance, South Asian container ports, 2000-2012



Source: Herrera Dappe et al. (2015).
Note: TAT = average turnaround time; WT = average pre-berthing waiting time.

4.32 **Bangladesh needs to bring its port sector to the 21st century by increasing the role of the private sector and introducing competition.** If Chittagong port had performed at a level similar to Colombo port during 2000-2007, the maritime transport costs of Bangladeshi exports to the US would have been about 3 percent lower.[68] Chittagong Port is the only large container port in South Asia that has not implemented the landlord port model, where the port authority acts as regulatory body and as landlord, while port operations are carried out by private companies under long-term concessions. Private participation in Chittagong port is very limited. Experience worldwide, and in South Asia, demonstrates that the division of risks and responsibilities between the public and private sector that takes place in the landlord port model, together with competition for the market and in the market yield high port performance. Bangladesh has the advantage that Chittagong is large enough to accommodate more than one terminal operator (competition in the market), and the best approach to attract professional and experienced operators is through open and transparent competitive process (competition for the market). Improving Chittagong Port's performance will not solve the lack of water depth, which can only be dealt by building a deep sea port. However, building a new port will take significant time. Therefore, the priority for Bangladesh is to improve Chittagong Port's performance.

Poor Inland logistics also hinders integration with international markets

4.33 **The logistics services between Dhaka and Chittagong exhibit patterns that are not conducive to efficient movement of cargo.** Most freight between Dhaka and Chittagong, and particularly the higher value cargo, is transported by road. Around 75 of the containerized cargo through Chittagong port in 2013 went to/originated from the Dhaka area, and 94 percent of that was transported by road.[69] Furthermore, despite the rapid growth of containerization in international transport, only 10 percent of containers handled at Chittagong are moved inland; the rest are stuffed and stripped in the port or in privately operated inland container yards near the port. The practice of stuffing and stripping containers and trans-loading the cargo to/from trucks, is rarely seen in other countries, and adds to handling costs. Moreover, the increased demand for trucks on the corridor is causing overloading of trucks and increased congestion on Dhaka-Chittagong highway. Congestion increases transit times and decreases reliability on the corridor, with transit times possibly being as high as 12 hours when they should be less than 4 hours in free-flowing traffic. By not being able to move goods by container along the corridor, the logistics process is reverting back to break bulk methods, increasing inefficiencies both in cost and time.

4.34 **Bangladesh can better utilize the multimodal potential along the Dhaka-Chittagong corridor.** Rail transportation has not managed to keep pace with the growth of import/export container traffic through the port of Chittagong. Not only has rail lost market share, but also the number of containers transported by rail has fallen in absolute terms each year since 2008. In 2013, less than 6 percent of the containers that went to/originated from Dhaka were transported by rail. Customers' modal choice has shifted in favor of road transportation due to several factors including cost, the unreliable rail transit time between Chittagong and Dhaka, the absence of adherence to fixed train schedules, poor customer service, container damages at the Kamalapur inland container deport (ICD) in Dhaka, and frequent breakdown of container handling equipment at the ICD, among others.[70] Even though around 40 percent of the total traffic to/from Chittagong is transported through inland waterways,[71] currently there is no transport of containers by inland water transport (IWT). By way of comparison, over 60 percent of Hong Kong SAR, China's container traffic over similar distances is carried from/to the port by barge.[72] However, insufficient vessels to support a

daily service between Dhaka and Chittagong and Pangaon container terminal not yet fully operational, are some of the reasons for IWT of container not taking off. Rail and inland water transport along the DCC are green alternatives to the highly inefficient road transport, and can help reduce congestion at the port and along the Dhaka-Chittagong highway.

4.35 **The government's role in the transport sector is worth reviewing, particularly regarding the logistics services along the DCC.** Promoting a modern multimodal transport system requires redefining the government's role to focus on regulating and attracting private sector participation in transport sectors, and eliminating current biases that distort markets for transport services. In the case of rail container service between Dhaka and Chittagong, a Public-Private Partnership (PPP) that adequately allocates risks and responsibilities to the parties best-suited to deal with them and rewards performance, has the potential to increase the modal share of railways. Similarly, the inland water transport sector can play a more significant role if the government minimizes the commercial and economic regulation that creates barriers to entry, while retaining strong regulation of safety, seaworthiness, and quality of service. Customs procedures that limit the movement of containers along DCC create another bias in favor of road transport as it is one of the reasons behind the stuffing/stripping of containers at the port and transfer of cargo to covered vans. A less distorted playing field have the potential to promote a more balanced and efficient multimodal transport system along the DCC, but will not eliminate the need of expanding the road capacity between Dhaka and Chittagong in the short-term.

Borders will not disappear but can be made irrelevant.

4.36 **Improving integration with India and the rest of Asia could bring significant gains to Bangladesh.** Gilbert and Banik (2010) estimated the gains that could be obtained by removing physical and non-physical barriers that prevent Bhutan, Nepal, and the landlocked regions of northeastern India from accessing the Chittagong or Mongla ports in Bangladesh. This improvement in connectivity would increase GDP by 0.1 percent in Bangladesh.[73] A more comprehensive study by Zhai (2010) highlighted the large potential gains stemming from a more regionally integrated South Asia. Zhai (2010) estimated that investments in transport infrastructure to increase Pan-Asian connectivity could reduce trade costs by more than an eighth in Bangladesh. The lower trade costs would yield net annual gains of around 6 percent of 2020 GDP for Bangladesh.[74] De et al (2012) shows that a full free trade agreement (FTA) between India and Bangladesh would increase exports to India by 182 percent, while improving connectivity between both countries in addition to the FTA would bring the increase in exports to almost 300 percent.

4.37 **Bangladesh should improve physical connectivity with India, but the priority should be to remove the policy constraints to seamless cross-border movement of cargo.** Bangladesh and India have a basic interconnected transport network, with the limited connectivity within Bangladesh being the main constraint. For efficient cross-border movement of cargo, it is essential that road, rail, and inland waterway vehicles are allowed to cross borders and deliver goods from origin to destination seamlessly. However, this is not happening in land and water based transport due to limiting transit agreements and differences in market access policies, among others. For example, goods are offloaded at the border and transferred to trucks from the other country. This practice is inefficient, increasing time and cost.[75] In order to promote seamless connectivity in South Asia, the primary challenging task is two-fold: first to integrate the different sub regional transport corridors and modes (railways, roads, air and maritime shipping), which will facilitate

movement of goods and services in South Asia; and second, and most importantly, to overcome institutional and policy constraints that are deteriorating regional competitiveness by making trade expensive.[76]

4.3 Regional and Global Integration

4.38 **The ultimate goal of export-led growth is poverty reduction and the enhanced welfare of Bangladesh's citizens.** The government recognizes that export-led growth and a broadening of the country's export structure are pivotal to its growth ambitions. In the Sixth Five-Year Plan, trade is considered a strong source to accelerate growth and provide high-productivity and high-income jobs. The government recognizes that a dynamic manufacturing sector will benefit from greater outward orientation, particularly based on the experience of other successful Asian exporters, such as China, India, the Republic of Korea, Thailand, and Vietnam. The government has emphasized product and market diversification and regional and global integration. The 6FYP projects "…the share of exports in relation to gross domestic product (GDP) to rise by 7.7 percentage points to 23.9 percent of GDP by the end of the 6FYP, reflecting a leading role that [the] export sector is envisaged to play in increasing domestic activity" (General Economics Division 2011, Volume 1, p. 85). This strategy recognizes the pivotal role that higher export orientation has already played in the impressive export and job creation of the garment export sector.

4.39 **Bangladesh's exports have exhibited strong growth and doubled their world market share between 1995 and 2012, owing to success in garments**, catering largely to the European Union and the United States. Since 2009, Bangladesh has become the world's second largest garment exporter, making it unique among least developed countries (LDCs) in its high share of manufactures in total exports, which reached 90.1 percent in 2012, compared with about 21.1 percent for LDCs. Although growing over time, the role of trade in the overall economy is still low. Thus far, Bangladesh has enjoyed strong success in exports, primarily based on low-skill, low-wage-based competitiveness in garments, which dominate the export basket. However, this strategy does not guarantee continued growth in exports, given the pressures of global competition and the possible emergence of future competitors with a better wage-productivity combination.

4.40 **Bangladesh's unique manufacturing performance raises a puzzle:** the country appears to have mastered labor-intensive mass manufacturing as displayed in its many large garment factories; the high share of manufactures in exports is unique at its income level. Yet, this success has so far not led to the creation of another large, labor-intensive cluster. Garments dominate the export basket. This raises some potential issues about the sustainability of export growth.

4.41 **Moreover, the positive current account in Bangladesh may speak to the lack of investment opportunities.** A low-income economy usually draws on foreign savings to supplement domestic national savings to increase the overall rate of investment. Yet, in the case of Bangladesh, the current account has been positive in most years since FY2006, indicating the lack of sufficient investment opportunities and an inadequate climate for investment. This means that acceleration of export growth, which will demand a significant increase in overall investment, will require a concerted policy effort. FDI could further contribute at diversifying exports and technology transfer in Bangladesh. In addition, the jobs created by foreign direct investment (FDI) are good jobs, both from the worker's and the country's perspective, as suggested by Javorcik's (2008) survey of the empirical evidence. From the worker's perspective, such jobs are likely to pay

higher wages than jobs in domestic firms, at least in developing countries, and because foreign employers tend to offer more training than local firms do. From the country's perspective, jobs in foreign affiliates are good jobs because FDI inflows boost the aggregate productivity of the host country.

4.42 **Trade could play a more significant role in promoting faster GDP growth and poverty reduction.** Imports as a percentage of GDP stand at 32.1 percent, while exports accounted for 23.1 percent of GDP in FY2012, which is significantly lower than Vietnam (exports and imports are each about 90 percent of GDP), Thailand, or Indonesia.[77] Trade can increase the efficiency of domestic production and contribute to greater labor intensity in the economy. Thus, if the share of trade in GDP is higher (with the same net exports balance), then, even with constant GDP levels, it could mean an increase in overall employment in the economy. If it were to capture 20 percent of China's current garment exports, Bangladesh's total exports would more than double, increasing by US$29 billion, and, based on current parameters, create 5.4 million new jobs and 13.5 million new indirect jobs. These would be virtually enough to absorb all new entrants into the labor force over the next decade.

4.43 **Bangladesh will need to exploit the international market more intensively, building on the pivotal role that exports have already played in providing gainful employment and access to imports.** Rapidly growing exports and the millions of new jobs accompanying them, along with skill upgrading, will increase productivity and wages, which over the long term is the only sustainable way to improve living standards. It will also begin a discourse to move beyond wage-based competitiveness. Improving skills will allow the effective participation of people in growth. Improving labor standards and worker safety is also part of this agenda and, in the wake of recent tragic incidents in the RMG sector, has become a part of the preconditions for RMG exports.

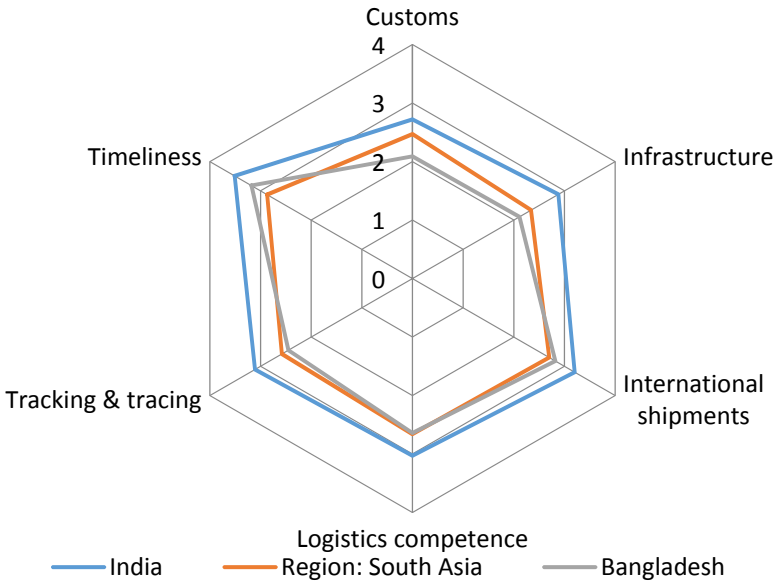
4.44 The example of Vietnam shows that accelerated, export-oriented development is possible, even in the context of the current global environment. Vietnam moved from being one of the poorest countries in the world to a lower-middle-income one in the space of 25 years, with FDI and trade playing a dominant role in the economy: exports and imports are each 90 percent of GDP and, with 88 million people compared with Bangladesh's 159 million, Vietnam exports four times as much as Bangladesh today.

4.45 **In the pursuit of multiple objectives, Bangladesh has over the years created a complex trade regime**, including both tariffs and nontariff measures. As in many other countries, the consumer or exporter has not been the focus of government's policy intentions. However, much can be done to make trade policy more efficient, balancing the interests of producers/workers, consumers, and exporters. A more harmonized and simpler import tax regime would reduce distortions and ensure a level playing field among and within sectors and firms, which would favor the development of new export sectors and small and medium enterprises, and thus jobs

4.46 **Bangladesh's cost advantage resulting from low labor cost is reduced or sometimes wiped out by disadvantages on the trade facilitation side.** High logistics costs can be seen as an implicit tax that biases the economy away from exports. Efficient logistics are important for enhancing Bangladesh's competitive edge in exports. Efficient logistics reduce costs and delays for exports and expedite imports of consumer goods, but also of foreign inputs used in the domestic production. In particular, superior logistics performance offers a competitive advantage in an era

of increasing globalization, more production sharing across countries, and shortened product lifecycles. To date, low wages have benefitted Bangladesh's ready-made garment (RMG) exports and have partially compensated for poor logistics performance. But to ensure the general growth of exports, logistics performance in Bangladesh will need to improve considerably.

Figure 4.8: Bangladesh's Logistics Performance, 2014



Source: World Bank, Logistics Performance Index 2014.

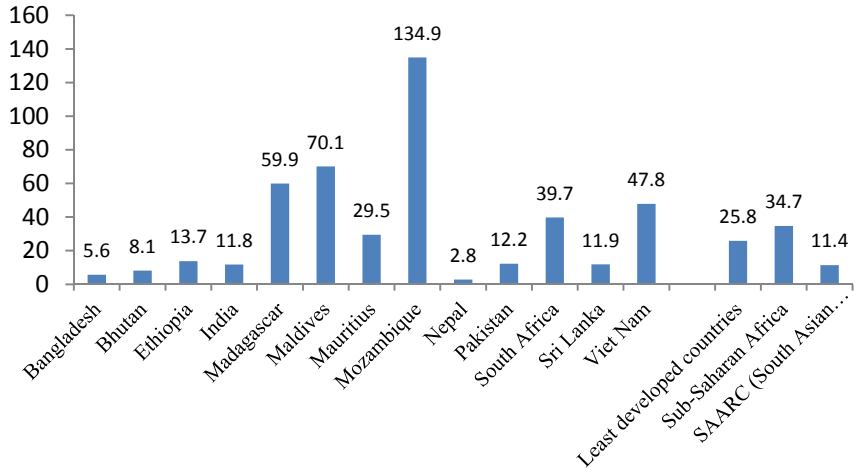
4.47 **Despite some progress, Bangladeshi logistics performance lags in customs, infrastructure, competence of logistics service providers, and tracking and tracing** (Figure 4.8). There are ongoing reforms in customs and there has been considerable expansion of the road network and performance improvements at the main trade gateway, the Port of Chittagong. However, the 2014 Logistics Performance Index (LPI) (World Bank 2010) suggests that Bangladesh performs below the regional average for South Asia in logistics, ranked above only Bhutan and Afghanistan, landlocked countries, and below other countries at similar income levels. The analysis in the trade facilitation chapter of the DTIS identifies options for tackling four interrelated issues that are critical to Bangladesh's logistics efficiency. The four issues are: (a) the limited use of containers on the Dhaka-Chittagong corridor; (b) customs and border management modernization; (c) air transport capacity and connectivity; and (d) regional transit and connectivity.

4.48 **Bangladesh has failed to improve its business environment and investment climate.** Red tape and poor governance remain two of the most pressing constraints to business growth in Bangladesh. Weak government capacity is an endemic issue preventing providing long-term vision and solutions for regulatory matters that affect private sector development. The energy shortage is an overarching constraint affecting virtually all segments of the economy. In 2012, the demand-supply gap of electricity was around 5,000 gigawatt-hours (Ministry of Finance 2013). Bangladesh ranks nearly last among its Asian competitors (only above Nepal) in the prevalence of power outages. Power outages are a key reason why manufacturing productivity in Bangladesh is much lower than in China and Vietnam. And the use of captive generation to compensate for outages adds to costs (World Bank 2012b). A comparison of the World Bank's Investment Climate Assessment between 2002 and 2007 revealed that the value lost because of electrical shortages

increased from 2.9 to 12.3percent of sales (World Bank 2012b). Although access to reliable sources of electricity tops the list of concerns for the region as a whole, the losses that Bangladeshi firms suffer are much higher compared with 5.4 percent of sales lost in Pakistan and 5.5 percent in India.

4.49 **In this unfriendly business environment, FDI has persistently represented a small fraction of GDP and private investment.** Bangladesh's FDI inflows reached around US$1 billion in 2012, but overall FDI stocks remain below 7 percent of GDP. Average FDI stock as a percentage of GDP was 25 percent in LDCs as a whole. It was also higher in comparator countries, such as Vietnam (51.6 percent of GDP) and Pakistan (11.5 percent of GDP, despite difficult conditions there), and it was almost 12 percent in South Asia as a whole and 32 percent in Sub-Saharan Africa (Figure 4.9).

Figure 4.9: FDI Stock (Share of GDP, 2012): Bangladesh and Selected Developing Countries



Source: http://unctadstat.unctad.org/ReportFolders/reportFolders.aspx.

4.50 **FDI in Bangladesh has mostly flowed into the services sector.** The telecommunications industries and banking sector have attracted the most FDI, followed by the garment, gas, and petroleum sectors. Bangladesh has attracted three totally foreign-owned mobile telephone providers, as well as a majority-foreign investor in the firm with the largest market share. The banking sector also includes a number of globally renowned banks. The textile and clothing industry has received less FDI, partially because of the obstacles in this sector (UNCTAD 2013). To reach East Asian growth rates of 7–8 percent, private investment levels in Bangladesh need to rise to at least 33 percent of GDP (World Bank 2012). FDI could help to augment the quality and quantity of investment. Foreign-owned firms are a source of innovation spillovers and perform significantly better than domestic firms in labor productivity and profit margins. They can also help to increase the overall amount of private investment by accessing their own savings as well as international financial markets, thereby easing at least a part of financial sector limitations.

4.51 **The lack of space in good industrial zones in Bangladesh is another constraint currently faced by potential investors.** In Bangladesh such land was available in BEPZA's industrial zones which are now filled up to capacity. As a result, Bangladesh had to turn down large investors. In June 2011, Samsung affirmed it was willing to invest $1.25 billion, representing an estimated creation of 50,000 jobs, if it could obtain access to 300 acres in an industrial zone. In

fact, more than 2,000 acres would have been available in the Korean Export Processing Zone in Chittagong, but they were subject to a legal dispute since 1998. Samsung subsequently invested in Vietnam where it now employs 100,000 employees and has been followed by 63 of its Korean suppliers contributing in a major way to Vietnam becoming a global manufacturing hub for electronics. Resolving, the dispute around the Korean EPZ would be the fastest way to unlock this binding constraint while a new generation of private sector led industrial zones emerge.

4.52 **Sector studies point to the important role FDI can play in export diversification and technology transfer in Bangladesh.** Korea has led investment in the garment industry. FDI was critical in the emergence of bicycle exports. Malaysian investors seized an opportunity in the EU market by establishing the first bicycle exporting firm in Bangladesh in 1995. They invested US$2 million in a new plant in Chittagong. FDI in the shipbuilding sector is close to zero for the moment; however, FDI and joint ventures could help gradually improve Bangladesh's capacity and reputation in shipbuilding. FDI could especially help the linkage of industries through technological advancement and improvement of processes and worker skills. Chinese and Korean investors in particular seek to capture some of the growth in Bangladesh's textiles and services sectors.

4.53 **Bangladesh will need to focus more attention on skills development:** skills are emerging as a major constraint, even in the garment sector, as well as other, more skill-intensive sectors. Although educational access has increased significantly over the past decade, particularly at the lower levels of education and especially for females, currently 96 percent of the labor force has less than secondary education and two-thirds has less than primary education. According to the World Bank (2013a), just a third of primary graduates acquire the numeracy and literacy skills they are expected to master by the time they graduate. Moreover, among the labor force, the percentage of persons having professional education, such as engineering and medicine, is very small (only 0.17 percent of the labor force has such degrees). A World Bank survey of 1,000 garment firms in 2011 found that skills were the major disadvantage of firms located outside Dhaka. High rejection rates in a 2010 United Nations Industrial Development Organization (UNIDO) survey also point to the low average skills of garment workers. In sectors such as ITES, shipbuilding, and pharmaceuticals, part of this DTIS, higher skills are in constant demand (World Bank 2012a, 2012b).

4.54 **The low level of literacy and years of schooling of the labor force make skill acquisition more difficult.** About 46.5 percent of the population of the country remains illiterate; the average years of schooling among the labor force was 4.8 years in 2010. Compared with many other Asian countries, Bangladesh has a rather low level of literacy. Moreover, the average years of schooling is also low compared with countries that are currently competing with Bangladesh's garment sector. The lower time spent in school complicates the process of learning and skill acquisition. In contrast, Sri Lanka has provided a skills environment that allows garment firms to move up the value chain quickly. Bangladeshi firms' choice is restricted to only primary school graduates and high school dropouts.

4.55 **Labor issues (wages, workplace safety and compliance with labor standards) can generate major reputational risk for garment exports, and will need to be carefully managed**. Labor standards and safety issues can affect future exports and Bangladesh's overall reputation in the exporting sector. Concerns have been heightened recently following a series of fatal incidents and the government has been pressured to take a number of measures to improve workers' safety. International buyers and governments have also reacted strongly to these events. On June 27, 2013,

the United States suspended Generalized System of Preferences (GSP) trade privileges for Bangladesh over concerns about safety problems and labor rights violations in the garment industry. Whatever measures the government will implement under domestic and international pressure, the important issue will be enforcement and commitment to ensure better and safer practices. Continued improvement in labor conditions in the garment sector, in coordination with international business and development partners, will be important.

Recommendations on Breaking into New Markets

4.56 *Improving trade facilitation.* Improving trade logistics will help reduce delivery lags and thereby enable Bangladesh to become more competitive globally, reaching out to more emerging and dynamic markets. It would also help in the quest to diversify into products with shorter lead times, including higher-value garments. Key actions include the launching of a National Logistics Strategy; establishment of the rail inland container depot (ICD) at Tongi, on the outskirts of Dhaka; development of the Inland Water Transport sector; improvement in the efficiency of Dhaka-Chittagong road connectivity; and working closely with the Government of India to improve the efficiency of common land border posts. Reducing trade finance costs by leaving title documents open and not assigning them to a local bank and making current account transactions, such as payments for samples and consultants, etc., hindrance-free, would also facilitate exports.

4.57 *Promoting economic integration with Asia.* Exploiting market diversification opportunities would involve taking advantage of Bangladesh's location in the fastest-growing region in the world and between India and China. Given geography and potentially lower trading costs, the possibilities for greater exports to Asia are immense. Granting transit rights and concluding road transport agreements with Bhutan, India, Myanmar, and Nepal would foster regional trade going through Bangladesh and have potential spillover effects on Bangladesh's own trade. Economic relations with India in particular can be deepened significantly. Bangladesh can increase its exports to India several fold through mutual recognition agreements (MRAs) for harmonization of standards, mutual reduction of nontariff barriers (with an efficient dispute resolution mechanism), harmonization of border clearance procedures, and signing of the International Road Transport (TIR) Convention by both countries, with a view to allowing transit traffic.[78] China and Japan are major potential markets as well and FDI from all three countries can help bring exports back to the source countries as well as other destinations.

Breaking into New Products

4.58 *Rationalizing trade policy to level the playing field.* (a) Rationalizing trade taxation and moving toward eliminating the anti-export bias, as seen, for example, in high and varying rates of effective protection, will mean that it is not just garments that enjoy a more neutral tariff regime. Critical actions will include reducing overall tariff protection and simplifying the import tax regime such that cross-sector tariff distortions are reduced and para-tariffs are eliminated or applied equally on domestic production. Such goals can be achieved without risking revenue generation. (b) Facilitating imports for exporters will progressively make the private sector's production and export decisions less dependent on domestic availability of inputs. Having facilitated the imports of fabrics for apparel exporters has been critical to the success of Bangladesh in that sector. By opposition, the barriers to imported inputs have constrained other high potential sectors, such as the footwear industry where one million direct jobs are at stake, as companies find it difficult to import the necessary leather, and other inputs.[79] In practice, given the poor functioning of duty

drawback, the best answer seems to lie in ensuring well-functioning bonded warehouse schemes that are in principle available to all sectors and high-performing operators. Such schemes have been critical to explain the initial success of Bangladesh's exports. Reviewing mandatory standards and other non-tariff measures, such as para-tariffs, to ensure a smooth flow of imported inputs would also be useful. (c) Formulating and adopting a strategy for trade in services will help in better understanding specific services, trends, and markets in services trade and boost the ITES sector.

4.59 *Improving the environment for domestic and foreign investment.* Attracting much larger FDI flows would help upgrade technology and improve market linkages, and develop an area where Bangladesh has had only narrow success. To accomplish this, Bangladesh needs to improve allocation of serviceable land for business use, including through the 2010 Export Processing Zone (EPZ) Act; more proactively welcome FDI and promote it through high-level missions to potential FDI sources, such as China, India, and Japan; ensure that companies, especially the large export-oriented companies, can have access to secure, readily available, well serviced and well located industrial land; and reduce discretionary practices, increase transparency, and enforce standards more strictly so that foreign as well as domestic firms that enforce strict compliance and standards are not penalized. Enforcing standards would also help bridge the gap between the domestic and foreign markets. Resolving energy constraints will help all segments of the economy and provide a major boost to investment. It would be critical for Bangladesh to implement sustainable solutions that are able to provide unsubsidized power at competitive prices. Critical actions involve both the public and private sectors, including increasing generation capacity in low-cost, base-load power plants; commissioning of the large, gas-fired and dual-fuel combined-cycle power plants awarded to the private sector; upgrading BPDB's simple-cycle plants to combined-cycle; and accelerating moves to imported power from Bhutan, Myanmar, and Nepal and India's northeastern states. These actions would help move attention away from the measures that have been taken by the government so far, which have focused on shorter-term solutions, raised costs and subsidies, and added to fiscal vulnerabilities. Many of the recommended measures, as well as those relating to skills, logistics, and trade policy, would also improve the environment for domestic and foreign investment.

Improving Worker and Consumer Welfare

4.60 *Improving skills and literacy*. Improving skills and literacy will allow increased productivity of workers, wage increases, and a reduced level of waste. This will enable, among other things, the production of higher-quality goods. This will require articulating a comprehensive vision for skill development, reskilling the current labor force through greater access to non-formal training and skill-building, and improving the quality of foundational education.

4.61 *Implementing labor and work safety guidelines.* Minimizing the chances of further tragedies in the garment and other export sectors in Bangladesh has become a precondition for sustained export growth. This will require strong and credible government action and a partnership with the private sector, domestic and international. Seriousness of intent on the part of the government will play a critical role in trade relations with the European Union and the United States, the major players in post-Rana Plaza events.

4.62 *Making safety nets more effective in dealing with trade shocks.* Starting preparation of a safety net and labor strategy that recognizes possible winners and losers in trade liberalization could help reduce opposition to a neutral trade policy. Apart from cash transfers, a key part of this strategy should prioritize finding mechanisms that link poor safety net beneficiaries to more productive

employment opportunities with a particular focus on youth. The swelling youth cohorts offer opportunities and challenges. Investment in appropriate skills development to meet global and domestic demand has the potential to harness substantial gains from globalization, whereas training and retraining of workers will help to ensure their resilience to trade shocks.

Building a Supportive Environment

4.63 *Building institutions for trade policy coherence and implementation.* Implementing the multi-sector competitiveness agenda outlined above will require strong leadership, such as through an empowered inter-ministerial Cabinet Sub-Committee on Trade, and is a top priority. This body can also take on the more gradual process of institution building to ensure that institutions are working coherently and in a coordinated manner toward the objective of trade competitiveness. Important steps here will include the National Board of Revenue (NBR) and Ministry of Commerce (MOC) jointly formulating tariff policy, with due consultation; strengthening the in-house economic capacity of MOC; and linking MOC's policy making and trade negotiation roles more strategically with think tanks. Further steps will include making the Export Promotion Bureau (EPB) more effective by augmenting its in-house capacity; enabling greater private sector participation; targeting market diversification in key markets, such as China, India, and Japan; and allowing private sector providers to provide quality services in areas under government regulation.

Making migration more remunerative, affordable, inclusive, and safe

4.64 In many areas of rural Bangladesh, remittance incomes from family members working abroad represents both a significant proportion of household income as well as a substantial source of fund inflows into the local economy. Most of the job intermediation between overseas employers and potential Bangladeshi migrants occurs informally, outside the oversight of the public overseas employment intermediation agency, Bureau of Manpower, Employment and Training. Bangladesh is among the world's top ten remittance receiving countries, but has the lowest remittance per worker because of the low level of education and skills of the typical migrant worker. These migration trends have branded Bangladesh as a source of low skilled workers, and have locked workers into low wage and less dignified jobs. Poor contract enforcement and informational asymmetry have led to worker abuse especially among those who migrate through informal channels and face huge debts or poverty at home. Financing migration, which can cost anywhere between USD 2,500 – 3,750, or about 2.5 to 3 times the national per capita income, is a significant constraint for the poor.[80] Moreover, the poor are also especially prone to suffer from fraudulent practices by unscrupulous recruitment agents preying on their low knowledge and powerlessness.

4.65 Concerted efforts by the government to make migration more remunerative, affordable, inclusive and safe would likely yield high payoffs in helping to improve the lives of migrants and their families, especially those Bangladeshi currently too poor to avail of opportunities overseas.

4.66 The government can help make migration more remunerative by (i) building a national skills database to help plan, monitor, and improve training for aspirant workers, complemented by a Migration Information System with a web portal to provide information on the different skills sought in overseas job markets, and (ii) shifting accreditation for training providers from the existing certification mechanism to the internationally accepted National Technical and Vocational Qualifications Framework.

4.67 Out-of-pocket cost of migration in Bangladesh is extremely high compared with other countries.[81] The cost of migration can be reduced by (i) reducing information asymmetries between employers and prospective migrant workers through increased sharing information on the labor migration process through local government offices, and (ii) promoting more direct negotiations with government counterparts and employers in host countries to reduce visa trading.

4.68 The most important short-term problem aspiring migrants face is finding a way to pay for the move. Availability of loans for poorer households to finance migration could help make migration more inclusive, though not without risks. Such services would likely be best provided by micro-finance institutions, which have experience in banking with poor communities. Available evidence suggests that migration and microfinance institutions already interact: households use microcredit as an advance against expected future remittances; others use loans to finance the cost of migration; however, where migration fails, household debt can quickly become problematic.

Better regulation of manpower agencies, and an information campaign on the risks, overseas job conditions and migrant rights, can help aspirant migrants make more informed choices and reduce the risk of fraudulent practices committed by unscrupulous recruiting agents. In addition, government can help avoid costly-to-reverse migration decisions and limit the abuse of vulnerable migrants by providing credible information on migration opportunities and risks. While improved regulation of recruitment agents merits consideration (Box 12), any efforts to do so should be designed bearing in mind the capacity limitations of public sector institutions.

Box 12: Overseas Migration in the Philippines

The Government of Philippines approach to overseas migration focuses on both promotion and protection of the migrants with a view to maximize benefits by the Philippines Overseas Employment Administration (POEA). The government has taken a number of steps to achieve these objective.

- Electronic passport with biometric data was introduced to diminish identity fraud.
- All foreign employers who intend to hire Filipino workers are required to go through an accreditation procedure and officially engage the intermediation of a licensed Philippine recruitment agency.
- Local recruitment agencies are only given licenses if they comply with the rules and regulations set by the Government. These include disclosing to the migrant all terms and conditions, assuming joint liability with employers, specific advertising and recruitment process requirements, among other things. Agents are also responsible for sending potential workers for skills testing and medical examinations at authorized entities.
- Job placement happens through the recruitment agencies (or by POEA in the case of government-to-government arrangements) on the basis of a contract that conforms to the standards set by the government.
- Violations of rules are addressed through penalties that are overseen by POEA.

4.4 Urbanization: Improving Livability and Productivity

4.69 **Bangladesh needs to develop competitive urban spaces to achieve higher economic density, especially the Dhaka metropolitan area which accounts for about 36 percent of GDP.** Dhaka needs to shift toward a more diversified economic structure and upgrade to higher-value-added manufacturing and service industries. Empirical evidence (e.g. Glaeser et al.,1992, Jacobs, 1969) suggests that urban diversity and knowledge spillovers across, rather than within, industries are critical for long-term growth. Bangladesh should also encourage urban growth outside of Dhaka and Chittagong. Inter- and intra-city mobility will be critical to this process. Mobility of goods, services, labor, capital, ideas, and technologies helps ensure that all cities receive the needed production factors, human capital inputs, and innovations to improve productivity.

Scarcity and high price of urban land and housing, as well as transport accessibility, are key binding constraints

4.70 **Dhaka city is still the most productive location in Bangladesh.** Access to markets and a relatively better quality of power supply are Dhaka city's main comparative advantages. Dhaka is the best performing city locations for access to skilled labor and power supply, proximity to suppliers, sub-contractors, machine repair technicians and support businesses. But the capital is falling behind other locations in other aspects. Dhaka is the worst performing location for urban mobility and access to highways. Firms in Dhaka city have also a disadvantage in accessing the port and the airport, compared to those located in Chittagong city. Moreover, there are also issues on weak institutional framework (registration, mapping, land rights, etc.), and scarcity and high prices of land and housing. This is particularly challenging for firms, workers and investors. In fact, inadequate access to land and transport infrastructure in Dhaka city is the leading cause of firm relocation to peri-urban areas. While peri-urban areas benefit from proximity to Dhaka city, have a comparative advantage in accessibility and land and housing, these areas suffer indirectly from Dhaka city's congestion, and have lower access to infrastructure.[82] Priority action to help increase Dhaka's competitiveness are discussed in Box 13.

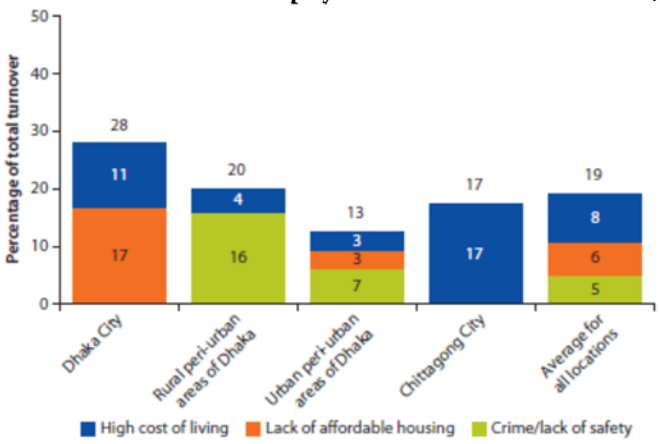
4.71 **Chittagong city has a disadvantage in access to markets, but an advantage in accessibility, land and housing.** Chittagong city has a marked comparative advantage in accessibility, being the top location for access to port, airport, highway and urban mobility. The port city was also ranked as the best performing location for availability and cost of land, buildings and housing for workers. However, in spite of its accessibility advantage, Chittagong has not been able to capitalize on its comparative advantage as the largest seaport city in Bangladesh. The Chittagong port handles 80-85 percent of Bangladesh foreign trade, including the bulk of Bangladesh's main exports, garments. However, Chittagong is one of the most inefficient ports in Asia, and the slow turnaround times seriously affect exports.

4.72 **Local poverty incidence in Bangladesh is closely correlated with its accessibility to urban centers as well as level of urbanization, economic density and human capital.** The Economic Potential Index (EPI) and local poverty incidence show strong spatial correlation.[83] The EPI highlights very high economic potential along the Dhaka and Chittagong corridor. In addition, The EPI shows several districts with high local poverty incidence possess high economic potential which, with the right policies, might be able to act as regional growth poles. A policy priority would be improving the connectivity between these poles and the Dhaka-Chittagong corridor. It will help develop a national system of cities for more balanced and inclusive regional development.

Box 13: Transforming Dhaka into a Globally Competitive Metropolitan Area

The Dhaka metropolitan area is among the world's 10 largest megacities, with an estimated population of about 15 million, and produces 36 percent of Bangladesh's GDP. It is the most productive urban location for garment firms in Bangladesh, but it is losing competiveness as a manufacturing growth center due to poor living conditions, high costs of living and heavy road congestion. Concern over the size of Dhaka is misplaced, since even the world's largest cities can be successful if they are well managed; the issue is not whether Dhaka is too large but rather how well it is managed. According to the Economic Intelligence Unit's global livability index, Dhaka is one of the world's 10 worst cities to live in. It has the highest level of urban-related inefficient turnover (defined as separations caused by an inefficient urban environment rather than by more competitive job offers), primarily because of the shortage of affordable housing and the high cost of living.

Causes of Urban-Related Inefficient Employee Turnover in Garment Firms, by Location



Source: Garment Firm Survey 2011.
Note: No cases of urban-related inefficient turnover are reported in the Dhaka or Chittagong export processing zones. Dhaka City refers to the Dhaka City Corporation. Dhaka refers to the Dhaka metropolitan area. Chittagong City refers to the Chittagong City Corporation.

Increasing Dhaka's competitiveness requires a shift from reactive and remedial measures to proactive urban policies. It also requires bringing local governments to the forefront of the competitiveness agenda, in partnership with central government agencies, the private sector, and research institutions. Dhaka needs to transform itself in the following strategic directions.

- **Enhance the capacity to innovate within a productive and diversified urban economy.** Dhaka needs to transform away from the production of low-value manufacturing products toward a high-value industrial and service mix. Moving to high-value products and services requires highly skilled human resources and an innovation capacity fueled by the cross-fertilization of ideas that is characteristic of large metropolitan areas.
- **Improve connectivity, both internally and with the global economy.** The Dhaka metropolitan area needs to be better connected internally and with its peri-urban areas, and has to strengthen their connectivity to the global economy. Improved connectivity within Bangladesh's system of cities—particularly within the Dhaka-Chittagong corridor—is important for export competitiveness.
- **Increase livability and attractiveness for firms and workers alike.** Dhaka City's inadequate living conditions have already started eroding its comparative advantage by increasing firms' operational costs as a result of high worker turnover and high levels of crime and violence. The livability of the urban space will become an even more binding constraint to inclusive growth.

Priority action areas include (i) developing appropriate institutional mechanisms for core-periphery coordination in the Dhaka metropolitan area; (ii) improving infrastructure in both Dhaka City and its peri-urban areas to leverage its productivity advantage, (iii) enhancing urban mobility in order to manage the growing diseconomies of agglomeration; (iv) strengthening institutions for a more efficient and integrated land and housing market; (v) strengthening the coordinating role of local authorities to foster a business environment that rewards entrepreneurship and innovation; and (vi) improving livability and the quality of urban amenities, and make growth more environmentally and socially sustainable.

4.73 **The pressure of rapidly growing urban population has had a major impact on the scarcity and costs of urban land for housing, businesses and other purposes.** In Dhaka, for example, the average estimated land price in 2012 is about 2.3 times of that in 2007 (PPRC, 2012). High land prices and scarcity of buildable land increase the costs of housing, offices, factory spaces, and services. The high cost to both residents and businesses makes the city less attractive to investors and human capital, thereby making it less competitive globally. There are several challenges associated with making urban land available for development. These include (i) difficulty in establishing clear property titles, registration, and building permits; (ii) occupation of large tracts of land by public entities; (iii) added cost of filling in low elevation terrain; and (iv) inadequate urban infrastructure. The status quo process of filling in and developing small plots of land within, or at the margins of, developed areas is inevitable due to the scarcity of adequate land, but is an inefficient process and often causes considerable environmental damage. In the case of Dhaka, in which all adequate land has been fully utilized but which face an increasing demand for land, larger scale development with provision of infrastructure is both necessary and more efficient.

4.74 **Both Dhaka and Chittagong suffer from acute shortages in adequate housing stock.** The housing stock shortage was 40 percent in 2001 and has continued to increase, pushing up rental costs. In Dhaka, the average housing rent in 2007 was 24 times higher than that in 1973, while in Chittagong it was 15 times higher (PPRC, 2012). Sixty percent of housing in Dhaka is classified as informal or illegal, and therefore ineligible for government and donor sponsored funding for home improvement and retrofitting. The main reason is that the current building standards are not affordable for the majority of urban residents and the building permit and registration process is extremely cumbersome and costly. Leaving the housing outside the regulatory realm prevents the application of truly necessary and relatively affordable regulations.

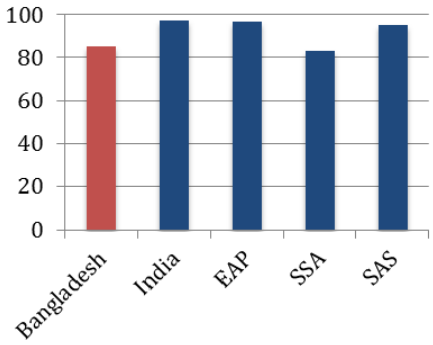
4.75 **Standards of living and environmental conditions in urban slums are worse than those in rural areas.** Over 3 million people in Dhaka are estimated to live in slums, and over a million in Chittagong. An indicator that illustrates the disparity between urban slums and rural areas is the under-five mortality rate, which is 79 percent higher in slums than the overall urban rate and 44 percent higher than in rural areas (UNICEF, 2012). Residents of informal settlements and slums are highly vulnerable to natural disasters such as floods and earthquakes. Most slum housing in Bangladesh is made of bamboo or other temporary materials. Slums are usually located in vulnerable locations, such as in low-lying areas near rivers or on stilts over drainage channels. Their occupants are therefore very vulnerable to floods, which occur frequently in Bangladesh.

Poor urban services weakens city competitiveness and livability

4.76 **Access to improved water supply and sanitation in Bangladeshi cities is lower than the averages for both the South Asia and East Asia and Pacific regions** (Figure 4.10, and Figure 4.11).[84] According to the 2011 Population Census, around 58 percent of households in Dhaka and 32 percent of households in Chittagong had access to tap water. Poor living conditions and high costs of living discourage workers from settling down and therefore exacerbate overall economic inefficiency and high turnover. Only about 40 percent of housing for garment workers in Dhaka has piped water supply and regular garbage collection, significantly lower than the 70 percent overall connection rate. An estimated eighteen percent of garment workers in Dhaka and Chittagong leave their employment on account of poor living conditions (World Bank. 2102); this high turnover inhibits the accumulation of human capital, which in turn is crucial for industries to advance their technology and product value chain. The rapid growth of large-scale manufacturing

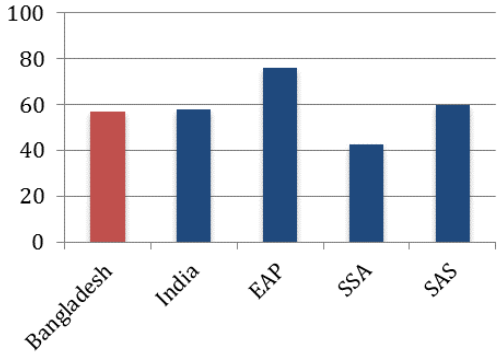
clustered around the Dhaka and Chittagong region has given rise to significant environmental challenges (see Annex).

Figure 4.10: Access to Water Supply Facilities



Source: WDI. Data shown are for 2010.

Figure 4.11: Access to Sanitation Facilities



Source: WDI. Data shown are for 2010.

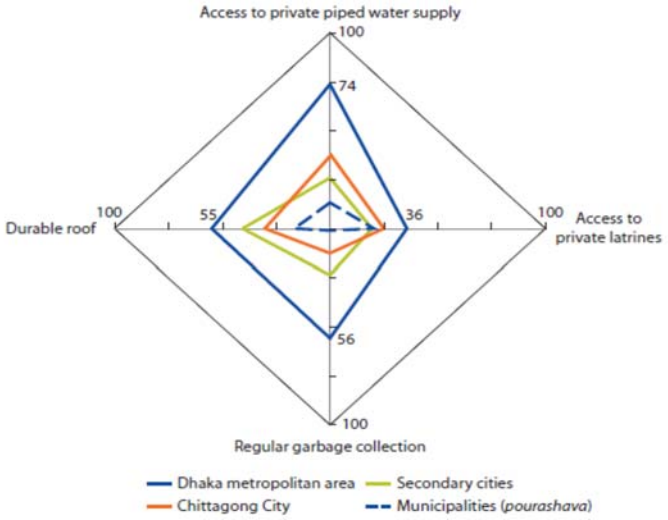
4.77 **Large urban population with significant consumption producing large quantities of waste in densely populated areas.** The solid waste management sector today is under extreme stress and is in a state of near crisis, mostly due to population pressure in urban areas with fragmented and insufficient responses from various levels of government. The 43.5m people living and working in urban areas today, collectively generate some 33,300 tons of solid waste per day, out of which only around one-half is collected and disposed of in landfills. The remaining uncollected waste ends up either on city sidewalks where it is openly burned contributing to local air population problems, or in the storm drainage and river systems where it causes significant blockage and exacerbates flooding in many cities, including in the capital, Dhaka.

4.78 **Poor public transportation and inadequate transport infrastructure reduce the livability and economic efficiency of cities.** Bangladesh's urban public transport systems are unorganized and inadequate. The basic urban transport infrastructure in Dhaka has not been developed and maintained to keep up with the city's rapid urban growth. Urban routes carry more passenger car units (PCU) than their designed capacity; at the same time, roads are mainly occupied by low PCU personal cars. As a result, all major urban roads and intersections are congested. The absence of adequate public transportation has had a much greater negative impact on the lower to middle income households in Dhaka. The Strategic Transport Plan household survey[85] reflected a high dependence on public buses, rickshaws and walking: about one third of the population uses rickshaws as the primary mode of transport, 44 percent use public buses, 14 percent walk, and only 8 percent use "non-transit motorized" vehicles (e.g. cars, pickups, motorcycles, etc.). Of public transit users, an overwhelming majority (97 percent) were from low- and medium-income households, highlighting the need for major investment in urban public transportation infrastructure to improve livability for poor households. Road congestion reduces the city's productivity, economic efficiency and livability. The Roads and Highway Department estimated that the annual loss caused by traffic congestions in Dhaka city to be around Tk.200 billion ($2.7b) and that about 3.2m business hours are lost every day. Time loss on the streets accounts for nearly Tk.120 billion, trade and export losses for about Tk.40 billion, environmental causes for about Tk. 25 billion, and the rest for medical and other purposes (PPRC, 2012). Smaller cities suffer the most from poor urban services: the shares of households with access to private piped water supply, private latrines,

regular garbage collection and durable roofs in Chittagong and other city corporations is much lower than in Dhaka; municipalities (*pourashavas*) show the poorest quality (World Bank, 2013).

4.79 **Well planned and integrated urban transport systems will improve the livability and economic efficiency of cities.** Urban transport by its nature is a multi-sectoral subject. International experience suggests it is essential to ensure good coordination among relevant policy areas, such as urban road development (new road, flyovers, and maintenance), urban railway, city bus, including Bus Rapid Transit (BRT), and urban land use planning and development. It is recommended to develop a national urban transport policy outlining key policy areas and policy directions, followed by (a) institutional development programs to re-align institutions to urban transport functions and strengthen capacity and coordination of those institutions, (b) development of urban transport master plans for each urban area, and (c) investment programs to improve urban transport infrastructure and services in major cities, with a particular focus on public transport and non-motorized transport.[86] It is essential that public transport systems are well integrated with not only each other but also with other transport modes to create efficient, safe and affordable urban transport systems. It is necessary to strengthen traffic flow capacity of arterial network, and clarify the functions of sub-arterials and neighborhood roads by controlling unnecessary diversion into lower categories of road. Flyovers shall be kept minimal as they only shift the points of congestion, and the additional capacity can be filled up very quickly. Along with public transport improvements, continuous, convenient, and safe NMT networks need to be developed through better paved and connected sidewalks and rickshaw lanes, safer and more accessible pedestrian/rickshaw crossings, and better street lighting for safety and security after dark. Lastly, formalizing urban bus industry, improving regulation of private operators and shifting competition for public transport services from the 'street level' to competition for defined routes will improve the livability and economic efficiency of cities.

Figure 4.12: Share of households with Access to Urban Services and Housing, 2006



Source: World Bank 2013

Large-scale urban land and affordable housing development

4.80 **Scarcity and high cost of buildable urban land are the main reasons for the high cost of housing, offices, and factory spaces in large cities,** especially in Dhaka, where firms cite land

cost as a major constraint to business expansion (PPRC, 2012). The challenge of securing and increasing urban land for development are due to difficulties in establishing clear property titles, registration, and building permits; scarcity of available urban land due to large tracts occupied by public entities; high building costs due to the need for filling to compensate for the low elevation of the terrain; and the lack of basic urban infrastructure. A quantum leap in the mass production of buildable urban land and housing for lower to middle income households is required as part of the national growth agenda. Large scale affordable housing development requires the government to establish a clear property rights system, provide basic public infrastructure, set up realistic building and housing regulation and policy, implement adequate and practical planning, support differentiated housing financial solutions of lower to middle income households, and facilitate inter-governmental coordination among different ministries and agencies.

Municipal governance and revenue enhancement to improve urban livability and inclusiveness

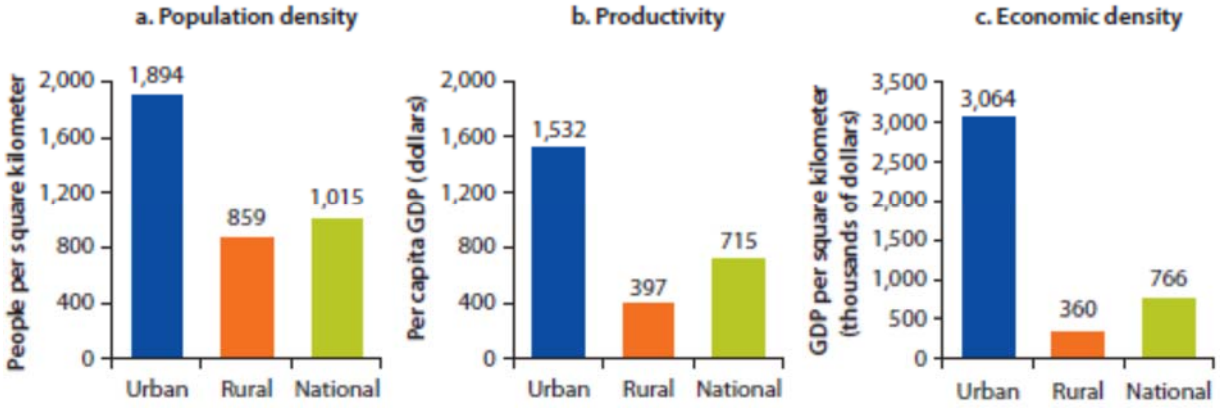
4.81 **The financial resource for urban development is very limited:** less than 1 percent of Bangladesh's GDP is spent on urban infrastructure development, compared to about 4 percent in China during the 1990s when urbanization was comparable to Bangladesh's current rate. Even much more developed cities like New York budget 5 percent of their GDP to urban development. Municipal governments in Bangladesh are heavily dependent on central government grants, which account for over 85 percent of their development expenditures. Of the central grant currently given to municipalities, ADP block grants are fully under the central government control. On municipal revenue, the average own-source revenue of a sample of 127 small and medium-sized municipalities in 2010-2011 was only about Tk.176 per capita ($2.4), which is very low, especially when compared to other low-income countries. Own-source revenues of the 19 largest cities in Ethiopia, a country with much lower per capita GDP, averaged about USD66 per capita in fiscal year 2009-2010, almost 9 times that of Dhaka (MacDonald, 2011). Many municipalities are unable to identify the entire tax base and struggle to collect the holdings (property) tax, which is the most important local general revenue source. In Dhaka, for example, the holdings tax revenues amounted to about Tk.300 (USD4) per capita in 2010-2011. In smaller cities, the average amount collected was only Tk.40 (USD0.5) per capita. User charges for services make up another large local revenue category in Bangladesh, but the current charges are far too low to recover costs.

4.82 **Local governments should be granted greater financial autonomy and responsibility.** Increasing local government autonomy and capacity to manage own revenue and expenditures will enable municipalities to address local needs and challenges. Municipalities must develop short- and medium-term capital investment plans that take available resources into account. They must also develop a more effective planning system to support efficient and effective investments, both for public bodies and private investors. Increasing local autonomy and responsibility will require significantly upgrading the municipal staff's technical capacity. Municipal governments that successfully improve fiscal resources through sustainable means should be rewarded with more autonomy. The central government should also initiate systematic training programs for elected municipal officials and professional training courses for technical staff.

4.83 **The current municipal service provision models are worth reviewing, especially the service providers' institutional capacity and performance.** Public-Private Partnerships (PPPs) can also be leveraged to mobilize resources for urban infrastructure and services. The conditions and supporting mechanisms for PPPs need to be developed. In the long term, market based pricing for municipal services offers one way for the private sector to create its long-term cash flow for its

investment or service. In the short term, instead of charging service at a market price, the government can redesign its subsidy policy with appropriate public contribution to cover some service costs; the households pay an affordable price to cover the rest of service cost.

Figure 4.13: Urban-Rural Disparities in Population Density, and Economic Density, 2010 (USD)

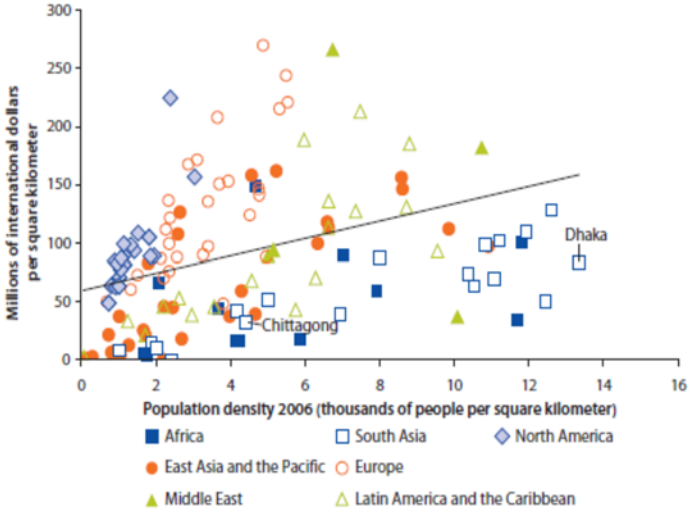


Source: World Bank 2013. Based on data from Bangladesh Bureau of Statistics 2011; UN 2011; World Bank, 2012

The economic density of Dhaka and other urban areas should be increased

4.84 **Economic activity in Bangladesh is heavily concentrated in Dhaka and Chittagong metropolitan areas.** The urban economic density, measured by economic output per square kilometer, is about 8.5 times of rural areas. The productivity difference between urban and rural areas is about 4 times, while urban population density is twice of rural ones (Figure 4.13). Bangladesh's continued urbanization is critical to its future economic growth. However, compared with other global cities, Dhaka's economic density is low (Figure 4.14).[87] Dhaka's peak economic density is US$55 million per sq. km. While the comparison is not entirely fair given that Bangladesh is a low-income country, for Bangladesh to move into middle-income country status, Dhaka must improve its economic density to compete with other high density cities, such as Delhi (US$113 million per km^2),[88] Bangkok (US$88 million per km^2) and Singapore (US$269 million per km^2).

Figure 4.14: Population Density vs. Economic Density of Urban Agglomerations (2006)



Source: PwC, 2009[89] and UN World Urbanization Prospects

4.5 Adaptive Delta Management

4.85 **Major rivers of Bangladesh have shaped its comparative advantage and determined the location, nature and pace of development.** While the rivers have conferred unquestionable benefits to transport, trade, agriculture and livelihoods, they also remain a risk to development through recurrent floods, erosion and water pollution. Major flooding recorded in recent years occurred in: 1987, 1988, 1998, and 2004; the most recent one occurred in 2007. In 2004, around 20 percent of Bangladeshis were affected by flood, and more than 40 percent of Dhaka was underwater. Management of water resources has therefore emerged as a central pillar of prudent economic policy. The problem of river management in Bangladesh is often rendered more complex due to the high vulnerability of the economy to water related impacts that are transmitted through transport, agriculture, urbanization and human health and exposure to disasters.

Sustaining productivity growth in agriculture

4.86 A notable feature in Bangladesh's economic development has been the ongoing structural transformation in the economy; the country is in fact "ahead of the curve" relative to most other developing countries in that the share of agriculture in employment is falling faster than its share in GDP (Figure 4.15). While labor productivity in the non-agricultural sector continues to be much higher than in agriculture, good agricultural growth combined with labor exiting from agriculture has resulted in a significant narrowing of this gap in recent years (Figure 4.16). Bangladesh has done remarkably well in agricultural productivity growth – largely on account of technical change. Key drivers of agricultural growth have been liberalization of input market, adoptions of modern varieties, increasing use machinery, access to markets and price hike of agricultural products.[90]

Figure 4.15: Share of the Agriculture Sector in GDP and Employment (percent)

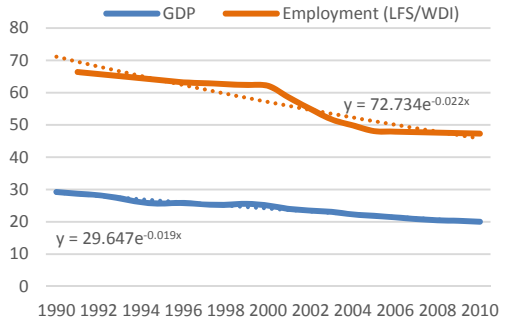
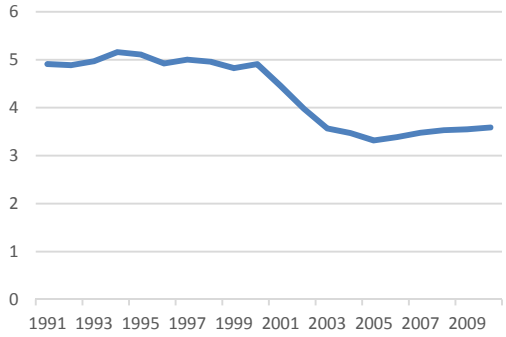


Figure 4.16: Ratio of Non-Agricultural to Agricultural Labor Productivity



Source: Based on national accounts data, LFS (various years; inerpolated for inter-survey years) and WDI

4.87 Crop agriculture is the largest component of agricultural GDP (nearly 60 percent), and is dominated by rice, which is grown in 75-80 percent of land under cultivation. Rice productivity has risen primarily through adoption of high yielding varieties which now cover 80 percent of the land under rice, up from around 20 percent in 1979. The production performance of major non-rice crops during the last four decades has been mixed. However, analysis of comparative advantage suggests that in the winter season in Bangladesh, production of most non-rice crops (including wheat, pulses, potatoes and many vegetables) is economically efficient. The fisheries and livestock sectors are potentially also important sources of growth and poverty reduction. Poultry and dairy farming has specific advantages over crops, fisheries and forestry, as they require less land and are

not significantly affected by seasonality. Culture and marine fisheries subsectors also have significant potential for growth acceleration in the coming years.

Box 14: Fisheries Sector in Bangladesh

Fish forms an important part of the protein intake of the poor. Data from rural areas in Bangladesh suggest that low-value, wild, small freshwater fish are the most common fish consumed in rural areas and the most important source of dietary protein (Belton et al. 2011; Thilsted 2010, 2012). Small fish are generally sold in rural markets and can be purchased in affordable quantities by the rural poor and shared more equitably among household members, including women and children (Roos et al. 2007). The fate of capture fisheries is inextricably tied to the condition of wetlands, which also provide a variety of indirect environmental services in the form of flood control, ground water recharge and pollution abatement. Production in this subsector has declined, given losses of floodplain habitat due to agriculture and urbanization, lost connections along critical fish migration pathways, significant reductions in dry season riverine flows, over-fishing, and rapidly increasing industrial, human and agricultural pollution.

Adaptive and resilient agricultural/fisheries systems should be introduced to scale up sustainable fisheries systems adaptive and resilient to seasonally flooding conditions and strengthen agriculture/fish value chains in order to support sustainable livelihood practices (including disease risk reduction, increase productivity and quality of produce). Activities may include (i) structural and non-structural investments to explore more climate-resilient and diversified agriculture and fisheries models for both inland fishing and aquaculture (including capacity building and extension services); (ii) strengthening of value chains and marketing, (iii) improve sustainability of shrimp farming and promote greater rotation/diversification farming systems through modernization in shrimp farming systems, support for non-shrimp aquaculture; and technical support to strengthen integrated sectoral planning.

The development of inland and marine fisheries can be supported by improving inland fisheries habitat to boost productivity and restore ecosystem health; scale up proven approaches for community-based fisheries management; and initiate a reform process for marine fisheries including piloting co-management in selected coastal areas with artisanal fishing communities. The growth of shrimp exports can be improved (i) increasing the share of value-added products in the export basket, (ii) improving the image of Bangladeshi shrimp abroad and (iii) investing in food safety and sustainable certification initiatives. Further improvements are also needed through increasing the productivity of fish farms, reducing post-harvest losses, and encouraging exporters to invest in integrated fish farms.

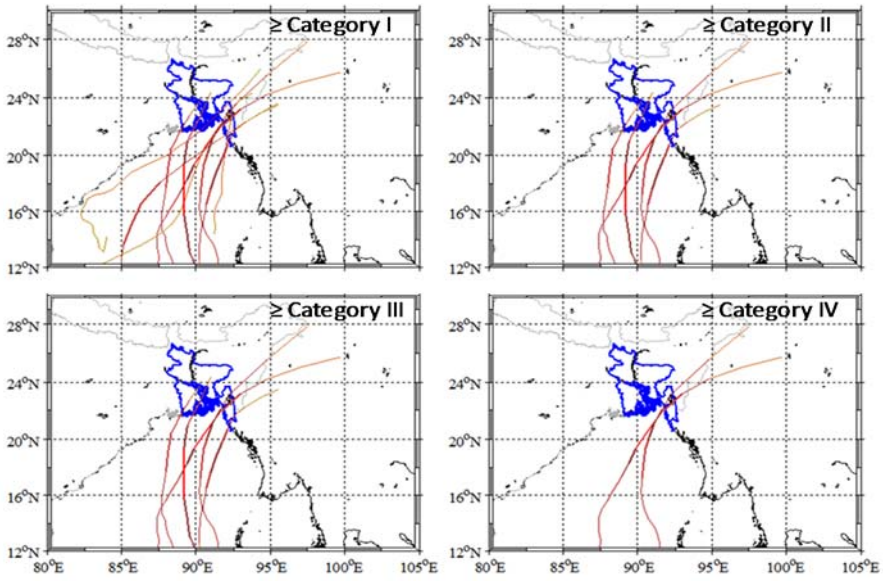
4.88 Analysis of the determinants of farming efficiency carried out recently by the WBG has highlighted several implications for policy.[91] An important finding is that land size has a positive and significant impact on efficiency suggesting larger farms are more efficient. Results also highlight the importance of key public services: for instance, electricity access strongly raises technical efficiency of farmers, likely because farm households with electricity access may be more inclined to use agricultural machinery compared those with no electricity access. Two significant findings emerge related to land: (a) rented land is associated with higher efficiency, and (b) land fragmentation is negatively associated with farming efficiency; these results point to the importance of better functioning land and lease markets to allow more efficient households to rent in rent in land (or, perhaps equally important, to allow the inefficient households or absentee households to rent out land without fear of losing their land). Finally, the analysis highlights the importance of improved connectivity in Bangladesh, and the high potential payoffs from the investments made so far on physical infrastructure. With declining farm sizes, improved competitiveness through more effective and efficient use of inputs, especially land and labor, will be critical. Another important area meriting policy attention is agricultural research – both to consolidate rice productivity gains but also to broaden its scope to cover diversified agriculture and deal with climate change.

4.89 Fisheries make an important contribution to food security and the economy. While this sub-sector currently contributes less than 3 percent of exports, this could be enhanced by tapping the latent potential of high-value marine resources (Box 14). This is especially important in the context of two recent successive UN tribunal awards that have established Bangladesh's sovereign

right on more than 118,000 sq. km of maritime territory, 200 nautical miles of Exclusive Economic Zone and 34 nm of continental shelf. These awards have opened up the promising possibility of creating many new jobs in the marine fisheries sub-sector and thereby boost the country's economy. The livestock sector is potentially also important source of growth and poverty reduction. Poultry and dairy farming has specific advantages over crops, fisheries and forestry, as they require less land and are not significantly affected by seasonality. To help expand the productivity of livestock animals and birds, government attention needs to concentrate mainly on three elements: (i) increasing the productivity of small holder farmers; (ii) expanding commercial production; and (iii) ensuring better marketing facilities, especially for small holders.

4.90 **Though much progress has been made in managing water-related risks, institutional structures have been overwhelmed by the scale and magnitude of the challenges confronting the sector.** The government needs to strengthen and reform institutions and incentives in ways that can respond to the escalating challenges of rising population densities, and hydrological risks that impact economic productivity. Insufficient attention is given to the operation and maintenance of infrastructure resulting in a fiscally inefficient cycle of build-neglect-rebuild. Similarly, land erosion remains one of the enduring challenges of river management (see also Box 15). Since 1973 the banks of the Jamuna River have lost over 90,000 ha of land due to erosion and the Ganges more than 7,000 ha. As Chapter 2 has shown, the southwest is one of the country's least developed region, due in large part to degradation of water resource system resulting from a reduction of freshwater inflows from the Ganges, siltation of rivers following the construction of the polder systems, and increasing salinity intrusion from the Bay of Bengal.[92] These challenges are compounded by the region's more pronounced exposure to cyclones and tidal floods (Figure 4.17).

Figure 4.17: Tropical cyclones that made landfall over Bangladesh during 1979-2010



4.91 **Climate change poses an important development challenge for Bangladesh.** In 2014, Bangladesh was ranked the most climate-vulnerable country in the world.[93] Sustainable economic growth is directly linked to the country's climate-adaptive programming for resource management. The frequency of floods, storm surges and cyclones are an immense strain on land and water

resources, especially for poorer households living in the Bangladesh Delta. Thousands of kilometers of road and railway tracks, as well as energy infrastructure and industries, are currently at risk of inundation (The Cost of Adapting to Extreme Weather Events in a Changing Climate, WB 2011). The country faces tremendous water scarcity in the north-west drought prone area during dry season. In addition the country is heavily impacted by erosion, land subsidence and environmental degradation.

Box 15: Key Trans-boundary Water Issues and Challenges

Fifty-seven trans-boundary rivers feed into Bangladesh, carrying a peak water flow of an estimated 1.5 million cubic meters per second. These rivers effectively create the world's second largest riverine drainage basin, the Ganges–Brahmaputra–Meghna (GBM) Basin. Bangladesh is located in their lowermost reaches, sharing fifty four rivers with India and two with Myanmar. The other co-riparian countries are India, Nepal, Bhutan and China. To date, Bangladesh has signed only one international river pact with India on the Ganges– a 1996 bilateral treaty that establishes a 30-year water-sharing arrangement between the two countries. There are no other international water treaties on any other river.

The first challenge for Bangladesh is managing its water resources base, with little control and knowledge of incoming flows. The constant variability of water lends itself to sectoral levels of conflict with concerns of environmental flows and ecosystem services bringing a new dimension to the conflictual use of water resources.

The second challenge for Bangladesh is managing its vulnerability to flood and other environmental hazards. Growing environmental stress, population and increasing demands for water in Bangladesh require governments to co-operate, or collaborate in the least, to address these issues at a regional scale. Sustained and adaptive management will require adopting a "basin-approach" in the GBM – this has been hindered by the lack of open availability of detailed hydrological data of the GBM basins.

The third challenge is Bangladesh's food security. As an agrarian and riverine country, Bangladesh is dependent on river water for human consumption, crop irrigation, fisheries, transportation and conservation of biodiversity. The downstream riparian status of Bangladesh makes it even more dependent on stable river flows meeting its agricultural needs. With changing monsoon patterns, it is even more important for Bangladesh to have sufficient information to plan its cropping seasons and ensure high crop yields.

The fourth challenge is missed opportunities. Large basins present an opportunity to improve the standard of living of the largest concentration of the poor people in the world, vis-à-vis hydropower schemes, joint irrigation schemes, knowledge exchange, joint research and collaboration on large programs. Bhutan and India have shown that, given goodwill and trust between the countries concerned, water can be successfully used as an engine for economic growth. Greater cooperation and collaboration along similar lines between Nepal, India and Bangladesh has the potential to bring substantial additional benefits to all three concerned countries.

4.92 **Over $ 10 billion of investment in the last 35 years** in the Bangladesh Delta in water resource management, protective infrastructure **like** cyclone shelters and coastal embankments, along with better early warning and readiness systems, have begun yielding modest results for rural growth, especially in agriculture. Bangladesh has built 9,000 km of embankments, 12,000 hydraulic structures, and more than 500 flood control, drainage and irrigation works, reaching some 6 million hectares of land. It has also completed 240 disaster shelters with a further 230 are under construction, have significantly reduced the loss of life and livelihoods and property damage. Over 50 km of connecting roads were built. Rising household incomes in the areas impacted by these programs show there has been a positive impact on agricultural productivity. Although being a considerable investment, this is far less than the average annual economic loss of US$1.8 billion per year on average due to natural hazards. In addition, a considerable part of these investments have been allocated to post-disaster reconstruction activities. Notwithstanding that extreme weather events may put all the recent gains in resilience at extreme risk (The Cost of Adapting to Extreme Weather Events in a Changing Climate, WB 2011).

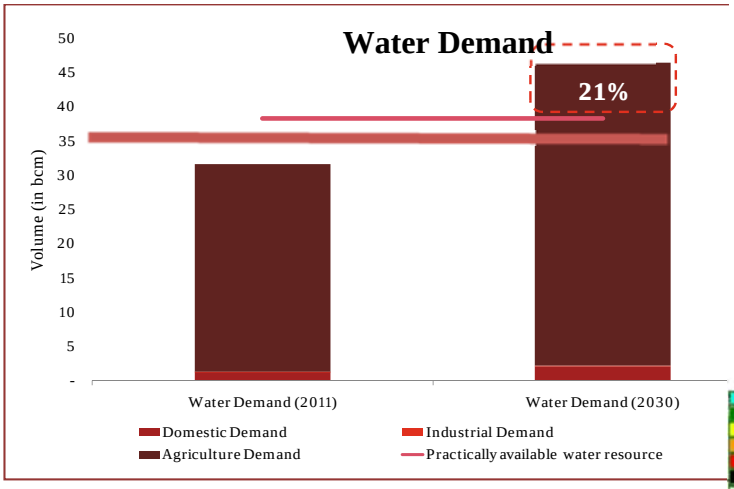
4.93 **Increased investment in infrastructure for effective land and water management has reduced vulnerability to some degree.** Sustaining investment in land and water management infrastructure, with particular focus on climate change adaptation improve the productivity of rice and other crops, remains important if the country is to meet its food security needs.[94] Results for agricultural productivity from such investments are also linked to a wide range of other factors, including institutional development, R&D for climate-smart agriculture, technology adaptation, crop diversification, and the promotion of agri-based industry. The WBG and other development agencies continue to partner with the government for water resource management, agricultural adaptation, environmental and natural resource management with pollution abatement and disaster preparedness. Bangladesh's resilience to climate change should improve over the next decade as the benefit from these investments is increasingly felt.

4.94 **Even though Bangladesh's response to the challenge of delta and climate change related risks has achieved some results by focusing on infrastructure for land and water management, much more work is needed to reach optimal levels of resilience.** Protective measures are needed to guarantee sustained infrastructure systems (especially transport and energy), being prerequisite to boost foreign investments. These measures should be combined with renewed approaches of erosion protection / land reclamation and halt environmental degradation. Institutions should be strengthened and water resource management infrastructure ought to be scaled up. Regional climate-smart strategies for agricultural growth, aimed at sub-sectors like fisheries, livestock, and high value crops, are likely to yield a significant national impact on climate change. Given the already considerable evidence that investment to reduce climate vulnerability promotes agricultural growth, programs should focus on (i) institutional strengthening of land and water management arrangements, (ii) investments in water resource management infrastructure and disaster preparedness systems to meet demands in these areas, and (iii) area-specific strategies for agricultural adaption in sub-sectors such as fisheries, livestock and high value crops.

The scale and urgency of Bangladesh's water resources challenge

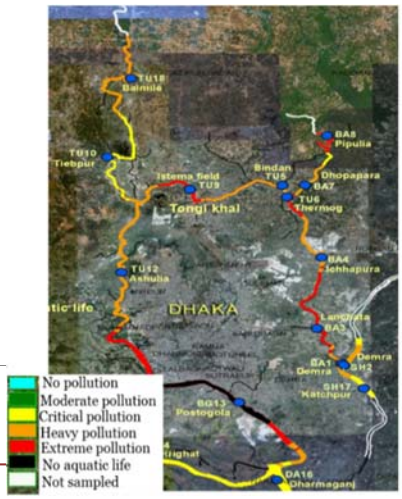
4.95 **Bangladesh faces challenges related to flooding and inundation predominantly during the monsoon season, while experiencing water shortages and droughts predominantly in the dry season**. Estimating practically available water resources and demand in the dry season for the years 2010 and 2030 shows that water supply was sufficient to meet demand on a national scale in 2011. However, assuming practically available water supply, i.e. considering current infrastructure, to remain equal to today, water demand is expected to exceed water supply by 21 percent in the dry season by 2030 (Figure 4.15). Requiring 93 percent of total water demand, agricultural water demand is mainly driven by Boro rice production. Given population growth and dietary changes, agricultural water demand is expected to increase by 46 percent in 2030. Driven by the textile industry, industrial water demand is also expected to increase by 109 percent in 2030.

Figure 4.5: Water supply/ demand balance (dry-season, practically available water resources)



Source: PwC Analysis

Figure 4.6: Dhaka's water quality situation in the dry season



Source: Dr. Badruzzaman

4.96 The water supply-demand gap in 2030 is expected to widen when also considering water quality aspects. 33 percent of Bangladesh's population is exposed to arsenic contamination of groundwater, while the increasing salinity levels from seawater intrusion and agricultural runoff pose challenges for industries and farming activities in the southern regions. Untreated wastewater and effluent discharged into water bodies further reduce usable water resources, particularly in urban and industrial centers. In the dry season, the rivers in and around Dhaka are practically void of aquatic life, as dissolved oxygen levels of around zero prohibit any form of live to pertain (Figure 4.16). Importantly, the severity and diversity of the water resource management challenges depends on the region. With 80 percent of the water demands being met by groundwater resources, abstractions in some regions exceed the groundwater recharge rate, resulting in falling groundwater tables. This is particularly a challenge around the capital city Dhaka where the groundwater table is falling by 2 meters every year, and in the Barind Tract.

4.97 The quantity of groundwater recharge is still uncertain in Bangladesh, with estimates ranging from 21 billion cubic meters to 65 billion cubic meters per year. Similarly, the sustainable total yield of extraction of groundwater has not yet been assessed. Further, 92% of all water resources are external, i.e. entering Bangladesh via trans-boundary waters, resulting in high dependency and uncertainty on future water availability. Thus, the water supply-demand gap could be greater than the estimates project. While recharges in groundwater resources only form 2 percent of Bangladesh's renewable water resources, only 0.4 percent of the total surface water is stored. Bangladesh with its typical flatland topography as a delta country, and the resultant challenges for construction of required infrastructure, is one of the main reasons for these low levels of surface water storage. The WBG (along with the 2030 Water Resources Group) need to identify strategies and interventions to address the quantity and quality issues in water resources management.

4.98 As a result of climate change, flood risks will largely increase by an increasing number of cyclones, higher river peak flows, more flash floods and sea level rise. The availability of fresh water sources and other natural resources will come under increasing pressure by temperature

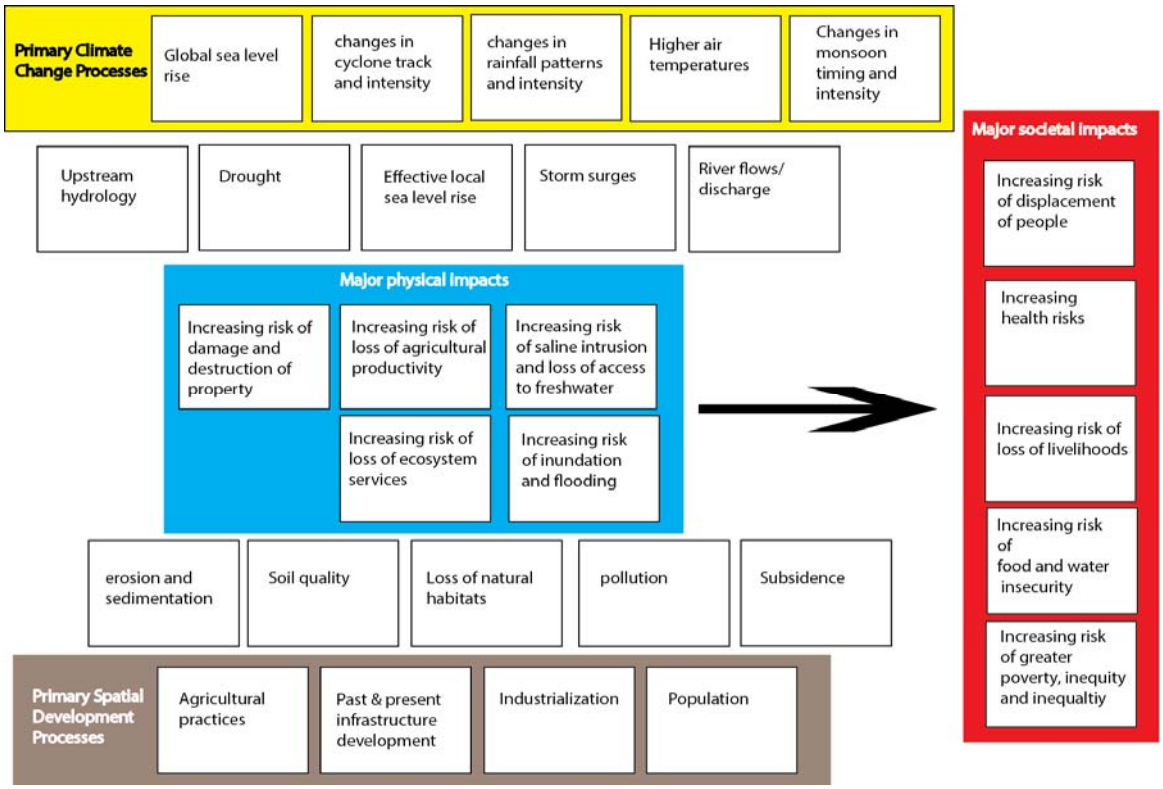
increase, salinization, increase of the population and intensification of agricultural and industrial sectors. At the same time, the country's vulnerability will rapidly increase due to socio-economic development as more people and a higher economic value will be exposed to these natural hazards. Although the exact speed of climate change, and the impacts of socio-economic development are difficult to predict, spatial integration of these developments will become increasingly difficult as pressure on available space already is very high. As the time horizon of investments in infrastructure and urbanization are 50 years and longer, the country's development plans should therefore be fully anticipating on the long term risks of climate change.

4.99 **A different approach is needed to manage the Bangladesh Delta because of its complexity.** More long-term planning is urgently needed. The Ganges-Brahmaputra-Meghna Delta, which encompasses two-thirds of Bangladesh as well as India's West Bengal, is Asia's largest delta, a climate hot spot, and the world's most populated delta. In the worst-case scenario, projected sea-level rise by 2050 could directly affect more than 16.8m people and one-quarter of Bangladesh's land area. With support from the Government of the Netherlands, Bangladesh has embarked on preparing the Delta Plan 2100 to develop an integrated and holistic long-term plan to ensure safe living and sound economic development in the delta.[95] Adaptive delta management (ADM) is used as a guiding principle, and can be summarized by the following 4 principles:

- Anticipate: By using multiple adaptive strategies and a flexible approach instead of final development images, solutions are more likely to be resilient and limit over- or under-investment.
- Adequate: by connecting short term decisions on water and spatial planning to long term challenges of climate and socio-economic growth, ADM ensures that projects or interventions taken fit within a long term vision and strategy with short-term and medium-term implementation and investment plans.
- Flexible: by valuating flexibility, investments in timing and scope are adapted to meeting the real needs of the moment, limiting the chance of over- or under investments.
- Concerted action: by connecting investment agendas of public and private stakeholders, support and synergy is created for long term, resilient solutions.

4.100 This way of adaptive planning is particularly important as the impact of climate change is to be fully integrated into Bangladesh delta management. Figure 4.17 highlights some of the key processes and impacts which have to be included in strategies to manage the Bangladesh Delta.

Figure 4.7: Effective Management of Bangladesh's Delta



Schematic of many of the long-term and short-term processes and impacts that have to be considered in effectively managing the Bangladesh Delta. The arrow links the physical impacts causally to the social impacts. The main process fall into two categories: those directly affected by climate change and those that are primarily a result of human activities. They are not mutually exclusive. For example, erosion and sedimentation is affected by climate related processes as well as human activities.

4.101 **ADM would connect short term investments with long-term challenges facing the delta.** This requires a commitment to short-term actions within a framework that will guide future actions. The time horizon for ADM is long, up to 2100, to capture the long-term effects of climate change. The long-term vision should shape short-term no-regrets actions, avoiding 'trial and error' projects[96]. For example, investments in major infrastructure have to consider not only the short term benefit of the investment, but also the possible longer-term and sometimes adverse consequences. The Bangladesh Delta is dependent on certain courses of action; that is, once a development is started, it cannot easily be changed or adapted to new conditions. This requires an approach that focuses on adaptation pathways, which are a sequence of GoB policy actions that are able to achieve a set of objectives because they are not limited by actions in the past or by actions planned anterior in the pathway[97]. Another building block is the connection between public and private agendas. ADM should actively search for opportunities to combine different investment agendas with the aim of making actions easier, cheaper and yielding more societal value. ADM applied to the Bangladesh Delta would have three phases: identification of current and future problems and challenges based on future scenarios; options, which may enhance sustainability or reduce vulnerability or both for current threats and future uncertainties; and integration of adaptation options into viable management strategies and ensuring their proper implementation.

4.102 **ADM has to consider all aspects of infrastructure systems and infrastructure services which impact lives and livelihoods of the inhabitants of the Bangladesh Delta** (e.g. agriculture and aquaculture, fisheries, forestry, transportation, water and sanitation, energy, industry, ecosystems, plus physical infrastructure in each of these sectors). ADM must also be climate-smart to cope with the likely adverse consequences of climate change. Since resilience in one sector is highly dependent on resilience in another, attention is needed to ensure that vulnerabilities in one sector do not compromise another. Moreover, interdependencies among the sectors are multi-dimensional and a holistic approach is required to reduce people's exposure to both anthropogenic and climate-induced hazards. Given the plethora of projects in the Bangladesh Delta; greater integration without necessarily affecting the core objectives of these activities would contribute to a better managed delta ecosystem. This approach would support the development of cost-effective infrastructure investments that properly take into consideration the likely impacts of future hazards.

4.103 **Delta Management has to ensure food security for the growing population**. With the decline of poverty and increase of purchasing power, the composition of the Bangladesh food basket keeps changing. As the current main source of protein, fisheries will likely play an even greater role in the economy and food security of Bangladesh. The fisheries sector contributes substantially to the economy (4.4 of the Gross Domestic Product) and food security (60 percent of the animal protein intake of the country) and involve a wide-range of income generating activities contributing to economic development.[98] More than 15 million people are directly and indirectly associated with various fishery activities at present.

4.104 **A functioning ADM needs to address and require an understanding on the management and reestablishment of large areas of interconnected habitats**. A fundamental issue is how to integrate this large-scale thinking with the small-scale, on-the-ground projects underway in Bangladesh. This requires quantifying landscape-scale metrics based on historical landscapes; developing an understanding of historical ecological functions and comparing them to present ones; refining conceptual models of Delta ecological function; developing restoration design principles and guidelines based on this new understanding, and presenting explicit landscape illustrations and other visualizations to be used to create guiding images for the future Bangladesh Delta. This analytical work would underpin planning efforts and to provide the specific tools needed for landscape-level management of ecological functions.

4.105 **Protection of land resources from tidal waves and storm surges are critical for the low-lying coastal areas**. A mix of conventional infrastructure and soft measures are needed, which include options for eco-system based coastal defense in combination with food production (oyster reefs, strengthening the mangrove belt/tidal marsh restoration, sediment trapping etc.). Forest ecosystems can play an important role in climate change adaptation. A large number of people depend on forestry not just for their livelihoods but also to reduce vulnerability. Mangrove afforestation in the coastal region for example, has proved to effectively mitigate climate change related disaster risks. For example, Cyclone *Sidr* in 2007 and Cyclone *Aila* in 2009 caused less damage to property and fewer life losses in Chokoria and surrounding areas compared to the devastating results of the cyclone in 1991. One of the main contributing factor was afforestation on the foreshore of embankments, which substantially reduced the storm surge velocity.

4.106 **Institutional development and good governance are important factors in striving for well-being and security of life, livelihood and economy of the Bangladesh Delta.**[99] There is an

urgent governance challenge: the need for adopting a holistic approach in planning and in implementing and funding the programs as designed under different sectoral plans. The recent and future anthropogenic changes in the hydrological cycle due to climate change, construction of dams and barrages in the upstream countries in combination with increasing water demand are expected to make future water governance and management even more challenging. The development culture could be transformed more profoundly from a project approach to a coherent program approach with a strong emphasis on adequate implementation.[100]

4.107 **ADM needs to protect, restore and enhance the delta ecosystem and its services**. Achieving the goal of ecosystem protection, restoration, and enhancement means successfully establishing a resilient, functioning estuary and surrounding terrestrial landscape capable of supporting viable populations and migratory species with diverse and biologically appropriate habitats, functional corridors, and ecosystem processes. To achieve this, management regime needs a mix of infrastructural and policy oriented measures. As one of the largest Deltas of the world with highest number of inhabitants, the Delta has already experienced numerous interventions of water management including upstream water withdrawal, reduction of floodplain and pollution. All these anthropogenic intervention coupled with natural changes have restricted the Delta's capacity of ecosystem services. So, it is essential to understand the delta and a nature based solution should be introduced to restore and enhance the services. Environment sustainability is a key principle underpinning for delta management- restoring the delta ecosystem and also protecting and enhancing the delta as a unique and evolving place. Environmental aspect is remained as one of the major challenges for delta management in Bangladesh and needs to be integrated with the water allocation and water quality decisions.

4.108 **ADM provides also an opportunity for trans-boundary cooperation.** As a lower riparian country, Bangladesh is very vulnerable to upstream interventions. Changes in flows and sedimentation rates resulting from the development of upstream dams and barrages may be illustrative of the type of impacts which may be expected should further upstream infrastructural development (and especially increased diversion of flows for irrigation consumption) take place. In order to limit the negative impacts of these developments, Bangladesh has to focus on the establishment of close cooperation with upstream riparian countries. Strengthening its water diplomacy approach is a promising step in order to strengthen the position of Bangladesh. Bangladesh needs to convince upstream countries of the extra benefits to be gained while focusing on the basin as a whole rather than to be restricted by the current political boundaries. By searching for mutual gains and by inviting different stakeholders to the negotiation table, the negotiations and outcome will become more flexible and accordingly it will be more likely the parties reach a mutually beneficial agreement or even establish joint management of the river basin.

4.109 **ADM will benefit from the long term scenarios, which will be developed through the Bangladesh Delta Plan 2100.** The Government of Bangladesh (GoB) supported by the Government of the Kingdom of the Netherlands (GoN) is preparing the 'Bangladesh Delta Plan 2100 (BDP 2100)', an undertaking hosted by the General Economic Division (GED) of the Planning Commission, Ministry of Planning. The mission of the BDP 2100 is to realize a sustainable delta vision, long term strategy and plan, agreed with all stakeholders, for an optimum level of water safety and food security as well as economic growth and a framework for its implementation. The objective is to prepare a long term (50 to 100 year) integrated and holistic plan to ensure safe living and sound economic development in the delta given the challenges posed

by climate change. Effective implementation is a recognized challenge of any plan, which entails multiple sectors and requires a complex and functioning governance set-up. Both Governments recognize the importance for a well-coordinated approach amongst all key stakeholders, (i) in defining an investment plan which re-evaluates water management in the light of long-term sustainable development and climate change; (ii) to identify institutional mechanisms for implementing key actions including areas for institutional capacity strengthening; and (iii) to cost out the various actions and identify financing sources including climate finance.

4.110 **Catalyzing both public and private sector investment is critical.** Phased implementation of a comprehensive delta plan with require huge investments. Conducive policies and regulations; structures and incentives should be in place to inform and incentivize private sector investment in the form of PPPs.

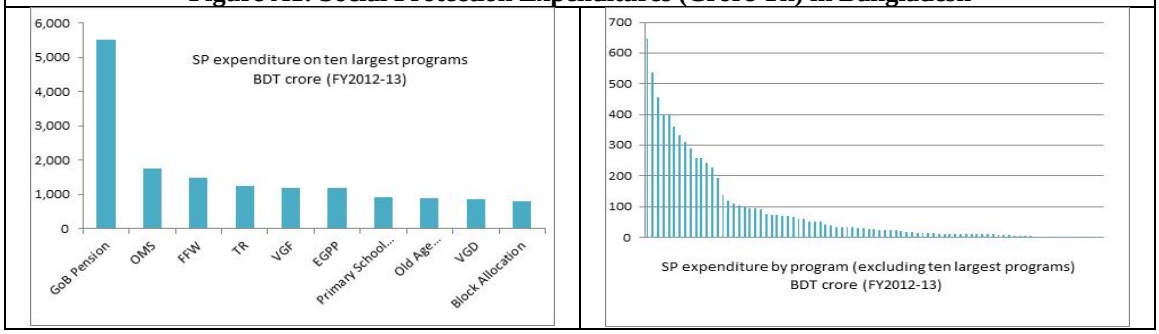
ANNEX

Improved social protection systems to meet changing needs

A high share of poor households in Bangladesh continue to rely on agricultural labor or petty informal sector activities for their livelihood, and remain vulnerable to seasonal fluctuations in output and other such risks. As workers move to more formal jobs in the expanding manufacturing and services sectors, they will gradually be less vulnerable to such risks— higher wage incomes and earnings means greater ability to save and build assets to serve as a safety cushion—but they will face new challenges: jobs in the non-agricultural sector, especially those in the private sector, are more vulnerable to economic downturns. Bangladesh will need a stronger social protection system designed to meet these new challenges. An important policy challenge will be to extend the coverage of social assistance programs, which are presently only in rural areas, to the urban poor. Planning for fiscally responsible pension reform to support an aging population should also be accommodated in the design of a comprehensive social protection system.

Bangladesh's largest safety net programs are making effective progress towards reducing poverty and improving gender outcomes, such as increasing the food available for women and girls, as well as measures of empowerment. Social protection spending in Bangladesh has been around 14 percent of the total budget (2 percent of GDP), among the highest relative to other South Asian countries. Currently 22 ministries implement 95 programs, ranging in size from Tk. 10 million (US$130,000) to Tk. 55 billion (US$ 714 million). The government's pension program constituted a third of the total budget in fiscal 2013 (Figure A1), while the remainder was spent on safety nets and various other community based cash and in-kind transfer programs. The government recently approved its National Social Security Strategy, key features of which are presented in Box 16.

Figure A1: Social Protection Expenditures (Crore Tk) in Bangladesh



Source: Based on national accounts data, LFS (various years; inerpolated for inter-survey years) and WDI

There is considerable fragmentation and overlap among safety net programs. The ten largest programs command 70 percent of the total budget, with the remaining allocation distributed among 18 medium sized programs (23 percent) and 67 very small ones (7 percent). The lack of coordination between the various programs results in inefficiencies and spreads scarce resources too thin. For example, the Ministry of Women and Children Affairs offers the Maternity Allowance for the Poor Lactating Mothers, while the Ministry of Health offers Maternal Health Vouchers. Three different ministries run various education stipend programs. The Ministry of Disaster Management and Relief implements 3 similar programs - Employment Generation Program for the Poorest, Test Relief and Food for Works - but utilizes different administrative processes, leading to tremendous strain on limited project implementation personnel and administrative inefficiencies.

Box 16: National Social Security Strategy 2015

The government recently approved the National Social Security Strategy 2015 (NSSS) that seeks to build an inclusive social security system that effectively addresses and prevents poverty and inequality and contributes to broader human development, employment and economic growth. The NSSS builds on the past experience of Bangladesh and seeks to streamline and strengthen the existing safety net programs with a view to ensuring more efficient and effective use of resources. It also broadens the scope of social protection from the narrow safety net concept to include employment policies and social insurance to address the emerging needs of a middle income Bangladesh in 2021 and ahead. Some of the key features of the Strategy include:

- ***Better targeting***: Recognizing the high levels of leakage in the sector and limited fiscal space, the NSSS reinforces the current policy of targeting programs to the poorest through the use of the Bangladesh Poverty Database currently under development.
- ***Increased coverage***: The strategy provides for a lifecycle approach framework that would cater to the changing vulnerabilities and risks faced during each stage of life through which an individual or household passes. This calls for a social protection system that provides support from conception to early childhood and schooling through to working age and old age, in addition to addressing the needs of the disabled and strengthening resilience to covariate shocks. The Strategy also addresses the need for a social insurance system that would enable people to invest in schemes that provide protection against risks stemming from unemployment, disability, old age and other shocks.
- ***Coordination and consolidation***: The strategy lays out an ambitious reform strategy for reorganization and consolidation of the multiplicity of programs along five thematic lines that address poverty and risk at different stages of the life cycle: (i) social allowances; (ii) food security and disaster assistance; (iii) social insurance; (iv) labor and livelihoods interventions, and (v) human development and social empowerment. Lead coordination and implementation ministries are identified which would be responsible for implementing the programs under the various themes and report to a central lead agency under the Cabinet Division. This also necessitates a review of the government's current Food Stock Policy and Public Food Distribution System (PFDS) so that consolidation efforts are not hampered by policies on food stock management and rotation through safety nets.
- ***Strengthened delivery mechanisms***: A sound social security system requires a strong administrative and delivery mechanism, aided by the use of technology. The NSSS proposes reforms in priority areas including professionalization and capacity building of staff to underpin effective and efficient delivery of services; use of management information systems to promote coordination and monitoring of programs; strengthened payment mechanisms through formal channels to minimize the scope for leakage and promote financial inclusion, and establishing functional grievance mechanisms for citizens to have recourse to appeal on any matter.

Expensive and "leaky" food based programs receive a significant share of resources. While the government has recently reformed some large food based programs into cash and increased spending on cash transfers, there is scope to do more. Studies show it is cheaper and more efficient to deliver cash than food, yet 4 of the 10 largest social protection programs continue to be food–based. The multiple intermediaries involved in the procurement, distribution and storage of food add to program administration costs, and also increase the potential for misappropriation. Cash, by contrast, is becoming faster and cheaper to deliver thanks to new technology.

Poor targeting of benefits, along with transfer amounts which are too low at the beneficiary level, limit the potential of safety nets to reduce poverty. Social protection programs in Bangladesh at present cover only one-third of the poor population. Many people above this threshold also receive benefits: 60 percent of safety net beneficiaries are not defined as poor. The average transfer amount is about 11 percent of the total expenditures of poor households, much lower than the global median, which ranges from 18 to 27 percent. Even within the existing social protection budget, more effective targeting, better institutional coordination, and more efficient program administration could substantially increase benefits to poor households. For example, even if average transfer amounts were unchanged, ensuring they reached the poorest households would reduce the poverty rate by 4.3 percentage points, lifting nearly 5 million people out of poverty.

Social protection expenditures would be more efficient if programs were consolidated and rationalized. A high level inter-ministerial committee could assess ways in which similar programs can be integrated, with an emphasis on increasing budgetary support for better performing programs. Brazil and Mexico's cash transfer programs, considered to represent global best practice, evolved in a similar fashion. In these and other Latin American countries, social protection mechanisms became more effective partly through consolidation and rationalization, and partly through developing state-of-the-art management information systems. While the consolidation process has to be incremental, a few actions can be undertaken immediately. For example, the country has three separate public works programs (Food for Works, Test Relief and Employment Generation Program for the Poorest), which could effectively be merged into one workfare program. Similarly, as laid out in the recently-approved National Social Security Strategy 2015, all food security programs could be re-grouped and consolidated as those aimed at disaster relief (Vulnerable Group Feeding, Gratuitous Relief) and those aimed at stabilizing food prices (Open Market Sales, Food Card and Fair Price Program). Bangladesh could also build on its successful Employment Generation for the Poorest of the Poor program by sharing lessons on operational processes that have worked well. These include the use of automated administrative platforms, electronic payments via cash cards or mobile phones, third-party monitoring and spot-checks, and impact evaluations. Similarly, “crowding out” some of poorly performing programs by those that can improve employability of the poor youth, whether at home or abroad, could also be an important strategic step meriting further consideration.

Improving the cost effectiveness of safety nets is closely linked to developing a more efficient reserve food stock. Food–based programs are part of the country’s food security strategy, as they help regular turnover of reserve grain supplies to prevent losses due to deteriorating quality. The Public Food Distribution System (PFDS) relies on safety nets to rotate almost three-quarters of its total annual distribution. Increasing the use of cash rather than food by these programs will involve assessing the optimal size of food stocks and various options for their monetization, as well as improving grain storage technologies so that less frequent rotation of grain stocks is needed. While reshuffling the PFDS to expand cost-effective approaches and phase out weaker ones is challenging, it is not impossible. Careful analysis and long term planning will be needed.

Addressing emerging environmental risks and challenges

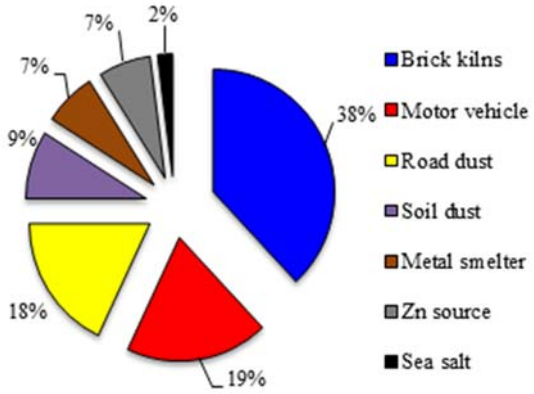
The rapid growth of large-scale manufacturing clustered around the Dhaka and Chittagong region has given rise to significant environmental challenges. Issues related to better management of the Dhaka watershed,[101] and tackling increased air pollution merit special attention. Increased pollution of watercourses from industrial discharges and domestic sewage has forced the Dhaka Water and Sewerage Authority (DWASA) to undertake a plan to bring water to the city from the Meghna River more than 60 km away. Shallow aquifers have been contaminated by chemicals (mainly heavy metals) and dissolved solids, very likely from industrial sources. Surface water bodies (i.e. rivers, canals ponds) have very low oxygen levels, which reflects the breakdown of organic waste, from both domestic sewage and chemical residues from industry. The environmental, health, and economic costs associated with pollution from untreated industrial effluent are significant,[102] and also pose both a direct and indirect threat to the competitiveness of key industries (e.g. textiles) located in this area.[103] The fisheries sector is another sector of the economy that is also vulnerable to the adverse impacts of pollution.

Despite having a regulatory framework currently in place for industrial pollution control, including environmental clearance permits and defined environmental impact assessment procedures, the government has failed to address growing industrial pollution concerns, in part due to institutional inefficiencies and lack of enforcement. There is also no single institution responsible for overseeing the development of the greater Dhaka watershed area, which severely curtails coordination and dialogue between the multiple institutions, and results in a systemic lack of oversight and inadequate prioritization of actions needed to improve the environment. Most interventions are short-term and sporadic, as there is no strategic long-term planning for watershed management. Dhaka needs a shift from 'the go-for-growth' approach to one where growth is accompanied by implementation of policies for sustainable production and improved environmental management. Key recommendations include:

- **Compliance promotion.** Industrial discharges into rivers, canals and groundwater must be reduced through stricter enforcement of environmental clearance conditions and effluent standards, focusing on priority sources of contamination.[104]
- **Promote incentives for pollution abatements** by introducing (i) 'polluter pays' principle; and (ii) pollution prevention through better process optimization.[105]
- **Long-term strategic framework.** Form a single statutory body to help ensure cross-sector coordination, promote joint planning and minimize jurisdictional conflicts; Develop an integrated long-term strategy addressing water quality, water supply, sanitation, flood management, inland water transport, agriculture production, and fisheries development.[106]
- **Invest in pollution abatement** in line with long-term strategic frameworks for waste water treatment, sewage treatment, river bank protection, conservation water transportation, etc. possibly through PPPs for combined effluent and sewage treatment plants in strategic hotspots.

Deteriorating urban air quality in Bangladesh is cause for major concern. Particulate matter (PM) is the most significant pollutant; concentration levels in Dhaka and other major cities across the country have increased steadily, and are now much higher than World Health Organization recommended limits, and result in significant health and economic costs.[107] While the problem is most severe in Dhaka, where air quality is worst and the most people are exposed, air pollution is also a growing concern in other major cities of Bangladesh. Scientific source apportionment studies to ascertain the major sources of air pollution – particularly fine particulate matter – point to three main causes: (i) small industries, in particular brick kilns and other biomass incinerators; (ii) vehicles; and (iii) road dust that has been re-suspended, or kicked back up into the air (Figure A2). Brick making in Bangladesh is highly energy intensive and one of the biggest emitters of air pollution in and around cities. Diesel buses and trucks are also a major source of PM pollution in cities. Finally, black carbon also constitutes a significant fraction of PM2.5.[108] Recommendations to help reduce urban air pollution include:

Figure A2: Main Air Pollutants Sources in Dhaka

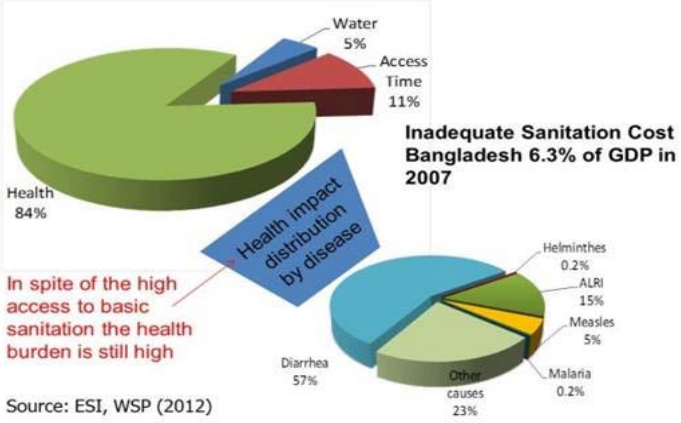


Source: World Bank, 2011

- **Adopt a long-term strategic framework to address the urban air pollution issues in major sectors.** This also includes building credible monitoring and enforcement capacity.
- **Promote clear-cut and profit driven industry specific pollution abatement programs**. This includes assistance to industries in minimizing effluents through market-based mechanisms, affordable innovative technologies, and changes in industrial processes.
- **Provide incentives to scale-up clean and energy-efficient brick production.** For instance, a risk-guarantee fund could encourage financing to small entrepreneurs who have limited access to investment capital. Similar financing may be needed to encourage energy efficient and low-emission technologies in other energy intensive industries (steel, cement, glass and ceramics).
- **Revise policies to tax polluting technologies, vehicles & fuels** Current tax policy encourages solid rather than machine-made perforated bricks (latter less energy-intensive; need less clay).
- **Rationalize bus routes:** implement bus rapid transit; introduce bigger buses on franchised routes to help phase-out highly polluting and inefficient mini-buses; improve traffic flow.
- **Support dust control measures for road and re-suspended dust** through measures such as mandatory provision of covering of trucks; pilot of no dust construction in the major cities, etc.

Access to adequate quality of water and sanitation is vital. Though much progress has been made in meeting the MDG targets, poor sanitation and water is estimated to cost about US$4.2 billion a year or the equivalent of 6.3 of GDP (WSP, 2012). Losses related to health from inadequate sanitation are the single largest contributor, accounting for 84 percent of the GDP losses, followed by welfare and time losses (11 percent), water quality health losses (5 percent). Diarrheal disease accounts for the bulk of these losses (Figure A3).

Figure A3: Negative Externalities Imposed by Poor Sanitation



Despite considerable success in improving access to water and sanitation facilities, stubborn challenges endure. Dhaka is the only city with a sewerage system where it covers a mere 18 percent of the city. Little of the fecal sludge and effluent in these areas is conveyed by the sewerage system to the treatment plant or is actually treated. An institutional framework is essential for the successful implementation of fecal sludge management (FSM) systems. While access to household sanitation is high in rural areas, with more than 97 percent of the households provided with access toilets, the collection and treatment of fecal sludge is limited. Remarkable gains in sanitation have been made through a switch from latrine promotion to collective movements to eradicate open defecation. While this has been extremely successful, it has resulted in low cost and low quality latrines. And as a result the health cost from inadequate sanitation remain high. Indeed recent research by Spears et al (2014) finds that the height differential between the two Bengals – Bangladesh and India Bengal can be explained (statistically) by sanitation patterns and the differential exposure to fecal matter in the environment. The need for improved quality sanitation requires another shift away from collective mobilization to market mechanisms that encourage households to move up the sanitation ladder.

Institutions and the resources available for meeting water and sanitation objectives are limited. Long term financing in Bangladesh, particularly for infrastructure, has not been readily available. Moreover, the desire to keep tariffs low has meant that rates have not been sufficient to maintain the systems which have been constructed. Public sector capacity to plan and issue tenders has also been slow and efforts to create a monitoring system or guidelines overseeing tariffs have not come to fruition. The need for private sector participation in rural water supply remains strong; despite the challenges in rural water supply, there are opportunities for greater private sector participation in urban water supply and rural sanitation. In urban areas, there is scope for the private sector role to manage aspects of water services such as billing and collections, leak detection, and fleet maintenance. Delegated management contracts for some secondary water utilities might also be viable. What holds the most potential promise in the short term is a private sector role in rural sanitation. While Bangladesh has nearly eliminated open defecation, there is an urgent need for hygienic sanitation, particularly in rural areas. Current systems come with a hefty fiscal costs. They allow for a 60 percent subsidy with the private operator paying 20 percent of the capital costs and the households paying 10 percent. Operations and maintenance costs are supposed to be covered by the tariffs but in reality these have been kept low and often do not cover maintenance, much less contribute to expansion costs.

Strengthening Public Institutions

Public financial management: Thanks to past efforts by successive governments supported by technical assistance programs sponsored by development partners, Bangladesh is well placed to modernize PFM system to increase government efficiency and encourage development partners to increase support for investment in transformative infrastructure projects. While successive PFM-projects have initiated many important reforms, several systemic issues still need fixing.[109] Key priorities for the PFM system include further strengthening the development of integrated ICT-solutions in financial management and creating a more comprehensive Treasury Single Account, deepening medium-term budget framework-related reforms and harmonizing procedures across the recurrent and development budget, increasing the transparency of the budget by allowing citizens and civil society access to public finance data in user-friendly and editable formats, and mainstreaming revised and improved audit practices in the Office of the Comptroller and Auditor General and audit functions.

Public procurement: Bangladesh made commendable progress in reforming its public procurement environment over the last decade, with the existence of the fundamentals of a good public procurement system comprising procurement laws, a nodal procurement policy agency, and procurement performance measurement system combined with electronic tendering. Looking ahead, key challenges include continuation of these efforts with greater sustainability, openness and better integration of governance related functions, especially covering (i) integration of procurement planning with budgeting; (ii) improving effective utilization of the annual development program; (iii) strengthening/digitizing the process of project preparation, implementation, and monitoring including contract management; and (iv) enhancing coverage of e-GP for nation-wide application.[110]

Civil Service Reform: Unlike many other developing countries, Bangladesh does not suffer from a particularly large or overpaid civil service. Of its roughly one million public sector employees, around 700,000 are in ministries, departments and other government offices, while the rest work in public enterprises. Salaries, allowances and pension payments account for about 25 percent of the budget. Bangladesh scores higher on quality of public administration and professionalism than many other South Asian and low-income countries according to Global Integrity data. However the quality of the public administration is hampered by the way in which it is managed. Indicators of government effectiveness place Bangladesh in the 20th percentile. The CPIA rating for public sector management and institutions, which strongly influence IDA's performance based allocation, was only 2.9 in 2013-14, below IDA and South Asia averages. Successive governments have politicized the administrative system, weakening its capacity while fostering inefficiency and vulnerability to vested interests and corruption. Many senior civil servants are made ‘Officer on Special Duty’ based on political considerations, and then languish at the Ministry of Public Administration.[111] An emerging set of initiatives to strengthen the performance orientation in the public sector provide opportunities to support the development of a public sector reform agenda. A public sector which focuses on results rather than rules can be an entry point to reforms of the civil service and personnel management, strengthening the results focus of the public financial management reforms and resource allocation decisions, quality of the public investment portfolio, and oversight and accountability within the administration from front-line service delivery agents to policy making authorities, and from autonomous bodies and state owned enterprises to parent ministries and the ministry of Finance.

Service Delivery and Decentralization: Bangladesh is divided for administrative purposes into 7 divisions, 64 zilas (districts), and 544 upazilas (sub-districts). Even though local governments have a key role to play in providing public goods and services to their communities, the government has initiated only modest reform of local governments, which remain fairly weak, with poor resources, little revenue raising authority, and limited influence on how the central government spends money in their jurisdictions. Their share of total public expenditures—estimated to be less than 4 percent—is among the lowest globally. Key services such as education, health, nutrition, family planning, irrigation, agricultural services, and secondary roads are all managed directly by central government entities, with little input from elected local governments. To help make public services more effective and bring politicians and policy makers closer to clients, much work is needed in Bangladesh to design and implement effective political, administrative, and fiscal decentralization to lower tiers of governments.[112]

Improving Access to Information to Strengthen Accountability: Restricted information flow hinders citizens' access to their rights and entitlements, renders service delivery less efficient and creates opportunities for corrupt behavior through the lack of transparency. The 2009 Right to Information (RTI) Act provides the government an opportunity to facilitate greater disclosure of information and become more open and accountable. However, much work is needed both on the supply side to strengthen its ability to effectively implement the new Act,[113] as well as on the demand side to raise public awareness.[114] Key public oversight institutions (e.g. judiciary, anti-corruption, and election commissions, etc.) also need further strengthening. Finally, continued assistance from development partners will be needed to support development of an enabling environment for civil society organizations, capacity building, and their participation in policy dialogue and governance. The success of Bangladeshi NGOs in delivering cost-effective services to the poor is well known across the world; less well known but also important are the contributions made by numerous local organizations in influencing public policy formulation, and the key advocacy, advisory, and watchdog roles they perform.[115]

Good civil registration and national identification systems are necessary to achieve the development objectives in any modern society. Legal identities of individuals are secured and their ensuing rights are recognized when they are registered with the system. A good NID system enables the government to accurately target and reach the beneficiaries of social protection, public health, education, poverty reduction and other programs and to prevent fraud. It also improves governance by reducing the cost and time associated with identifying individuals. Service delivery at the private sector, such as, opening of bank accounts, purchase of mobile phone connectivity, is greatly facilitated with the introduction of unique and secured NID cards and numbers for the citizens.

The **state owned enterprise** (SOE) portfolio plays a significant role in Bangladesh economy and the Governance of SOEs has a significant effect on fiscal management, service delivery, as well as addressing public investment and infrastructure bottleneck. As extra-budgetary institutions, State Owned Enterprises do not benefit from the same level of attention and control as institutions and transactions under the scope of the budget.

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ENDNOTES

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[2] Bangladesh's online work industry has grown tremendously in recent years, and it is in a strong position to tap its early growth stage. The total yearly earnings from IT workers is estimated to have grown from around $10m to over $40m in the past few years, representing one of the fastest growth rates in the world on eLance, oDesk and Freelancer platforms. Bangladesh stood on the sidelines as the IT-BPO industry took off in the last decade, while neighboring India benefited tremendously - its industry employed 2.8m workers, generated $69 billion in revenue, and 25 percent of total exports in 2012. By tapping this opportunity, Bangladesh could create mass employment and income for youth and women, increase total services exports, and help develop a knowledge-based economy.

[3] Mustafa Mujeri, Nazneen Ahmed, and Mohammad Iqbal Hossain, *Managing Rice Value Chain for Improved Food Security in Bangladesh* Bangladesh Institute of Development Studies, Policy Brief Number 1401, April 2014

[4] See for instance Cash RA, Halder SR, Husain M, et al, *Reducing the health effect of natural hazards in Bangladesh* Lancet 2013. http://dx.doi.org/10.1016/S0140-6736(13)61948-0

[5] E.g. see H Z Rahman, *Bangladesh: Strategy for Accelerating Inclusive Growth* (2010 DCCI Conference) at http://www.pprcbd.org/new/index.php?option=com_content&view=article&id=38&Itemid=12. Improved rural connectivity also aided commercialization of agriculture and helped reduce disaster vulnerability noted earlier.

[6] Amartya Sen has attributed Bangladesh's success in this particular regard to the "general determination in post-independence Bangladesh to target the elimination of female disadvantage". *What's happening in Bangladesh?* http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)62162-5/fulltext

[7] Bangladesh's dramatic fertility decline is a result of an aggressive family planning program in place since the 1970s that provided door-step delivery of contraceptives to women along with improved family planning service delivery through clinical services, community-based distribution, and social marketing. Contraceptive prevalence rose from a mere 8 percent in 1975 to over 61 percent in 2011. Coinciding with the extensive family planning programs, Bangladesh halved its fertility rate between 1971 and 2004, going from more than 6 children per woman to about 3. The latest total fertility rate estimates show continued steady decline from 2.7 children per women in 2007 to 2.3 in 2011, suggesting that Bangladesh will soon be at replacement level.

[8] Bangladesh Poverty Assessment: *Assessing a Decade of Progress in Reducing Poverty for the Period 2000-2010*, World Bank Washington DC (2013).

[9] The 2014 Climate Change Vulnerability Index ranks Bangladesh the number one economy at risk to climate change, a classification that is largely determined by the difficulties coping with the current climate. See http://maplecroft.com/portfolio/new-analysis/2013/10/30/31-global-economic-output-forecast-face-high-or-extreme-climate-change-risks-2025-maplecroft-risk-atlas/

[10] Dasgupta, S., Kamal, F., Khan, Z., Choudhury, S., Nishat, A. 2014. River Salinity and Climate Change. Evidence from Coastal Bangladesh. River Salinity and Climate Change. Policy Research Working Paper. 6817. World Bank.

[11] Susmita Dasgupta. 2015. Left attended, 5.3 Million of Bangladesh's poor will be vulnerable to the effects of climate change by 2050 in Let's Talk Development – A blog post hosted by the World Bank's Chief Economist. https://blogs.worldbank.org/developmenttalk/left-unattended-53-million-bangladesh-s-poor-will-be-vulnerable-effects-climate-change-2050

[12] Salt water intrusion from sea level rise in low lying plains could lead to food insecurity, further spread water-related diseases, and reduce freshwater supplies. The retreat of glaciers of the Himalaya will

directly impact the Bangladesh delta threatening water supplies. In the short-term, flood risk will increase; over the longer-term, there will be no replacement for the water provided by glaciers, which will likely result in long term freshwater shortages. Agriculture and the economic structure of the delta will need to undergo significant adjustments. In the southwest coastal region of Bangladesh, 2.5 million of the poorest people already suffer from shortages of drinking water, scarcity of water for irrigation for dry-season agriculture, and significant changes in the coastal aquatic ecosystems.

[13] For more details, please see World Bank. 2011. Economics of Adaptation to Climate Change. http://www.worldbank.org/en/news/feature/2011/06/06/economics-adaptation-climate-change

[14] Dasgupta, S., Huq, M., Khan, Z.Q., Ahmed, M., Mukkherjee, N., Khan, M., Pandey, K. (2011) Cyclones in a Changing Climate. The Case of Bangladesh

[15] Bangladesh: Strategic Program for Climate Resilience. 2010.

[16] Monitoring and evaluation systems in the line ministries and the Planning Commission are expected to provide the data and periodic assessments needed to make these adjustments, though the extent to which this feedback loop functions varies considerably across different ministries and agencies.

[17] There are some minor differences in poverty estimates from the 2002 and 2013 Poverty Assessments for the overlapping year (i.e. 2000) due to differences in how this method was implemented in the two reports. All these poverty estimates were derived using methodologies based on the "cost-of-basic needs" approach and hence are consistent and comparable in an inter-temporal sense, and since the analysis was carried out in collaboration with BBS, they coincide with Bangladesh's official poverty estimates.

[18] World Bank (forthcoming) *The Dynamics of Rural Growth in Bangladesh.* The sources for information and data used in this report include (i) secondary data: national and district level aggregate data from BBS for national accounts statistics and agricultural production, FAO agricultural database; (ii) household level data from (a) the nationally representative HIES for 2000, 2005 and 2010; (b) the BIDS/IRRI/BRAC household panel survey initiated and undertaken in four rounds (1988, 2000, 2004 and 2008) in 64 study villages covering all districts of Bangladesh, supplemented by census data in 2013; (ii) a longitudinal household panel survey conducted by World Bank, BIDS and INM with two rounds in 1998/99 and 2010/11; (iii) the nationally representative Bangladesh Integrated Household Survey (BIHS) collected by the International Food Policy Research Institute for 2011-12.

[19] World Bank (2012) *Towards Accelerated, Inclusive and Sustainable Growth—Opportunities and Challenges.* The report analyzes key drivers underpinning the growth process and acceleration, what enabled the drivers to move Bangladesh forward, plus what it'd take to further increase the growth rate.

[20] The poverty gap is a measure of the depth of poverty, and estimates how far below the poverty line the poor are on average as a proportion of that line. The squared poverty gap indicates the severity of poverty, and takes into account not only the distance separating the poor from the poverty line, but also inequality among the poor.

[21] Moderately calorie deficient is defined as consuming less than 2122 kcal per day per person. Severely calorie deficient is defined as consuming less than 1805 kcal per day per person.

[22] Bangladesh Poverty Assessment: *Assessing a Decade of Progress in Reducing Poverty for the Period 2000-2010*, World Bank Washington DC (2013).

[23] *Addressing Inequality in South Asia*, World Bank Washington DC (2014).

[24] Recent analysis by the World Bank (2013 Poverty Assessment) shows that between 2000 and 2010 nearly one-fourth of the increase in gross output per worker was associated with inter-sectoral shifts in the workforce, in particular the outflow of workers from low-productivity daily wage work in agriculture to jobs in services.

[25] Sadiq Ahmed (forthcoming) *The Dynamics of Rural Development and Agricultural Wages in Bangladesh*, Policy Research Institute, Dhaka.

[26] It has been widely documented that the vast majority of RMG workers are rural women, who were introduced to the formal workforce through this sector (Afsar 2001, Kabeer and Mahmud 2004). In addition to the benefit of paid employment, studies have documented that the garment sector has had a

favorable effect on a number of outcomes, including women's bargaining power within the household, their ability to support their families financially, fertility choices, and investments in children's education (Kabeer 2001, Hossain 2012, Heath and Mobarak 2014). For instance, Heath and Mubarak (2014) estimate that about 15 percentage point of the national gain in girls' school enrollment rate can be attributed to the growth of this industry since rural families kept girls in school due to cognitive skill requirements of garment industry jobs. Also, they report that the likelihood of being married and having children has declined with the average number of years during which girls lived close to a garment factory in rural areas.

[27] Micro studies from Bangladesh show that gender gaps exist in all industries and education levels, and moreover, both gender-based discrimination and industrial and occupational segregation contribute to its size. Kapsos (2008) shows using the Bangladesh Occupational Wage Dataset that women earned an average of 21 percent less per hour than men in 2007, and further, gender wage gaps existed in every industry as well as across all levels of education and in every establishment size. The largest gaps were observed in the hotels and restaurants and construction industries, among workers with primary education or less, and in mid-sized establishments. Decomposing the gender wage gaps into explained and unexplained components; the study shows that industrial segregation increases the wage gap by 7 percentage points. While the gender gap is estimated to be 15.9 percent after controlling for differences in age, educational background, industry, occupation and geographic location; it increases to 23.1 percent once the effects of industrial and occupational segregation are included. Across industries, gender-based occupational segregation increases the gender wage gap in the construction, financial intermediation and manufacturing industries, but reduces it in the education, hotels and restaurants and other services industries. Still, a large part of the gender wage gap fell under the "unexplained" category, which is often interpreted as unobserved forms of gender discrimination.

[28] Changes in Poverty Maps in Bangladesh 2000-2010 (mimeo) prepared by Carlos Sobrado, Yeon Soo Kim, and Monica Yanez-Pagans, World Bank, Washington DC.

[29] World Bank (forthcoming) *The Dynamics of Rural Growth in Bangladesh*. The study finds electricity access strongly raises technical efficiency of farmers; this may be for a number reasons, including that farm households with electricity access may be more inclined to use agricultural machinery compared to farm households with no electricity access. Adoption of farm mechanization among farmers with electricity was higher than that of farmers with no electricity access by 6 percentage points in 2008. Similarly the report also highlights the importance of connectivity and the high potential payoffs from the investments made so far on physical infrastructure: the far-reaching impact of connectivity can be seen in the positive impact on farming efficiency of the different variables on connectivity, reflecting a much deeper impact than just improving access to and increased use of inputs.

[30] For details see *Towards Accelerated, Inclusive and Sustainable Growth—Opportunities and Challenges.*

[31] See Hossain Zillur Rahman (2012) *Bangladesh Urban Dynamics: Exploring a Holistic Perspective*, Power and Participation Research Center, Dhaka.

[32] While Dhaka has been the main destination of choice for migrant households in Bangladesh, the Economist Intelligence Unit ranked it the world's second least livable city in 2014.

[33] For more details, see World Bank (*forthcoming*) South Asia Region Urbanization Flagship Report.

[34] World Bank. 2013. "A Policy Note on Skills Development," in Seeding Fertile Ground: Education that Works for Bangladesh.

[35] In 2010, the difference in the gross enrollment rates between the poorest and richest quintiles was 10 percentage points for primary, 45 percentage points for secondary and 70 percentage points for higher secondary.

[36] Labor productivity in the industry and service sectors is 8.5 and 4.6 times higher in the formal sector compared to the informal sector respectively.

[37] Mahmud (2003) has shown that women's primary responsibility for reproductive work has constrained the quality of women's employment as well as their returns to labor. Huq (2013) argues that women's domestic responsibilities and care work have heightened in recent years due to economic, social and

demographic trends in Bangladesh. There is increased pressure on women to take up part-time, insecure and informal jobs (Huq 2013). A survey conducted by the Centre for Policy Dialogue illustrates this tradeoff. About 72.4 percent of the interviewed women who were not involved in paid work, but would like to be involved in it, were looking for part-time jobs. Also, 64.8 percent of the same group cited their family maintenance responsibilities as the reason for not being involved in paid employment, while another 40.4 percent of the respondents cited pregnancy and caregiving to children. On the other hand, 77 percent of women who were involved in paid work also reported having inadequate time for their families, while 49 percent of them reported that they were not able to take care of a child or an old family member because of their job. Finally, 59.5 percent of the surveyed women stated that they did not want to be involved in paid work because they needed to provide time to their families. None of these considerations mediate men's work choices.

[38] Preliminary results of the 2013 Labor Force Survey, Bangladesh Bureau of Statistics.

[39] For instance, violence and harassment associated with women being on the move, having nontraditional living arrangements, and occupying spaces outside the home without male presence have been documented in relation to garment industry jobs (see Siddiqi 2003, Sharma 2015). Prevailing norms about the living arrangements of unmarried women who live away from their parental homes tend to put such women workers at risk, especially those who are young, who come from poorer backgrounds and who have little choice but to migrate for work (Temin et al. 2013). Micro data from recent years show that nontraditional living arrangement among garment industry workers are on the rise. For example, 90 percent of female manufacturing worker respondents in the Enterprise and Skills Survey 2012, a formal sector employment survey conducted by the World Bank, lived in Dhaka and 95 percent of them recently moved for employment. Further, 75 percent of these workers were migrants living in a different community than where they were born and 46 percent of females employed in the garment sector and 18 percent of those employed in the textiles sector were unmarried (as opposed to only 6 percent in other manufacturing jobs). About three-fourths of females in manufacturing jobs (as opposed to 55 percent of men) were renting their house or apartment.

[40] According to the International Labor Office's Decent Work Profile of Bangladesh, the percentage of workers in informal employment has increased substantially in recent years; from 76.2 percent in 2000 to 88.5 percent in 2010. While informality is a common reality both for men and women across South Asia, it is a larger problem in sectors that employ a larger share of the female workforce as well as a large share of female workers vis-à-vis male workers. In Bangladesh, 97.8 percent of employment in the agriculture sector and 69.6 percent of manufacturing jobs, which account for two-thirds and one-fourth of female employment, respectively, is in informal jobs. The annual rate of increase in the number of informally employed men was 4.3 percent between 2000 and 2010, increasing from 22.7 million to 32.4 million workers, whereas the rate of growth among females was 12.6 percent, which increased the number of informal female workers from 6.6 million in 2000 to 14.9 million in 2010. Female employment has increased in sectors where informality is less prevalent (education, health and social work, and real estate and other businesses), simultaneously female employment has decreased in sectors in which the extent of informality is lower (public administration, finance, electricity, gas and water).

[41] It has been widely documented that employer perceptions about men and women have an impact on their hiring decisions. For example, Hossain, Mathbor and Semenza (2013) show that managerial beliefs about women's docility, dexterity, tolerance for monotony and willingness to accept lower wages still dominate their decisions about who gets hired in garment industry jobs. Such perceptions result in women getting overrepresented in low end jobs, while men get selected for professional and managerial positions (Hossain 2011). Using the 2012 Enterprise and Skills Survey (ESS) conducted by the World Bank, Nordman et al. (2014) show that employers take personality traits into consideration for determining the wages of female employees, especially in the upper parts of the wage distribution, but not for males. Whenever there is imperfect information about workers' productivity and skills, employers use "signals" based on their beliefs about sex-specific skills to set wages within the same firm, which contributes to observed gender wage gaps. The ESS highlights occupational sex segregation in formal sector jobs. For example, while 26 percent of men surveyed by the ESS were professional workers, the corresponding share of women was only 15 percent. In contrast, 50 percent of female workers were in the construction and crafts occupational category, which includes low-end garment sector jobs, as opposed to 28 percent of male workers. Another 26 percent of women were in either

elementary occupations or clerical support occupations. Occupational segregation patterns were present even in the most "formal" sectors that employed a considerable share of women, such as the public administration sector. The ESS shows, for instance, that the public administration sector employs educated women more than any other sector, with 55 percent of females employed in the public sector having at least higher secondary education and another 20 percent having either bachelor or post-secondary education. However, despite their educational profile, women in the public sector tend to be excluded from the upper cadre of public administration jobs—while professional jobs are dominated by men, women mostly hold clerical or elementary positions. Moreover, women in managerial, professional, service or clerical positions in the public administration sector have more experience than males in their respective positions, indicating that it takes them longer to get promoted.

[42] Gender-based differences in two specific subsets of household work, namely unpaid services for households' own use and caregiving, were even larger. The average number of hours spent by employed females on "providing unpaid domestic services for own use within the household" was 2.9 hours in 2012, compared to only 1.3 hours spent by employed men. Further, employed women spent an additional 0.6 hours for "providing caregiving to other household members," whereas men spent only 0.1 hours (BBS 2013). Being employed or unemployed made little difference in terms of the time women spent on caregiving. In fact, unemployed females spent more time on unpaid domestic services compared to women who were employed—5.4 hours on unpaid domestic services for own use and another 0.8 hours on unpaid domestic services for other household members. In other words, paid employment did not isolate women from household production and caregiving to others. For example, employed women in rural areas spent more time on unpaid domestic services than those in urban areas, but they spent the same amount of time on providing unpaid caregiving services.

[43] See review of the literature on unpaid care work in Bangladesh by Huq (2013). Also see Kabeer (2011a, 2011b), Kabeer, Mahmud and Tasneem (2011) and the research program carried out by Pathways of Women's Empowerment (www.pathways-of-empowerment.org).

[44] World Development Report 2013 *Jobs*. The World Bank, Washington DC.

[45] Ensuring macroeconomic stability involves containing volatility and avoiding major misalignments of relative prices. Similarly, the report highlights how protection of property rights, access to finance, and sound regulation are key ingredients of the business environment. Good nutrition, health, and education outcomes are important pre-requisites as well, since they are key elements both of improving people's lives as well as to better equip them for productive employment.

[46] As the report persuasively argues, the first cliff undermines the development payoffs from agglomeration and global integration; the second leads to low living standards and a social cohesion deficit.

[47] The report also points out that where these failures and imperfections cannot easily be removed in particular country or regional settings, offsetting them may be an option.

[48] World Bank. 2007a, p. 143.

[49] Rahman, Habibur (2007), *Financial Development: Economic Growth Nexus in Bangladesh.*

[50] The TVET system is an important channel for skills acquisition especially for those who are able to progress beyond secondary level education since entry to TVET requires completion of grade 8. However it falls short of placing their trainees in jobs: it is estimated that about a third of TVET graduates find employment. Employer survey data suggests market demand for TVET graduates as well as those with secondary or higher secondary education is low. Thus on the one hand TVET graduates despite having mid-level education remain unemployed or fall into the trap of the informal sector. On the other hand, those who are unable to complete secondary education, mostly the poor, do not have access to TVET education. Moreover the TVET system is fragmented with 19 ministries and numerous other private entities implementing skills training programs that include both accredited and non-accredited courses that are not fully responsive to market needs. See, for instance, ILO. 2014. "*Skilling the Workforce: Labor migration and skills recognition and certification in Bangladesh"*.

[51] Active labor market programs are a set of policy instruments that facilitate transition into employment (including wage and self-employment), improve productivity, and enhance job search and matching efficiency. Middle income countries are increasingly shifting their emphasis from social assistance to

ALMPs, particularly targeted to the youth, as part of their social protection systems: in Colombia, Dominican Republic, and Tunisia, comprehensive wage-employment programs that combine technical training and life skills with wage subsidies and internships in the private sector have helped raise employment rates among beneficiaries. In addition, countries increasingly implement policies and programs to improve earnings opportunities among self-employed workers. There is evidence to show that a combination of training, credits or grants, and advisory services could be effective tools to increase productivity and earnings. See Cho and Honorati (2014) and Cho et al. (2015) for discussions on the programs to promote productive self-employment.

[52] These skills could be acquired either via on-the-job training or through pre-employment training. Most of their training is done while working for an employer who helps the apprentices learn their trade or profession, in exchange for their continued labor for an agreed period after they have achieved measurable competencies.

[53] COEL tainees receive training for first three months followed by a nine month apprenticeship with organizations in the leather sector. They are provided compensation while they complete their training and apprenticeship, and are also certified by BMET upon completion of their training.

[54] Many countries are building such second generation "degree apprenticeships." Most recently the UK launched a flagship degree apprenticeship program in March 2015. In such programs, typically the educational background of the apprentice determines whether they self-select into a semi-skilled apprenticeship or into a "degree apprenticeship" geared towards achieving an academic degree such as a Bachelors or a Masters. Apprentices split their time between normal university studies to gain a technical or an academic degree while earning a wage and getting on-the-job experience.

[55] Offering "degree apprenticeships" also help to overcome the stigma attached to vocational degrees that only the less intelligent students end up in these technical institutes.

[56] BAIRA presently has about 1000 government approved recruiting agents.

[57] Preliminary work by the WBG suggests that prepayment or health insurance scheme sponsored by employers might serve to pool and cover these health risks and at the same time increase the fiscal space for health. A few nongovernment organizations and health service providers have implemented micro health insurance schemes in limited areas and with restricted health plans, mostly for microcredit borrowers without the involvement of formal insurance intermediaries. Back-of-the-envelope estimates of thee potential revenue that could be generated for the health sector by introducing some prepayment or health insurance schemes range from US$14-22 million per annum. For more details, see WBG (forthcoming) *Fiscal Space for Health in Bangladesh*.

[58] These include (i) chronic obstructive pulmonary disease, (ii) ischemic heart disease, (iii) stroke, (iv) diabetes, (v) cirrhosis, and (vi) chronic kidney disease.

[59] If the trends appear positive without major risks or obstacles, then the prospects can be considered good. If the trends appear positive but with some obstacles, then the forecasts will be moderate. If the trends or projections appear stagnant or negative, or if the risk or obstacles are enormous, then the prospects are considered limited. For more details, see WBG (forthcoming) *Fiscal Space for Health in Bangladesh*.

[60] Alayne M Adams, Tanvir Ahmed, Shams El Arifeen, Timothy G Evans, Tanvir Huda, Laura Reichenbach, for the Bangladesh Lancet Team *Innovation for universal health coverage in Bangladesh: a call to action.* Paper available for download at www.thelancet.com/series/bangladesh .

[61] http://www.enterprisesurveys.org/~/media/GIAWB/EnterpriseSurveys/Documents/CountryHighlights/Bangladesh-2013.pdf

[62] World Bank staff calculations.

[63] Allowing for ~20% reserve margin. The current installed capacity is in excess of 10.5 GW but the maximum demand met is around 7.5 GW, i.e., capacity is about 33% higher than peak demand. The target of 33 GW is taken from the Power Sector Master Plan of 2010, which is currently being updated.

[64] Gesellschaft für Technische Zusammenarbeit (GTZ) and World Bank. "Bangladesh Roadmap for Energy Efficiency Improvements and Demand Side Management." 2009.

[65] LGED (2010). Bayes (2007), Khandker et al. (2009), Khandker et al. (2011), and Mahmud et al. (2014).

[66] About 21,000 km are major roads. This gives a (major) road density of 0.13 (km per 1,000 people) compared to 1.5 for Pakistan, 3.5 for India, 5.5 for Sri Lanka and 9.7 for Bhutan (Andres et al., 2013).

[67] World Bank (2015).

[68] Herrera Dappe et al. (2015).

[69] World Bank (2015).

[70] Ibid.

[71] World Bank (2013b).

[72] World Bank (2014).

[73] GDP would increase by 0.3 percent in Nepal, 0.1 percent in Sri Lanka, and 0.01 percent in India.

[74] These figures are expressed in 2008 prices.

[75] Clearance times at Benapole are typically 5-6 days and within 2-3 days at smaller land border stations. At Benapole, 80 percent of declarations are assessed within a day of being lodged, whereas it takes up to 5 days to clear 80 percent of goods for release after declaration (World Bank, 2013b). The main reason for this is the current practice of transloading cargo between trucks registered in Bangladesh and those registered in India. Das and Pohit (2006) found that improved customs process at the Petrapole (India) – Benapole (Bangladesh) border crossing and free transit for Indian trucks could on average cut travel time by 75 percent between Kolkata and Benapole and reduce auxiliary transaction costs, which currently on average amount to 10 percent of shipment value.

[76] Razzaque, M. A., & Basnett, Y. (2014). Regional Integration in South Asia: Trends, Challenges and Prospects. London: Commonwealth Secretariat.

[77] In 2012, comparable countries had ratios of exports and imports to GDP of 78 and 75 percent (Thailand), 89.8 and 90.2 percent (Vietnam), and 31.6 and 29.4 percent (Indonesia), respectively.

[78] The TIR (Transports Internationaux Routiers) is a system of bonds, operated in nearly 70 countries, that guarantees that any customs and other duties will be paid on goods transported in transit trucks. Its objectives are the improvement of transport conditions and the simplification and harmonization of administrative formalities in international transport, particularly at frontiers.

[79] While the performance of Bangladeshi apparel exports is comparable to Vietnam's, Vietnam exports ten times more footwear on a per capita basis than Bangladesh.

[80] Such high costs associated with overseas migration has kept many outside the scope of overseas employment while for some it has led to indebtedness or loss of household assets.

[81] Migration agents and labor brokers organize most of the recruitment of Bangladeshi workers. A Bangladeshi worker typically spends between US$1,935 and US$3,870 for a low skilled job in the Middle East, equivalent to 2.5 to 5.0 times the GDP per capita, or some 14 months of an average salary. By contrast, the average recruitment cost for Indonesian domestic workers in Hong Kong SAR, China is around 5 months of wages, or 6 months for Nepalese construction workers in the Gulf.

[82] World Bank (2012). *Bangladesh: Towards Accelerated, Inclusive and Sustainable Growth – Opportunities and Challenges*

[83] The Economic Potential Index is a simple diagnostic tool to measures a district's economic development potential. It offers a relative comparison of the potential of all districts in Bangladesh. It consists of five components: market access, economic density, level of urbanization, human capital and local transport connectivity. These components have been identified through a review of theoretical literature and empirical studies as key determinants of the potential to experience heightened levels of local productivity and rapid local economic growth. The EPI is categorized into five bands of performance:

very high, high, medium, low and very low. The full analysis is elaborated in: Identifying the Economic Potential of Districts in Bangladesh. World Bank. 2015.

[84] Access to improved water supply is defined as reasonable access (20 L/day/person) from an improved water source (piped water connection, borehole, public standpipe, etc.) and therefore does not reflect information about the quality of the water. Regions in Figures 10 and 11 follow World Bank regional definitions. EAP corresponds to the data for East Asia and the Pacific (Developing Countries Only); SSA corresponds to the data for Sub-Saharan Africa (Developing Countries Only); and SAR corresponds to South Asia.

[85] STP 2005 *Urban Transport Policy: The Strategic Transport Plan for Dhaka*. BCL and Louis Berger Group Inc.

[86] As a reference, India developed National Urban Transport Policy in 2006 that provides policy directions and institutional setups for urban transport development. The implementation of the policy is supported by an investment program called "Jawaharal Nehru National Urban Renewal Mission (JnNURM)" which provides both public transport infrastructure investment and technical capacity building.

[87] PricewaterhouseCoopers (PwC) 2009, UK Economic Outlook, November.

[88] Delhi 2008 urban GDP USD167 billion , the PricewaterhouseCoopers 2009 UK Economic Outlook; the area of land 1483 km^2, 2012-2013 Economic Survey for the North Capital Territory (NCT) of Delhi.

[89] PricewaterhouseCoopers (PwC) 2009, UK Economic Outlook, November.

[90] World Bank (forthcoming) *The Dynamics of Rural Growth in Bangladesh.*

[91] World Bank (forthcoming) *The Dynamics of Rural Growth in Bangladesh.*

[92] Even though the southwest region has an extensive river transportation system, this has been clogged and is facing problems of increased siltation. The region's six river ports are working well below capacity, mainly due to reduced fresh water flows that used to regularly flush sediment in the rivers. For example, the Gorai River, the main source of freshwater for the southwest region, has witnessed more than a 50 percent reduction in annual flows over the last 40 years. Additionally, the reduction in fresh water flows and sea level rise contribute to increased salinization, which severely limits crop production - the mainstay of the southwest region. Salinization of water supplies is also a critical problem for both livelihoods and health, resulting in and increasing incidence of diarrhea and other infectious diseases.

[93] *Maplecroft Climate Vulnerability index* 2014. In the Global Climate Risk Index 2014 of Germanwatch, Bangladesh is ranked in the top 5 countries being most affected by impacts of extreme weather events, with an average annual loss of $1.8 billion and death toll of 816 people per year during the last 20 years.

[94] For instance, irrigation has played a major role in poverty reduction in the past. Bell et al (2015) find that access to irrigation has had the greatest poverty reducing impact during the dry season and especially in regions where "boro" rice is grown. But the vitality of this sector is declining with growing scarcity and competition for water and increasing overexploitation and degradation of groundwater. Inadequate operations and maintenance and a failure to rehabilitate infrastructure and properly manage and maintain large-scale surface irrigation schemes have impacted farm production, household incomes, and poverty.

[95] Marchand, M. and F. Ludwig. 2014. Towards a comprehensive framework for adaptive delta management. Delta Alliance.

[96] ibid.

[97] ibid.

[98] DOF, 2014: Fisheries Statistics Yearbook of Bangladesh, 2012-13. http://www.fisheries.gov.bd/sites/default/files/Statistical%20Yearbook%202012-13.pdf

[99] Courtesy of Bandudeltas, 2015

[100] Ibid.

[101] The Dhaka watershed includes the Dhaleswari, Turag, Tongi Khal, Buriganga, Balu, Bangshi and Sitalakhya rivers. These river systems have been used to provide water for a variety of uses, including drinking, washing, cooking, bathing, recreation as well as irrigation and fisheries, and - most importantly - to support the local life system.

[102] Although evaluation of costs is difficult, some studies have estimated the costs of unmitigated industrial wastewater for the Greater Dhaka area to be around US$150-170 million annually (Ullah et al. 2006; Alam and Marinova 2006; Alam 2008). A study in Kaliakoir Thana in Gazipur district, north-east of Dhaka, identified 3 key ailments associated with industrial water pollution: jaundice, skin disease, and diarrhea. Nearly 50 percent of households in the watershed area reported having lost at least one week of work due to jaundice, while a further 10 percent lost 4-6 full days.

[103] Factories involved in the washing, dyeing, and finishing of textiles are reliant on large quantities of good quality water – currently pumped virtually free-of-charge from groundwater sources which are fast becoming compromised. Although reliable data is hard to obtain (as most groundwater abstraction is carried out through unmetered self-supply), rough calculations suggest that textile mills in and around Dhaka consume as much groundwater as is supplied to the entire megacity of over 12 million inhabitants. Worse, if no efficiency improvements are made, demand for water from textile mills is expected to double within the next seven years at current growth rates.

[104] To achieve tighter regulatory control, it will be necessary to re-examine the institutional incentives for Department of Environment (DOE) staff, based on performance indicators, transparency and accountability. The outsourcing of compliance monitoring needs to be gradually carried out.

[105] Market-based 'polluter pays' principles have been widely adopted as a way of internalizing the environmental impact of economic activities, so that the prices of goods and services fully reflect the costs of pollution prevention and abatement, whilst leveling the playing field for all industries. Cleaner production, including the "3R's" (reduce, reuse, recycle), can provide very attractive financial win-win incentives by considerably reducing energy, material and water inputs, encouraging recycling and reuse to generate significant financial savings, while reducing both waste volume and overall pollution load. This, in turn, significantly reduces pollution abatement costs.

[106] An important element of the strategic framework will be adequate monitoring of pollution, plus a public information campaign to raise awareness of the causes and impact of environmental degradation, and consequent interventions. Such initiatives are essential to build civil society and private sector support.

[107] According to a 2011 WHO air quality assessment, which covered 1,100-odd cities with 100,000 or more inhabitants around the world, Dhaka has the unenviable distinction of being among the world's top 20 cities with the highest air pollution. The Bank's 2006 Country Environmental Assessment estimated that nearly 10 percent of respiratory infections and disease in Bangladesh were attributable to urban air pollution; it is the leading cause of mortality and morbidity related to environmental issues, and its health burden is not far behind that of the lack of access to clean water and sanitation. A study in Dhaka in 2008 concluded that an estimated 15,000 premature deaths were attributed to poor air quality, along with several million cases of pulmonary, respiratory, and neurological illness. If peoples' exposure to urban air pollution were reduced by 20 percent, it would save between 1,200 and 3,500 lives annually in Bangladesh, and avoid 80 to 230 million cases of ill health. This would save an estimated US$169 to US$492 million annually in avoided health costs. Along with the harm done to people's health, air pollution also damages crops, vegetation, buildings and visibility.

[108] Black Carbon is formed through the incomplete combustion of fossil fuels, biofuel, and biomass, and is emitted in both anthropogenic and naturally occurring soot. It consists of pure carbon in several linked forms. PM2.5 are the small particles floating in the air which are less than 2.5 micrometer in diameter. They are so small that they can only be detected with an electron microscope. Sources of fine particles include all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes.

[109] The latest Public Expenditure and Financial Accountability assessment (PEFA) based on 2010 data showed improvements in the transparency and credibility of the budget, and in achieving a more policy-based budget process; however the assessment also revealed a number of gaps, primarily in the areas of accounting and audit. Overall, the PEFA Assessment scored Bangladesh close to the bottom of the list

of South Asian region countries, below even Nepal and Afghanistan. PFM-reform since 2009 has predominantly been carried out through the US$113m multi-donor supported Strengthening Public Expenditure Management Program. SPEMP has had several noteworthy achievements, including the design of an integrated budget and accounting system (iBAS++), the rollout of a Medium Term Budget Framework to all line ministries, the decision to adopt a new budget classification structure to ensure compliance with international standards and an upgraded public debt management system. The program has also facilitated reform in external audit, including piloting of modern audit techniques, as well as strengthening of support systems for the financial oversight committees in Parliament. However, SPEMP has also encountered several structural impediments to deliver on its mandate, including frequent staff rotations, entrenched tensions between civil service cadres and the dual budget system.

110 For decentralized local level procurements, there are incidences of inappropriate bidding and/or collusive/coercive/obstructive practices combined with complaints; such procurement has instances of influence by local level elites and/or vested quarters. However, with the introduction and exponential growth of the comprehensive electronic tendering system in the key sectoral agencies, such incidences have significantly reduced. The system shows improved competitiveness as demonstrated by increase in the average number of bids submitted for civil works contract packages; improved transparency as demonstrated by increased publication of award of contracts in the website of the Central Procurement Technical Unit (CPTU), the procurement policy unit of the Government. With the centralized national web-portal for electronic government procurement (e-GP) which is becoming increasingly sustainable, the visibility and transparency of the system has improved considerably and has helped reduce inappropriate/collusive bidding. Regarding the efficiency of the system, overall procurement delays is significantly as demonstrated by award of most contracts within the initial bid validity period. Concurrently, the Government made extensive effort for enhancing procurement management capacity with two-pronged approach. It has created a pool of 39 national trainers, and trained about 3,500 staff of around 300 public procuring entities (in addition to the 2,200 staff in the first phase); completed an international procurement core competence/ accreditation certifications of 65 staff (MCIPS) with Chartered Institute of Purchase and Supply, UK combined with 35 top-up Masters on Procurement and Supply Management. Also, it has a fully computerized on-line procurement performance monitoring system through e-GP. As part of the social accountability actions, a Public-Private Stakeholders Committee (PPSC) with representatives from leading think-tanks, NGOs, business apex bodies, and senior Government officials has been fully functioning; a government-contractors forum has been established and workshops held in seven districts. Also, an extensive communication campaign is ongoing to demystify procurement reform at the grass-root level.

111 With 257 different exceptions from the merit principle, the civil service recruitment system in effect reserves 55 percent of positions for special groups, including women, ethnic minorities, and freedom fighters. The service is separated into 29 cadres, each with divergent career and promotion prospects. Silo-like mentality and inter-cadre rivalry hinder information sharing, coordination, and collaboration, and reduce the efficiency and effectiveness of public service delivery. Promotions are generally confined within cadres, and are primarily based on seniority (i.e. years of service) rather than performance. There is no adequate incentive system to encourage initiative and reward excellence. Training is not linked to career planning or other dimensions of personnel management; frequent staff rotations also undermine its efficacy and hinder smooth implementation of development projects.

112 In the June 2014 budget speech the Finance Minister has announced the government's intention to vest more power and authority to Zila, Upazila, and Union Parishads, to gradually make an effective hierarchical division among local bodies, and to eventually leave issues like education, health, law enforcement, and social safety in their hands. Additional steps that will be taken to make local government more effective include a careful scrutiny to decide what subjects of the central government can be transferred to the local authority and in what manner, as well as the establishment of a fair system of revenue sharing between the central and local governments.

113 A range of options is available to improve implementation, including developing the capacity of the Designated Officers (mandated by the Act to respond to citizens' requests for information); conducting regular training at national, district and upazila offices; distributing materials on the roles and duties of DOs. To support pro-active disclosure (specifically emphasized by the Act), the government could develop standards for records management and filing, and take advantage of low cost IT solutions (such

as low-cost mobile devices and open source software) to expand the use of electronic record keeping and digitalized information for ease of retrieval and archiving.

[114] Possible options include public awareness raising through strategic partnerships (NGOs, CSOs, professionals, civil society groups); developing diverse and relevant communication materials (poster, leaflets, TV adverts) assisting RTI partners to support citizens make RTI requests; involving national and regional NGOs in rolling out extensive advocacy program focusing on service delivery agencies to create more demand for information; educating citizens, particularly poor communities with limited literacy on RTI through grassroots consultation framework meetings; encouraging media and CSOs to monitor and report widely on RTI implementation, etc.

[115] These include Transparency International Bangladesh, *Ain O Salish Kendra*, BRAC, Center for Policy Dialogue, Manusher Jonno Foundation, *Odhikar*, Power and Participation Research Center, and the Policy Research Institute.