

Development Transformation in Bangladesh: An Overview

*Minhaj Mahmud, Keijiro Otsuka, Yasuyuki Sawada,
and Eiji Yamada*

INTRODUCTION

Bangladesh began its journey as an independent country in December 1971. At the time, its long-term economic prospects were questioned by development pundits, who deemed it to be *a test case for development* (Faaland and Parkinson 1976). Such negative perceptions of Bangladesh's development prospects were fostered by weak initial conditions within the country: problems such as high population density, the dominance of stagnant and unproductive agriculture, the prevalence of malnutrition, a limited natural resource base, under-developed infrastructure, and exposure

M. Mahmud
Bangladesh Institute of Development Studies, Dhaka, Bangladesh

K. Otsuka
Kobe University, Kobe, Japan

Y. Sawada (✉)
Faculty of Economics, University of Tokyo, Tokyo, Japan

E. Yamada
JICA Research Institute, Tokyo, Japan

to frequent natural disasters (Hossain et al. 2012). In the 1970s, Bangladesh was ranked near the bottom of all the economic and social indices that looked at factors such as income, poverty, child mortality, and school enrollment rates. However, over subsequent decades, the country gradually improved the lives of its people and the social status of women through achieving a steady growth in per capita income. Accordingly, the initial negative perception of the Bangladeshi economy has been gradually replaced with cautious optimism in global development circles. For the last decade, Bangladesh has achieved sustained economic growth of more than 5% per annum. In terms of poverty reduction, human development, and social indicators, the growth in its economy has enabled substantial progress toward the achievement of the millennium development goals. According to the latest World Bank report, over 15 million Bangladeshis have moved out of poverty since 1992 (World Bank 2016). Accelerated growth in the last decade has paved the way for the country to achieve (lower) middle income status.

The key to Bangladesh's success lies in the reallocation of relatively low-skilled laborers from the agricultural to the non-agricultural sector, and from rural to urban areas; this is representative of the inter-sectoral transformation common to other Asian countries (Hossain et al. 2012; Otsuka 2007). The "green revolution," that is, the adoption of irrigation and high-yielding rice seeds together with the introduction of chemical fertilizers, played a central role in breaking the vicious cycle of poverty, provided alternatives to farming as a major occupation, and curbed the tendency to sacrifice children's schooling in favor of work in the fields. Agriculture provided the dominant source of income and funds for physical and human capital investment. Moreover, the growing farm–non-farm linkages created pro-poor job opportunities particularly in the non-farm sectors. In this context, Bangladesh's experience was similar to other Asian countries (Otsuka et al. 2008; Sawada and Lokshin 2009). The government's role in providing physical and institutional infrastructure also facilitated the process of structural transformation from farm-based to non-farm-based economies.

The achievement of Bangladesh's development transformation in such an accelerated manner was fueled by three rather country-specific mechanisms. First, the penetration of MFIs into rural communities relaxed credit constraints on rural poor households, thereby facilitating development transformation. Second, export-led manufacturing growth led by the

RMG sector as well as the rapid expansion of international migration accelerated structural transformation. Finally, unlike many of the countries in Asia and Africa, Bangladesh is among the world's most populated countries; this indicates a possibility for high-returns to investment in infrastructure, which tends to be characterized as a public good. Lack of ethno-social fragmentation—compared to countries such as Pakistan, India, or Sub-Saharan Africa—also facilitated the transmission of the benefits of new technology and human development across diverse population groups, including the poor and the poorest; the dense clusters of the garment industry are evidence of this development.

The positive feedback process of industry growth has also been stimulated by the pecuniary externalities of growth in export-oriented manufacturing, and the expansion of industries catering to domestic demand. However, even though Bangladesh has been developing successfully, weak governance,¹ potential natural disasters like cyclones and floods, technological disasters such as the collapse of buildings, and man-made disasters such as economic crises and political instability can be serious risk factors that may constrain continuous economic growth (Sawada et al. 2011; Sawada 2007).

This chapter provides an overview of Bangladesh's miraculous development experience from the viewpoint of industrial and societal transformation. In doing so, it compares the case of Bangladesh both with other countries in the region, and with countries that have progressed from similar initial conditions or were at a similar stage of development. Finally, the chapter points to some of the important challenges to achieving sustained economic progress.

OVERALL GROWTH AND POVERTY REDUCTION

When Bangladesh became politically independent in the 1970s, its development prospects were undermined by high population density, the dominance of small-scale and unproductive agriculture, prevalent malnutrition,

¹Bangladesh's performance in terms of the Worldwide Governance indicators (i.e., control of corruption, government effectiveness, political instability, the absence of violence, the rule of law, voice and accountability, and regulator quality) remained low for decades, and in some cases, below average for lower income countries (see Mahmud 2011; Hasan et al. 2015).

a limited natural resource base, under-developed infrastructure, and exposure to frequent natural disasters. In terms of almost all the economic and social indices such as income, poverty, child mortality, and school enrollment rates, Bangladesh was ranked as one of the poorest countries in the world. In the 1980s and 1990s, however, the country gradually improved the income levels of its people. Figure 1.1 depicts the trajectory of real GDP per capita for six selected countries, Bangladesh, India, Pakistan, China, Brazil, and the Democratic Republic of Congo, from the 1950s to the present (for Bangladesh, the series starts from 1959). As the data show, Bangladesh has achieved sustained economic growth of more than 5% per annum. Continuous and accelerated growth in income has enabled the drastic reduction of poverty.

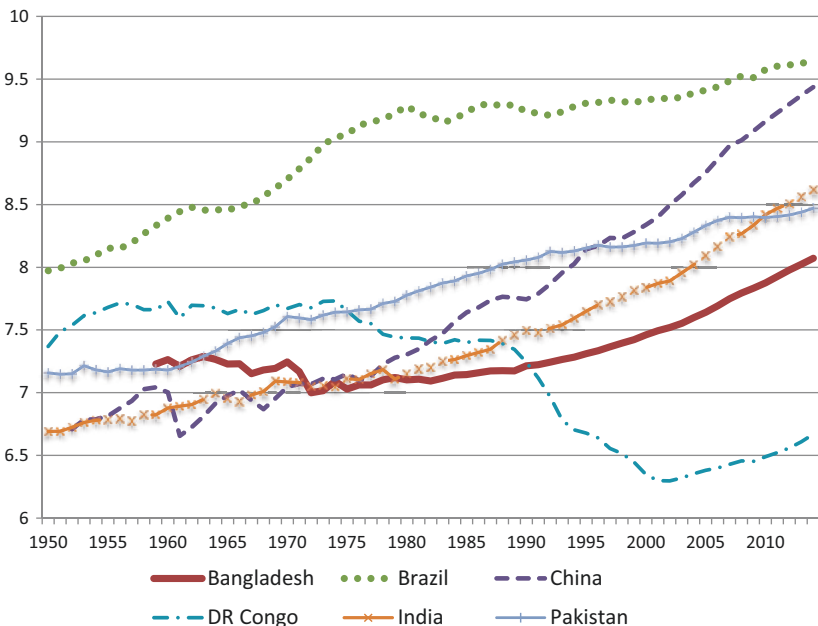


Fig. 1.1 Real per capita GDP in selected countries (PPP). Data source: PWT 9.0 from Feenstra et al. (2015), “The Next Generation of the Penn World Table” *American Economic Review* 105(10), 3150–3182. Note: The vertical axis is real GDP per capita (in log. form)

This trend is reflected in the comparison of the headcount ratio of poverty (HC) in Bangladesh with the current poverty line of USD 1.25 per day (Chen 2015) in the East Asia-Pacific Region. This has dropped from about 80% to 7% over the last 30 years. This recent poverty reduction trend is also evident in the rest of South Asia, where the HC dropped from 54.1% in 1990 to 24.5% in 2011. And Bangladesh, which used to be poorer than the states of Sub-Saharan Africa (SSA), has achieved poverty reduction at a speed which is faster than in the case of SSA.

Table 1.1 shows the progress in reducing HC among South Asian countries, using the USD 1.25 a day international poverty line. The last column of Table 1.1 shows the percentage decline in HC over 25 years using a simple geometric extrapolation method. It is easy to verify the fact that South Asian economies have basically achieved the first target of the millennium development goals (MDGs)—to halve, between 1990 and 2015, the HC of those living below the USD 1.25 a day poverty line. However, there are two exceptions, Bangladesh and India, where HC has been reduced by 44.2% and 43.1%, respectively, which is less than the target rate of 50%. Nevertheless, in contrast, the poverty reduction rate for the whole Sub-Saharan African region has been much slower, at the rate of 30.4%. During the last three decades, the HC in this region has remained high, corresponding to the fact that these SSA countries have been caught in the poverty trap.

The sustainable development goals (SDGs) list “no poverty” as the very first goal: “By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day.” We follow the World Bank’s (2014) operational numerical target to end extreme poverty by 2030, which is, achieving 3% or less of global population living below USD 1.25 a day. The feasibility of fulfilling this operational poverty target in Asia can be illustrated by computing the necessary income growth in achieving this target for Bangladesh. For this, the concept of exit time, given as the time in which a person with income y below poverty line z will exit the poverty situation, is used (Morduch 1998; Sawada and Estudillo 2012). The exit time for a person with $y_{0.03t}$ to exit the USD 1.25 a day poverty line by 2030 can be defined as:

$$2030 - t = \frac{\ln(z) - \ln(y_{0.03t})}{\ln(1 + g)}, \quad (1.1)$$

Table 1.1 The change in the poverty head count ratio (HC) with a USD 1.25 a day poverty line in the Sub-Saharan African region and in South Asian countries

Country	HC in the years around 1990		HC in the latest year		Change in HC		
	(1) Year	(2) HC (%) (HC_0)	(3) Year	(4) HC (%) (HC_T)	(3)–(1) Year interval (T)	[(4)–(2)]/ (2): % change in HC	25 years trend of change in HC (%) (ΔHC_{25})
Sub-Saharan Africa	1993	60.84	2011	46.85	18	–22.99	–30.44
South Asia	1990	54.09	2011	24.50	21	–54.71	–61.05
Bangladesh	1988	71.61	2010	43.26	21	–39.59	–44.22
India	1987	53.59	2009	32.64	22	–39.09	–43.08
Maldives	1998	25.59	2004	1.48	6	–94.22	–100.00
Nepal	1984	78.15	2010	23.74	25	–69.62	–68.31
Pakistan	1990	64.71	2010	12.74	20	–80.31	–88.89
Sri Lanka	1990	15.01	2012	3.46	22	–76.95	–81.13

Data source: *PovcalNet*, the on-line tool for poverty measurement developed by the Development Research Group, World Bank (accessed June 2016 <http://iresearch.worldbank.org/PovcalNet/>)

Notes: (1) HC estimates are based on USD 1.25/day in 2005 PPP. All country-specific HC is calculated based on the consumption-based poverty index, except for that of Nepal in 1984

(2) Estimation of 25-year poverty reduction trend, ΔHC_{25} :

For a given time interval T starting from the initial year 0, note that the T -years poverty reduction trend in %, ΔHC_T , can be expressed as,

$$\Delta HC_T = \left(\frac{HC_T}{HC_0} - 1 \right) \times 100 \quad (1)$$

where, HC_T is the HC in the latest year, HC_0 is the HC in the initial year. Then, the 25-years poverty reduction trend (%), ΔHC_{25} in the last column of Table 1.1, is given by:

$$\Delta HC_{25} = \left(\left(\frac{HC_T}{HC_0} \right)^{25/T} - 1 \right) \times 100 \quad (2)$$

Note that the calculation above involves geometric extrapolation (Shryock et al. 1980) of T -years change in HCs for 25 years. Using geometric extrapolation is logically reasonable because this extrapolation never exceeds the theoretical lower bound and the upper bound of ΔHC_T (which are -100 and ∞) for any positive values of C_0 , and HC_T . Since $\frac{HC_T}{HC_0} = \frac{1 + p_T}{1 + n_T}$, where p_T is growth of population under a poverty line in T years and n_T is total population growth during the same period, the extrapolation in (2) is equivalent to taking the ratio of the extrapolated below-poverty-line population growth to the extrapolated total population growth

Where: $y_{0.03}$ shows the income level of a person whose income in year t is within the lowest 3% of the population.

In Eq. (1.1), the growth rate, g , is the rate of change in income at which a person will be able to rise above the USD 1.25 a day poverty line by 2030. Sawada (2016) calculated the necessary income growth rate, g , to achieve the operational target 1 of the SDGs, based on Eq. (1.1). We can test the feasibility of this target for Bangladesh, which was on the threshold of achieving the first target of the MDGs. Based on the values calculated for Bangladesh in 2010, the necessary income growth rate becomes 2.30% per year (Sawada 2016). According to the World Bank's World Development Indicators, the average growth rate of Bangladesh's real GDP per capita was 4.5% per year between 2006 and 2010, and 4.8% per year between 2011 and 2015. Even if the income growth rate of the poorest 3% is half of the income growth rate of the overall population, the poorest 3% would likely have exited poverty by 2013. Hence, we can conclude that Bangladesh will be on track to achieve target 1 of the SDGs (ending poverty by 2030), if it continues to grow at a pace comparable to that of the last decade.

DEVELOPMENT TRANSFORMATION IN BANGLADESH

Industrialization and Structural Transformation

Behind Bangladesh's success in reducing poverty and improving social indicators, there has been a continuous structural transformation from an agriculture-based economy to a non-agriculture based economy in terms of value added and employment. While it is impressive that the GDP generated by the industrial sector has recently surpassed that of agriculture, it is also clear that the service sector is much larger than the industrial sector in terms of both GDP and employment share. The productivity of this sector, however, is low as it is dominated by small-scale traditional businesses, such as vending and rickshaw services. If labor moved from the agricultural sector into industries characterized by labor-intensive but advanced technologies, we would expect remarkable improvements in social indicators, such as in the poverty indices (Otsuka et al. 2008). But this has not necessarily been the case in Bangladesh. On the other hand, while it is true that the population in both the rural and urban sectors grew, the latter grew at a faster rate than the former. The case of Bangladesh may thus be regarded as being like that of post-World War II Japan, where

inter-sectoral labor relocation also facilitated faster growth. The Japanese case, however, was industry led rather than service sector led as it is in Bangladesh.²

Notwithstanding this difference in the engine of growth, agricultural development played an important role in Bangladesh. Policy reforms and investments in agricultural research facilitated the progress of the green revolution, which, for example, saw the adoption of high-yielding crop varieties combined with better irrigation infrastructure, more efficient market institutions, and mechanization. Agricultural modernization characterized by the introduction of labor-intensive cultivation methods (in the crop sector) has led to pro-poor shifts in rural factor markets such as in the land tenancy market (David and Otsuka 1994). There is some evidence that in addition to the increase in land under tenancy, there has also been a pronounced shift from share-tenancy to fixed-rent leasehold tenancy. Surprisingly, a rise in the share of “pure tenancy” can also be observed. Such changes are pro-poor because the poorest of the poor are the landless agricultural workers who engage in such simple tasks as weeding, transplanting, and harvesting. In contrast, tenants are engaged in care-intensive activities and, hence, they are better-off than laborers. The evidence suggests that landless and marginal farmers may have been the major beneficiaries of these changes in rural institutions. Additionally, the transformation of the tenancy market coincided with the “feminization” of agriculture fueled by the penetration of MFIs, which provide loans exclusively to poor women in rural households, into the rural area. As a result, the agricultural sector played a key role in reducing Bangladesh’s poverty from 48.9% in 2000 to 31.5% by 2010, even though over 87% of rural people still earn part of their income from agricultural activities (World Bank 2016).

Conversely, the emergence of labor-intensive export industries, especially the RMG industry, became the center of structural change in the economy. In the 1970s, Bangladesh had no modern industry. The RMG industry’s share of exports was still only a few percent in the early 1980s, but by the late 2000s it had reached more than 75%. The industry has been generating more than USD12.5 billion in export revenue with women accounting for 80% of its 3.6 million workers (World Bank 2012).

²Esteban-Pretel and Sawada (2014) studied the structural change in Japan’s post-World War II era of rapid economic growth. Following Hayashi and Prescott (2008), they adopted a two-sector neoclassical growth model with government policies. The study clearly shows that the inter-sectoral labor flows played a crucial role in Japan’s rapid postwar growth.

Bangladesh is now ranked as the second largest exporter of clothing, next to China, in the world.

The success of the RMGs can be attributed to an “accident” of market forces (see Easterly 2001, Chap. 8). In the late 1970s, Bangladesh was not subject to the international Multi-Fiber Agreement. To take advantage of the lack of export restrictions and the abundance of low-wage labor, the Daewoo Corporation of South Korea planned to develop a production base in Bangladesh and teamed up with Desh Garment Ltd. Daewoo sent 130 newly recruited, young, and educated workers from Desh to South Korea to train them for 8 months. Within 2 years after the training was completed, however, almost all the trainees had left Desh to start their own garment businesses (Mottaleb and Sonobe 2011). While one might argue that the training was a mistake for Daewoo as they did not reap many benefits, socially, it was enormously profitable for Bangladesh. Intriguingly, no other foreign companies have ever repeated the same kind of training. Thus, Sonobe and Otsuka (2011) argue that investment in managerial and technological training is the key to developing new industries but it must be implemented or assisted by the public sector.

A recent study by Heath and Mobarak (2012) shows that the RMG industry also increased job opportunities for women, which in turn stimulated human capital investment for women in clustered areas of the garment industry. However, it may well be that the higher opportunity cost of rearing children caused by the increase in job opportunities for women leads to a rapidly declining birthrate and a delay in marriages.

The role of domestic and international migration in industrialization and structural transformation became particularly prominent in the first decade of the 2000s (Sen et al. 2007). With the urbanization rate increasing from 8% in 1974 to 35% in 2011, rural-urban relocation of labor has been an important factor behind rural poverty reduction through the channel of the labor market. The significance of international migration is in this regard equally noteworthy. Although there is no hard estimate of the “stock” of international migrants, its importance can be judged by the rising share of overseas remittance in the country’s GDP—from less than 5% in the early 2000s to more than 10% according to FY 2012 estimate. It is also noteworthy that international migrants are increasingly less educated and are land-poor. In such a setting, managing urbanization and international migration in the growth process by creating jobs and investment opportunities in non-agricultural sectors assumes a special importance in reducing the burden of “surplus” labor in agriculture.

Infrastructure Development

The government also played a critical role in Bangladesh's successful transformation from an agricultural-based to a non-agricultural-based economy by providing physical (economic) infrastructure such as telecommunications, roads, water supply, sewage systems, irrigation, and electricity, and social infrastructure such as hospitals and school facilities. Several micro-studies have shown that the development of this economic infrastructure is one of the indispensable components of poverty reduction and increased welfare (e.g., see Jensen 2007; Dinkelman 2011; Banerjee et al. 2012; Zhang and Xu 2016). As for Bangladesh, in the last 20 years or so, substantial progress has been made in the areas of access to water and sanitation, education and financial infrastructure, and in the telecommunication sector, the last of which has experienced particularly impressive growth during the last decade. Indeed, Khandker and Samad (2016a) show that public investment in roads, electricity, and financial institutions triggers structural transformation, which increases and diversifies rural income levels, raises consumption expenditure, reduces poverty, and increases educational achievements. Grid connectivity and investment in roads also leads to an increase in income and expenditure, and lower poverty. Using household-level panel data from Bangladesh, Khandker et al. (2009) found that rural road investments resulted in a significant reduction in poverty due to higher agricultural production, higher wages, lower input and transportation costs, and higher output prices. They also found that rural roads led to higher schooling for both girls and boys.

In Bangladesh, where numerous rivers divide the country, bridge infrastructure plays an important role in facilitating economic transactions (Sawada 2012; Mahmud and Sawada 2015). While numerous bridges were built, which replaced ferry-boat transportation, a notable example of such infrastructure is the Jamuna Bridge, which is the longest and largest bridge in Bangladesh. The Jamuna River is one of the three main rivers in Bangladesh, flowing north to south through the central area, dividing Bangladesh into east and west. The Jamuna River has been a bottleneck for transportation between east and west; it has physically separated the east, where Dhaka is located, and the west, where poverty was pervasive. The Jamuna Bridge, which was built with concessional loans from Japan, the Asian Development Bank, and the World Bank in 1998, is a multipurpose bridge that carries gas pipelines, railway, power cables, and a two-lane dual carriageway. This bridge has contributed to Bangladesh's economic

growth and poverty reduction through the correction of regional disparities between the east and the west (Ghosh et al. 2010). Mahmud and Sawada (2015) evaluated the impact of the bridge on employment opportunities using survey data from 1485 households that was collected by the Research and Evaluation Division (RED) of BRAC (Ghosh et al. 2010). By adopting a quasi-experimental framework using canonical difference-in-difference regression methodology, they found that along with decreasing household unemployment, the bridge construction facilitated a farm to non-farm shift in employment.

However, the Global Competitiveness Report by the World Economic Forum 2014–2015 suggests that Bangladesh has been trailing neighboring countries in terms of quality of infrastructure (Schwab 2014): its overall infrastructure score is 2.8 compared with China (4.7), India (3.6), and Sri Lanka (4.0). Specifically, Bangladesh's access to electricity has been low, covering only 59.6% of the total population in 2012, compared with neighboring countries and other low-income countries such as India (78.7%), Nepal (76.3%), and Pakistan (93.6%) according to the World Bank's World Development Indicators. This suggests that while infrastructure development in Bangladesh has been effective in facilitating a variety of human and physical capital investment, there is room for further improvement. This is a type of market failure, which should be reversed basically by the state to sustain the economic development and structural transformation of Bangladesh. The development of Bangladesh's economy is a miracle because the economy grows despite the weak roles played by the state. Indeed, Bangladesh is unique in that MFIs and non-governmental organizations (NGOs) play a significant role.

MFIs and NGOs

While Bangladesh's success in development transformation through industrialization and structural transformation seems to share common features with East Asian countries, at least in terms of the nature and direction of the transformation, there are other country-specific institutions which have provided support for enhancing growth and reducing poverty. Notably, MFIs have been reaching even remote corners of the country, providing credit particularly to poor women who would not otherwise be supported by a bank. Penetration of MFIs in rural communities relaxed credit constraints on rural poor households, resulting in rapid transformation from agricultural to non-agricultural jobs; changes in the

land tenancy system to enhance the welfare of the poor; and human capital investments in female household members.

In general, there has been mixed empirical results on the short-term or mid-term impacts of microfinance in reducing poverty (Banerjee et al. 2015). To bridge this gap in the existing literature, Khandker and Samad (2016b) adopted long-term panel survey data, collected three times between 1991–1992 and 2010–2011, to examine the role of microfinance in poverty reduction in rural Bangladesh. Their findings suggest that poverty decreased more for microcredit participants than for non-participants, and more for female participants than for male participants. Additionally, continuous borrowers fare better than irregular borrowers. Overall, microcredit participation, which is found to be cost-effective, has contributed to around a one-tenth reduction in moderate poverty and a one-twelfth reduction in extreme poverty in rural Bangladesh.³ While this empirical result may have to be externally validated by subsequent long-term panel datasets, the role of microfinance in changing livelihoods and in development transformation is unique to Bangladesh. Earlier studies have also shown the positive impact of microcredit on the empowerment of women and improving the decision-making power of women within their household (see Hashemi et al. 1996; Pitt and Khandker 1998; Pitt et al. 2006; Osmani 2007). Using a nationally representative panel data set from rural households, Mahmud et al. (2017) show that microcredit participation improves the decision-making role of women within households with regard to production decisions.

Another unique feature of Bangladesh's success in development transformation is the large and active role played by NGOs (Mahmud 2008; Asadullah et al. 2014; Sen 2012). With widespread application of community-based approaches, these NGOs undertake a wide variety of activities, including microfinance, health and education services, social safety net programs, agricultural extension, social forestry and environmental protection, safe water and sanitation, disaster management and relief, and legal and human rights education (see Zohir et al. 2001). NGOs are also active in the development of commercial enterprises, rural employment, and economic growth by linking the rural and urban markets (World

³Using a cross section survey that include information on both current and initial endowment and a dynamic adaptation entitlement approach, Osmani (2011) gives rather conservative estimates of microcredit's contribution in reducing moderate poverty (about 4%) and extreme poverty (about 9%).

Bank 2007). For example, as the largest NGO, BRAC operates in more than 65,000 of the 84,000 villages in Bangladesh, and its microcredit and microfinance-based development program reaches around 120 million people (see Ahmed et al. 2013; BRAC 2013). BRAC's approach to development is innovative and inclusive, focusing on microfinance, education, healthcare, legal services, community empowerment, and social enterprises (Chowdhury et al. 2014).

As of October 2016, 2502 registered NGOs were listed with the government's NGO Affairs Bureau.⁴ The phenomenal rise of the NGO sector, facilitated by the availability of foreign aid, and the *franchising model* of organizational structure and program design and its nationwide replication (World Bank 2007), has played a tremendous role in expanding social services to rural Bangladesh as well as contributing to rural employment generation and growth in the country.⁵ In short, NGOs play those roles that were traditionally played by the government.

SOCIAL TRANSFORMATION

Because of this development transformation, there are a number of noticeable and emerging features of the “Bangladesh miracle.” First and foremost are the impressive improvements in basic human development indicators such as the total fertility rate (TFR) and the gender parity index (GPI) in education. The rate of population growth, which used to be of concern as a “population explosion,” has been drastically reduced by continuous economic growth. The Bangladesh Demographic and Health Survey 2011 (NIPOORT, Mitra & Associates, and ICF International 2013) showed that the TFR in Bangladesh had decreased from 5.1 in 1989 to 2.3 by 2009. Another indicator of social transformation, the relative school attendance rate of women to men in primary and secondary education has also been reversed. The GPI for the primary and secondary school gross enrolment ratio was 0.494 in 1973 but has been reversed in the last decade, reaching 1.094 in 2011 (according to World Bank Education Statistics). This reduction in gender disparity in education has been attributed to two factors. The first one is the reduction in the cost of

⁴<http://www.ngoab.gov.bd>, accessed on 26 October 2016.

⁵See Murata and Nishimura (2016) for an overview of NGOs growth and their contribution to employment generation in Bangladesh.

schooling, particularly for girls, through the introduction of affirmative action policies in education such as the Female Secondary School Assistant Project (FSSAP) stipend program in the 1990s. As a large-scale education promotion policy for Bangladeshi girls, FSSAP was found to significantly improve the enrollment rate of girls (Hahn et al. 2016; Khandker et al. 2003). The second factor was greater returns to female schooling due to a gender differential in terms of brawn and skill; Bangladesh being largely a brawn-based economy (Pitt et al. 2012). Additionally, thanks to the “explosive” growth of the export-led (female) labor-intensive garments manufacturing industry since the 1980s where 80% of the hired labor force is female, there has been an improvement in labor market opportunities for women (Heath and Mobarak 2015).

Viewed from a different angle, much of the education and health-based human development story of the 1990s hinged upon the social empowerment of women in Bangladeshi villages. However, in the early stages of economic development, very few believed that female workers would play such an important role in the country’s progress. The main argument was that female labor force participation—an important ingredient of growth acceleration in the initial stages of development—would be restricted in Bangladesh due to patriarchal hegemony and conservative social norms, such as *Purdah*, which constrains female labor mobility outside the sphere of household work. In this respect, women’s increasingly visible role in multiple spheres of economic life has been one of the most celebratory aspects in the country’s ascent (Hossain et al. 2012). The expansion of domestic and global market opportunities, affirmative action policies for the education of girls, and changes in institutional structures gave rise to favorable gender norms, and encouraged the participation of the female workforce in MFI-financed self-employment and RMG-supported wage employment.

The rapid penetration of MFI credit programs into rural Bangladesh contributed to the empowerment of women by enhancing their bargaining power within households; the programs specifically targeted women, as they were viewed as more credit constrained and more reliable borrowers than men. It is argued elsewhere that microfinance participation facilitated women participation in the labor force and exposed them to income-earning, market-based activities. This essentially facilitated the empowerment of women even in a society where the traditional gender-based division of labor restricts women’s participation in market-based activities (see Boserup 1970; Sen 1996; Kabeer 1997; Duflo 2012).

The net effect of the empowerment of women is not only livelihood improvements through access to decent jobs on a large scale, but it also indirectly contributes to overall social cohesion (Hossain et al. 2012). Social cohesion can be defined variously as the “nature and extent of social and economic linkages across divisions within society” (Easterly et al. 2006), or as “a sufficiently high ‘aggregated’ level of ‘social capital’ which is accumulated at the micro-level,” that is, individuals, communities, and workplaces. In the case of Bangladesh, the nexus between jobs and social cohesion was aided by pre-existing social and cultural institutions as well as by geography, that is, by faith and by the habitat. Using trust game data collected by one of the authors of this chapter in several districts of the Dhaka Division of Bangladesh (Johansson-Stenman et al. 2005, 2009, 2013), we investigated the relationship between job status and trust or social capital.⁶ We found that, while for the sample group as a whole job status does not impact on trust or social capital, restricting the sample to the relatively younger age group (below 37 years of age) identifies the job status variable as a significant correlate of trust and social capital. This suggests that employment for educated youth may be the key to facilitating trust between people. The analysis further suggests that employment enhances the self-reported well-being of workers.

It is worth mentioning that it is probable that the ethno-social homogeneity of Bangladesh enabled positive learning externalities and resulted in agglomeration economies (Hossain et al. 2012). Bangladesh is one of the world’s most densely populated countries, indicating a possibility for fast transmission of information and learning externalities. The lack of ethno-social fragmentation in Bangladesh, unlike that found in India, Pakistan, and the Sub-Saharan African countries, enabled Bangladesh to gain from new learning opportunities across diverse population groups regardless of their poverty status. MFIs and NGOs as well as physical and institutional infrastructures played an important role in facilitating these externalities. In addition to the potential that technological externalities will stimulate the development of industries and the creation of non-farm jobs, pecuniary externalities have been arising from growth in export-oriented manufacturing and the expansion of industries catering to domestic demand.

⁶The detailed results are not presented here, given these are out of the scope of this chapter. However, they can be obtained from the authors.

CONCLUSIONS

Bangladesh's successful development transformation points to an integrated and concurrent development of the agriculture and non-agriculture sectors that has resulted in welfare improvements for both the farmers and the workers simultaneously. Yet, it is important to note that the accelerated successful development transformation that Bangladesh has experienced was fueled by three rather country-specific mechanisms. First, the penetration of MFIs and NGOs into rural communities relaxed credit constraints on poor rural households, resulting in the rapid movement from agricultural to non-agricultural jobs; changes in the agrarian tenancy system aimed at enhancing the welfare of the poor; and investments in female household members. Second, the spectacular development of the RMG industry, triggered by the training of young workers by the Daewoo Corporation, resulted in the rapid transformation of the economy from agriculture to industry. Third, sizeable investments were made in infrastructure, particularly bridges, which helped to connect the formerly fragmented economy. It must also be noted that unlike most countries in Asia and Africa, Bangladesh is among the world's most populated countries with a relatively homogenous ethno-social setting; this points to a possibility for the fast transmission of learning externalities and the generation of large benefits of agglomeration economies. The effective roles of MFIs and NGOs, the importance of technology and managerial knowledge from Korea, and the way physical and institutional infrastructure developments have facilitated quasi market-based development in Bangladesh, also provide important policy insights for other developing countries.

Yet, a question that needs to be answered is whether this rapid economic growth can be sustained in the coming decades. In answering this question, challenges have been identified (World Bank 2016). First, Bangladesh's geographical position makes it one of the countries that is most vulnerable to climate change and prone to natural disasters like cyclones and floods. In fact, over the last 20 years, 60% of cyclone-related deaths worldwide occurred in Bangladesh. Many of the Bangladeshi people could fall back into poverty if they are continually affected by natural disasters. Moreover, an economic downturn or crisis could be a related challenge—the economic recession in those developed countries that provide the main markets for the RMG products of Bangladesh is a

potential risk for the country's economic growth. The second challenge is insufficient planning and an inadequate amount of investment in infrastructure. This challenge arises from the fact that sustained growth and the resulting urbanization in recent years has rapidly increased the demand for energy, transport, and telecommunications services, generating a gap between demand and supply for these services. To sustain accelerated and inclusive growth, Bangladesh will need to manage the urbanization process more effectively within a better functioning regulatory framework, as well as prepare for adaptation to climate change impacts with adequate planning.

Even after achieving remarkable progress in primary education and female school enrollments, improving the quality of education remains a challenge,⁷ along with developing the skill-set of the rapidly growing labor force. To reap the full benefits of the demographic dividend, expanding educational opportunity beyond primary level, improving the quality of education, and reducing the mismatch of skills in the labor market are all challenges for the country. Nonetheless, Bangladesh's rapid initial progress in social development resulted from the creation of public awareness, the use of low cost solutions, and promoting change in behavioral norms and attitudes, rather than through an "income mediated path" or a "support led path" (Sen 2003; Mahmud et al. 2008). Future progress in this regard will, however, require increased public expenditure. More importantly, re-emphasizing human resource development through quality education can facilitate further growth by increasing the conversant use of physical capital and rapid technology adoption, and may bring about improvements in governance.

Bangladesh's RMG sector occupies a crucial position in the global apparel supply chain largely because of its competitive prices and supply side advantage. However, inherent challenges such as a poor labor record, questionable building safety conditions, and the risks of political instability need to be taken into serious consideration. In recent times, several industrial accidents, for example, the catastrophic Rana Plaza Collapse in April 2013, have triggered the expansion of a movement that is concerned with the lack of safety measures in the RMG industry. Repeated political strikes

⁷Using a basic mathematic competency test for 10–18 year-old rural children, including those who completed primary schooling, Asadullah and Chowdhury (2013) found very low levels of student achievement, which indicates the poor quality of schooling in Bangladesh.

(*hartal*) have undermined the growth prospects brought about by the exports in the RMG sector (Ahsan and Iqbal 2014; Shonchoy and Tsubota 2016). This sort of political instability can be described as a “manmade disaster” for the economy, which is a serious negative risk for continued economic growth.

Weak governance and political instability represent potential risks for Bangladesh’s future development process; however, the country has made tremendous progress despite governance failures.⁸ On a corruption perception index of South Asian countries, Bangladesh was ranked second from the bottom (see Hasan et al. 2015). The same study shows that the indicators for political stability and the absence of violence, in addition to regulatory quality and the rule of law indicators, depict Bangladesh as being below the average for low income and lower middle income countries. The most recent Transparency International Bangladesh survey (TIB 2012) reports that the estimated cost of bribery in terms of national income has been increasing over the years; the cost of bribery in the surveyed sectors was estimated to be 1.4% of GDP in 2010 and 2.4% of GDP in 2012. For the country to attain its long-term development goals and achieve middle income status, control of corruption and improving regulatory and political quality remain as crucial challenges. The importance of quality institutions for achieving the sustainable development goals, such as ending poverty and improving people’s quality of life, can hardly be overemphasized.

Finally, we highlight the importance of government policies and good governance in sustaining the “Bangladesh miracle” because, after all, it is the government’s economic and social policies that will ultimately determine the sustainability of economic development in this country. In our view, it cannot be stated too strongly that the Bangladeshi government should seriously implement carefully designed industrial policies that nurture entrepreneurship and build upon the valuable experience gained from the miraculous development of the garment industry. Moreover, the government should invest in infrastructure to support the development of industries. We believe that the “Bangladesh Miracle” cannot be sustained unless the government acts as a catalyst for development in a much more active manner than before.

⁸For a further discussion on this point, see Mahmud et al. (2008). The authors also refer to some governance successes for Bangladesh, such as the creation of space for a vibrant private sector by encouraging competition and other policy reforms.

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Minhaj Mahmud is a Senior Research Fellow of the Bangladesh Institute of Development Studies (BIDS) and Visiting Scholar of the JICA Research Institute (Tokyo). Earlier he has held academic and research positions respectively at Queens University Belfast, Keele University, BRAC University, Jahangirnagar University and BIDS and BRAC Institute of Governance and Development (BIGD). He has also held visiting academic appointments at Jawaharlal Nehru University, University of Tokyo, and University of Dhaka. His field of research is behavioral economics, development economics, experimental economics and political economy issues. He holds a PhD degree in Economics from the University of Gothenburg, Sweden.

Keijiro Otsuka is a Professor of Development Economics at the Graduate School of Economics, Kobe University in Japan. He was a visiting research fellow at the International Food Policy Research Institute from 1993 to 1998, a professor at the National Graduate Institute for Policy Studies from 2001 to 2016, and a core member of the World Development Report: Jobs at the World Bank from 2011 to 2012. He was Chairman of the Board of Trustees of the International Rice

Research Institute (IRRI) and President of the International Association of Agricultural Economists. He is coauthor or coeditor of 23 books.

Yasuyuki Sawada is a Professor in the Faculty of Economics at the University of Tokyo, Japan, and a former visiting fellow of JICA Research Institute, Japan. His research fields are macro- and micro-development economics, economics of disasters, and field surveys and experiments. Previously, he did part-time research work in a variety of institutions, such as Stanford University; the World Bank; Bangladesh Institute of Development Studies (BIDS); BRAC Research and Evaluation Division (RED); and Pakistan Institute of Development Economics (PIDE). He holds a PhD degree in Economics from Stanford University, USA.

Eiji Yamada is research fellow at the JICA Research Institute. At JICA-RI, he studies urban environmental issues, migration, and remittances, and the impact of infrastructure projects using economic and econometric approaches. Previously, he served as Deputy Assistant Director of Financial Risk Management Division and Country Officer for Bangladesh in JICA Headquarters. He is a PhD candidate of the Department of Economics, Sciences Po Paris.