Chapter-7

Addressing Behind-the-Border Issues to Strengthen Competitiveness

7.1. Overview

Preferential market access as an LDC was the fulcrum on which Bangladesh's global trade integration was built based on its labour-cost comparative advantage. Chapters 3 and 5 provided an assessment of the impacts and challenges/vulnerabilities following "preference erosion" that will be associated with graduation in the context of global trends and evolution of trade and industry over the next decade reviewed in chapter 4. Streamlining and mainstreaming trade policies over the next five years or so will be the most important policy challenge to deal with. Then, there is the burning issue of ensuring competitiveness in a dynamic global marketplace. The competitiveness agenda is getting increasingly more challenging in the era of 4IR and the associated technology revolution, and automation. Trade preferences and trade concessions seek to compensate for some of the inherent vulnerabilities of LDCs. These vulnerabilities often include the high cost of production owing to infrastructure constraints and other domestic policy-induced rigidities. Indeed, global evidence shows that high trade logistic cost often imposes a higher cost disadvantage than trade taxes in developing countries, though Bangladesh presents a unique case of inordinately high degree of anti-export bias arising from the trade incentive structure that is skewed heavily in favour of import substitution. Evidence from Bangladesh also shows that there are many behind-the-border constraints that increase the cost of production and trading across borders thus undermining export competitiveness.

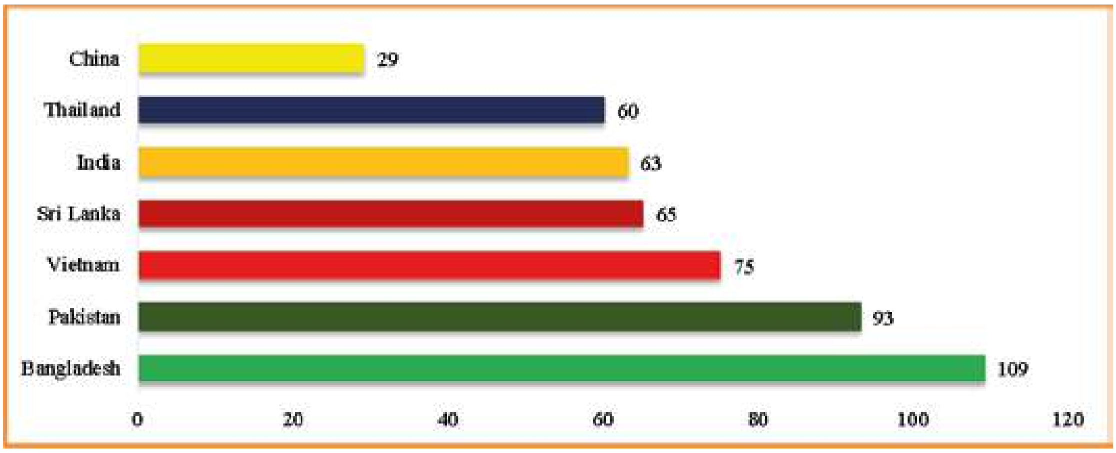
While the direct and immediate impact of these changes are on export earnings and GDP growth, on the social front the main impact is on job creation. As noted in Chapter 1, Bangladesh is already feeling the strain of a slowdown in job creation in the manufacturing sector. Reduction in export earnings and associated slowdown in GDP growth will hurt employment. On top, the technology changes and automation underlying the 4IR are going to further complicate the task of job creation. Early preparations are necessary to face these export, GDP and employment challenges associated with LDC graduation. Along with macroeconomic and trade policy reforms discussed in Chapters 5 and 6, a range of policy reforms are needed to address the behind-the border issues that constrain competitiveness and reduce employment prospects. Some of the critical constraints that must be addressed are discussed in this Chapter along with suggestions for policy reforms.

7.2. Strengthening Electricity and Transport Infrastructure

In today's globalized environment, infrastructure is one fundamental determinant of external competitiveness. Even keeping the issue of export competitiveness aside, improved infrastructural facilities is a precondition for efficient utilization of resources in promoting and sustaining economic growth. While high GDP growth has been achieved, for further growth acceleration and achieving the medium to long-term socio-economic development targets, improved infrastructure including expanded and uninterrupted power supplies will be crucial. There have been a lot of discussions and analyses of how the country's export potential is being hampered by infrastructural bottlenecks. Besides, Bangladesh's inability to attract enough quantum of FDI as well as mobilizing higher levels of domestic private investment are often attributable to the lack of adequate and reliable infrastructure services. The 6th and 7th Five Year Plans rightly prioritized the need for improved power, energy, transport and other infrastructure-related services for achieving GDP growth and development targets. The implementation of these plans has been backed by enhanced resource allocation through the Annual Development Programme (ADP), leveraging private investments in the power sector with policy and institutional support.

Considerable progress has been achieved in terms of upgrading power and transport infrastructure. Progress in the power sector has been especially noteworthy, particularly in increasing generation capacity. But the sector is behind in building commensurate levels of transmission and distribution capacity, not to mention the need for upgrading grids for higher power delivery that is coming down the pike. In transport despite progress, there is a large unfinished agenda. The magnitude of the infrastructure gap can be gauged from cross-country comparison of infrastructure adequacy. The World Economic Forum regularly publishes global comparisons on competitiveness based on 12 broad pillars. Quality of infrastructure is one of them. Despite Bangladesh's notable economic growth performance and an impressive record of social progress, the country lags many other Asian developing economies on infrastructure-related indicators. In 2018 the GCI ranking for Bangladesh infrastructure stood at 109 out of 144 countries (rankings are from "1" as the best to "144" as the worst). This compares with 29 for China, 63 for India, 93 for Pakistan, 65 for Sri Lanka, 60 for Thailand and 75 for Vietnam (Figure 7.1). Bangladesh performed especially low in roads, ports and electricity.

Figure 7.1: Global Competitiveness Index; Ranking in Infrastructure



Source: Global Competitive Index 2018

This cross-country comparison highlights that despite progress there are enormous challenge that Bangladesh must confront to develop all types of infrastructure to promote its competitiveness and enhance productivity in overall economic activities. Massive investment in energy and transport infrastructure (roughly $10 billion annually) will be required to cope with the challenge of graduation out of LDC

Although the government has undertaken massive investments in the power sector during the last decade, increasing the capacity of generation (including captive power and renewable energy) to 23,000 MW (2019) and achieving a peak production of 11,534 MW, comparison with other countries reveals that issues still remain with regard to timely access to electricity. In addition to the problems on getting electricity within a reasonable of time (Table 7.1), Bangladesh's per capita consumption of electric power (310 kWh) is also low when compared with those of India (806 kWh per capita), Sri Lanka (531 kWh per capita) and Pakistan (471 kWh). This must increase, and it can happen only when more people make greater use of electricity in their daily activities, in addition to greater use by industries. Indeed, the technology and automation changes underlying the 4IR enhances the criticality of timely, uninterrupted and cost-effective supply of electricity. This will require the government to make further investments into increasing the generation of power based on least-cost expansion path, in addition to exploring more sustainable/renewable sources of energy for power.

Table 7.1: Comparison of Bangladesh's Performance with Selected Asian Countries for Getting Electricity

Country	Time it Takes to Get Electricity
Bangladesh	**150.2 Days**
India	55 Days
Indonesia	34 Days
Malaysia	24 Days
Myanmar	77 Days
Nepal	70 Days
Philippines	37 Days
Singapore	30 Days
Thailand	30 Days
Vietnam	31 Days

Source: World Bank; Doing Business 2019

As an example, Vietnam, which is a much smaller country than Bangladesh, increased its capacity of generating electricity to 42.13 GW (42,100 MW) by 2017. The electricity is distributed throughout the country by transmission lines totalling 115,659 km in length. At the same time, investments worth $148 billion are planned for further developing the power sector, most of it to exploit viable sources to produce electricity, in addition to developing grids. Although the number of power plants in Vietnam (73) is lower than the number of power plants in Bangladesh (108), they produce at a much larger scale – as shown by the fact that the installed capacity of generation is more than double there.

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In Bangladesh, although the government must be lauded for increasing the number of power plants to 108 from 27 in 2009, most of them are small scale. The power plant with highest production capacity is the Ashuganj Power Station, with an installed capacity of 1876 MW and a net output capacity of 1627 MW. Keeping in mind the rise of projected demand for electricity to 34,000 MW by 2030, the government is planning to invest around $70 billion in the power sector over the next 15 years. It is important that this investment is based on using least cost options and renewable energy to the extent technically possible to lower the cost of electricity, to ensure the sustainability of primary energy supply and to reduce carbon pollution. Proper pricing of primary energy will be of critical importance. Emphasis will also have to be given to power transmission and distribution, upgrading of grid capacities, as well as energy trade in the region. Cooperation with neighbouring countries like India in the field of energy trade is ongoing. This should be broadened to include Bhutan and Nepal.

The current road network in Bangladesh is inadequate to provide infrastructural support to a country with a population of more than 160 million people which is aspiring to become a High-Income Country in 2041. This is reflected in the GCI's Road Connectivity Index, where Bangladesh is given a score 34.3 out of 100 and a rank of 121 out of 140. The quality of roads is also considered to be below average, with a score of 3.1 out of 7 and a rank of 111 out of 140.

Both passengers and business people who use air shipment have had complaints about the delivery of services in the country's airports for a very long time. This is also reflected in Bangladesh' score on the efficiency of air transport services (3.7 out of 7) and rank (109 out of 140). Taking into consideration the increased competition which Bangladesh's export-oriented industries (especially RMG) will face once the country graduates from LDC status, it is of utmost importance that the bottlenecks which they face due to a below-par road network are removed. Top priority should be given to the completion of the Dhaka-Chittagong highway due to its position as the economic lifeline of the country. After the Padma Bridge is completed, focus should also be on expanding the Dhaka-Khulna highway due to its link to Mongla port in the Greater Khulna region, while the Dhaka-Barisal highway should also be given due importance due to its link to Payra port in the Greater Barisal region.

In transport there is presently excessive reliance on the road network. This is very costly and will also become increasingly difficult owing to the growing land constraint and the costs of rehabilitation of large number of displaced people. On the other hand, as analysed in great detail in the Delta Plan (Government of Bangladesh 2018), the inland waterways are low-cost and environment-friendly option that has not received adequate attention. Implementation of the inland waterway development strategy articulated in the Delta Plan will be of high priority. Additionally, much more attention needs to be given to the issue inter-modal transport balance based on cost and efficiency. The 7th Five-Year Plan highlighted the importance of strengthening implementation capacity in the Ministry of Road and Transport. Projects are taking unduly long time for completion with cost over-runs and delayed benefits. Timely and efficient project implementation of all projects is critical to maximize the return from transport sector investments.

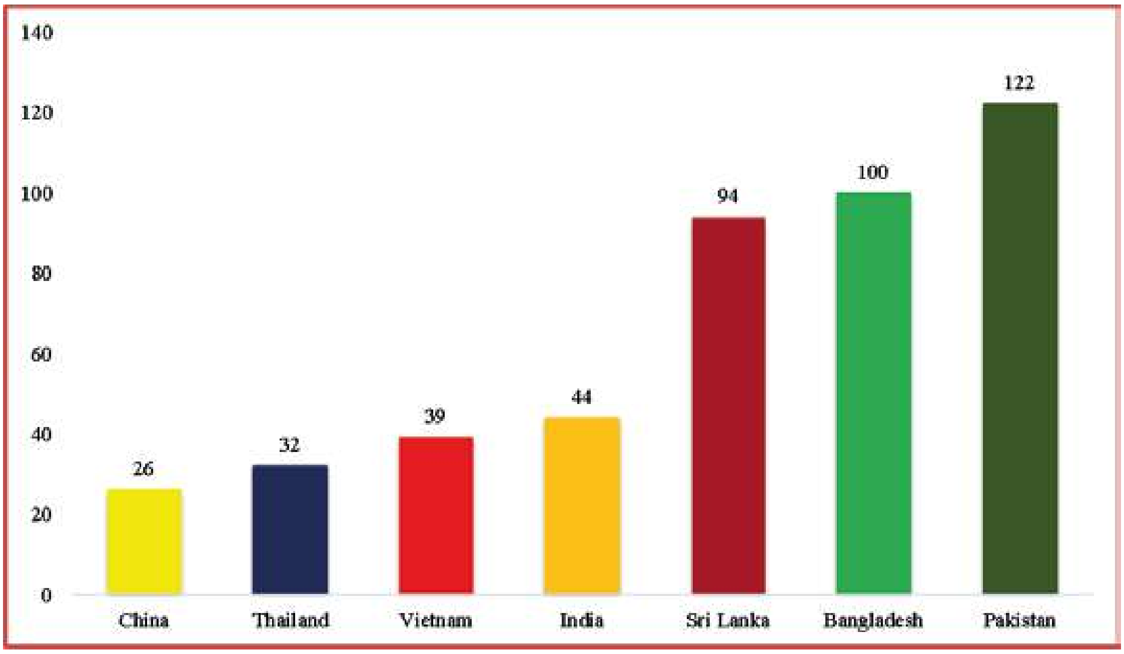
7.3. Improving Trade Logistics

Export competitiveness can be adversely affected by high cost of trading, both for imports of raw materials and capital goods and exports of products. Bangladesh has gradually opened its economy to international trade. Domestic production and investment are now heavily reliant on imported inputs. Imports as a share of GDP amounted to 22% in FY2018. Exports have also grown and are now about 14% of GDP. Financial cost of trading (transport, insurance, handling) and the efficiency of port clearances can both have determining influence on competitiveness. Exports are sensitive to timeliness of export-order shipments that requires efficient clearance and shipping arrangements. The importance of efficient, low-cost trade logistics is now well recognized as an important determinant of export competitiveness.

Recognizing the importance of trade logistics, the World Bank compiles and regularly updates index of trade logistics performance (LPI) and ranks countries based on the LPI scores. The LPI score is a composite index score of 6 variables that determine the performance of trade logistics: customs, infrastructure, international shipments, logistics competence, tracking and tracing and timeliness. The 2018 LPI rankings for Bangladesh and comparators are indicated in Figure 7.2. Bangladesh is ranked at 100 out of 160 countries.

The LPI ranking is very low relative to China, Thailand, India and Vietnam. For example, China, India and Vietnam are major Bangladesh competitors for RMG in the EU market and the higher cost of trade logistics may have serious adverse consequences for maintaining market share post-LDC graduation. So, paying attention to improving trade logistics performance gains added significance in a post-graduation environment. Bangladesh must improve the LPI rankings.

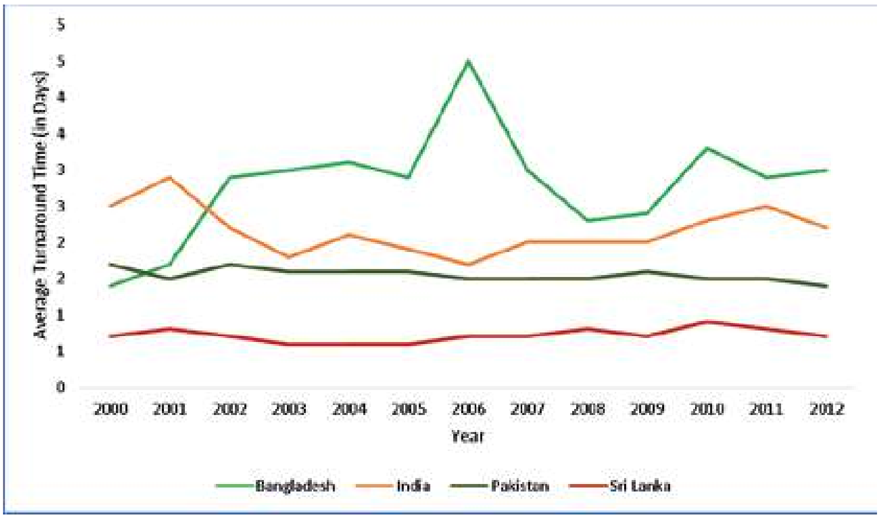
Figure 7.2: Rankings of Bangladesh and Other Asian Countries in the World Bank's Logistics Performance Index 2018



Source: World Bank

One of the most important aspects of trade logistics is the handling situation in container ports (Figure 7.3). Even though the tariffs and charges of handling in terminals in most of South Asia's major ports are lower than those in Dubai and Singapore, indirect costs caused by delays and inefficient service lead to loss of markets and confidence of customers. While ports in the region like Colombo, Jawaharlal Nehru (Mumbai), Mundra (the largest privately-operated port in India, located in the state of Gujarat) and Qassim (Karachi) have witnessed relative improvements in their performances (although still lagging behind the ports in East Asia), Chittagong's operational performance has been affected due to having one of the longest times for turnaround of vessels (more than 3 days, on average) in the region. This turnaround time compares adversely to the ports of Sri Lanka (less than a day), Pakistan (one and a half day) and India (more than 2 days). Policy support which results in participation of the private sector, good governance and strong competition are necessary in order to improve the efficiency of port operations. Bangladesh is the only country among the four mentioned in South Asia which has not leased out any of its operational activities to any private entities. This lack of competition is possibly a major reason for Chittagong port's disappointing performance, especially with respect to turnaround times.

Figure 7.3: Average Turnaround Time in Days in the Ports of Four South Asian Countries from 2000 to 2012



Source: World Bank Report on the Competitiveness of South Asia's Container Ports

Tables 7.2-7.3 show that those who are engaged in imports into and exports out of Bangladesh suffer due to long waiting times in fulfilling documentary and border compliant measures., No country in South Asia and South-East Asia comes even close to Bangladesh in causing delays on compliance at the borders while bringing in imports and taking out exports. A significantly longer time spent on border compliance while importing (216 hours) than while exporting (168 hours) indicates an inefficient Customs due to various reasons – lack of adequate manpower, lack of proper training for the employees, and lack of technology/equipment which would enable the employees to carry out their duties efficiently. In addition, cumbersome import regulations and endemic malfeasance in customs clearance of cargo are reasons behind the delays.

Table 7.2: Time and Cost of Documentary and Border Compliance While Exporting from Bangladesh and Some Other Asian Countries in the Ease of Doing Business for 2019

Country	Time Spent on Documentary Compliance While Exporting	Time Spent on Border Compliance While Exporting	Cost of Documentary Compliance While Exporting	Cost of Border Compliance While Exporting
Bangladesh	**147 Hours**	**168 Hours**	**US$ 225**	**US$ 408.2**
India	14.5 Hours	66.2 Hours	US$ 77.7	US$ 251.6
Indonesia	61.3 Hours	53.3 Hours	US$ 138.8	US$ 253.7
Malaysia	10 Hours	28 Hours	US$ 35	US$ 213
Myanmar	144 Hours	142 Hours	US$ 140	US$ 432
Pakistan	55 Hours	75 Hours	US$ 118	US$ 356
Philippines	36 Hours	42 Hours	US$ 53	US$ 456
Singapore	2 Hours	10 Hours	US$ 37	US$ 335
Sri Lanka	48 Hours	43 Hours	US$ 58	US$ 366
Thailand	11 Hours	44 Hours	US$ 97	US$ 223
Vietnam	50 Hours	55 Hours	US$ 139	US$ 290

Source: Doing Business 2019

Table 7.3: Time and Cost of Documentary and Border Compliance While Importing into Bangladesh and Some Other Asian Countries in the Ease of Doing Business for 2019

Country	Time Spent on Documentary Compliance While Importing	Time Spent on Border Compliance While Importing	Cost of Documentary Compliance While Importing	Cost of Border Compliance While Importing
Bangladesh	**144 Hours**	**216 Hours**	**US$ 370**	**US$ 900**
India	29.7 Hours	96.7 Hours	US$ 100	US$ 331
Indonesia	106.2 Hours	99.4 Hours	US$ 164.4	US$ 382.6
Malaysia	7 Hours	36 Hours	US$ 60	US$ 213
Myanmar	48 Hours	230 Hours	US$ 210	US$ 457
Pakistan	143 Hours	120 Hours	US$ 250	US$ 475.7
Philippines	96 Hours	120 Hours	US$ 50	US$ 580
Singapore	3 Hours	33 Hours	US$ 40	US$ 220
Sri Lanka	48 Hours	72 Hours	US$ 283	US$ 300
Thailand	4 Hours	50 Hours	US$ 43	US$ 233
Vietnam	76 Hours	56 Hours	US$ 183	US$ 373

Source: Doing Business 2019

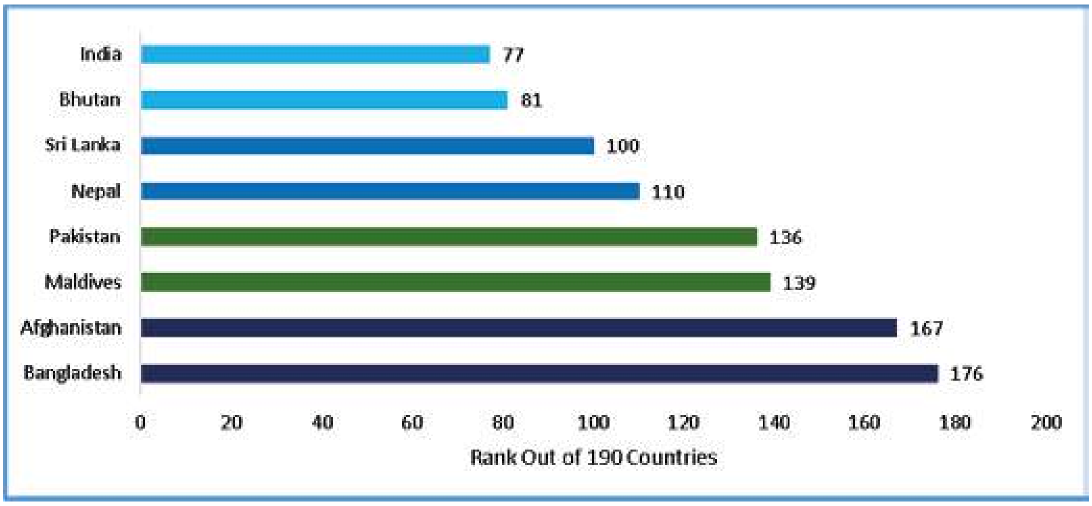
The Way Forward

Exports stimulate imports. Delays in imports not only increase the costs to the firms importing them, but it also puts them in a tight situation when many of these imports are raw materials for export-oriented industries. After Bangladesh graduates from LDC status in 2024, the competitiveness challenge will intensify. In order to maintain their market share in the more competitive environment, it will be vital for all the firms to have timely and less costly access to raw materials, maintain their production schedules and ship their products to their buyers on time. Chittagong port handles 75% of Bangladesh's $90 billion of export-import trade. Ship turnaround time and cargo clearance from container yards are longer than most ports in the region. Ooperational efficiency at the port must be radically enhanced to ensure lower turnaround time for vessels in order to benchmark good productivity and performance in this port. High efficiency in import clearance at ports is critical for export competitiveness. Findings from the World Bank's Doing Business Indicators concerning port efficiency of Chittagong vis-a-vis better performing Asian ports could be used to develop appropriate reform strategies for enhancing the performance of the port. Similar reforms should be done to improve the efficiency of the Mongla port. Additionally, after holding dialogue with all stakeholders, decision should be taken as to whether some of the handling operations in the ports of Chittagong and Mongla should be contracted out to private entities after a competitive and transparent bidding process.

7.4. Improving the Investment Climate

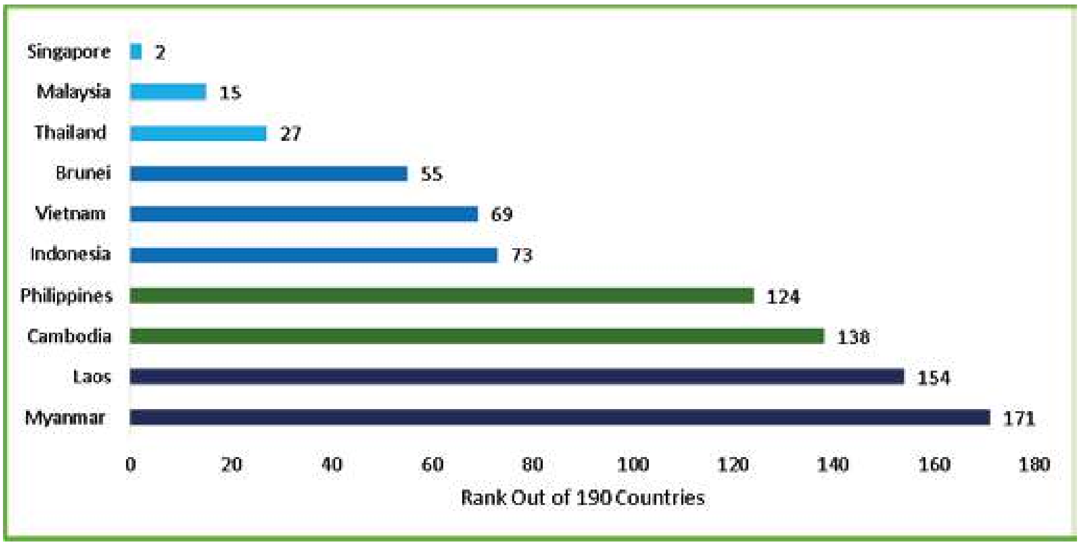
Despite progress with the policy environment for the private sector that has spurred the expansion of private investment from a low of 6% of GDP in FY1989 to 23% of GDP in FY2018, the overall investment climate for Bangladesh remains substantially weaker than those found in competing countries. This is reflected in the global rankings of investment climate prepared by the World Bank as well as by the World Economic Forum. For example, the World Bank's 2019 Ease of Doing Business (EDB) ranks Bangladesh at 176th out of 190 countries (Figure 7.4). The more advanced economies of the ASEAN countries perform much better than the South Asian countries in the rankings due to their institutional strengths and openness to trade (Figure 7.5).

Figure 7.4: Ease of Doing Business Rank of the South Asian Countries in 2019



Source: World Bank Doing Business 2019

Figure 7.5: Ease of Doing Business Rank of the South-East Asian Countries in 2019



Source: World Bank Doing Business 2019

These rankings reflect Bangladesh's shortcomings in the various factors which are taken into consideration for these computations. The evidence also shows very little progress over the past several years. Similarly, the World Economic Forum's Global Competitiveness Index (GCI) puts Bangladesh at 103 out of 140 countries surveyed for 2018. According to the World Bank's EDB rankings, the major problem areas that lower Bangladesh performance include weak infrastructure services and high transaction costs relating to paying taxes, registering property, enforcing contracts and trading across border. Additionally, the availability of serviced land with all necessary infrastructure connections including electricity, water, and industrial waste disposal facility is a major hassle that lowers private investment in the manufacturing sector. To strengthen the investment climate to attract domestic and foreign investments, these constraints will have to be addressed head on in the next 5 years to bring significant improvement in the investment climate.

Although Bangladesh has a large pool of low-cost labour giving the country a comparative advantage in production of products like RMG, it still lags in fundamental issues that affect the investment climate. Governance lapses are too deep resulting in time delays and higher transaction costs in starting a business, registering property, and enforcing contracts (Table 7.4). With determination these governance deficiencies can be addressed to move up the EDB ladder in a reasonably short time, as has been done by some countries.

Table 7.4: Comparison of Bangladesh's Performance in Some Indicators of the Ease of Doing Business 2019 with the Selected Asian Countries

Country	Time it Takes to Start a Business	Time it Takes to Register Property	Time it Takes to Enforce Contracts
Bangladesh	**19.5 Days**	**270.8 Days**	**1442 Days**
India	16.5 Days	69.1 Days	1445 Days
Indonesia	19.6 Days	27.6 Days	403.2 Days
Malaysia	13.5 Days	11.5 Days	425 Days
Philippines	31 Days	35 Days	962 Days
Singapore	1.5 Days	4.5 Days	164 Days
Sri Lanka	9 Days	39 Days	1318 Days
Thailand	4.5 Days	9 Days	420 Days
Vietnam	17 Days	53.5 Days	400 Days

Source: World Bank; Doing Business 2019

In order to improve its position in the Ease of Doing Business and Global Competitiveness rankings, Bangladesh can take inspiration from a country that had to go through reconstruction after a long and devastating conflict around the same time as our War of Independence – Vietnam. The country improved its ranking in the Global Competitiveness Report from 77th in 2006 to 55th in 2017, while its improvement in the Ease of Doing Business has been even more impressive – from 104th in 2007 to 69th in 2019. The reasons behind this jump were the reforms which Hanoi undertook with regards to paying taxes, trading across borders, enforcing contracts, access to credit and getting electricity.

Georgia is one country that made the most striking improvement in its EDB ranking. Back in 2006, this country was ranked 100th out of 155 countries. In 2019, the former Soviet Socialist Republic has risen to 6th place in the rankings. This huge rise is even more impressive when one takes into consideration the fact that the government there had to transform its institutions from those standing tall over a command economic structure to those which facilitated the emergence of the private sector and welcomed foreign investment. The most important reforms which were carried out include:

- making it easier to start a business by simplifying the procedures related to registration of tax and social security, in addition to obtaining licences;
- easing the payment of taxes through reform of tax laws (either introducing new ones or revising the existing ones significantly) and simplifying the processes for complying with the tax laws; and
- facilitating the enforcement of contracts by expanding automation in courts, introducing electronic payments and processes, in addition to assigning cases to judges automatically and publishing the judgments digitally.

The Way Forward

Bangladesh has taken some positive steps to address the serviced land constraint through industrial parks and special economic zones. This is a welcome move. Speedy completion of all ongoing facilities and making those available on a timely and business-friendly way will be an important factor to spur domestic and foreign investment. Bangladesh should focus top attention on reducing the time it takes in the country to (i) get electricity; (ii) register property; (iii) obtain credit; (iv) trading across borders; (v) enforce contracts; and (vi) resolve insolvencies. If carrying out reforms addressing these issues results in an improvement of the country's rank for Ease of Doing Business, this should give a positive signal to potential investors around the world that the climate for investment in Bangladesh is improving due to sincere efforts by the government. As was done in India recently, a time bound action plan with specific targets for ranking improvements in the above areas should be developed under the direct supervision of the Prime Minister and coordinated by the Bangladesh Investment Development Authority (BIDA). In addition, a strong marketing effort should be launched by BIDA and Commercial Wings in Bangladesh's diplomatic missions around the world (especially Europe and North America) to highlight and showcase the progress made on the investment climate front as a means to attract FDI.

7.5. Improving Technology Transfer and Market Access Through FDI

Export expansion and diversification is often constrained by limited domestic capital, technology and market knowledge. An important research question is, can these constraints be eased by attracting foreign firms? It is not surprising that the role of foreign direct investment (FDI) in promoting export-oriented industrialization has attracted considerable attention in recent times. FDIs with their better technological and managerial skills and knowledge about international marketing conditions, are expected to improve the productivity as well as export performance of host country firms by creating certain positive externalities known as 'spillovers'. Spillovers can take place when FDI improves the productive efficiencies of domestic firms, making their products efficient in price and quality in the international market and thus improving their export performance. Such spillovers may occur either to domestic firms in the same industry group of foreign firms through competition, known as 'horizontal spillovers', or to firms in the upstream supply chain through buyer-supplier linkages, known as 'backward spillovers'. FDI can help to channel capital and technology into industries that have the potential to compete internationally, and the global linkages of multinational corporations can facilitate their access to foreign markets. In addition to exports that are generated directly by foreign affiliates, FDI can also promote exports of domestic firms through the teaching of proper marketing strategies, methods, procedures, and channels of distribution.

One final note on the criticality of FDI in supply chain trade (SCT) must be made. It has been argued that Bangladesh needs to get on the bandwagon of GVCs as a means to export-oriented industrialization. Cross-border FDI flows have been the lifeline for the growth of GVC (or SCT) trade that helps sustain the growing production networks across borders. Therefore, courting FDI in the future to capture and expand supply chains will have to be an essential strategy for Bangladesh's export-oriented industrialization.

China, Vietnam, India are all recipients of substantial quantum of FDI that has played a catalytic role in imparting technological dynamism and fuelling growth. Bangladesh record in mobilizing FDI is disappointing. Overall FDI in Bangladesh reached a mere $2.2 billion in 2017, as compared with $134 billion in China, $40 billion in India and $14 billion in Vietnam. Moreover, most FDI investments are outside manufacturing. Data on sectoral classification of stock of FDI up to 2016 shows that manufacturing absorbed only 23% of total FDI inflows. To sustain the progress towards graduation, Bangladesh must be able to mobilize much greater foreign investment (FDI). Of the various types of FDI – (a) energy and infrastructure, (b) services (e.g. mobile phones), (c) market-seeking (tariff-jumping), (d) export-seeking – Bangladesh has been receiving (a)-(b), but not (c), which is attractive only when domestic markets are large (as in India, China). As an LDC with preferential market access in several OECD markets, it is export-seeking FDI that should make Bangladesh an attractive destination (as is the case for Vietnam).

There is now considerable body of evidence from countries in Europe, East Asia, South Asia and Africa that FDI supports the growth of exports. The experiences most relevant for Bangladesh are those from countries of East Asia and South Asia.

In East Asia the experience of China is instructive as it has witnessed both a massive growth in exports and of FDI contemporaneously suggesting the positive role of FDI in exports. Zhang (2005) attempts to investigate the role of FDI in promoting manufacturing exports in China. The empirical evidence from the study suggests that FDI indeed has had a positive impact on China's export performance. The research finds that the export-promoting effect of FDI is much greater than that of domestic capital and its effect is larger in labour-intensive industries, as one might anticipate.

The experience of China is particularly illustrative of the potential. The rapid growth of China's manufacturing exports with a wide range of diversified production and successful penetration in the global markets, especially in those of USA and Europe, suggests that a strategy of mobilizing export-seeking FDIs to deepen China's manufacturing base and diversified export base has paid off handsomely. Since China is a net exporter of capital it is not so much the money but the technology, know-how and skills associated with FDI that have been instrumental. The lesson for Bangladesh and other developing countries is quite clear.

Empirical research by Johnson (2007) on eight high-performing East Asian economies with a focus on the relationship between FDI and host country exports confirms the strong relationship. The concerned countries are: China, Hongkong, Indonesia, Malaysia, Korea, Singapore, Taiwan and Thailand. The empirical evidence indicates that FDI inflows have a significant and positive effect on host country exports, suggesting that export-platform FDI may be important for the East Asian economies.

Vietnam in recent years has experienced a substantial inflow of FDI. Xuan and Xing (2008) look at the implications of FDI for export performance in Vietnam. The research analyzes the impact of FDI on the exports of Vietnam with gravity equations. The empirical results demonstrate that FDI is one of the major factors driving the rapid export growth of Vietnam. It has significantly facilitated the expansion of Vietnam's exports to FDI source countries. In particular, the empirical analysis shows that a 1 percent increase in FDI inflows is expected to lead to a 0.13 percent increase in Vietnam's exports to these countries.

Within South Asia India has experienced significant FDI inflows in recent years. Prasanna (2010) investigates quantitatively the question of how FDIs have impacted on India's export performance. The research finds that the impact of FDI inflows on export performance is significantly positive.

The preceding review provides strong research evidence of the critical role played by FDI as a catalyst for export-oriented industrialization which was the lynchpin of high growth in the East Asian economies. FDI inflows could play a similar role in Bangladesh's transformation into a high-performing industrial economy with robust exports in the next decades.

FDI strengthens competitiveness and fuels GVC exports. Because of the widespread existence of production fragmentation across borders – a phenomenon that creates challenges as well as opportunities -- a better understanding of how Bangladesh as an LDC is positioned within global value chains is absolutely critical. In Asia, FDI has played a particularly catalytic role in stimulating trade in intermediate goods over the past 25 years or so. From 2001 to 2016, Asia's share of global FDI increased from 12 percent to 28 percent; much of it had to do with the complementarity of trade and investment in the context of 'Factory Asia' and Asia's growing participation in cross-border global value chains (GVCs). GVCs are typically coordinated by Trans-National Corporations (TNCs), with cross-border trade of inputs and outputs taking place within their networks of affiliates, contractual partners and arm's-length suppliers. According to UNCTAD (2013) TNC-coordinated GVCs account for some 80 per cent of global trade. As a result of the role of TNCs in global trade, FDI is found to be closely linked with a countries' GVC participation. The correlation between FDI stock in countries and their GVC participation rates is strongly positive, and increasingly so over time, especially in the poorest countries, indicating that FDI may be an important avenue for developing countries to gain access to GVCs and grow their participation. Climbing the GVC development ladder implies not only increasing GVC participation and increasing domestic value added in exports. It also means moving into activities that can provide more development value added and increasing participation in more sophisticated GVCs, from resource-based activities, to low-, medium- and high-tech activities, to knowledge-based activities such as design, innovation, R&D, marketing and branding – as the experience of East Asian economies show.

Then there are the rapidly evolving changes in the geographic orientation of global value chains layered on top of Industrial Revolution 4.0 and Servicification. Experience has shown that market density and proximity are key to engaging in GVCs, especially in the growth-enhancing segments. India's signature "Make-in-India" initiative and China's "Made in China 2025", sets Bangladesh potentially at the epicenter of a new production hub. Coupled with the growth of consumer demand in India, China (own rebalancing relative to investment and exports), Bangladesh and other Asian markets, a new center of economic gravity is emerging, likely to bring increased demand for smart manufacturing and, in turn, drive demand for high-skilled, low-cost labour and most importantly for service enablers like transport and logistics and related IT centered service providers. Creating unfettered access to larger markets such as India, China and along the Indo-Pacific corridor could certainly help prospects of reinforcing Bangladesh's existing manufacturing capabilities and generate new ones.

Acquiring technology and skills through FDI: Apart from support to the expansion of exports, FDI will be instrumental in acquiring new technology and training labour. While the importance of domestic investment in R&D for technology development and innovation for long-term growth cannot be over-emphasized, at the early stages of development technology, new products, new markets and skills can also be acquired through foreign direct investment (FDI). The value of FDI in these areas was amply demonstrated by the highly positive experience in RMG. The example of Desh Garment partnership with Daewoo in acquiring new product design, foreign market penetration and skills and the spill-over effect of this experience for the entire RMG industry well illustrates the power of FDI-based joint ventures in transfer of technology, markets and skills. Similarly, Japan, China, Korea all benefitted from strong large-scale partnerships with powerful FDI sources at the early stages of development. They acquired new technology, labour skills and markets through these partnerships. With experience gained thereby and supported by heavy investments in human capital and R&D, the transition to domestic-based technology development, innovation and new product discoveries were made.

Considering the level of economic development, technology and skills which are currently prevalent in Bangladesh, it is of vital importance that both the government and the private sector engage in cooperation with international partners in order to acquire existing and upcoming technology so that they can at least maintain their comparative advantage, if not go further. FDI is an important source of technological upgradation in industry and services through direct investment as well as spillover effects transmitted to local activities. Greater technological sophistication and improvement in labour productivity and skills are the positive external economies arising from FDI inflows.

The Way Forward

The overwhelming advantages of entering into joint ventures with foreign investors through FDI partnerships makes it imperative for Bangladesh to pay top most to attract FDI. In addition to addressing all the constraints that adversely affect domestic private investment as addressed above, strong attention needs to be given to timely availability of land and electricity, enable easy transfer of profits and investments through an enabling foreign currency regime, and creating a proper legal framework for contract enforcement, resolution of conflicts and bankruptcy proceedings.

The sector which has the potential to attract more FDI in the future due to the combination of (i) availability of highly skilled labour resulting from a vibrant domestic sector; and (ii) scope for transfer of technology to a local entity if the foreign investor agrees; is the pharmaceuticals sector – market seeking FDI. As a consequence of graduation from LDC status, Bangladesh will have to open up its market, and local manufacturers will have to consider entering into joint ventures with foreign entities in order to acquire technology without violating patent rights. Foreign investors will also look to take advantage of lower costs of production. This should be a win-win situation for both sides – but it all will depend on the ability of the government and the local firms to portray Bangladesh as attractive and profitable enough for the foreign firms to invest and possibly to transfer some technology as well.

Currently, Bangladesh faces the dual challenge of mobilizing more FDI and into the GVC operation. That is, its best chance of getting on the GVC bandwagon lies in aggressively courting FDI from multinationals that are seeking low-cost locations for producing parts and components or for final assembly within the framework of cross-border production integration. FDI thus becomes critical for Bangladesh to not only develop a wider base of intermediate goods industry but also to diversify exports into intermediate goods by vertically integrating with cross-border production entities. It needs to translate its RMG experience with GVC on to other sectors like Footwear and Leather goods, electronics, light engineering, toys, plastics, and other sectors with an aggressive strategy of FDI-driven GVC over the course of the next decade. That would constitute a new form of export-oriented industrialization for Bangladesh on way to graduating out of LDC status and becoming a UMIC.

7.6. Investment in Research and Development

Research and Development is the backbone of innovation. In an increasingly competitive world technology, innovation, and new ways of doing business provide a high premium to countries that are ahead in this area. While OECD countries are much ahead of the game in this area as compared with newly emerging industrial countries like Bangladesh, comparator countries like India, China and Vietnam are also rapidly moving ahead on the technology and innovation front based on investment in research and development (R&D). Bangladesh is way behind on the knowledge economy front, although it has made good progress on the Information and Communications Technology (ICT). An important reason for this knowledge economy gap is the very low investment in R&D. Unfortunately, public policy is yet to focus on this important subject. Consequently, even data are not compiled or monitored to measure progress with R&D spending by public and private sources. Fragmented data suggest that R&D investment is likely to be a very modest 0.6% of GDP as compared with 2.7% of GDP in China.

Investment in Research & Development (R&D) is a long-term process. It requires investing on the education of the country's population from early stages, especially from the secondary level. Keeping this in mind and as laid out in Vision 2021, the government made Information Communication and Technology (ICT) a compulsory academic subject in secondary schools in 2013 – and plans to do the same in primary schools by 2021. From 2015, students sitting for public examinations under the National Curriculum have had to take ICT as a compulsory paper. An ambitious yet laudable initiative was undertaken to make all students across the country ICT-literate by the time they finished primary school. The share of secondary schools with computer facilities increased from 59% in 2010 to 79% in 2013. At the same time, the share of secondary schools with internet connections increased from just 18% in 2010 to 63% in 2013.

Of equal importance towards progress of R&D in a country is the interest of a country's young/student population, the most important indicator which is the level of enrolment – where there is a positive trend. Total enrolment in the undergraduate and graduate programs across the country increased from 1.45 million students in 2009 to 1.84 million in 2012, with a strong growth of studentship in the Science, Technology, Engineering and Mathematics (STEM) fields. The highest growth of 68% was witnessed in the engineering fields, where enrolment into the PhD programs tripled from 2009 to 2012. Bangladesh has one of the highest ratios of enrolment into master's programs in Asia at 20%, but this is not translated into enrolment into PhD programs, which stood at only 0.4%. It indicates that although many of the young graduates and professionals are interested in obtaining master's degrees for their own advancements, not many of them are motivated to go for advanced research.

Research requires funding. Around the world, research is funded by governments, inter-governmental organizations, private corporations and non-profit organizations. As economies grow and become more prosperous, the contribution of the private sector towards funding R&D increases, often for their own product development. According to World Bank data for 2016, OECD countries spent 2.5% of GDP on R&D while UMIC countries spent 1.8%. Reports suggest that China has made it a strategic policy to invest heavily on R&D reaching 2.7% of GDP in 2017. It plans to be the world's future science and technology powerhouse. R&D spending in South Asia averages well under 1% of GDP with India taking the lead with 0.85% of GDP in 2016. To keep in step with the innovation society of the future it has become a national imperative for Bangladesh to raise R&D spending substantially – public and private -- especially by firms in the pharmaceuticals sector.

The Way Forward

The absence of an R&D strategy is a major missing link in the development strategy for attaining UMIC and HIC status. This gap must be addressed speedily by developing a strong R&D strategy that lays down a medium-to long-term strategy for developing the R&D capabilities. Policy must provide a good balance between fiscal incentives (tax breaks, subsidies) with public investments (research grants, establishment of research centres). Strong partnership between public and private sector is essential for the R&D strategy. Public funding can support and leverage private investment in R&D. Bangladesh can learn from the experiences of China, Japan, Korea, USA and Western Europe. The link of the strategy with private business and the universities is essential. Some early winners for R&D focus can help jump-start the process. One such example is the pharmaceutical industry.

Bangladesh already has the largest pharmaceuticals industry amongst the LDCs, but once the country graduates from this category, it will be a totally different ballgame altogether. This is because under the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), producers of pharmaceuticals from LDCs are exempted from producing patented drugs without license from patent holders until 2033. Under this waiver, Bangladesh can also export generic versions of the patented drugs to countries where those drugs are not covered by patents. Graduation from LDC status will mean that pharmaceutical companies from Bangladesh will have to face possible action if the foreign patent holders can prove infringement of Intellectual Property (IP) rights. Moreover, the government will have to open the domestic market to foreign companies and reform the regulations which currently discourage imports. When faced with this competition, the domestic companies will have no option but to engage in research and development of new products in order to survive in this new environment. The government will then have to provide them with incentives such as tax breaks if they invest their retained earnings on R&D.

7.7. Strengthening Labour Productivity through Investments in Human Capital

Bangladesh is abundantly endowed with low-cost labour that provides the basis for comparative advantage in producing and exporting labour intensive products. Indeed, the RMG revolution is a prime example of how Bangladesh gained global market share based on low labour cost. Yet, it is also recognized that labour productivity in Bangladesh is very low. A major challenge in the post-graduation world for Bangladesh would be to increase labour productivity through large investments in human capital and other policy changes. This perhaps holds the key to successful graduation from LDC status.

Majority of the population have been employed in the agricultural sector for a very long time, not only in Bangladesh but also the other countries of South Asia. Only recently has that situation started to change. For example, the percentage of the total working population engaged in the agricultural sector decreased from 70% in 1991 to 40.0 % in 2018. There has been a similar trend in the other countries of the region as well. As it has happened around the world, as incomes grow resources move away from agriculture to industry. However, using land, employing labour and investing capital away from agriculture to industry is not enough if the labour force employed is not trained and productive.

Bangladesh has made important inroads in improving human capital as suggested by favourable human development indicators relative to comparators at the same level of development. Major gains have been made in both health and education front. Yet, the 206-17 labour force survey shows that 32% of the labour force did not have any education, some 26% had only primary education, some 31% had secondary education and only 12% had higher secondary and tertiary education. The quality of labour force in terms of skills is also low on average. Improving labour productivity through investment in human capital is a major challenge moving forward. This entails increasing public spending on education and training, enhancing quality of education at all levels, greater emphasis on science and technology, improving public delivery of education through district level decentralization, strengthening the leadership role of the University Grants Commission to strengthen quality and quantity of higher education, sharply improving the quality of training.

The Way Forward

Taking into consideration that the future of the country's economy lies in its young working population, the government undertook the National Skills Development Policy (NSDP) in order to increase the capabilities through spreading the extent of technical and vocational education and training (TVET) across the country. Building on progress achieved in basic education, strengthening of other levels of education including vocational and higher education is important to have a well-educated and skilled population with the capacity to contribute effectively to the country's development. Public spending on education and training must go up from 2% of GDP now to at least 3.5-4% of GDP int the next 5-6 years. Without this investment it will be difficult to improve quality and enrollment in higher education, which is an essential first step to meet the growing skills gap.

As the country is in transition appropriate transferable skills and competencies are essential to the next level of development by increasing its knowledge-based sectors. In the context of higher education, generation of knowledge as well as availability of knowledge for national competitiveness in a globalized world becomes crucial. For realization of the country's long-run economic aspiration, skilled labour-force and hence high-quality graduates are required. This means country's higher education sector needs to be revitalized with appropriate policies and strategies. Finally, based on the successful experience of ASEAN countries (cited in VDR 2014), a clear vision, that originates through broad-based consensus and is well coordinated among different sectors for successful implementation, would be crucial for addressing the future human development challenges, While targets need to be set realistically with short, medium and long term objectives, it would be important to have consistency between goals and actions and that budget should be aligned with effective implementation and monitoring of education reform. In this context clear coordination of educational policies and coordination among relevant ministries will be crucial for achieving shared education sector goals. The role of government for successful partnerships among various stakeholders would be crucial to ensure successful implementation of educational policies and reforms.

7.8. Fostering Trade Facilitation and Competitiveness with Customs Modernization

In addition to reducing red tape, lowering tariff barriers and the time spent while complying with different procedures to set up businesses, it is also important to have a competent and well-organized customs service in order to make Bangladesh competitive in the world market. To make Bangladesh Customs competent and well-organized it needs to successfully balance its various responsibilities of ensuring high level of compliance with revenue objectives and regulatory requirements while at the same time intervening as little as possible in the legitimate movement of goods and people across borders. There clearly is a trade-off between control and facilitation of trade. Thus, in order to achieve an appropriate balance between the facilitation of trade and control through regulations, customs administrations are generally abandoning their traditional, routine "gateway" checks and are now applying the principles of risk management with varying degrees of sophistication and success. Bangladesh customs of the future must move from being a revenue collection agency to becoming a facilitator of trade. That requires trade facilitation measures to complement trade liberalization if Bangladesh is to increase its competitiveness and become better integrated into the world economy.

Success in the modernization of customs is tied to the overall trade policy environment. As the nation progresses towards graduation, its customs administration must be made more effective and efficient. Simple, transparent, and harmonized trade policies reduce administrative complexities, facilitate transparency, and reduce the incentives and opportunities for rent-seeking and corruption. Customs modernization, therefore, also needs to be examined from the broader and complementary perspective of trade policy reform.

Meeting the objectives of modernization will require the adoption of several core principles: adequate use of intelligence and reliance on risk management; optimal use of information and communications technology (ICT); effective partnership with the private sector, including programs to improve compliance; increased cooperation with other border control agencies; and transparency through information on laws, regulations, and administrative guidelines. To be efficient and effective they need to be adapted to changing trade practices and modern management approaches as well as reflect the development objectives of the country.

This calls for deeper application of ICT and digital processes in movement and clearance of cargo. To make our customs administration more effective it must leverage technology and benefit from improved transparency, greater efficiency, and enhanced security. However, the benefits that could be derived from greater reliance on ICT has at times been undermined by the failure to streamline customs procedures, thus creating a process where outdated manual practices continue alongside computerized practices. This must change radically over the next five years. Although ICT for customs administration is not a panacea or an end in itself, it can powerfully contribute to effective customs administration and operations when integrated into a broader modernization effort.

To meet its mission of trade facilitation, our customs administration must effectively integrate modern practices and processes with ICT-driven customs management systems. While doing so, they should identify realistic and practical targets and objectives that are tailored to their own specific circumstances. Desirable ICT solutions are not necessarily the very latest and most sophisticated ones available, but are ones that are most appropriate for the country's operating environment, resource base, telecommunications infrastructure, and realistic development ambitions. In any event, the ICT solutions chosen must assist the customs in all its core business functions and must provide a platform that enables achievement of its long-term vision.

Past efforts to modernize customs in Bangladesh. Doing Business 2019 has ranked Bangladesh 176th out of 190 countries for trading across borders. This low rank of the country in this category is due to various factors including weakness in Customs administration that results on long times taken to export, high costs of exporting, and long times taken to import and high costs of importing. In sum, customs procedures are often excessively time consuming, unpredictable, and weak in their revenue generation and regulatory function. Keeping this in mind, the government through its National Board of Revenue (NBR) undertook various initiatives in cooperation with the international development partners in order to modernize Customs, including:

1. Work was undertaken to analyse the gaps in the Customs Act in April 2013 and update it accordingly to provide the legal basis for modernization. The amendments were completed in May 2014. At the same time, the Act was also translated to Bangla so that it could more easily understood by the business community.
2. Time Release Studies (TRS) were carried out from April 2013 to March 2015 in the Customs Houses of Dhaka, Chittagong and Benapole to identify the time required at each step of the clearance process.

3. A Regulatory Impact Assessment (RIA) was conducted to assess the regulatory impacts of the amendments proposed to the Customs Act, before the Act was amended in May 2014.
4. A National Trade Portal (NTP) was developed from April 2013 as a single point information repository for trade related information in alignment with the World Trade Organization (WTO)'s Trade Facilitation Agreement (TFA) requirements on access to information. The NTP was inaugurated in August 2015.
5. Risk management was implemented from September 2013 to October 2014 to enhance revenue assurance, assess trade risk and trade scarce resources towards high risk transactions.
6. The Standard Operating Procedures (SOP) came under assessment from September 2014 to improve valuation practices based on analytics and as per international best practices.
7. Warehousing was streamlined from September 2014 to April 2015 to simplify current practices for licensing and auditing.
8. Trade Facilitation Agreements (TFA) were assessed in September 2014 to identify the present status of alignment with the WTO's TFA and support the reform initiatives for modernization. The National Trade Facilitation Committee (NTFC) was set up in May 2013 to create a platform to monitor and guide trade facilitation-based modernization and reforms, to facilitate coordinated border management.
9. Support to roll out ASYCUDA World from June 2012 to connect the Land Customs Stations (LCS) and develop capacity of NBR's IT team.

There is a long way to go (as the low EDB rank shows) before Bangladesh customs can be considered in step with the more efficient systems prevailing in some of Bangladesh's comparators even in Asia. With support from the World Bank Group, in September 2018, NBR has launched a renewed effort to modernize Customs Administration and bring it in line with WTO's Trade Facilitation Agreement (TFA) that was ratified by Bangladesh in 2016. If this latest effort at modernization bears fruit, it would go a long way to meet the demands of the economy on way to graduation.

The goal of this new initiative is fast, fair, predictable and transparent processing and clearance of imports and exports at lowest transaction cost to the trading community; to expedite movement, release and clearance of goods; improve co-operation between customs and stakeholders; and enhance technical assistance and capacity building. Significant degree of modernization can be achieved if Bangladesh follows through on its commitments under the TFA, which brings forth

- Simplification - elimination of redundancies and repetitions in processes and procedures
- Harmonization - alignment of national procedures with international standards
- Standardization - Development of internationally-agreed practices, procedures and documents

Recognizing the mounting challenges in the future global trade arena and the need to strengthen the nation's competitiveness as the nation moves close to graduation out of LDC status, NBR has prepared a strategic Plan for the next phase of modernization: Strategic Action Plan for Customs Modernization (2018-2021). Full implementation of this Action Plan will help bring Bangladesh Customs at par with its peers and comparators at least in the Asia-Pacific region.

7.9. Strengthening the Institutions for Trade and Industry

A careful review of economic history suggests that rapid growth that transforms developing economies into developed economies in the course of a generation requires a combination of two things: sound economic policies and good institutions to implement them. Research has shown that differences in institutions related to trade and industrial activity explain a good deal of why export and industrial performance differs across countries. There is much to be done in reforming several of the institutions in Bangladesh that deal with trade and industry, particularly in the area of promoting exports and its diversification.

Economic historians who have studied prosperity and decline of nations have concluded that inclusiveness of political and economic institutions is critical for sustained prosperity (Acemoglu and Robinson, 2012). With a return to democratic politics in the 1990s, opening up of markets, deregulation and privatization of industrial enterprises, trade and exchange liberalization, Bangladesh is on way to building the kind of institutions that yield prosperity for the long-term. The next decade will be crucial for strengthening economic institutions that will help entrepreneurs seize market opportunities emerging in a fast-changing global economy driven by innovation and creative destruction. Though it appears that Bangladesh is on the right track with its growth trajectory on an upward trend, it should not give rise to complacency, as history shows that prosperity over time follows a non-linear process. In order to attain and sustain high economic growth what is needed is building and nurturing inclusive economic institutions that are effective in enforcing property rights, creating a level playing field for small and large entrepreneurs, SMEs and big business, and encouraging investment in innovation, adoption of new technologies and developing skills for the future.

The Way Forward

Transforming the Bangladesh economy into a high-income economy over the next 25 years will require strengthening of institutions that promote sound economic fundamentals, enhance functioning of markets for efficient resource allocation, and foster competitive discipline. Intervention in markets would have to be kept to a minimum. The record of high-performing economies show that promotion of specific industries did not yield results as industrial development tended to be market-conforming and exports performed better when driven by factor-intensity based comparative advantage. That means we need to revisit the approach to “thrust sectors” providing instead a conducive policy environment for all investors and let those with the best potential succeed. The likely scenario in our digital future is that information asymmetry will fade to equalize market opportunities for all players.

As Bangladesh graduates out of its LDC status, it will need to be cognizant of some WTO rules that it had hitherto ignored – particularly, those relating to levels of protective tariffs and para-tariffs. Other multilateral disciplines will also come into play, such as rules governing intellectual property, subsidies, standards, and trade-related investment, which are going to be the same for developing and developed economies. Moreover, if Bangladesh were to seek membership of regional trading blocs, like RCEP, it would have to submit to their disciplines which are also likely to be stringent. Broadly speaking, economic institutions in Bangladesh will have to start getting ready to face and conform to a more competitive and rules-based global trading environment in the future. Nevertheless, trade facilitation with improved customs infrastructure and administration will remain effective mechanisms to promote exports while being consistent with multilateral rules.