



## **BUILDING COMPETITIVE SECTORS FOR EXPORT DIVERSIFICATION:**

Opportunities and Policy Priorities  
for Bangladesh



*Hosna Ferdous Sumi & M. Masrur Reaz*



January 2020

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## List of acronyms

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AIIB	Asian Infrastructure Investment Bank
AIT	Advance Income Tax
ASEAN	Association of Southeast Asian Nations
ATV	Advance Trade VAT
BAPI	Bangladesh Association of Pharmaceutical Industries
BBIN	Bangladesh, Bhutan, India, Nepal Initiative
BBPMEA	Bangladesh Bi-Cycle & Parts Manufacturers and Exporters' Association
BCIM	Bangladesh, China, India, Myanmar Forum for Regional Cooperation
BEIOA	Bangladesh Engineering Industry Owner's Association
BEMMA	Bangladesh Electrical Merchandise Manufacturers' Association
BFIOA	Bangladesh Furniture Industries Owners' Association
BFLLEA	Bangladesh Finished Leather, and Leather Goods and Footwear Exporters Association
BGAPMEA	Bangladesh Garments Accessories & Packaging Manufacturers & Exporters Association
BICF	Bangladesh Investment Climate Fund
BITAC	Bangladesh Industrial Technical Assistance Centre
BLA	Bangladesh Labour Act
BLSC	Bangladesh Leather Service Centre
BMISTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
BPGMEA	Bangladesh Plastic Goods Manufacturers & Exporters Association
BPPS	Bangladesh Paduka Prostutkarak Samity
BPVCPSS	Bangladesh PVC Pipe Prostutkarak Samity
BSIC	Bangladesh Standard Industrial Classification
BTA	Bangladesh Tanner's Association
BUET	Bangladesh University of Engineering & Technology
CBC	Customs Bond Commissionerate
CD	Customs Duty
CDP	Committee for Development Policy
CETP	Central Effluent Treatment Plant
CFC	Common Facility Center
CNC	Computer Numerical Control
COEL	Centre of Excellence for Leather Skills Bangladesh Ltd.
CPD	Centre for Policy Dialogue
DTIS	Diagnostic Trade Integration Study
ECR	Export Concentration Ratio
EDF	Export Development Fund

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EFI	Equitable Growth, Finance and Institutions
EODB	Ease of Doing Business
EOI	Export-Oriented Industrialization
EPZ	Export-Processing Zones
EU	European Union
FCI	Finance Competitiveness and Innovation
FDI	Foreign Direct Investment
FTA	Free Trade Agreements
FTP	Foreign Trade Policy
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GOB	Government of Bangladesh
GSP	Generalized System of Preferences
GTF	Green Transformation Fund
HHI	Herfindahl- Hirschmann Index
HS	Harmonized System
IFC	International Finance Corporation
ILET	Institute of Leather Engineering & Technology
IMP	Industrial Master Plans
IPA	Investor Promotion Agencies
ISI	Import-Substituting Industrialization
KUET	Khulna University of Engineering Technology
L/C	Letter of credit
LDC	Leather Developed Country
LEPBPC	Light Engineering Product Business Promotion Council
LFMEAB	Leather Goods & Footwear Manufacturers Exporters Association of Bangladesh
LPI	Logistics Performance Index
LWG	Leather Working Group
MFA	Multi-Fiber Agreement
MICT	Ministry of Information and Communication Technology
MoC	Ministry of Commerce
MoCI	Ministry of Commerce and Industry
MSC	Multimedia Super Corridor
NASCIB	National Association of Small and Cottage Industries of Bangladesh
NBR	National Board of Revenue
NDB New	Development Bank
NESDB	National Economic and Social Development Board
NGO	Non-Governmental Organisation
NSW	National Single Window

NTB	Non-Tariff Barriers
OEM	Original Equipment Manufacturer
RD	Regulatory Duty
RMG	Ready Made Garments
SD	Supplementary Duty
SMEs	Small and Medium Scale Enterprises
SWAp	Trade Sector Wide Approach
TED	Tannery Estate Dhaka
TVET	Technical and Vocational Education and Training
UN	United Nations
USD	United States Dollar
VAT	Value Added Tax
WBG	World Bank Group
WTO	World Trade Organization



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# Foreword

The economy of Bangladesh has made tremendous strides in the last few decades. In order to sustain this trend of accelerated economic growth, Bangladesh needs to adopt and promote strategies to diversify its export basket, currently dependent mostly on Ready Made Garments (RMG), by facilitating access to new markets and leveraging trade and foreign direct investments in priority sectors. Seminal studies show the positive impact export diversification brings about on the per capita growth income in the economies of developing countries. As Bangladesh is working to expand value added manufacturing and diversify its export base, developing new products and building a strong manufacturing eco-system is crucial to Bangladesh's growth trajectory.

The report 'Building Competitive Sectors for Export Diversification: Opportunities and Policy Priorities for Bangladesh' outlines the need for diversification of the export base and identifies advantageous sectors based on a robust exercise applying systematic analytical approaches such as Economic Complexity Analysis. Furthermore, each sector was scored on its contribution to economic goals of Bangladesh such as employment generation, women employment generation, SME focus, growth potential and foreign direct investment. Based on the above, the Leather, Leather Goods and Footwear; Light Manufacturing; and Plastics industries were identified as three of the most advantageous sectors for export diversification. The report further elaborates on how to improve performance in these priority sectors and overcome a range of challenges including regulatory barriers, factor conditions, ease of market access, and other macroeconomic risks. Issues such as the poor compliance to environmental, social and quality standards and how to overcome them are also discussed in length in the report.

A diversified export portfolio comprising competitive sectors will have greater access to international markets, generate increased investment opportunities in the sectors and create more and better jobs. This report with its theoretical underpinnings and practical analysis of the issues in the priority export-oriented industries of Bangladesh in comparison with other comparator countries will provide valuable knowledge to take the country's economy to the next level by better integrating these priority sectors with the global value chain. We sincerely hope, this pioneering publication will help inform the policy discourse on export-led growth, facilitate sustainable development in the export-oriented sectors beyond RMG, while paving the way for large scale job creation and poverty reduction. Last but not the least, we would like to thank all the relevant government agencies, private sector associations and individuals, who have enriched this publication with their valuable inputs and suggestions.



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The World Bank Group would like to recognize the Ministry of Commerce of Bangladesh for partnering in the initiative. They were instrumental in helping to organize substantive focus group discussions attended by corporate representatives, association representatives, government agencies, non-governmental organizations, and financial institutions that participated in interviews and focus group discussions as well as attended the validation and finalization workshops for the export sector roadmaps. Specifically, the authors would like to thank Mr. Md. Obaidul Azam, Additional Secretary, Ministry of Commerce for his full-hearted support.

This report has drawn insights from the technical assistance provided by PricewaterhouseCoopers Pvt Ltd. The overall objective of the “Building Competitive Sectors for Export Diversification: Opportunities and Policy Priorities for Bangladesh” report has been to highlight the findings from the sector diagnostic study that supported the Ministry of Commerce’s export development strategy through assisting in the prioritisation process, constraint analysis and sector strategy development along with recommendations to be implemented on identified high growth

sectors. We would like to express our sincere thanks and appreciation to all the institutions, industry associations, and subject matter experts for their valued input in developing this report.

Finally, we would like to express our gratitude to our peer reviewers Thomas Farole, Ali Zafar and Nuzhat Anwar who shared their valuable comments and our editor David Storey who helped in finalizing this report.

# Executive Summary

*Bangladesh's impressive 7.9% GDP growth rate in 2018 was a combination of industry growth of 12.1% (10.2% in 2017) and a surge in manufacturing of 13.4% (11% in 2017).* Services growth slowed to 6.3% (6.7% in 2017) while agriculture was up 4.2% (3% in 2017). The economy underwent important structural shifts in recent decades. Exports played a catalytic role in enhancing the manufacturing base and in efforts to move from an agrarian economy to an industry-led economy. The share of manufacturing and exports rose thanks to Bangladesh's remarkable success in exporting ready-made garments (RMG). In 2017, export earnings accounted for 15.03% of national GDP, and the RMG sector contributed 83.5% of those earnings.

*One of the country's greatest development challenges is to provide gainful employment for the 2.1 million people* who will join the labor force each year over the next decade and improve the utilization of existing labor. Despite robust economic growth and increasing RMG exports, the pace of job creation has slowed in recent years, as confirmed by the 2015 Labour Force Survey. Between 2003 and 2016, Bangladesh has added more than 1.15 million net jobs per year on average with employment growing at 2.4% annually (BBS Labour Force Survey 2016). Employment between 2003 and 2010 grew at around 3.1% annually.

*Current developmental and academic literature suggests that export diversification is a key factor in sustaining Bangladesh's economic growth.* With annual job growth rates declining to 1.8% between 2010 and 2016 despite accelerated export growth, the RMG sector's potential to create new jobs is also waning. The Jobs Diagnostics 2016 report by the World Bank Group states that jobs in the RMG sector grew by only 6% each year between 2010 and 2013 even as the export output from RMG grew at an annual rate of 15% during the same period. Even more relevant to Bangladesh is that

developing countries tend to benefit more from diversification than most advanced countries. Overall, the evidence is strong that export concentration has been detrimental to the economic growth performance of developing countries in the past decades. If Bangladesh is to continue its growth trajectory, export diversification is essential.

*Several national strategic documents and plans identify a large number of sectors as being promising for diversification, without making a robust and objective analysis of data and trends.* This ultimately results in the diffused effectiveness of scarce and critical government support without a substantial impact on export growth. The GoB has identified 12 sectors as "High Priority Sectors" and 14 sectors as "Special Development Sectors" in the Bangladesh Export Policy 2015-18, and these sectors are eligible for multiple incentives and facilities. Given capacity and resource constraints in the public sector institutions, and despite global demand and the country's comparative advantages, it is questionable whether Bangladesh will be able to develop even half of these sectors competitively.

*The short run macroeconomic benefit of export diversification would be an increase in exports resulting in higher foreign exchange earnings.* This would help finance essential imports and result in increased domestic employment leading to economic growth. Export-led growth through diversification into other sectors can offer significant opportunities for employment generation.

*Export diversification will lead to enhancing competencies in various factors of productivity that can be easily transferred to other sectors.* For example, the RMG sector in Bangladesh is globally competitive and it has adopted international good practices and the kind of skills (both labor and managerial) acquired is fungible to the footwear sector.

Recognition of the imperative to diversify is emerging within the Government of Bangladesh (GoB) and in several policy discussions, making the broadening of its export base and the discovery of new drivers of income growth and employment a top economic priority. Against this background, Finance Competitiveness and Innovation Global Practice of the World Bank Group conducted this analytical exercise to identify high growth-potential sectors beyond RMG that show promising features and growth trends with regard to export markets, and thus can contribute to export diversification and job creation. The analysis also includes a deep-diagnostics look at several of these sectors to identify key constraints to competitiveness and recommendations to develop an inclusive global supply chain.

*This report provides a comparative overview of Bangladesh's efforts toward export diversification* and the major constraints that affect the competitiveness of exporters from Bangladesh and hamper the process of enhancing the global value chain. This includes mapping the policy and regulatory environment in emerging economies in Asia that focus on export-led economic growth.

*Trade opening followed by significant export diversification has been an important element of the economic success of East Asian countries.* Along with the liberalization of trade regimes, these countries dedicated timely and adequate attention to develop policies that would widen their export baskets, put in place the necessary policy and regulatory environment that improved productivity by adopting new technology, enhancing skills and ensuring sufficient FDI to facilitate the technology transfer and market access. Adequate provision of infrastructure and a conducive business environment added significant competitive strength to the export sector of Asian economies. Some of these economies (Cambodia, Malaysia, Vietnam, and the Philippines) are similar to Bangladesh in export concentration, while other economies (China, Indonesia, India, and Thailand) already have a highly

diversified export basket.

*In terms of export earnings, Cambodia and Bangladesh are among the smallest exporters.* In both countries, RMG contributes to more than 70% of export value, and the leather sector is the second largest export sector. China is the largest exporting economy, with export earnings of US\$2.2 trillion. Among the compared economies, Bangladesh was least affected by the global financial crisis because it had achieved significant comparative advantage in export of RMG products owing to low wage rates.

*However, Bangladesh has the highest concentration of exports,* followed by Malaysia, Cambodia and Vietnam. Bangladesh and Cambodia are both consistently increasing the number of products exported while China, Thailand, India, and Indonesia have highly diversified export portfolio.

*In Bangladesh growth was driven more by domestic markets, as the export-to-GDP ratio either decreased or remained unchanged.* Exports accounted for about 20% of GDP in China, India, and Indonesia and 28% in the Philippines. Thailand, Malaysia, and Cambodia have an export to GDP ratio of 60%, while Vietnam's economy is highly export dependent with an export to GDP ratio of 93%. All these countries have improved their GDP per capita over the last decade.

*It is evident that the comparator countries are focusing on a number of sectors that can give higher return* and can contribute to growth in export earnings and are gradually diversifying based on movements in global markets. In Bangladesh, RMG products made up 83.5% of exports. Leather footwear products accounted for 2.5% of exports and leather hides and skins accounted for around 1.9% and the pattern has changed little over recent decades. The Vietnamese export basket, in comparison, changed considerably -- in 2006, machinery and electronic equipment accounted for 9.3% of exports, but by 2010 this had risen to 14% and by 2015 to 35%. Vietnam,

Thailand and Indonesia have a diversified export basket exporting different product groups. Electrical and industrial machinery were the largest export products in Thailand, while Indonesia exported more vegetable oils, agro products, and mineral fuels. The Philippines and Malaysia have a relatively higher export concentration with electrical and industrial machinery contributing to more than 50% of the export basket. During the 2006-2015 period, the Philippines saw a steady decline in the share of RMG exports in total exports. In 2006, it was around 6% and by 2015, it had fallen to around 2.8% of exports. Malaysia's export basket did not change much over the last 10 years. Electrical machinery and equipment account for 28% of Chinese exports, closely followed by industrial machinery. China still exports a significant amount of apparel, footwear, and furniture, thus competing with Bangladesh.

*Implementation of government efforts to create a better business environment in Bangladesh has been slow.* Despite some streamlining of business regulations, entrepreneurial activity is also hampered by an uncertain regulatory environment and the absence of effective institutional support for private-sector development. This report presents an overview of the regulatory environment in the comparator countries, using five key indicators that are used to understand the regulatory environment – the Index of Trade Freedom compiled by The Washington-based Heritage Foundation; Ease of Doing Business (EoDB); the Logistics Performance Index; the Global Competitiveness Index and key regulatory reforms undertaken to facilitate trade.

*Bangladesh performs poorly against comparator countries in three key indices that are used to understand the regulatory environment's impact on trade.* The Index of Trade Freedom measures a country's regulatory and policy environment in terms of quantity restrictions, price restrictions, regulatory and customs control, and direct government intervention

in trade including providing fiscal incentives, allowing monopolies, state control of trade, and technology policies. The index enables a comparison of the effect of different regulatory environments on trade.

*Bangladesh ranks very low in trade-related measures under EoDB.* Bangladesh slipped one notch to a 177 ranking in Doing Business 2018. This is the second lowest among South Asian economies, after Afghanistan (183). On average, it takes 147 hours for documentary compliance for exporting, and another 99.7 hours for border compliance.

*Bangladesh ranks 173 in the 'Trading across Borders' indicator.* This measures the time and cost (excluding tariffs) associated with three sets of procedures -- documentary compliance, border compliance and domestic transport -- within the overall process of exporting or importing a shipment of goods. Exporting from Bangladesh takes longer (247 hours required for documentary and border compliance compared to the South Asia average of 136 hours) and costs more (US\$633 for documentary and border compliance compared to the South Asia average of US\$550).

*Bangladesh needs to improve its logistics network to ensure that imports and exports are transported in the most economical way.* Shipping transit times to and from major ports in Bangladesh are not competitive partly because of poor navigability. This leads to high logistic costs, which are an additional burden on exporters. Multimodal connections between the ports and the hinterland, including rail services, air shipment capacity and reliable road networks, are not fully developed. Bangladesh ranks 87 out of 160 countries in the World Bank Logistics Performance Index.

*Bangladesh has been ranked 99 out of 137 countries in the Global Competitiveness Index (GCI) 2017-18 by the World Economic Forum.* The Global Competitiveness Report is a



cross-country benchmarking analysis of the factors and institutions that determine long-term growth and prosperity of countries. Bangladesh has had an overall improvement in competitiveness as the country scored higher in all 12 pillars, mainly in institutions and infrastructure.

*Bangladesh is a beneficiary of a demographic dividend, but a skills mismatch holds productivity levels back.*

The country has a large pool of unskilled workers migrating from agriculture to labour-intensive industries. The institutional arrangements and infrastructure available for training and skill development is not sufficient to meet the current and future demands of the export sector. The Bangladesh Industrial Technical Assistance Centre (BITAC), provides basic skills programs, however, the curriculum and training modules often fail to comply with market needs due to the constant upgrade of technology.

*FDI inflows to Bangladesh remained muted until 2004 at around US\$500 million and reached a high of US\$2.45 billion during the fiscal year 2016-17.*

There are many theoretical analyses of how FDI promotes exports of host countries: augmenting domestic capital for exports, helping the transfer of technology and the development of new products for export, facilitating access to new and large foreign markets, and providing training for the local workforce and upgrading technical and management skills.

*Domestic investment in Bangladesh is still limited and trends show that there is a distinct scarcity of capital formation.*

Due to the wide gap between saving rates and required investment capital, local entrepreneurs look for foreign funding sources when considering expansion and investment plans.

*Even though there are several banking institutions in the country, access to credit remains a challenge.*

The 2018 Ease of Doing Business index showed that Bangladesh ranked 159 out of 190 countries in 'getting credit'. Financial institutions are

often found to be more interested in short-term financing because of the liquidity risk arising from funding of long-term loans with typically shorter-term deposits.

*Banking processes are time-consuming and SME entrepreneurs are often unable to produce adequate documents when applying for financial support from banks.*

Moreover, interest rates are high, and the terms and conditions are often not comfortable for entrepreneurs. Trade credit is another important source for working capital firms, but it is also not available at affordable rates.

*The growth of the economy, propelled by industrialization, has resulted in a rapid increase in energy consumption.*

This has put stress on energy production resulting in frequent power and gas outages. The annual loss to production due to power disruptions has been estimated to exceed 0.5% of the GDP.

*Bangladesh is perceived by global markets as a country with low social compliance and relaxed enforcement of environmental and industrial safety standards.*

This could be attributed to a number of major industrial accidents that occurred over the last few years.

*The current tariff regime is not conducive for trade in non-RMG sectors.*

To protect domestic manufacturers, finished goods in many sectors attract high import tariff. This allows for complacency among firms over the need for investing and improving skills to achieve global standards in productivity and quality.

*Unlike the RMG sector, non-RMG sectors in Bangladesh do not enjoy pre-shipment facilities like back-to-back letters of credits (L/Cs) and export cash credits that reduce transactional costs.*

This cushions the RMG exports from exchange rate fluctuations. The USD-BDT exchange rate changed from BDT 66 per USD in 2006 to BDT 84 per USD in 2017.

*In summary, Bangladesh has a very low number of sectors with relative comparative advantage.* A product space analysis (Hidalgo and Hausmann, 2009) for Bangladesh shows that the exclusive export sector RMG has a low product complexity and provides less opportunity and feasibility to organically diversify into new and more sophisticated sectors. However, it is important for Bangladesh to identify sectors strategically as a source of export diversification that could provide maximum benefit for the country. This should be followed by a series of interventions to address the constraints on those sectors that hamper competitiveness in global markets.

*This report presents a sector prioritization exercise that was conducted during 2017-18 in consultation with the GoB and the private sector.* The identification considered not only the contribution to increasing export income, but also the potential to meet the economic goals of the country, such as creating employment opportunities for the large number of workers entering the job market every year and ensuring inclusive and sustainable growth in the medium to long term. The sector selection has been carried out with a clean slate by analyzing 83 product categories using the Harmonized System (HS) for classifying goods at level 2 which can potentially be explored as high growth sectors for the country's future competitiveness. This analysis excluded RMG product categories (13 products) as the objective of the study is look at sectors/products for diversification. From this exhaustive list of product categories, potential sectors have been identified using a multi-stage shortlisting and ranking approach. The analytical approach was based on the concept of product space and economic complexity, developed by Hausmann, Ricardo et al, to shortlist feasible sectors and prioritized them based on their potential to contribute to the economic priorities of Bangladesh. Further, the study used a multi-objective weighted scoring of sectoral contribution to the economic goals of the country to prioritize the

advantageous sectors.

*Three sectors were identified for further deep diagnostics, based on the study's findings and on discussions with stakeholders and the Bangladesh Ministry of Commerce.* This report looks at the dynamics and constraints on the competitiveness of each of the three sectors identified -- Leather (finished leather, leather goods and footwear), Plastics & Recycling and Engineering Goods -- and suggests policy actions to enhance their export competitiveness.

*The leather sector is a significant contributor to the country's economy and the second largest export industry.* It contributes about 2% to industrial production and 0.6 % to the country's GDP. In FY 2015-16, the sector provided employment for about 558,000 people directly, and to about 300,000 people indirectly working in allied industries. The leather sector contributed to 3.4% of the total export earnings of Bangladesh during 2015-16. The GoB declared leather the "Product of the Year" in January 2017.

*Major constraints in the leather sector include* lack of environmental and social compliance, poor handling of raw materials, lack of a skilled workforce, delay in relocating tanneries, struggle to access finance, technology constraints, limited availability of accessories and components, lack of product testing and quality assurance, and limited product and destination markets.

*To improve leather exports, the sector should consider* ensuring compliances, improving access to finance, improving productivity, enabling trade and investment policy, regulations, and other GoB support, attracting investments, diversifying into new markets and new products, and diversifying into existing markets and new products

*The plastic goods manufacturing industry, including the recycling industry, in Bangladesh largely comprises small and medium enterprises that produce a wide array of products for domestic*

*consumption and exports.* The domestic plastics market, valued at US\$2.4 billion in 2015, is poised for double-digit growth and is expected to reach US\$4 billion by 2020. Manufacturing of plastics is labor-intensive, and the sector provides direct employment to more than 2 million workers in Bangladesh. The plastic sector contributes 1.5% of the total exports of Bangladesh and has grown at a CAGR of 11.5% over the last decade.

*Though the plastics industry has exhibited promising growth in terms of exports, there are various challenges that need to be addressed to realize the full potential of the sector* in the short to medium term. The major challenges are compliance, availability of and access to finance, high costs and lead time of raw materials, low worker skills, technology upgrade, limited market access and lack of single window clearance.

*To realize the vision and achieve the projected targets for the plastics industry, it is recommended to* increase the ease of compliance, increase access to finance, reduce costs and lead-time for raw materials, establish technology centers, improve market access, promote trade and investment incentives, diversify into new products as well as explore new markets with favourable business conditions.

*The engineering and electrical goods industry in Bangladesh is largely made up of small and medium enterprises and produces a wide array of products that support industrial, agricultural, and other sectors of the economy by providing machinery parts, consumer items, pipeline fittings, equipment, etc.* Except in a few product categories, most firms in this sector manufacture to meet the growing domestic demand for engineering and electrical goods (import substitution). The sector in Bangladesh encompasses a broad range of component, intermediate, and final products that are grouped under major export categories such as electrical machinery and equipment (HS code 85),

vehicles other than railway/tramway and rolling stock (HS code 87), and optical goods (HS code 90). In terms of exports, the sector is in its infancy in Bangladesh and the few key products that are exported include bicycles, objective lenses, transformers, batteries, etc.

*Major constraints for the sector are* raw material availability, cost, and sufficiency, labor availability, utilities supply and technology and process sophistication.

*The engineering sector would benefit from* cost and lead-time reduction for raw materials, collaboration with foreign universities and reputable institutes, greater ease of importing used machinery, establishing common technical facilities and improved market access.

*For the US\$250 billion Bangladesh economy, exports are and will continue to be drivers of jobs and growth.* With around 2 million young people entering the job market every year and with a US\$75 trillion global export market, Bangladesh has to break into new markets with new products to fulfil its vision of export-led growth and greater employment opportunities. Several sequential policy actions are required to enhance the competitiveness of key performing sectors for export diversification such as ensuring compliances, availability of and access to finance, and improving market access.

*This report highlights several short-, medium- and long-term actions which must be implemented urgently to maintain this positive trend.* Short-term actions include selecting high potential sectors (a maximum of five), reviewing the effectiveness and quality of the Export Development Fund (EDF), simplifying tax regimes as well as ensuring a consistent policy environment for a timeframe. Medium term actions include adopting sector-focused, five-year action plans/strategic export roadmaps and increasing allocation in the Green Transformation Fund (GTF) for non-RMG priority export sectors. The long-term actions include improving trade logistics and adopting a national-level compliance



framework targeted to each potential export sector.

*Firm-level diversification strategies include* incentivizing innovation, implementing environmental and social sustainability measures, supporting efforts by firms to consolidate in the domestic market, supporting export sustainability and facilitating foreign exposure and links with international markets.



# 1. Introduction

## 1.1. Background

*Bangladesh is one of the fastest growing economies in the world.* The Gross Domestic Product (GDP) expanded by 7.90% in 2018 fiscal year from the previous year. Industry grew 12.1% (10.2% in 2017) with manufacturing surging 13.4% (11% in 2017). Services growth slowed to 6.3% (6.7% in 2017) while agriculture was up 4.2% (3% in 2017). The GDP Annual Growth Rate in Bangladesh averaged 5.84% from 1994 until 2018, reaching an all-time high of 7.90% in 2018 and a record low of 4.08% in 1994. There has been a significant reduction in extreme poverty to 12.9% (in 2016) from 44.2% (in 1991). With rising per capita purchasing power and growing household income levels, Bangladesh aspires to become an upper middle-income country in the next decade, and a developed economy by 2041. The composition of the economy is shifting from being largely informal and agrarian to being manufacturing-based. Bangladesh has a young population with more than 40% in the working age group (24 to 54 years) and 47% under 24 years of age. To step up the pace of growth, which is essential to attain upper-middle income status and create better employment opportunities for about 2 million youths who enter the labour market every year, Bangladesh needs to significantly boost private investment. This is critical to support growth and employment, but it remains sluggish. Private investment as a percentage of GDP has increased slightly to 23.10% in FY17 from 22% in FY14, while public investment to GDP increased from 6.5% to 7.41% in the same period. Foreign Direct Investment (FDI) inflow into the country, which has been on the rise since 2002, has been gradually declining in recent years. Improving the business and trade environment, addressing infrastructure bottlenecks, and preparing new sectors beyond Ready-made Garments (RMG) to take a larger share of the export market will be critical to Bangladesh's efforts to attain the desired growth through enhanced jobs and investments.

*Bangladesh remains dependent on just a few sectors to generate exports.*

Bangladesh has had remarkable success in exporting ready-made garments (RMG), overcoming challenges such as the global financial crisis and the expiry of the Multi-Fiber Agreement in 2005. In 2017, export earnings accounted for 15.03% of national GDP, and the RMG sector accounted for 83.5% of export earnings. In FY17, the country earned US\$28.15 billion by exporting garment items compared to US\$28.09 billion earned in FY16. Total export earnings in the FY18 have not been sufficient and at the current growth rate export earnings may fail to reach the target of US\$60 billion by 2021. This level of concentration of exports in one sector could potentially expose the economy to global economic fluctuations, lead to a concentration of national resources and capital in one sector, and could harm economic development in the long term. It is therefore prudent and necessary for Bangladesh to focus on diversifying its export basket.

*With annual job growth rates declining to 1.8% between 2010 and 2016 despite accelerated export growth,*

the RMG sector's potential to create new jobs is also waning. The Jobs Diagnostics Bangladesh 2016 report by the World Bank Group states that jobs in the RMG sector grew by only 6% each year between 2010 and 2013, even as the export output from RMG grew at an annual rate of 15% during the same period. The RMG sector employs about 7.4% of the total workforce of Bangladesh but the number of workers is not increasing as the entry and exit rate of workers are almost the same. Industry insiders pointed to the progress in technology and the increase of know-how and productivity in the garment industry to explain the reduction of employment in the sector. Segments like sweater production have seen a major change in recent times in reducing the number of workers. The same trend is likely to continue in the near future.

Within the RMG sector, the basket of export products has changed over years, but fashion garments or other high value products are only a small proportion of exports. On the product space (Hidalgo and Hausmann, 2009), RMG scores low in terms of complexity and opportunity gain, indicating a limited potential to organically diversify into new and more complex sectors.

*Current developmental and academic literature also suggests that export diversification is a key factor in sustaining Bangladesh's economic growth.* Policy makers could look at the intensive margin and use the scarce resources available to focus on moving up the quality chain in the existing exports. They should also consider that at the extensive margin, geographical diversification is more important than product diversification. However, while these may be used to justify the case for smaller economies, Bangladesh has a higher GDP per capita than these countries, greater financial development and positive factor endowments which are consistent with the idea of export diversification. The economic intuition behind the need for export diversification is multifaceted: a broader base of exports reduces volatility in export earnings while increasing them; provides access to larger markets (allowing for economies of scale); improves forward and backward linkages throughout different sectors; and allows for sustained growth of export earnings by moving from low revenue products to higher revenue products. Underpinning all of these is the fact that competing in the global market tends to improve productivity of firms as they have to improve their technological capabilities, increase efficiency to lower costs and improve labor productivity and skills.

*Both theory and empirical work suggest that export diversification has a positive effect on per capita growth income.* Even more relevant to Bangladesh is that developing countries tend to benefit more from diversification than most advanced countries.

Overall, the evidence is strong that export concentration has been detrimental to the economic growth performance of developing countries in the past decades. One reason could be the reduction of declining terms of trade, especially for commodity-dependent countries. Another reason, put forward by Hausmann and Rodrik (2003), relates to the cost discovery process faced by entrepreneurs and the valuable contribution of government policies to alleviate ensuing problems of coordination and information externalities. This results in a diversification of investments into a new range of activities and higher levels of growth. Given the current state of Bangladesh's export mix along with the GoB's focus on export-led growth, this indicates that there are potentially huge gains to be realized from export diversification.

*Recognition of the imperative for diversification is emerging within the GoB and in several policy discussions,* making the broadening of Bangladesh's export base and the discovery of new drivers of income growth and employment a top economic priority. Against this background, Finance Competitiveness and Innovation Global Practice of the World Bank Group conducted this analysis to identify high growth-potential sectors beyond RMG that are showing promising features and growth trends with regard to export markets and could contribute to export diversification and job creation. The analysis also includes a deep diagnostic of several of these sectors to identify key constraints to competitiveness and recommendations to develop an inclusive global supply chain.

<sup>1</sup>Source: WITS World Bank data

## 1.2. Methodology and structure of the report

*This report presents a combination of cross cutting analysis that is based on data drawn from a wide array of secondary sources* as well as insights taken from key stakeholders with deep sectoral knowledge. Secondary sources used extensively included various World Bank Databank databases, insights and analysis drawn from peer-reviewed academic papers, as well as GoB and Bangladesh Bureau of Statistics' reports, publications, and databases. Key stakeholders consulted included key players from the three industries selected, experts with deep international industry experience, as well as government officials from the Ministry of Commerce, the Ministry of Industries, the Export Promotion Bureau and the National Board of Revenue.

Several diagnostics studies carried out by different agencies on export diversification have been reviewed as part of the exercise, for example:

- The World Bank's "Diagnostic Trade Integration Study (DTIS) for attracting investments in Bangladesh", which provides in-depth analysis of eight manufacturing and services sectors (shipbuilding, bicycles, jute products, non-leather products, the apparel industry, pharmaceuticals and IT-enabled services) and recommendations to address export growth constraints in these sectors.
- ADB's "Bangladesh- Consolidating Export Led Growth; Country Diagnostic Study" which reviews the overall economic development in Bangladesh, and specifically identifies constraints to inclusive and sustainable growth. The focus sectors included in the study are software and ICT, pharmaceuticals, leather products and footwear, light engineering and shipbuilding.
- Study by JICA and the Ministry of Commerce of Bangladesh, titled "Study on Potential Sub-Sector Growth for Export Diversification in the People's Republic of Bangladesh," that has identified food processing, jute products, pharmaceuticals,

computer software, metalworking & machining and electric and electronics products as promising sectors for export diversification.

In *Chapter 2*, the publication presents *the context* to underscore the need for export diversification. The analysis presented in Chapter 2 was based on data that was mainly drawn from the World Integrated Trade Solution database published by World Bank (WB) as well as the UN COMTRADE databases (United Nations International Trade Statistics Database). The goal of this chapter was to set the context for the rest of the report, anchoring the following chapters in a solid grounding of Bangladesh's macroeconomic conditions and leading into an account of its current export profile while showing the historical changes. The theoretical underpinnings of the need for export diversification were drawn extensively from peer-reviewed academic papers as well as some key WB reports. These were all contextualised to link to Bangladesh's current state. This chapter also included data from Bangladesh's national statistics databases. Where appropriate, the constant price data was indexed to 2010 prices.

The international comparisons in *Chapter 3* are based on data from the Atlas of Economic Complexity and World Integrated Trade Solution database published by the WB. It focuses on policy measures and the regulatory environment in comparator countries. Other secondary sources included Doing Business 2018 (Ease of Doing Business 2018) published by the WB and the Index of Economic Freedom published by The Washington-based Heritage Foundation. It also presents constraints faced by Bangladeshi exporters in non-RMG sectors. The data was drawn mainly from WB reports, publications by think tanks, statistics published by the GoB, and consultations with key industry representatives and stakeholders.

*Chapter 4* identifies advantageous sectors that could potentially drive export growth in the near future. Selection of priority sectors for export diversification is based on an analytical exercise drawing insight from the Atlas of Economic Complexity and a scoring methodology developed by the research team. The Atlas of Economic Complexity uses trade statistics to understand and present the relationship between different products, described in terms of distance from current exports, complexity, and opportunity gain. Distance factor represents the effort involved in diversifying to a new product and by mapping distance against complexity and opportunity gain; the most advantageous products for Bangladesh have been identified. To identify the high priority sectors from among advantageous products, the study used a scoring methodology based on the sector's contribution to Bangladesh's economic objectives (such as jobs, SME focus, etc.).

*Chapter 5* presents challenges and recommendations for improving export performance of the three selected sectors. The constraints analysis follows Porter's Diamond model for sector diagnosis. Experts with knowledge of Bangladesh's industry landscape have provided valuable insights. The strategies for export diversification were prepared based on information collected through secondary research and from key stakeholder discussions, field visits to factories, and validation workshops.

*Chapter 6* summarizes the challenges going forward in the context of Bangladesh's graduation from LDC status, and specific policy recommendations on improving the export performance of priority sectors and short, medium, and long-term strategies and recommendations.

*Appendices A to E* include supporting data and references.

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*The Atlas of Economic Complexity* is a 2011 economics book by Ricardo Hausmann, Cesar A. Hidalgo, Sebastián Bustos, Michele Coscia, Sarah Chung, Juan Jimenez, Alexander Simoes and Muhammed A. Yildirim. A revised 2014 edition is published by the MIT Press. The book attempts to measure the amount of productive knowledge that each country holds, by visualizing the differences between national economies.

*The Porter Diamond*, properly referred to as the Porter Diamond Theory of National Advantage, is a model that is designed to help understand the competitive advantage that nations or groups possess due to certain factors available to them, and to explain how governments can act as catalysts to improve a country's position in a globally competitive economic environment.

## 2. The Bangladesh Export Narrative: Impressive Trajectory but a Narrow Base

*The economy has undergone important structural shifts in recent decades.* The manufacturing sector in Bangladesh has been the largest single contributor to growth, and its share in GDP has risen from 13 percent in 1981 to 17 percent in 2015. Growth in industry came largely from manufacturing and construction.

Bangladesh has taken advantage of the deep and elastic demand offered by the global economy to expand job opportunities in the manufacturing sector. Historically, Bangladesh mainly exported raw jute and jute goods. After gaining independence in 1971,

When MFA expired in 2005, Bangladesh was already the preferred source for RMG goods for USA and European markets. Leveraging Bangladesh's comparative advantage in the cost of labour, RMG exports grew at an impressive CAGR of 13.3% between 2001 and 2016, as shown in Figure 2-1. Bangladesh is now the world's second largest exporter of readymade garments after China, making it unique among low-income countries in its high share of manufactured goods in exports. The share of exports in GDP has more than trebled since 1981. In FY14, exports of the ready-made garment sector exceeded US\$24 billion, and the sector employed an estimated 4m workers, mostly women, many of whom were from poor rural areas. The potential rewards of continued export-led job creation and growth are extremely high: if Bangladesh were to capture 20 percent of China's current garment exports, its total exports would more than double, creating millions of new jobs in the economy.

*Figure 2-1: Bangladesh's export of goods and services*



Source: UNCOMTRADE data

Bangladesh's trade policy focused mainly on import substitution resulting in higher import tariffs and quotas. This started to change in the 1980s with the liberalisation of the trade regime, a privatisation drive, the establishment of EPZs, and a slew of policies to promote exports and attract foreign direct investments (FDIs). In the early 1990s, exports started growing as trade reforms were introduced. The Multi-Fiber Agreement (MFA) helped Bangladesh with steady market access.

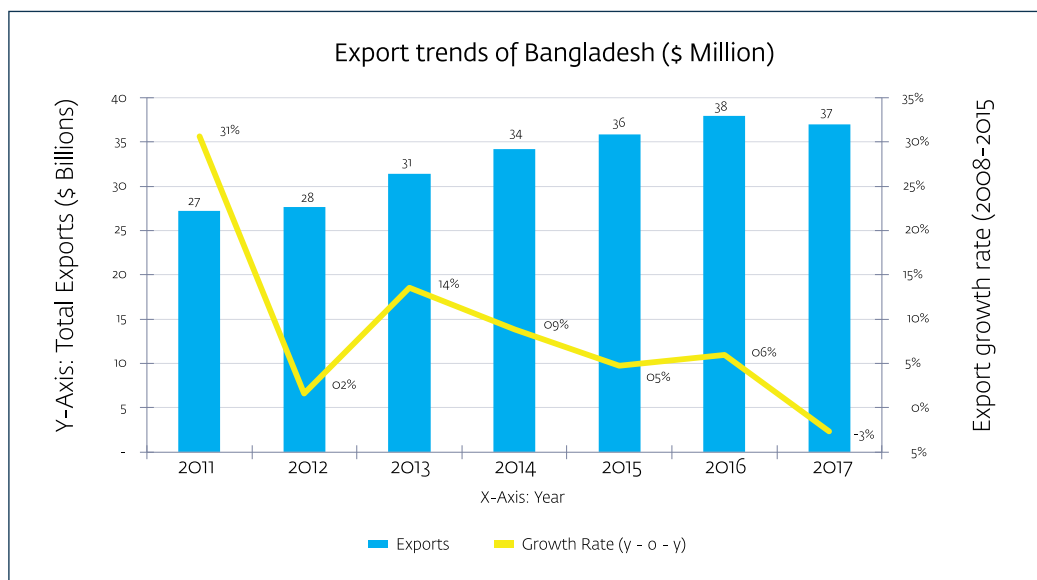
The RMG sector has played a crucial role in the development of the manufacturing sector in Bangladesh. The contribution of RMG exports to Bangladesh's total exports increased from 3.89% in 1983-84 to around 83.5% in 2017-18. It is important to note that between 2012 and 2013 Bangladesh suffered many unexpected industrial accidents, prompting international demands for increased building and fire safety compliance by RMG factories. This increased focus on compliance led to a



decline in Bangladesh's RMG exports as buyers started withholding export orders pending compliance certification. However, in the years since, Bangladeshi exporters are making significant strides in achieving international compliances.

The back-to-back letters of credit scheme, for instance, facilitated the import of necessary inputs like fabrics and accessories, against export orders placed. This system was readily accepted by banks owing to the legitimacy of documents and healthy profits earned from the transactions.

*Figure 2-2: Bangladesh's export volume index (2000 = 100), 1998-2017*



*The success of Bangladesh's RMG sector is due to two core advantages: capacity and price.* Bangladesh has a strong workforce of approximately 4 million people. They are predominantly low skilled and 76% of them are below 40 years of age. This indicates a two-fold advantage of low opportunity cost and a fairly productive workforce. This low cost competitive edge has facilitated mass volume production, accelerating the RMG export competitiveness of Bangladesh in comparison to rivals such as India, China and Vietnam. Bangladesh has earned a good reputation among global clients for providing clothing of decent quality in large order sizes - notably in value and entry-level mid-market products.

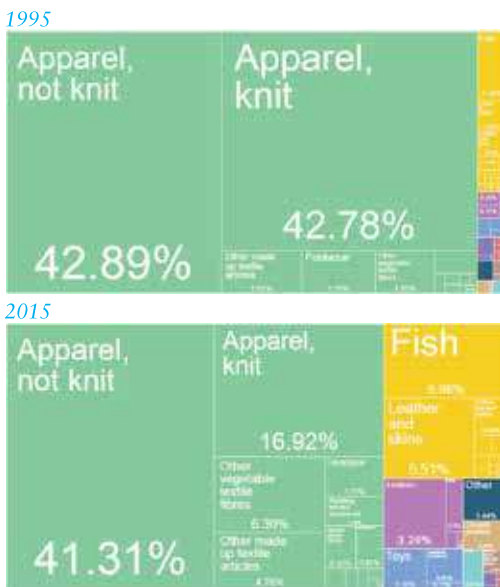
The Customs provided bonded warehouse allowances, which allowed import orders to be cleared against export orders -- cancelling out related tariffs. Seventy-five percent of the product value was financed and could be stored in the warehouse through these two mechanisms. These policies were strategically implemented during the phase when Bangladesh faced high tariff walls and a frail domestic financial situation, allowing the industry to circumvent various customs and finance-related hassles and helping it to focus more on improving other aspects like backward linkages and distribution. Other significant initiatives include forward-thinking industrial policies, establishing export processing zones, cash compensation schemes, FDI friendly policies, trade fairs both inside and outside of Bangladesh, initiatives to ease the procuring of raw materials, as well as a temporal concessional duty rate of 7.5% on capital imports.

*The RMG sector has significantly benefited from various export-led growth initiatives* undertaken by the Government of Bangladesh (GOB).



Despite venturing into new markets, the RMG exports in Bangladesh remain a high-volume/low-value sector. Figure 2-2 shows the trend in export volume that grew at an annual average rate of 12.94% between 2000 -2016. This is an indication that Bangladesh's exports grew in size, not just in value. It is also important to stress how RMG's export footprint has increased. Figure 2-3 shows that the export basket has become more concentrated in the last decade. In Bangladesh, the need for horizontal diversification is well established. Specifically, for the RMG sector, the importance of moving from low value to high value products is well understood. Innovation and value-added services are targeted. However, vertical diversification holds the key for continued growth of the economy both in the short-term and long-term.

*Figure 2-3: Bangladesh's exports by product share 1995 and 2015*

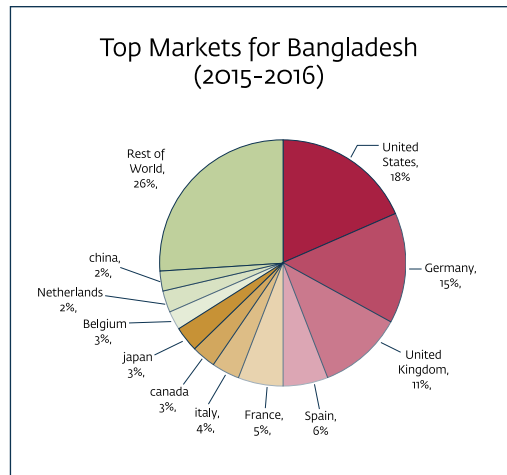


Source: UNCOMTRADE data; Atlas of economic complexity

*Only a few sectors in Bangladesh are showing promising export growth trends beyond RMG.* Figure 2-4 shows the top exporting sectors (excluding RMG) in 2016. Footwear and leather exports had grown significantly between 2010-16 at an annual

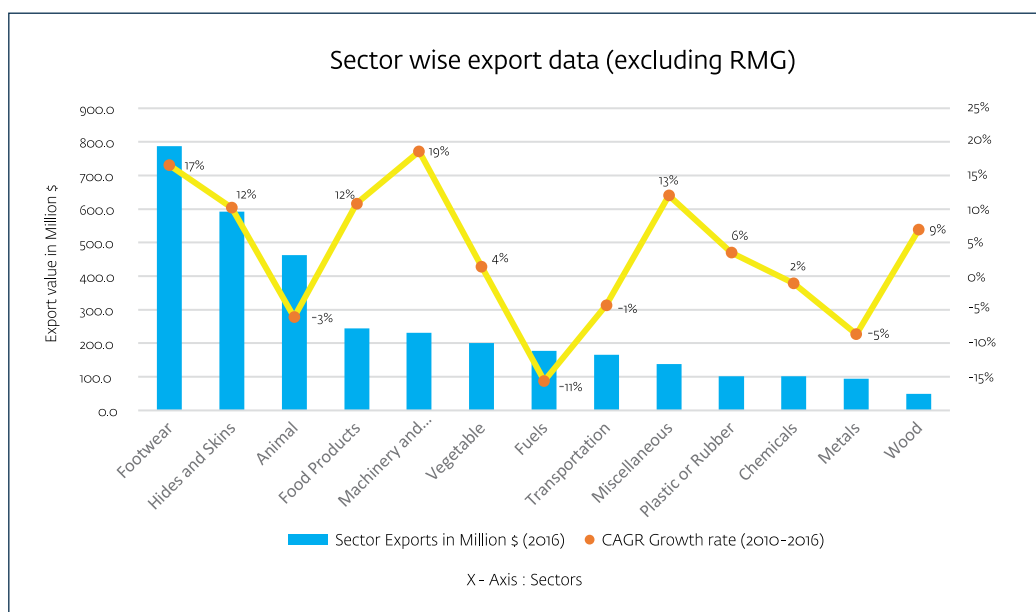
growth rate of 17% and 12% respectively. This impressive growth led to combined exports of over US\$884.2 million in 2017 for just these two sectors. Additionally, the exports from Bangladesh find a market mostly in Europe and USA as shown in Figure 2-4.

*Figure 2-4: Bangladesh's exports by end market*



*Several national strategic documents and plans identify a large number of sectors as being promising for diversification, without making a robust and objective analysis of data and trends.* This ultimately results in the diffused effectiveness of scarce and critical government support without having a substantial impact on export growth. The GOB has identified 12 sectors as "High Priority Sectors" and 14 sectors as "Special Development Sectors" in the Bangladesh Export Policy 2015-18, and these sectors are eligible for multiple incentives and facilities. Given capacity and resource constraints in the public sector institutions, and despite global demand and the country's comparative advantages, it is questionable whether Bangladesh will be able to develop even half of these sectors competitively

Figure 2-5: Sector wise export trends (Excluding RMG)



Source: UNCOMTRADE data

### 12 “High Growth Sectors”

1. High value added readymade garment and garment accessories
2. Software and IT-enabled services, ICT products
3. Pharmaceutical products
4. Ship and ocean going fishing trawler
5. Footwear and leather products
6. Jute products
7. Plastic products
8. Agro-products and agro-processed products
9. Furniture
10. Home textile and terry towel
11. Home furnishing
12. Luggage

### 14 “Special Development Sectors”

1. Diversified jute products
2. Electric and electronic products
3. Ceramic products
4. Light engineering products (including auto -parts and bicycle)
5. Value added frozen fish
6. Poppadum
7. Printing and packaging
8. Rough diamond and jewellery
9. Paper and paper products
10. Rubber
11. Silk products
12. Handicrafts
13. Handloom products including lungi
14. Coir products

## 2.1. The export diversification imperative

*Empirical evidence shows that export-oriented manufacturing sectors have made a significant contribution to economic growth and employment.* Bangladesh has continued to make strides in reducing poverty. The share of the

population living under the upper poverty line fell to 24.3% in 2016-17 from 31.5% in 2010 (Bangladesh Bureau of Statistics 2018). This represents a 24.5% reduction of poverty since 2000 and a 7% reduction since 2010. Both urban and rural poverty has decreased, though rural poverty reduction has been higher.

*Exports have played a catalytic role in enhancing the manufacturing base and in the effort to move away from an agrarian economy to an industry-led economy.* Growth was driven by both the services and manufacturing sectors. The provisional sectoral share in FY-2017 showed that industrial activity accounted for around one third of GDP. The last few decades have seen agriculture's share in GDP gradually decline even though the absolute value of the agricultural sector has increased. Bangladesh has maintained steady and high rates of economic growth overall and is on the cusp of graduating to a lower middle-income country as of 2018. FDI (net) has increased to US\$1.7 billion in FY-2017 from US\$1.2 billion in FY-2016. The average value of the contribution of exports to GDP of Bangladesh rose from 2.9% in 1975 to 16.65% in 2016 with a maximum value of 20.16% in 2012. Several empirical studies show a positive correlation between exports, GDP growth and poverty levels.

*One of the country's greatest development challenges is to provide gainful employment for the 2.1 million people* who will join the labor force each year over the next decade and to improve the use of existing labor. Despite robust economic growth and increasing exports from the RMG sector, the pace of job creation has slowed in recent years, as confirmed by the 2015 Labour Force Survey. Between 2003 and 2016, *Bangladesh added more than 1.15 million net jobs per year on average with employment growing at 2.4% annually* (BBS Labour Force Survey 2016). Employment between 2003 and 2010 grew at around 3.1% annually. However, between 2010 and 2016, job growth rates declined to 1.8% annually despite accelerated economic growth. The slowdown can be primarily attributed to stagnating job growth in the RMG sector. The labor market gains made over the last decade are at risk if job quality concerns remain unanswered. To create jobs on a large scale and to absorb the growing labor force, Bangladesh needs to accelerate productivity

growth and diversify manufacturing and service sectors. In this context, the Seventh Five-Year Plan (7FYP) underscores the importance of export-oriented manufacturing as a key driver of creating more and higher quality employment (DTIS 2015).

*If Bangladesh is to continue its growth trajectory, export diversification is essential.* The Commission on Growth and Development (2008) of the World Bank Group suggests that all 13 country cases of sustained high growth over the post-war period were marked by full exploitation of the knowledge, resources, and deep and elastic demand that the global economy offered. Bangladesh will need to do the same and exploit the international market more intensively, building on the pivotal role that exports have already played in providing gainful employment and access to imports.

*The short-run macroeconomic benefit of export diversification would be an increase in exports and a resulting increase in foreign exchange earnings.* This would help finance essential imports and result in increased domestic employment leading to economic growth. Export-led growth through diversification into other sectors can offer significant opportunities for generating employment. If the economic development boost that the RMG sector gave the Bangladesh economy can be replicated in other sectors, current levels of GDP growth can be maintained for the near future. Additionally, a major impact of export diversification would be reducing export instability and mitigating the risks of export earnings losses from declining price trends that RMG is currently facing. The Asia-Pacific Trade and Investment Report 2016 suggest that the price of RMG exports will continue to decline, even if the total volume increases. The issues of declining price trends coupled with the low rate of job creation in RMG can be mitigated by export diversification into products and services that show an increasing price trend.

Export diversification will lead to enhancing competencies in various factors of productivity that can be easily transferred to other sectors. For example, the RMG sector in Bangladesh is globally competitive and has adopted international good practices and the kind of skills (both labour and managerial) acquired is fungible to the footwear sector. Evidence from Latin American countries such as Chile, Colombia, Mexico, and Venezuela show that export diversification led to structural changes in the economy. These changes increased the overall productivity of various sectors and led to greater economic growth. The following chapter presents international comparisons to underscore the need for export diversification, and highlights enabling policy measures and regulatory environment in comparator countries that helped them lay the ground for sustained growth.

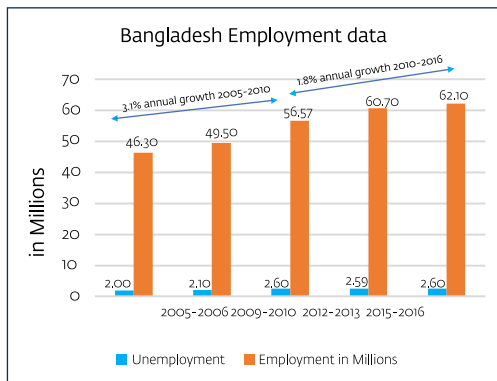
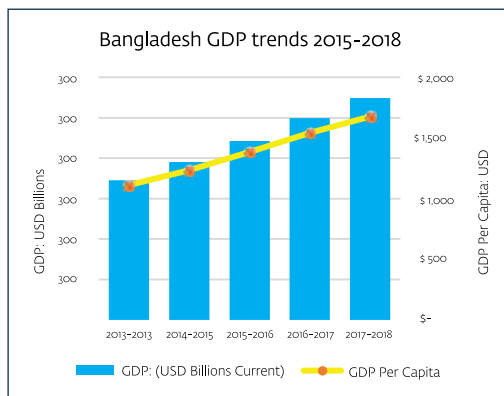
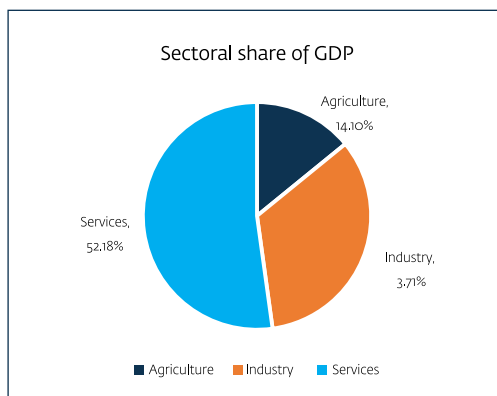
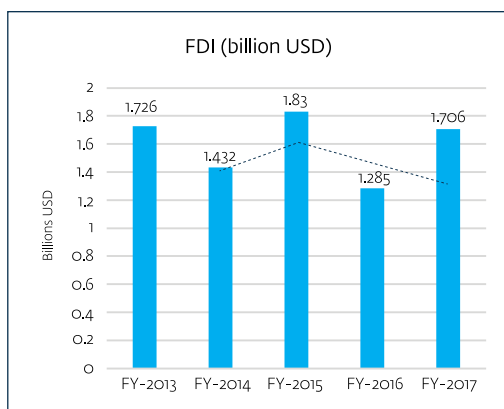


Figure 2-6: FDI (net) 2013-2017



Source: BBS labour force survey 2016



(Agosin, 2007)

### 3. A Comparative Analysis of Bangladesh's Export Performance

The comparative overview presented in this chapter will provide a global context to Bangladesh's efforts toward export diversification and discuss major constraints that affect the competitiveness of the country's exporters and hamper the process of global value chain enhancement. This includes a mapping of the policy and regulatory environment in emerging Asian economies focussed on export-led growth that is relevant to Bangladesh's situation.

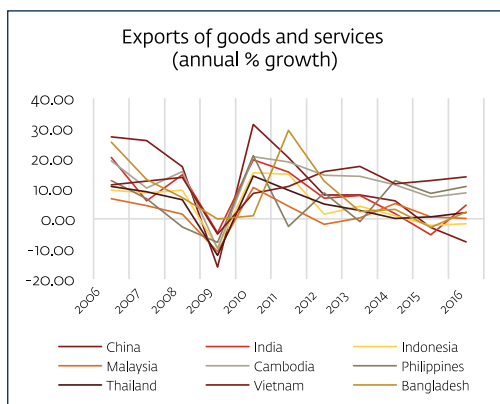
#### 3.1. Comparator performance

Trade opening followed by significant export diversification has been an important element of the economic success of East Asian countries. Along with liberalizing their trade regimes, they allocated timely and adequate policy attention to widen their export baskets, put in place a policy and regulatory environment needed to create productivity through technology adoption and skills enhancement, and ensured sufficient FDI to facilitate technology transfer and market access. Adequate provision of infrastructure and a conducive business environment added significant competitive strength to their export sectors. Some of these economies (Cambodia, Malaysia, Vietnam, and the Philippines) are similar to Bangladesh in export concentration while others (China, Indonesia, India, and Thailand) have a highly diversified export basket.

In terms of export earnings, Cambodia and Bangladesh are among the smallest exporters. In both countries, RMG contributes to more than 70% of export value, and the leather sector is the second

largest export sector. However, Cambodia's economy is more dependent on export earnings than Bangladesh, as shown in Figure 3-1.

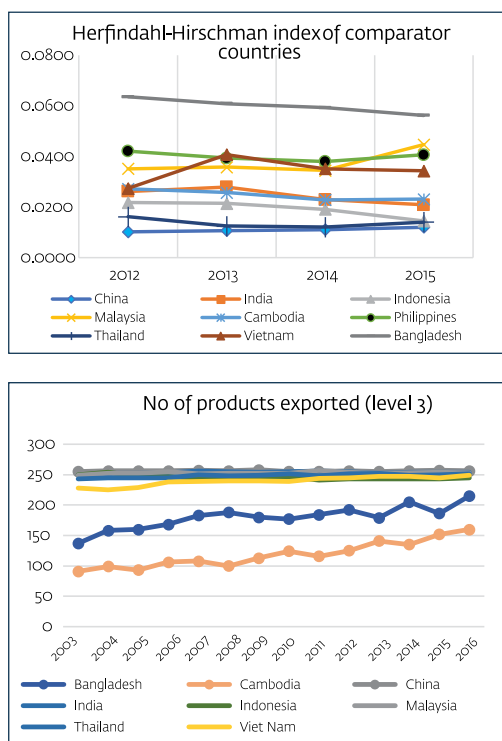
Figure 3-1: Export earnings and annual growth rate



Source: WITS World Bank data

China is the largest exporting economy, with export earnings of US\$2.2 trillion in 2017. The global financial crisis in 2008 had an impact on the export growth rate of all exporting countries, as shown in Figure 3-1. Among the compared economies, Bangladesh was the least affected because it had achieved a significant comparative advantage in export of RMG products owing to its low wage rates.

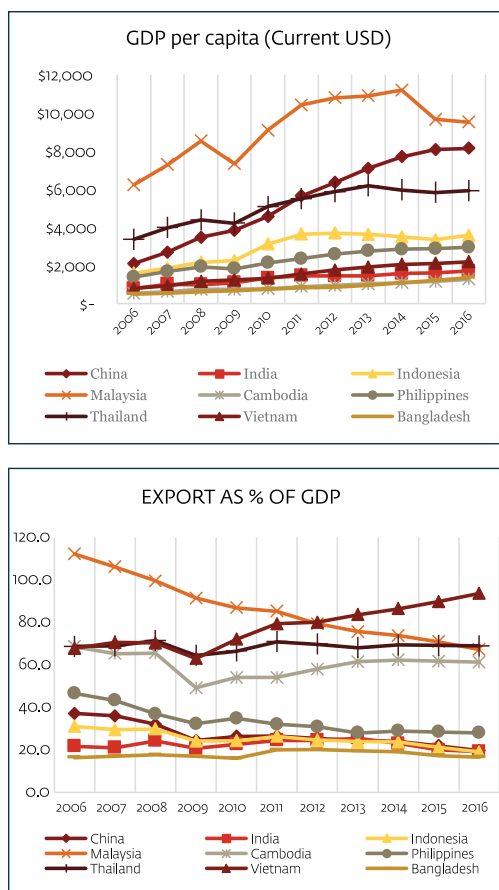
Figure 3-2: Export concentration (HHi) and number of products exported



Source: WITS World Bank data

In the region, Bangladesh has the highest concentration of exports, followed by Malaysia, Cambodia, and Vietnam, as seen in Figure 3-2. Bangladesh and Cambodia are both consistently increasing the number of products exported. China, Thailand, India, and Indonesia have a highly diversified export portfolio. These four countries are growing economies with an exports-to-GDP ratio comparable to that of Bangladesh, as shown in Figure 3-3.

Figure 3-3: GDP per capita and exports contribution to GDP



Source: WITS World Bank data

Exports account for about 20% of GDP in China, India, and Indonesia and 28% in the Philippines. Thailand, Malaysia, and Cambodia have an exports-to-GDP ratio of 60%, while Vietnam's economy is highly export-dependent with an export-to-GDP ratio of 93%. All these countries have improved their GDP per capita over the last decade. This growth in GDP per capita was largely export-led in Vietnam, as the country increased its share of exports in GDP during the last decade. In all other countries, including Bangladesh, growth was driven more by domestic markets, as exports-to-GDP ratios either decreased or remained at the same level.



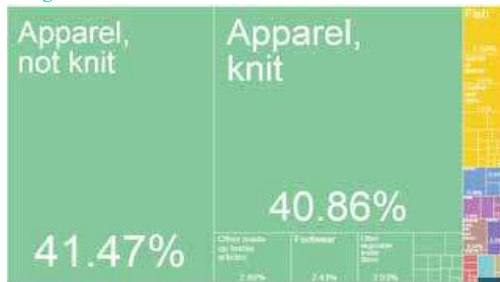
### 3.2. Composition of export baskets:

*It is evident that the comparator countries are focusing on a number of sectors that can give a higher return and can contribute to growth in export earnings and that they are gradually diversifying based on movements in the global market.*

The following figures show the types of products exported by each of these selected countries:

*Figure 3-4: Export basket of Bangladesh and Vietnam*

#### Bangladesh



#### Vietnam



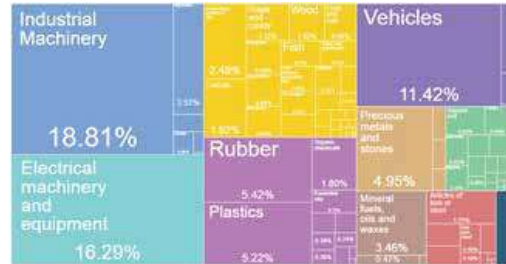
In Bangladesh, RMG products made up 83.5% of exports. Leather footwear products accounted for 2.5% of exports and leather hides and skins accounted for around 1.9% and the pattern has changed little over recent decades.

The Vietnam export basket changed in the last decade. In 2006, machinery and electronic equipment accounted for 9.3% of exports. By 2010 the share increased to 14% and by 2015 it increased to 35%. During this period, the export of commodities (mineral fuel) decreased from 24% in 2006,

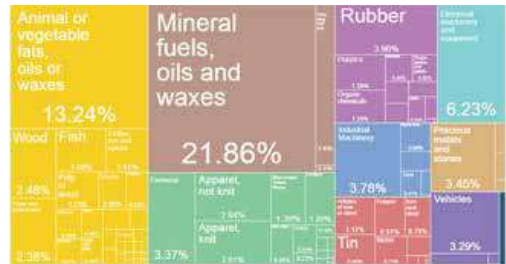
to 3% in 2015. Vietnam is a strong competitor of Bangladesh, as RMG and footwear are the next largest export sectors for Vietnam.

*Figure 3-5: Export basket of Thailand and Indonesia*

#### Thailand



#### Indonesia

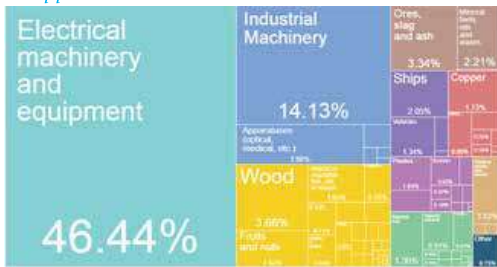


Thailand and Indonesia both have a diversified export basket exporting different product groups. Electrical and industrial machinery were the largest export products in Thailand, while Indonesia exported more vegetable oils, agro products, and mineral fuels. Apparel and footwear were smaller export sectors in both countries.

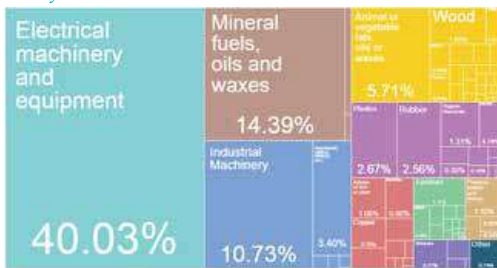
Thailand, with an already diversified export basket has not seen much of a change in the last decade. Electrical and industrial machinery remained the largest export sector, whereas the share of some other manufacturing sectors, such as plastics or rubber products, decreased.

Figure 3-6: Export basket of Philippines and Malaysia

Philippines



Malaysia



The Philippines and Malaysia have relatively higher export concentration with electrical and industrial machinery contributing to more than 50% of the export basket. Mineral fuels are the second largest export product from Malaysia while both countries export agro commodities.

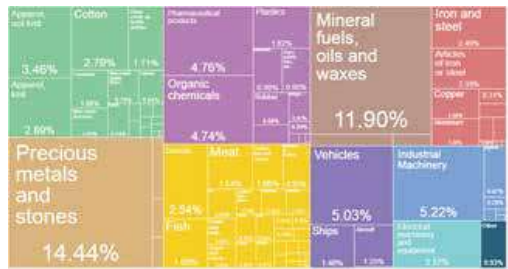
During the 2006-2015 period, the Philippines saw a steady decline in the share of RMG exports in total exports. In 2006, it was around 6% and by 2015 it had fallen to around 2.8%. Malaysia's export basket did not change much over the last 10 years. However, export of electrical machinery and equipment decreased from around 51% in 2006 to 40% of exports in 2015.

Figure 3-7: Export basket of China and India

China



India



Electrical machinery and equipment account for 28% of Chinese exports, closely followed by industrial machinery. China still exports a significant amount of apparel, footwear, and furniture, competing with Bangladesh. China's export product mix did not change much in the last decade. However, between 1995 and 2005, China diversified from the RMG sector to exporting electrical and industrial machinery and equipment.

India exports a significant number of primary commodities such as precious stones, agro products, and mineral fuels. Among manufactured goods, vehicles, industrial machinery, apparels, and chemicals are key exports.

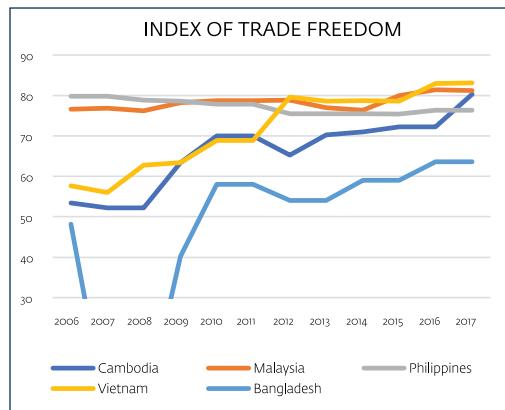
### 3.3. Regulatory environment :

Implementation of government efforts to create a better business environment in Bangladesh has been slow. Despite some streamlining of business regulations, entrepreneurial activity is also hampered by an uncertain regulatory environment and the absence of effective institutional support for private sector development. This section presents an overview of the regulatory environment in the comparator countries using five indicators – the Index of Trade Freedom compiled by the Washington-based Heritage Foundation; Ease of Doing Business (EoDB); the Logistics Performance Index; the Global Competitiveness Index and key regulatory reforms undertaken to facilitate trade.

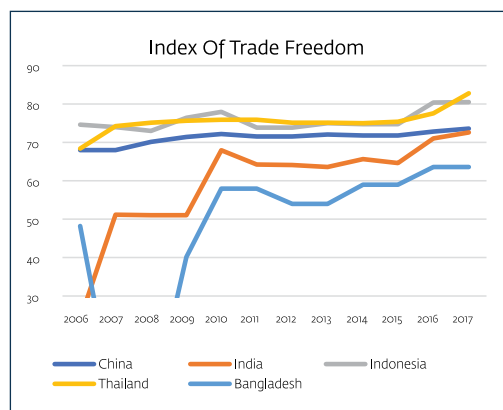


Bangladesh performs poorly against comparator countries in three key indices that are used to understand regulatory environment to trade. The Index of Trade Freedom measures a country's regulatory and policy environment in terms of quantity restrictions, price restrictions, regulatory and customs control, and direct government intervention in trade including providing fiscal incentives, allowing monopolies, state control of trade, and technology policies. The index enables a comparison of the regulatory environment for trade. The lower the score in this index, the lesser is the degree of trade freedom. Bangladesh's score for Trade Freedom is 63.6 in 2019, which is moderately free. Trade is moderately important to Bangladesh's economy; the combined value of exports and imports equals 38% of GDP. The average applied tariff rate is 11.9%. Nontariff barriers impede trade. Government openness to foreign investment is less than average. Amendments to the Bank Companies Act, intended to strengthen the central bank's independence and reduce special treatment of the state-owned commercial banks, have been implemented.

Figure 3-8: Index of trade freedom



The second indicator used to compare regulatory environment is the World Bank's "Ease of Doing Business (EoDB) index," specifically metrics relevant to trade. The EoDB provides objective measures of business regulations and their enforcement across 190 economies and measures the time and cost (excluding tariffs) for three procedures—documentary compliance, border compliance, and domestic transport. Another key indicator is the distance to frontier (DTF) that helps assess the distance to be covered in order to achieve the best time and cost performance when exporting goods and services.



Bangladesh ranks very low in trade-related measures under EoDB. Bangladesh slipped one notch to 177 ranking in Doing Business 2018. This is the second lowest among South Asian economies, after Afghanistan (183). On average, it takes 147 hours for documentary compliance for exporting, and 99.7 hours for border compliance. Further, it costs on average of US\$225 to US\$408 to meet various documentary and border compliance requirements. To sum up, it takes 31 person-days of work and US\$633 on average to export and maintain compliance. Keeping in mind that the GDP per capita is around US\$1,358, this serves as a huge barrier to exports.

*Specifically, Bangladesh ranks 173 in the 'Trading across Borders' indicator.* This measures the time and cost (excluding tariffs) associated with three sets of procedures—documentary compliance, border compliance and domestic transport -- within the overall process of exporting or importing a shipment of goods.

not competitive partly because of poor navigability. This leads to high logistics costs, which are an additional burden on exporters. Multimodal connections between the ports and the hinterland, including rail services, air shipment capacity and reliable road networks, are not fully developed.

Bangladesh ranks 87 out of 160 countries in the World Bank Logistics Performance

*Table 1: Ease of doing business score for trade performance*

WB doing business index	Rank global	DTF global	Rank	Distance to frontier	Time to export: Documentary compliance (hours)	Time to export: Border compliance (hours)	Cost to export: Documentary compliance (USD)	Cost to export: Border compliance (USD)
Cambodia	135	54.47	108	67.28	132	48	100	375
Malaysia	24	78.43	61	82.75	10	45	45	321
Philippines	113	58.74	99	69.39	72	42	53	456
Vietnam	68	67.93	94	70.83	50	55	139	290
Bangladesh	177	40.99	173	34.86	147	99.7	225	408.2
China	78	65.29	97	69.91	21.2	25.9	84.6	484.1
India	100	60.76	146	58.56	38.4	106.1	91.9	382.4
Indonesia	72	66.47	112	66.59	61.3	53.3	138.8	253.7
Thailand	26	77.44	57	84.1	11	51	97	223

Exporting from Bangladesh takes longer (247 hours required for documentary and border compliance compared to the South Asia average of 136 hours) and costs more (US\$633 for documentary and border compliance compared to the South Asia average of US\$550).

Index. The table below compares Bangladesh's LPI score with that of comparable countries.

*Table 2: Bangladesh's LPI score*

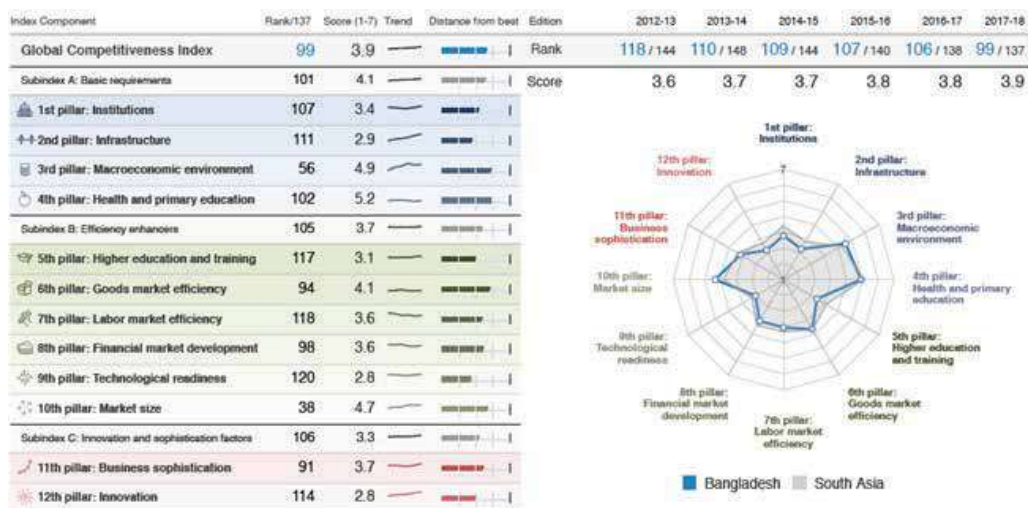
Country	LPI Rank	LPI Score	Customs	Infrastructure	International shipments	Logistics quality and competence	Tracking & tracing	Timeline
China	27	3.661	3.319	3.752	3.705	3.620	3.677	3.896
Malaysia	32	3.426	3.167	3.448	3.482	3.342	3.461	3.653
Thailand	45	3.255	3.105	3.124	3.367	3.135	3.204	3.560
Indonesia	63	2.985	2.688	2.645	2.902	3.000	3.192	3.460
Vietnam	64	2.977	2.751	2.695	3.123	2.883	2.843	3.498
Cambodia	73	2.801	2.615	2.363	3.113	2.605	2.705	3.305
Bangladesh	87	2.664	2.567	2.480	2.730	2.674	2.594	2.901
Myanmar	113	2.459	2.429	2.330	2.230	2.358	2.569	2.849

Bangladesh needs to improve its logistics network to ensure that imports and exports are transported in the most economical way. Shipping transit times to and from major ports in Bangladesh are

The Global Competitiveness Report is a cross-country benchmarking analysis of the factors and institutions that determine long-term growth and prosperity of countries.

The following table presents some of the notable measures and initiatives that the comparable countries have undertaken in the last decade toward improving the regulatory environment for trade.

### Performance overview



Bangladesh has been ranked 99 out of 137 countries in the Global Competitiveness Index (GCI) 2017-18 by the World Economic Forum. Bangladesh has improved overall in competitiveness as the country scored higher in all 12 pillars, mainly in institutions and infrastructure.

*Table 3: Key regulatory reforms undertaken to facilitate trade*

S No	Country	Regulatory reform measure	Notable strategies, policies, and initiatives
1	Cambodia	Simplifying procedures for import and export including elimination of pre shipment inspections.	Cambodia Trade Integration Strategy (2007, 2013) The Government, through the Ministry of Commerce and its steering committee on trade and trade-related investment, established a Trade Sector Wide Approach (Trade SWAp.) The purpose of the Trade SWAp was to provide the government with tools to improve its coordination and overall management of Aid for Trade as well as monitor progress against CTIS 2007 strategic objectives and actions. One such tool is the Trade SWAp Road Map, organised around three "Pillars". Each pillar discusses key areas for reform and monitors progress to support development of the trade sector.

S No	Country	Regulatory reform measure	Notable strategies, policies, and initiatives
2	Malaysia	Upgrading port facilities at Port Klang, improving equipment and infrastructure.	In 2014, the Economic Planning Unit, Government of Malaysia, developed the Logistics and Trade Facilitation Masterplan to provide the strategic direction for the development of the logistics industry to improve its productivity and competitiveness. The Masterplan envisions Malaysia as the "The Preferred Logistics Gateway to Asia". To achieve this, five strategic areas and specific action plans are identified, and action taken for its implementation.
3	Philippines	Digitising customs system and simplifying procedures for trade transactions, thereby reducing cost and lead-time for import/ export.	In the Philippines, the difficulty was accessing external markets by local traders and the difficulties of international traders in accessing domestic markets resulted in a more inward-looking trade. One of the major hurdles was facing off border formalities exerted by Philippine Bureau of Customs. Philippine Customs instituted reforms to ensure that goods movements in and out of the country are facilitated – among these were automation of customs declarations, the creation of green lanes, reduction of red-tagged goods, and organisational changes. There were initiatives related to Philippine efforts at customs modernisation – customs integrity, automated payments, pre-arrival lodgement, and risk assessment, among others.
4	Vietnam	Implementing WTO's rules for customs administration; Increasing competition in the logistics industry also helped reduce delays.	Vietnam developed in 2003 a comprehensive programme to realise APEC targets of trade facilitation as well as the reduction of trade costs. The program included 96 different actions and measures covering aspects of customs, standards and conformance, ecommerce, and business travel. The Vietnam Government also promulgated a series of legal documents to implement international commitments including WTO membership obligations on trade and trade related issues including institutional modernisation and capacity building towards a sustainable trade facilitation system. The notable projects undertaken include the Customs Modernization Project, the Taxation Modernization Project, and the State Bank of Vietnam Modernization Project In 2016, an electronic customs clearance system was implemented making trade transactions simpler and easier. In 2017, the automated cargo clearance system was upgraded and the operating hours of the customs department were extended making exporting and importing easier. Vietnam also intends to implement 130 new administrative procedures in 2018 as registered in the master plan for implementing the National Single Window and the Association of Southeast Asian Nations (ASEAN) Single Window for 2016-2020.

S No	Country	Regulatory reform measure	Notable strategies, policies, and initiatives
5	China	Trade credit restrictions were relaxed boosting international trade.	<p>In China, the removal of trade restrictions in the 1980s and further liberalization of the trade sector in the 1990 culminated in membership of the WTO in 2001.</p> <p>China has gradually decreased its tariff barriers, and this is a sign of China's commitment to increased trade. From as high as 42.9% in the 1980s and early 1990s, tariff barriers dropped to less than 10% in 2005. This is lower than that of any of the other large emerging economies in the BRIC (Brazil, Russia, India, and China) group. In terms of non-tariff barriers (NTBs), significant efforts were made in the 2000s to liberalise trading rights, remove quotas, specific tendering arrangements, and price controls, such that China's border barriers were reduced to South-East Asian levels.</p>
6	India	<p>Automation and simplification of customs clearance procedures.</p> <p>Implementing trade policy reforms to simplify and rationalise trade related regulations.</p>	<p>In 2008, India introduced ICEGATE—an electronic data interchange system making it possible to lodge customs declarations through the internet and facilitating the operation of a risk management system, an electronic payment system, and an electronic manifest system that allows shipping lines to submit their cargo manifest in advance.</p> <p>In 2009 this was further enhanced by implanting additional infrastructure upgrades into the existing electronic data interchange system.</p> <p>In 2009, India announced its Foreign Trade Policy 2009-2014 (FTP). Under this policy, the country aimed to arrest and reverse the declining trend of exports and provide additional support to those sectors that were affected by the global crisis. In order to bring down transaction costs, two important policy measures were undertaken through the Foreign Trade Policy 2009-2014: procedural rationalisation, and improvements in infrastructure related to exports.</p> <p>In 2010, the Ministry of Commerce and Industry (MoCI) established a task force to examine how to reduce transaction costs in exports. This task force and the report it produced was perhaps the first formal recognition by India's policy makers of the importance of minimising trade costs for enhancing India's trade.</p> <p>In 2017, India introduced the Customs Electronic Commerce Interchange Gateway portal, which greatly simplified the border and documentary compliance procedures.</p>
7	Indonesia	<p>In 2011, a single-window service for exports clearance was established.</p> <p>In 2017, this was further upgraded to the customs services and document submission functions of the Indonesia National Single Window.</p>	<p>Indonesia has been actively involved in various initiatives to improve trade related procedures under ASEAN's Customs Procedures agreement. The ASEAN member countries, including Indonesia, agreed to carry out various efforts in order to harmonize trade procedures under the programme called ASEAN Policy and Implementation Work Program. A key agenda of customs cooperation in ASEAN is the creation of a Single Window for faster trade facilitation.</p>

S No	Country	Regulatory reform measure	Notable strategies, policies, and initiatives
8	Thailand	<p>Electronic submission of customs declarations and simultaneous verification of data by different agencies.</p> <p>Implementing an electronic data interchange system to reduce the time and cost of trade transactions.</p>	<p>Thailand's National Single Window (THAINSW) is a successful interagency collaboration. It is a national flagship project set up to enhance trade facilitation in Thailand with a vision of becoming the world-class logistics hub for Indochina. THAINSW was launched in July 2008. It has automated customs clearance procedures, improved access to customs facility across the country, and enabled government agencies and businesses to securely exchange trade information.</p> <p>The implementation of National Single Window (NSW) has improved coordination between various government agencies and reduced red tape in trade transactions. The National Economic and Social Development Board (NESDB), Royal Thai Customs, and the Ministry of Information and Communication Technology (MICT) spearheaded the implementation of NSW.</p>

*Bangladesh has relatively few trade agreements with destination markets.*

Trade agreements in general are treaties between countries that seek to modify or reduce effective tax, tariff, and non-tariff barriers between the signatory countries. Bilateral trade agreements are signed by countries that intend to give each other better access to domestic markets. Tariff agreements open up the possibility for horizontal, vertical, and market diversification. Figure 3-9 shows the number of tariff agreements that were active for any particular year. Between 2006 and 2015, Bangladesh had at least one trade agreement active. In 2015, Bangladesh signed four more treaties. However, Malaysia, Vietnam, and Philippines maintained a much higher average number of active trade agreements. Trade agreements and other trade facilitation activities have a strong impact on export diversification, especially for developing countries.

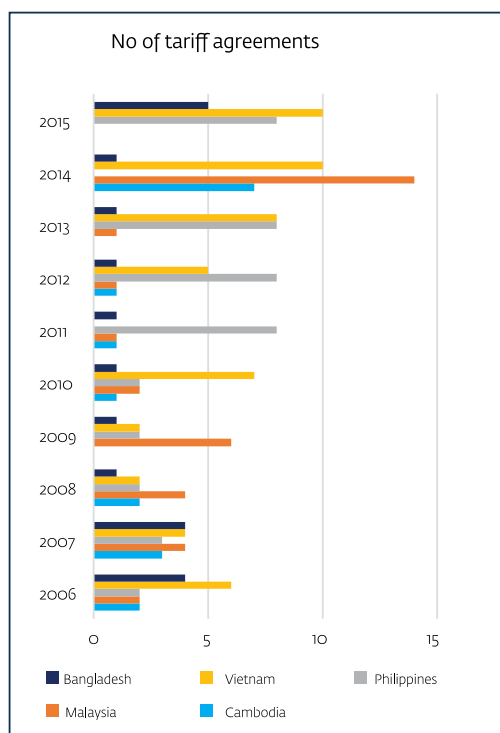
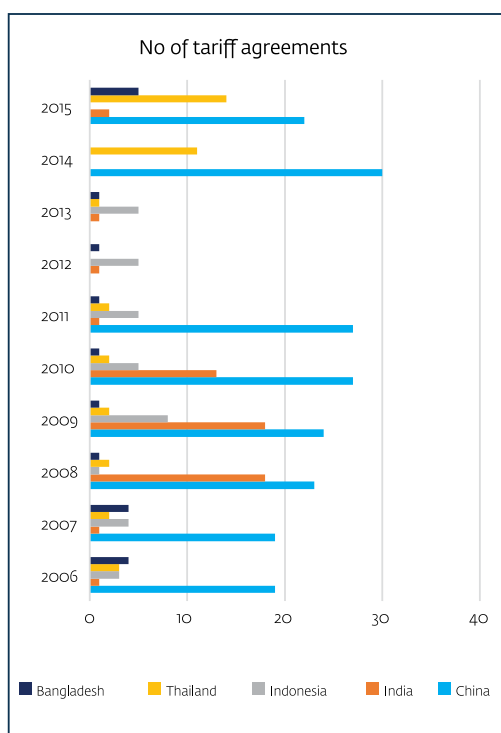
*Case study of Cambodia - from export concentration to export diversification*

Cambodia demonstrated remarkable average annual economic growth of about 10% between 1998 and 2007. The textile and garment industry was the cornerstone of this export performance accounting for 16% of GDP in 2007, and

represented the largest source of job growth. The export concentration ratio of 0.415 in 2009 showed that the country relied heavily on exports from the textile and garment industry. The vulnerability associated with such a high export concentration ratio (ECR) was compounded by a relatively limited export market. The sensitivity of the economy to external shocks was revealed during the global economic slowdown in 2008. Garment exports showed a contraction by almost 20% of their value in 2008. By 2010, more than 45,000 jobs were lost in the sector. Economic growth in Cambodia slowed to 6.7% in 2008 and the economy contracted by 1.9% in 2009.

In order to help reduce vulnerability to economic shocks and promote the generation of jobs, the Cambodian government had decided to integrate its trade policy into a broader national development agenda. In 2001, a Diagnostic Trade Integration Study (DTIS) was conducted for Cambodia. This was later revised and paved the way for the adoption of Cambodia's Trade Integration Strategy in 2007.

Figure 3-9: Number of tariff agreements



China has consistently had the highest number of bilateral trade agreements. In 2014, it had 30 active trade treaties. Thailand is the only other country that pushes for bilateral agreements with the same degree of vigor.

government, its development partners, and other concerned stakeholders to be implemented by all through a Trade Sector Wide Approach (SWAp).

The key objectives of the 2007 Trade Integration Strategy included:

1. Identifying a set of possible priority product or service sectors as a basis for strengthening and diversifying Cambodia's export basket;
2. Identifying bottlenecks, either common to all priority sectors or specific to each, that needed to be removed to promote development of those export sectors;
3. Linking trade sector development more clearly with human development and poverty reduction; and
4. Serving as a basis for formulating clear trade sector development priorities shared by the Cambodian

While this study was being developed, Cambodia's Ministry of Commerce (MoC) took steps to put in place a new institutional infrastructure for consultation, management, resource mobilization and monitoring required for a successful implementation of DTIS 2007.



Key among those parallel developments was the creation of the Sub-Steering Committee on Trade Development and Trade-Related Investment by Anukret (Regulation adopted by the Prime Minister and countersigned by the interested Minister) of March 2007 and the formation of the MoC's Department for International Cooperation by Anukret of August 2007 (the latter focusing on the reorganization of the MoC). Two factors were critical in determining the effectiveness of the new implementing mechanisms: clear involvement of and good coordination with other key ministries in the work of the Sub-Committee and the Department for International Cooperation; and vigorous development of Human Resources in MoC and concerned line Ministries in many aspects of trade policy formulation and trade strategy implementation.

For details of the case, see Annex C: Case Studies.

### *The case of Malaysia - Malaysia's shift to export diversification*

In the 1950's the Malaysian economy was precariously dependent on two primary commodities, namely rubber and tin. The focus of the economy in the late 1950's was on the production of consumer goods for the home market. The limitations of the import substitution strategy soon became apparent as the small domestic market became saturated. Further expansion seemed impossible. Accordingly, there was a radical shift from inward-looking import substitution to outward looking export promotion through export diversification in the 1970s. The remarkable economic expansion was progressively led by manufacturing.

The manufacturing sector's share of GDP rose from 13% in 1970 to about 30% by 1997, while the sector's share of employment rose from 9% in 1970 to 26.4% in 1997. The manufacturing sector in Malaysia played an important role in the recovery of the economy from recession in 1998. The economy contracted by 7.5% in 1998 but recovered quickly, expanding by 5.4% the following year. This shows the dominant

position of the sector in the economy.

Malaysia moved away from its two main sources of export -- rubber and tin -- by promoting other commodities, mostly palm oil, and by moving to higher value-added products like electronics and telecom equipment. The drastic transformation in Malaysian exports was shown with the share of tin and rubber in total exports falling from more than 60% in 1962 to less than 3% in 2008. During the same period, electronics and telecom components increased from less than 1% to nearly 50% and became the largest Malaysian export sector.

### *Key strategies involved in the process of export diversification*

The evolution of Malaysia's industrial policies can be distinguished in three phases:

1. Export-oriented industrialization (EOI) based on export-processing zones (EPZs) in the early 1970's
2. A second round of import-substituting industrialization (ISI) based on heavy industries in the early 1980's
3. Liberalisation and a second round of export push in the late 1980's and a sustained shift toward more market-oriented policies in the 1990s.

The two Industrial Master Plans (IMP1 & IMP2) were landmarks in the promotion of exports in the manufacturing sector. IMP1 (1986-95) was a long-term indicative plan for the development of 12 industrial subsectors, comprising seven resource-based industries and five non-resource-based industries. IMP2 (1996-2005) adopted a Manufacturing ++ concept to integrate all the components of the value-added chain, combined with the cluster concept whereby related industries are geographically grouped to maximize intra-industry synergies.

For details of the case, see Annex C: Case Studies.



## Barriers to Export Diversification in Bangladesh

This section describes important constraints that affect the competitiveness of exporters from Bangladesh and hamper the process of export diversification and the link with global value chains. For a developing economy that is transitioning from an agrarian to a manufacturing base, factor conditions play a significant role in determining export competitiveness. Factor conditions are those that indicate availability and access to affordable high-quality inputs. These include basic factors such as low skilled labor and raw materials, and advanced factors such as skilled workforce, better infrastructure and the low cost of capital.

### 3.4. Workforce:

*Bangladesh is a beneficiary of the demographic dividend, but a skills mismatch holds productivity levels back.*

The country has a large pool of unskilled workers migrating from agriculture to labour-intensive industries. Skilling the workforce is a major challenge for most of the SME units that cannot afford to provide adequate in-house and on-the-job training to their employees.

Most export manufacturers have to hire unskilled workers and train them on the job under the supervision of a skilled worker.

The attrition rates are high among trained workers, given the high demand for skilled workers. A skill gap analysis conducted by the Bangladesh Institute of Development Studies in 2016 highlights this mismatch between demand and supply of skilled labor in some sectors.

*The institutional arrangement and infrastructure available for training and skill development is not sufficient to meet the current and future demands of the export sector.* Bangladesh Industrial Technical Assistance Centre (BITAC), provides basic skills programs, however, the curriculum and training modules often fail to comply with market needs due to the constant upgrading of technology. Although the technical and vocational education and training (TVET) offered by government and non-governmental organisations (NGOs) has grown over the last two decades, the share of women enrolments has remained low. A robust skills development ecosystem with participation from industries and well-funded training programs is needed in each sector to address the shortage of skilled assembly line workforce.

*Table 4: Skill Gap Analysis for Selected Sectors*

Sector	Present Labor Demand by Sector (2015/2016)	Future Labor Demand by Sector (2020/2021)	Future Labor Demand by Sector (2025/2026)	% Increase in future Labor Demand (2025/2026)
Leather Goods	Skilled: 8404 Semi-Skilled: 8144 Unskilled: 83990	Skilled: 11727 Semi-skilled: 11365 Unskilled: 117203	Skilled: 17404 Semi-skilled: 16867 Unskilled: 173943	Overall: 107%
Light Engineering	Unskilled: 6631 Semi-skilled: 164813 Skilled: 494558 Highly skilled: 32900	Unskilled: 7529 Semiskilled: 189563 Skilled: 783892 Highly skilled: 58216	Unskilled: 7529 Semiskilled: 189563 Skilled: 783892 Highly skilled: 58216	Unskilled: 13.54% Semi-skilled: 15.02% Skilled: 58.50% Highly Skilled: 76.95%
RMG	Unskilled: 618708 Semi-Skilled: 1230164 Skilled: 2258250	Unskilled: 444347 Semi-Skilled: 1345477 Skilled: 3666460	Unskilled: 599091 Semi-Skilled: 1829871 Skilled: 5027463	Unskilled: -3.17% Semi-Skilled: 48.75% Skilled: 122.6%

### 3.5. Access to finance

*Annual FDI inflows to Bangladesh were muted until 2004 at around US\$500 million and reached a high of US\$2.45 billion in the fiscal year 2016-17.* There are considerable theoretical treatments of how FDI promotes exports of host countries: augmenting domestic capital for exports, helping transfer of technology and new products for exports, facilitating access to new and large foreign markets, and providing training for the local workforce and upgrading technical and management skills. For Bangladesh, much of the FDI inflows were outside the EPZs. FDI inflows in non-EPZ areas during January-June 2017 reached US\$780.08 million, or 79% of the total net inflow into the country. In the preceding period (July-December 2016), it was US\$1,291.27 million, or 87.98% of total net inflows. This is in sharp contrast with the experience in China and Vietnam, where much of the FDIs went directly into the free trade zones. FDI inflows to China and Vietnam grew steadily in 2017 to reach US\$135 billion and US\$36 billion USD, respectively (Bangladesh Bank, 2017).

*Domestic investment in Bangladesh is still limited and trends show a distinct scarcity of capital formation.* Due to the wide gap between saving rates and required investment capital, local entrepreneurs look for foreign funding sources when considering expansion and investment plans. In addition to inadequate funding sources, Bangladesh also has a very high interest rate, with the lending rate reaching a high of 14% in 2012. Though rates fell to around 9.54% as of March 2019 this was still very high compared to regional competitors. These factors combined make domestic investment an unlikely source for the needed investments in the sector.

*Even though there are several banking institutions in the country, access to credit remains a challenge.* The 2018 Ease of Doing Business index showed that Bangladesh ranked 159 out of 190

countries in 'getting credit'. Financial institutions are often more interested in short-term financing because of liquidity risk arising from funding of long-term loans with typically shorter-term deposits. Also, they do not consider smaller enterprises bankable, because they do not have specialised staff to maintain financial documentation or prepare project feasibility or credit risk reports. Export finance can play an important role in addressing some of the key challenges in the export sector, for example the ability to offer payment terms more favorable to buyers enhances the chances of exporters securing more orders. Export Finance instruments enable exporters to offer competitive payment terms to buyers while mitigating the default risks and working capital shortages that arise from such competitive payment terms. This is also used to strategically increase Small and Medium Enterprise (SME) participation in international trade. Cost and access to finance are factors that especially undermine the export capability of SMEs. Improving access to export finance at reasonable cost could be a critical factor in increasing SME participation in the export sector.

*Banking processes are time-consuming and SME entrepreneurs are often unable to produce adequate documents when applying for financial support from banks.* Interest rates are high and the financing terms and conditions are often not acceptable for entrepreneurs. Trade credits are another important source of working capital for firms, but they are also not available at affordable rates. Moreover, the collateral requirement for bank loans is relatively high in Bangladesh as compared to other low-income countries. SME factories are reluctant to obtain formal funding through bank and non-bank financial institutions, as they are required to furnish collateral including tangible assets (lands, buildings, etc.) and additional security in the form of fixed deposit receipts, bank and insurance guarantee, landed property, corporate guarantee, etc.

*Table 5: Comparison of the collateral amount as a percentage of loan*

	Total	Small firms (1-19)	Medium firms (20-99)	Large firms (100+)	South Asia	Low income countries
Value of collateral needed as a % of the loan amount	271.1	291.4	290.6	236.5	238.9	238.9

### 3.6. Energy

*The growth of the economy, propelled by industrialisation, has resulted in a rapid increase in energy consumption.*

This has put stress on energy production resulting in frequent power and gas outages. The annual loss to production due to power disruptions has been estimated to exceed 0.5% of GDP . To tackle the energy crisis, small and independent power producers, who mostly use diesel to generate electricity, provide temporary and high-cost solutions.

Uninterrupted power supply is a key requirement for the manufacturing sector. However, power cuts are frequent and may range from less than an hour to four hours. The quality of electricity is extremely poor and creates major problems for SMEs that cannot afford generators. Although SMEs consider the price of electricity to be high (US\$0.09 per kilowatt-hour)<sup>6</sup>, it is generally the quality of electricity in relation to price that creates a barrier for the export sector

under way to encourage manufacturers to comply with international norms and standards. However, country-branding initiatives are not adequate to improve Bangladesh's image as a competitive destination for responsible sourcing.

*Bangladesh ranks 87 out of 160 countries in the World Bank Logistics Performance Index (LPI),*

which indicates poor transport and logistics system. Shipping transit times to and from major ports in Bangladesh are not competitive because of poor navigability. This leads to high logistics costs, which are an additional burden on exporters. Multimodal connections between the ports and the hinterland, including rail services, air shipment capacity and reliable road networks, are not fully developed. Exporting from Bangladesh takes longer (247 hours required for documentary and border compliance compared to the South Asia average of 136 hours) and costs more (US\$633 for documentation and border compliance compared to South Asia's average of US\$550).

### 3.7. Market access

*Bangladesh is seen in global markets as a country with low social compliance and relaxed enforcement of environmental and industrial safety standards.*

This follows a number of major industrial accidents over the last few years. The country has also gained notoriety for its lax regulatory environment, poor working conditions, low wages, and frequent labour strikes. Such adverse conditions resulted in Bangladesh losing the GSP advantage in the US market. Efforts are

*UNCTAD report (2016): Service Policy Review (I)*

Table 6: Bangladesh's LPI score

Country	LPI Rank	LPI Score	Customs	Infrastructure	International shipments	Logistics quality and competence	Tracking and tracing	Timeline
China	27	3.661	3.319	3.752	3.705	3.620	3.677	3.896
Malaysia	32	3.426	3.167	3.448	3.482	3.342	3.461	3.653
Thailand	45	3.255	3.105	3.124	3.367	3.135	3.204	3.560
Indonesia	63	2.985	2.688	2.645	2.902	3.000	3.192	3.460
Vietnam	64	2.977	2.751	2.695	3.123	2.883	2.843	3.498
Cambodia	73	2.801	2.615	2.363	3.113	2.605	2.705	3.305
Bangladesh	87	2.664	2.567	2.480	2.730	2.674	2.594	2.901
Myanmar	113	2.459	2.429	2.330	2.230	2.358	2.569	2.849

### 3.8. Regulatory barriers

*The tariff regime is not conducive for trade in non-RMG sectors.* To protect domestic manufacturers, finished goods in many sectors attract high import tariffs. This has led to complacency among firms toward investing and improving skills to achieve global standards in productivity and quality. The restrictive tariff regime also creates an anti-export bias among investors. Given the difficulties in receiving duty drawbacks, most non-RMG manufacturers suffer from “negative protection,” and are less inclined to pursue export orders.

*Unlike the RMG sector, non-RMG sectors in Bangladesh do not enjoy pre-shipment facilities like back-to-back letters of credits (L/Cs) and export cash credits that reduce transactional costs.* This cushions the RMG exports from exchange rate fluctuations. The USD-BDT exchange rate changed from BDT 66 per USD in 2006 to BDT 84 per USD in 2017. The exchange rate spiked between 2011 and 2012, and sharply fell between 2012 and 2015. These exchange rate fluctuations affected the export performance of many non-RMG exporters.

*The FDI experience of Bangladesh is tiny, diverse and mostly market- and resource-seeking.* The average FDI inflow of about US\$2 billion is less than half the

target and strikingly less than comparable economies (Ethiopia US\$3.1b, the Philippines US\$7.9b, Vietnam US\$12.6b, Malaysia US\$9.9b, India US\$44b, Kazakhstan US\$9.6b). The sectoral distribution tilts toward market- and resource-seeking businesses like telecom (24%), power and energy (20%), and banking and trading (11%). Similarly, FDI sources are limited to only a few countries. The top five sources make up about 65% of the FDI inflow and there has been no new entrant in the top 10 sources in the last decade. The export diversification strategy calls for an efficiency-seeking FDI policy regime with instruments for firm linkages, investment incentives, preferential trade agreements, and efficient services provided by investor promotion agencies (IPA). It is often argued that the absence of such an efficiency-seeking FDI policy regime hinders access to the technology and knowledge transfer required for developing potential new export sectors, and thus hampers the drive for diversification.

*In summary, Bangladesh has a very low number of sectors with relative comparative advantages.* A product space analysis (Hidalgo and Hausmann, 2009) for Bangladesh shows that the exclusive export sector RMG has a low product complexity and provides less opportunity and feasibility to organically diversify into new and more sophisticated sectors. However, it is important for Bangladesh to identify sectors strategically as a source of

<sup>6</sup><http://www.unnayan.org/>

export diversification that could provide maximum benefit for the country. This should be followed by a series of interventions to address the binding constraints for those sectors that hamper their competitiveness in global markets.



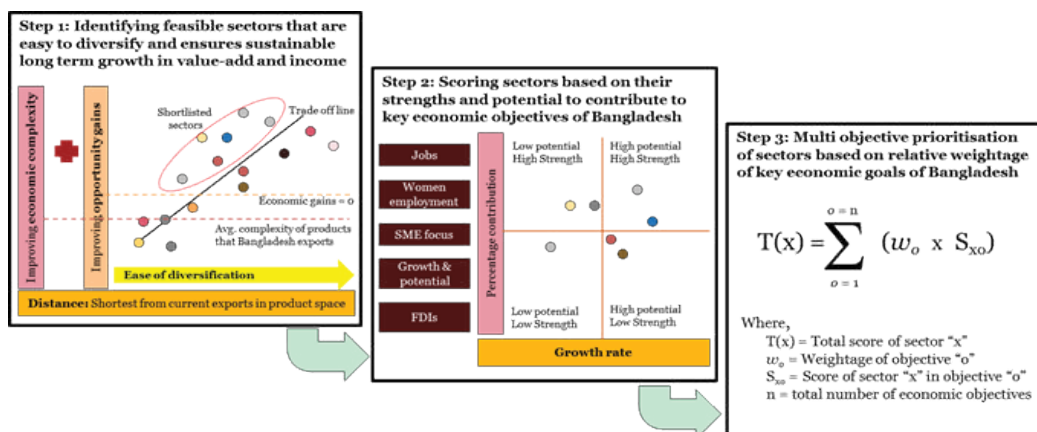
# 4. Export Sectors beyond RMG: Which Ones Offer High-Potential and Why

This chapter presents a sector prioritization analysis conducted during 2017-18 in consultation with the GoB and private sector. The process considered not only a sectors' ability to increase export income, but also their potential to further the country's economic goals such as creating employment opportunities for the large number of workers entering the job market every year and ensuring inclusive and sustainable growth in the medium to long term. The sector selection was carried out with a clean slate by analysing 83 product

and ranking approach which is provided in detail in the following section. The analytical approach was based on the concept of product space and economic complexity developed by Hausmann, Ricardo et al to shortlist feasible sectors and prioritise them based on their potential to contribute to Bangladesh's economic priorities. Further, the analysts used a multi-objective weighted scoring of each sector's contribution to the economic goals of the country to prioritise the list.

Sectors are ranked based on their scores and those with highest scores are considered to provide the most benefit in terms of growth potential and contribution to key economic objectives of Bangladesh. The following section elaborates on the step-by-step approach to implement the methodology.

Figure 4-1: Methodology used for sector selection



\* The diagrams are indicative and do not use actual data.

categories at HS-2 code which can be explored as potential high growth sectors. This analysis excluded RMG product categories (13 products) as the objective of the study is look at sectors/products for diversification. From this exhaustive list of product categories, potential sectors were identified using a multi-stage shortlisting



## 4.1. Step 1-A: Identifying advantageous sectors

The product space in Hausmann's analysis shows how a specific product (sector) is related to another, in terms of transferability of productive knowledge. To identify the most feasible sectors for diversification, the export data for 2014 across 96 product categories presented in the economic Complexity Atlas (<http://atlas.cid.harvard.edu/>) were used.

It is easier to diversify into sectors that are similar to current export sectors in terms of the required productive knowledge. This similarity is called the proximity factor and the inverse of this is the distance factor that represents the level of difficulty in acquiring required new knowledge. It is easier to diversify into sectors that have a lower distance value. Beyond the distance factor, the following objectives for shortlisting the advantageous sectors were also considered:

- Improve the average complexity of products made in Bangladesh: Improving complexity means acquiring more sophisticated productive knowledge, which will lead to higher income and better jobs. The average national complexity of Bangladesh is -1.03 (Economic Complexity Index, Atlas of Economic Complexity, Harvard). Therefore, products with a complexity greater than -1.03 are considered advantageous. When the complexity of products (HS-2 code) exported by Bangladesh against their distance factor is plotted, it is found that

there has to be a trade-off between complexity and distance that is inversely proportional. This trade-off is presented in Figure 4-2 below. This graph is used to choose products that are advantageous:

- Parsimonious bets: These are products that are easy to diversify into and have the potential for growth. These parsimonious bets are found between the distances 0.82 to 0.90 in Figure 4-2. Only sectors with reasonable export value (marked in red/blue/green) were considered.
- Strategic bets: These are products that are difficult to diversify into, but are more sophisticated. These products are found between the distance 0.91 and 0.96 in Figure 4-2. Products that have complexity greater than the national average ECI of -1.03 and to the left of the trend line that represents the trade-off between complexity and ease of diversification were chosen. Again, only sectors with a reasonable export value (marked in red/blue/green) were considered.

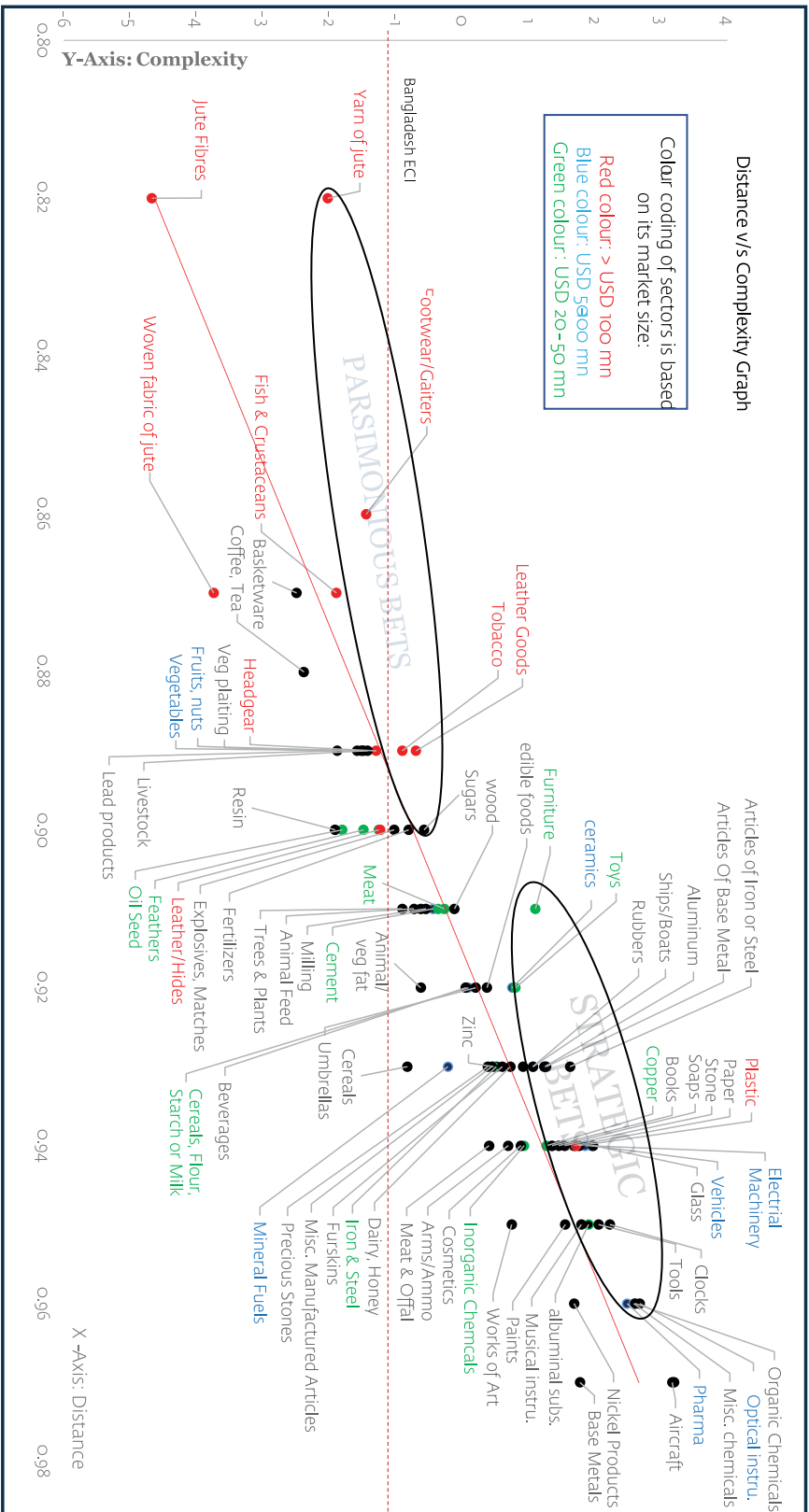
Table 7 below presents the advantageous products and respective sectors (based on GoB classification) considering the complexity of products (refer to Figure 4-2).

*Table 7: Identifying advantageous products and sectors based on distance vs complexity*

Feasible Sector	Products	Sector
Parsimonious bets	Footwear/Gaiters, leather goods	Leather and footwear
	Tobacco	Food processing
	Yarn of jute	Jute yarn
Strategic bets	Vehicles other than automobile (Bicycles), Optical instruments, electrical machinery, copper	Engineering goods
	Furniture	Furniture
	Pharmaceuticals	Pharmaceuticals
	Plastics and toys	Plastics
	Ceramics	Ceramics



Figure 4-2: Mapping the trade-off between product complexity and ease of diversification





• *Move closer to highly linked products that maximize opportunity gain:* In the Atlas of Economic Complexity, opportunity gain is defined as the measure of a sector's level of connectedness to the other sectors in the product space. This indicates the potential of a sector to build productive knowledge in the economy that is transferable to a greater number of sectors, thereby contributing to sustainable growth in exports through continued product diversification. This opportunity gain offered by products against the distance factor was mapped as shown in Figure 4-3.

• The graph shows us how sectors that are similar in terms of their distance, still present varying opportunity gain values for Bangladesh. The feasible sectors include both parsimonious and strategic bets.

o Parsimonious bets: The selection area for parsimonious bets includes products between the distances 0.82 and 0.90, and only those sectors with opportunity gain equal to or

greater than zero and with reasonable export value (red/blue/green) are being considered as feasible.

o Strategic bets: The selection area for strategic bets includes sectors within the distance of 0.91 and 0.96, with an opportunity gain greater than zero, and to the left of the diagonal trend line that indicates trade-off between opportunity gain and distance values. Within the selection area, only sectors with reasonable export value (red/blue/green) were considered as feasible for diversification.

*Overall feasible sectors:* Combining the distance vs complexity and distance vs opportunity gain, the following sectors (in Table 9) were considered as overall feasible sectors for Bangladesh to diversify export. Based on the availability of data, some of the products at HS-2 have been combined to arrive at sectors as per Bangladesh Standard Industrial Classification (BSIC).

\*IT/ITES is an important service sector export from Bangladesh and has been included as a sector for analysis in the next step.

*Table 8: Identifying advantageous products and sectors based on distance vs complexity*

Feasible Sector	Product	Sector
Parsimonious bets	Footwear/Gaiters, leather goods, Leather/ hides, headgear	Leather and footwear
	Yarn of jute, Jute fibres	Jute yarn
Strategic-bet	Electrical machinery, Optical instruments	Engineering goods
	Ceramics	Ceramics
	Plastics	Plastics

*Table 9: List of advantageous products and sectors*

Sector type	Distance vs complexity	Distance vs opportunity gain	Overall feasible sectors
Parsimonious sectors	a) Food processing b) Jute yarn c) Leather and footwear	a) Jute yarn b) Leather and footwear	a) Leather and footwear b) Ceramics c) Food processing d) Plastics e) Furniture

Sector type	Distance vs complexity	Distance vs opportunity gain	Overall feasible sectors
Strategic bets	a) Ceramics b) Furniture c) Engineering goods d) Pharmaceuticals e) Plastics	a) Engineering goods b) Plastics c) Ceramics	f) Jute yarn g) Engineering goods h) Pharmaceuticals i) IT/ITES*

The next step aimed to analyse these 9 overall feasible sectors based on their inherent strengths and growth to meet the economic goals of Bangladesh and identify sectors with a relatively high potential to contribute to exports.

## 4.2. Step 1-B: Market size and potential for export growth of the sectors

The objective of this step is to consider only those sectors that have been growing in the Bangladesh export market. This is ensured by filtering the sectors that have seen negative growth or minimal growth in exports in either of the markets. This step evaluates the potential of the sectors with respect to two factors –

(i) Average growth of the sector's exports in the global market in the last five years – the table below gives the data on the growth of exports in the global market for the period from 2010 to 2015.

All the shortlisted sectors from step I have positive growth rate in the global exports market except for jute. Jute has seen a negative growth in the last 5 years in the global market and the size of the jute market in the world is shrinking. Further, Bangladesh has already captured more than 70% of the global jute market and has less potential to look at exponential growth in this sector. Hence, jute as a sector is not considered for further evaluation and prioritisation.

(ii) Average growth of the sector's exports from Bangladesh in the last five years –

Sectors	Avg. growth of exports in Bangladesh (last 5 years)
Leather and leather products	11.0%
Footwear products	26.8%
Furniture	20.7%
Food processing (tobacco)	2.3%
Plastics	12.0%
Pharmaceutical products	15.6%
Engineering goods	10.4%
Ceramics	12.7%
IT and ITES	23.3%
RMG	15.48%

Sectors	Growth in global market (2010-15)	Global export market size (in billion USD)- 2015	Bangladesh exports (million USD)- 2015
Leather and leather products	5.2%	105.4	508
Footwear products	2.6%	138.3	827
Furniture	5.9%	240.1	46
Food processing (tobacco)	3.8%	40.5	44
Plastics	3.4%	554.1	529
Pharmaceutical products	1.3%	868.5	83
Engineering goods	3.4%	2,414.5	271
Jute	-5.0%	0.9	666
Ceramics	7.7%	56.9	52
IT and ITES	28.7%	453.3	56
RMG*	5.0%	477.1	30,526

\* Data on RMG sector is provided only to show comparison with other sectors

Source: UN COMTRADE data from [trademap.org](http://trademap.org)

It is evident from the table above that all the sectors have seen a double-digit growth rate in exports from Bangladesh during last 5 years except for the food-processing sector, which is growing at less than 5%. Hence, food processing as a sector is not considered in further analysis.

### 4.3. Step 2-A: Evaluation and mapping of the sectors based on weightages (Scoring)

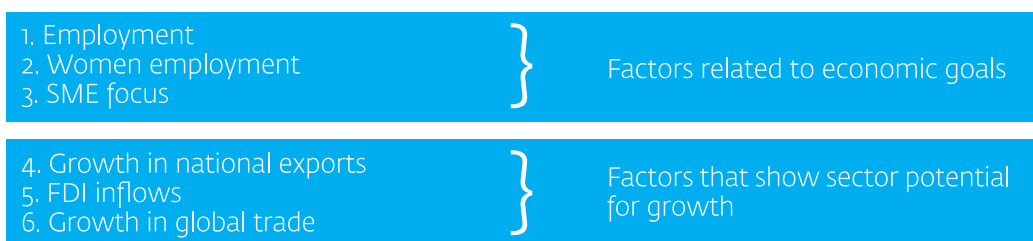
The study seeks to narrow down the list of export-oriented manufacturing sectors that have a high potential defined by their economic and development impact. Among the feasible sectors, those that contribute to the immediate and long-term objectives of the country were identified by shortlisting the top 5-6 sectors that are more likely to meet the objectives. In order to rank the sectors, a multi-factor evaluation system was adopted in which a score is assessed for each sector and for each factor. Each factor has been given a weightage based on the level of its importance. A weighted average score is derived for each sector based on its strength in each factor. This score is considered in ranking the sectors to establish the best prospects for export diversification.

**Measuring factors:** Indicators of sectors' contribution to each of the six economic objectives were taken from Planning Commission documents, and from inputs provided by key stakeholders.

Table 10: Assigned weightages to factors

#	Factors	Weightage
1	Employment	30%
2	Growth in national exports	20%
3	Growth in global trade	20%
4	FDI inflows	10%
5	SME focus	10%
6	Women employment	10%

It is important at this stage to have a brief discussion on the weights that were assigned to the different factors. In constructing and choosing the factors, overall economic goals as well as inherent sector potential were deemed to be necessary for the sector selection. Overall, one of the most important goals for Bangladesh, given the declining potential of the RMG sector to provide quality jobs, is employment generation. The sector chosen for focus must also provide opportunities for equitable distribution of earnings. This is the reason why "Employment" was given the highest weightage. It also follows that sectors which are already showing potential, (i.e. have growth in national exports and the global market is also robust) are also very important factors to consider when looking at long term export sustainability. Given these weightages, it is expected that certain sectors, such as Pharmaceuticals (which has great export potential but limited employment generation capacity) will not be suitable given the overall goals.



For the purpose of analysis, the following weightages have been assigned for each of the factors:

<sup>7</sup>Export Policy 2015-18; 7th Five Year Plan for Bangladesh – A report from Planning Commission;

The following table presents how each factor has been evaluated:

*Table 11: Evaluation criterion*

#	Factor	What is being plotted	What is being measured
1	Employment	Sectoral share of employment (both domestic and exports) v/s contribution to exports	Relative contribution of the sector's share of employment to exports (i.e. a sector which has higher employment in the country is also contributing largely to exports will get a higher score).
2	Women employment	Women employment share in the sector v/s contribution of the sector to exports	Relative contribution of women employment from sectors to exports (i.e. a sector that has a higher share of women employment in the country and is also contributing largely to exports will get a higher score).
3	SME focus	Sectoral share of SMEs v/s contribution of sector to exports	Relative presence of SMEs in the sector and its contribution to exports (i.e. any sector that has higher number of SMEs and is also contributing to the exports will get a higher score).

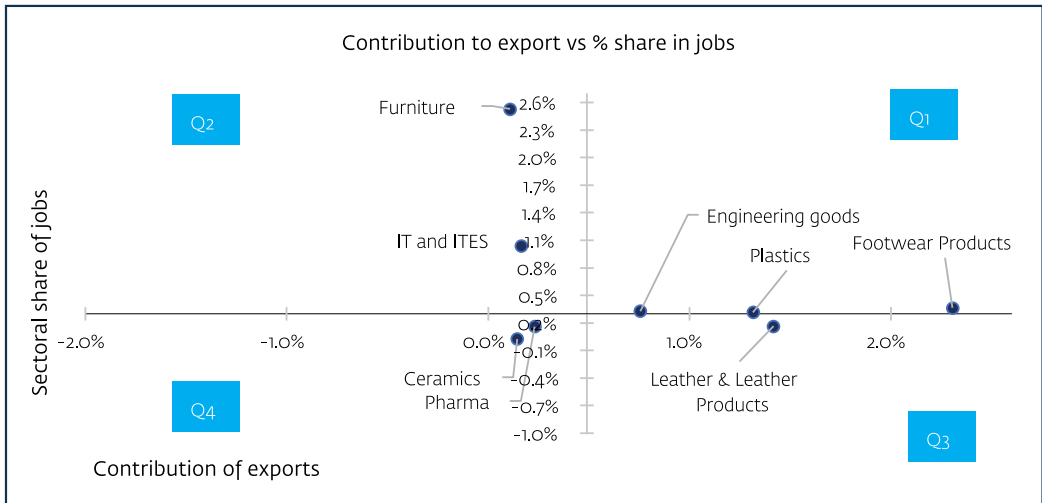
*Plotting the factors:*

The weightage and scoring gives the base conditions for scoring of factors. Mapping of each sector and its strength in the sector is measured based on the historic data by plotting graphs. Quadrant- based scoring is done based on two parameters – a sector's contribution to economic goals (jobs, SME presence, etc.) and its contribution to exports. Sectors that score relatively high (on both the parameters) fall under quadrant 1 and get the highest score (4). If the sector is faring higher in any one of the two parameters then the sector will fall under quadrant 2 or 3 and will get a scoring of 2.

*Factor: Employment*

The weightage and scoring gives the base conditions for scoring of factors. Mapping of each sector and its strength in the sector is measured based on the historic data by plotting graphs. Quadrant- based scoring is done based on two parameters – a sector's contribution to economic goals (jobs, SME presence, etc.) and its contribution to exports. Sectors that score relatively high (on both the parameters) fall under quadrant 1 and get the highest score (4). If the sector is faring higher in any one of the two parameters then the sector will fall under quadrant 2 or 3 and will get a scoring of 2.

Q2 → score 2	Q1 → score 4
Q4 → score 0	Q3 → score 2



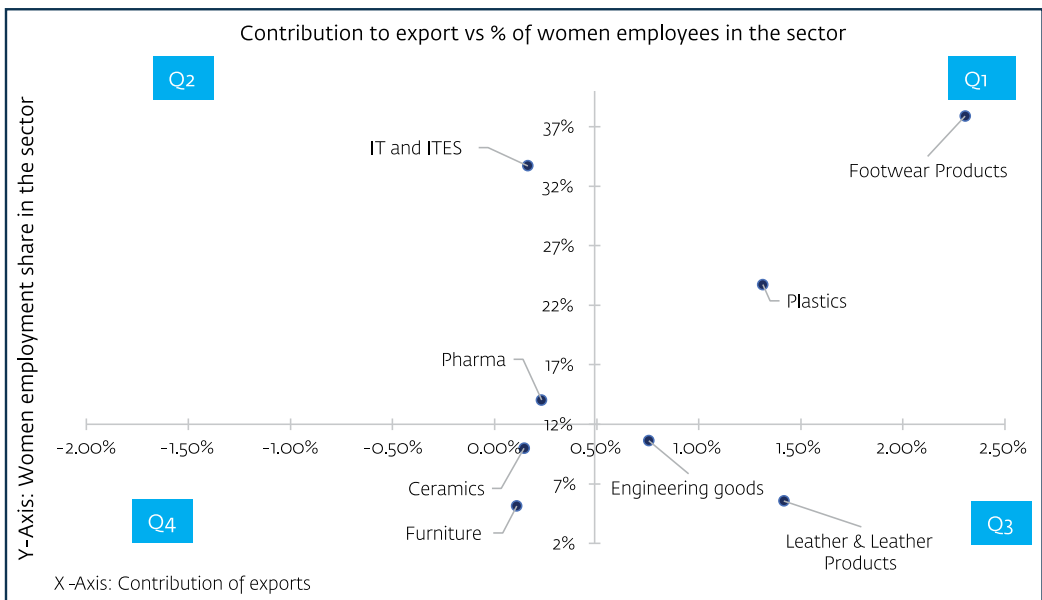
Axis: (0.49%, 0.29%)

### Factor: Women employment

Quadrant based scoring for sectors on employment:

Sector	Score for employment
Leather, leather goods	2.00
Footwear products	4.00
Engineering goods	4.00
Plastics	4.00
Furniture	2.00
Pharmaceuticals	-
Ceramics	-
IT & ITES	2.00

The data for women employment in each sector for the year 2012 was captured from the Survey of Manufacturing Industries (SMI) and a graph was plotted to establish whether the increase in the exports of a particular sector led to job creation for women in that sector. Light engineering, leather, footwear, and IT sectors have a higher share of women employment. Relatively, leather and footwear is contributing more women's

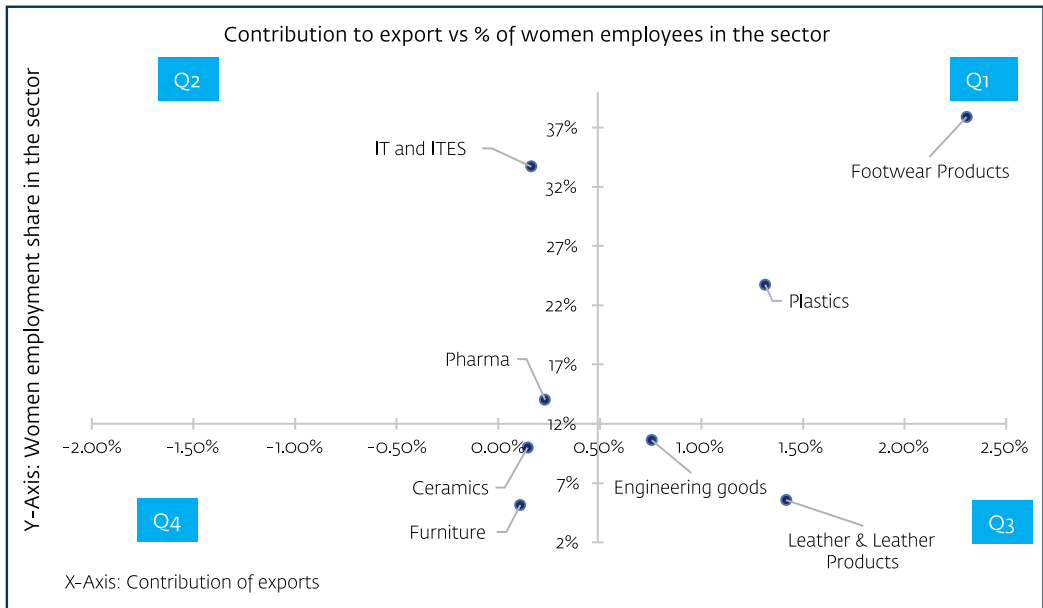


Axis: (0.49%, 12.33%)



jobs in exports as they have a relatively higher share of exports, hence these two sectors could contribute to the growth of women employment in the export led sectors in the country.

captured from the Economic Survey of Bangladesh Report-2013 and a graph was plotted to establish a relationship between the number of SME industries in a sector and the growth in contribution of that

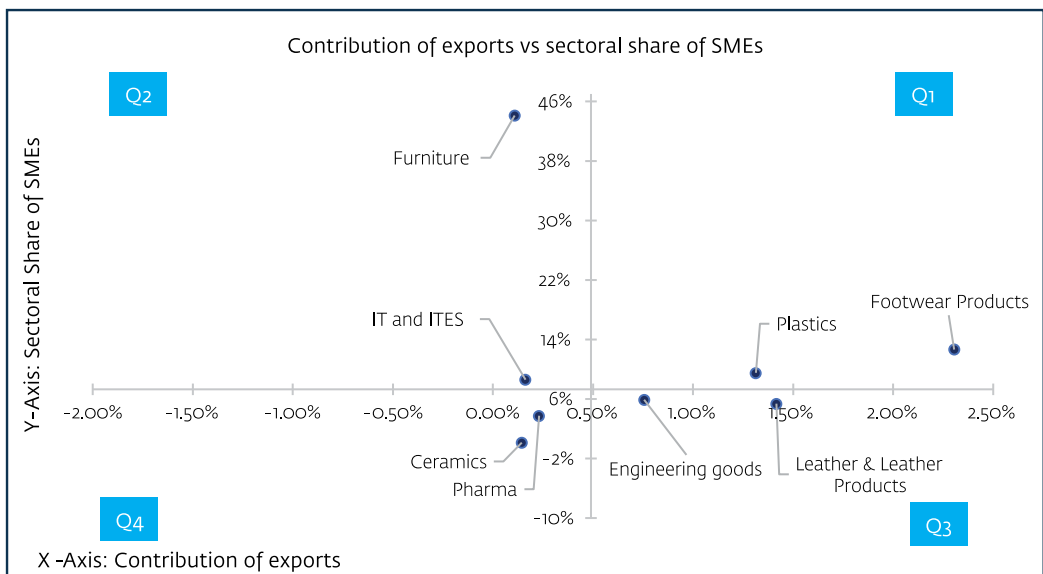


Axis: (0.49%, 0.29%)

**Factor: Small and medium scale enterprises (SMEs)**

The data for number of SME establishments in each sector for the year 2013 was

sector to the total exports. The furniture sector contributes to relatively higher share of SMEs in the country. A major portion of the SMEs in the sector contributes to domestic demand and the contri-



Axis: (0.49%, 7.25%)

bution of this sector to exports is low. Relatively higher number of SMEs could help the sector in developing value chain in the sector and could lead to lesser translation time for value added products in the sector. Hence, the furniture sector has a higher potential for exports.

Quadrant based scoring for sectors on women employment:

Sector	Score for employment
Leather, leather goods	2.00
Footwear products	4.00
Engineering goods	2.00
Plastics	4.00
Furniture	-
Pharmaceuticals	2.00
Ceramics	-
IT & ITES	2.00

Quadrant based scoring for sectors on SME contribution:

Sector	Score for employment
Leather, leather goods	2.00
Footwear products	4.00
Engineering goods	2.00
Plastics	4.00
Furniture	2.00
Pharmaceuticals	-
Ceramics	-
IT & ITES	2.00

*Factor: Average contribution of the sector's exports to the export basket*

The objective of using this measure is to assess the strength of the sector in

Sectors	Average % contribution to exports (last 5 years)	Current size of exports from BD (USD mn)	Average growth of the sector (2010-15)	Score
Leather and leather products	1.42%	508	11.0%	2.00
Footwear products	2.30%	827	26.8%	4.00
Furniture	0.11%	46	16.8%	2.00
Plastics	1.31%	529	13.9%	2.00
Pharmaceutical products	0.23%	83	15.6%	2.00
Engineering goods	0.76%	271	10.4%	2.00
Ceramics	0.14%	52	5.4%	-
IT and ITES	0.16%	56	23.3%	2.00

Bangladesh in terms of its current share in export contribution to the economy. Sectors that are already doing well in exports have a higher chance of further growth and are likely to have higher potential.

The scoring has been given based on the following criteria:

Criteria – average growth of sector	Score
>20%	4
10% - 20%	2
<10%	-

*Factor: Foreign direct investments – total FDI flow in the last 5 years*

The flow of FDI to different sectors is one factor that indicates the level of an international firm's interest in financing projects/products in the country. Most of the FDIs into Bangladesh are in telecommunications, gas, and power. Manufacturing sectors have seen much less FDI in the past. Very few sectors have been able to attract investment and most of it has gone into RMG. Considering this pattern, any sector that has been able to attract any amount of investment in the last 5 years has been given a score of four. The data on FDIs was captured from the Bank of Bangladesh. The scoring of sectors is as below:

Sectors	Total FDIs (USD-mn) in 5 years (2010-14)	Score
Leather and leather products	96	4
Footwear products	-	-
Furniture	-	-
Plastics	-	-
Pharmaceutical products	113	4
Engineering goods	84	4
Ceramics	-	-
IT and ITES	68	4

Pharma and light engineering sectors have seen higher growth in FDIs in the country, mostly due to very low base, and the food processing sector has also had relatively higher share of the FDIs. These sectors are likely to see better growth rates led by foreign investment in technology and growing access to markets.

#### 4.4. Step 2-B: Alternate weightage scenario analysis

The sector selection process considers five different factors and weightages to arrive at potential sectors of the country for export diversification. This section analyses how the potential sectors would be affected by a change in the weightages of the factors considered in sector selection.

*Scenario I: Employment to be the only criteria to be looked at:*

Weightage	Objectives	Ranking
100%	Employment generation	1   Leather and footwear
0%	Women employment generation	2   Plastics
0%	SME focus	3   Engineering goods
0%	Growth potential (both local and global)	4   Furniture
0%	Foreign direct investment	5   IT/ITES

Under this scenario the outcome of the base case is in the same order (it is the preferred scenario of the GoB). It shows that these sectors are the best choice if jobs are the primary criteria for export diversification.

*Scenario II: SME to be the only criteria to be looked at:*

Weightage	Objectives	Ranking
0%	Employment generation	1   Plastics
0%	Women employment generation	2   Leather and footwear
100%	SME focus	3   Engineering goods
0%	Growth potential	4   Furniture
0%	Foreign direct investment	5   IT/ITES

This scenario reflects the outcome of the base case scenario but in a different order. This shows that leather and footwear is predominantly dominated by large firms and they contribute to exports. However, plastics and light engineering sectors have a greater number of SMEs participating in exports.

*Scenario III: Growth potential (including Bangladesh's export and global market trend) to be the only criteria to be looked at:*

Weightage	Objectives	Ranking
0%	Employment generation	1   Pharmaceuticals
0%	Women employment generation	2   Leather and footwear
0%	SME focus	3   Plastics
100%	Growth potential	4   Furniture
0%	Foreign direct investment	5   IT/ITES

This scenario identifies pharma and furniture as top potential sectors apart from leather and footwear as all of these sectors have seen substantial growth in the last few years. However, the size of leather and footwear is higher, and it is still showing higher growth rates. However, the base numbers for furniture and pharma sectors in exports are low, which is one of the reasons for their higher growth rates.

*Scenario IV: Growth potential (including bangladesh's export and global market trend) to be the only criteria to be looked at:*

Weightage	Objectives	Ranking	
50%	Employment generation	1	Leather and footwear
0%	Women employment generation	2	Engineering goods
0%	SME focus	3	Plastics
50%	Growth potential	4	Furniture
0%	Foreign direct investment	5	IT/ITES

This scenario identifies pharma and furniture as top potential sectors apart from leather and footwear as all of these sectors have seen substantial growth in the last few years. However, the size of leather and footwear is higher, and it is still showing higher growth rates. However, the base numbers for furniture and pharma sectors in exports are low, which is one of the reasons for their higher growth rates.

*Scenario V: Growth potential and employment to be equally considered:*

Weightage	Objectives	Ranking	
50%	Employment generation	1	Leather and footwear
0%	Women employment generation	2	Engineering goods
0%	SME focus	3	Plastics
20%	Growth potential	4	Furniture
30%	Growth in global trade	5	IT/ITES

The sector choices remain the same in this scenario.

## 4.5. Step 3: Ranking of the overall feasible sectors

### *Other considerations*

a. Priority of the GoB – which is made clear in the potential sectors and thrust sectors listed in the Export Policy (2015-20) of GoB and the priorities mentioned in the Five-Year Plan.

b. Ongoing interventions in the sector – initiatives already taken by donor agencies in some of the sectors. Sectors which have been planned for improvements under other donor funding programs have been given lesser importance. A detailed mapping of donor funding for selected sectors to understand the areas that have already been identified by other donors for improvement and will be used to identify alternate areas for interventions under this program.

The snapshot of the feasibility/ additionality factor considerations is below:

Sectors	Government priority	Not covered by ongoing interventions	Degree of feasibility of sectors
Leather	High	Medium	√√
Footwear	High	Medium	√√
Furniture	High	Medium	√√
Plastics	High	High	√√√
Pharmaceuticals	High	High	√√√
Engineering goods	Medium	Medium	√
Ceramics	Medium	Medium	√
IT and ITES	High	Low	√

### Ranking sectors

Rank	Sectors
1	Leather and footwear
2	Plastics
3	Engineering goods
4	Pharmaceuticals
5	IT/ITES
6	Furniture
7	Ceramics

## 5. Improving Export Competitiveness of Prospective Sectors: Need to Break Barriers in Multiple Fronts

Based on these findings and subsequent consultations with stakeholders and the Ministry of Commerce, three sectors were identified for further deep diagnostics: leather (finished leather, leather goods and footwear), plastics and engineering goods.

This chapter looks at the dynamics of each of the three sectors and binding constraints on their competitiveness and suggests policy actions to enhance their export competitiveness.

### 5.1. Leather sector

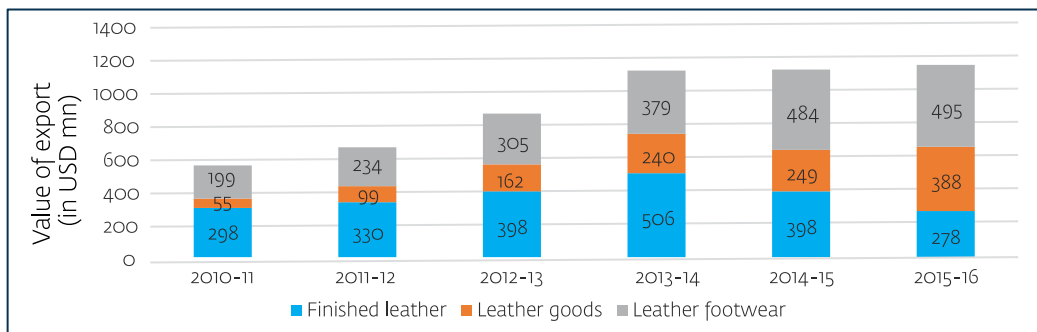
The leather sector is a significant contributor to the country's economy and the second largest export industry. It contributes about 2% to industrial production and 0.6 % to the country's GDP<sup>8</sup>. In FY 2015-16, the sector provided employment for about 558,000 people directly<sup>9</sup>, and to about 300,000 people indirectly working in allied industries<sup>10</sup>. The leather sector made up 3.4% of the total export earnings of Bangladesh during 2015-16. The GoB announced leather as the "Product of the Year" in January 2017. **Figure 5-1** below shows export trends of the three major products in the leather sector.

While exports of footwear and leather goods have seen a steady growth, exports of finished leather have declined because of the closure of the tanneries cluster from Hazaribagh to Savar in the last few years, and because of import restrictions placed by China on leather from non-compliant sources. A brief description of the three export products under the leather sector is given below:

#### A. Leather (tanning):

Currently Bangladesh exports leather in the form of "Hides and skins" of bovine animals, goats and other animals (HS 4104, HS 4106, and HS 4107 respectively) as well as "Tanned/Crust leather" (HS 4113). More than 60% of the exports go to Korea, Hong Kong and China, with high quality leather from select tanners going to Italy and Spain (around 15%). Total leather exports stood at around US\$ 183 million in FY 2017-2018, down from US\$ 505.5 million in FY 2013-2014. That is a CAGR of -18% over the last 5 years. The decline in growth of exports is due to a number of factors ranging from production dislocations caused by many tanneries moving to the Savar Tannery Industrial Estate as well as greatly increased domestic demand. Currently there are 155 operational tanneries in Bangladesh, all located within the Savar TED.

**Figure 5-1: Exports of leather by segment, 2010-2016 (mn USD)**



<sup>8</sup>Bangladesh Export Promotion Bureau, Government of the People's Republic of Bangladesh. [Online] Retrieved from: [epb.portal.gov.bd](http://epb.portal.gov.bd)

<sup>9</sup>Paul, Hira & Antunes, Paula & Covington, Anthony & Evans, P & Phillips, P.S.. (2013). Bangladeshi Leather Industry: An Overview of Recent Sustainable Developments. Journal- Society of Leather Technologists and Chemists. 97, 25-32.

<sup>10</sup>Leather sector and tannery industry in Bangladesh, BMET. [Online]. Retrieved from: <http://www.bmet.org.bd/BMET/resources/Static%20PDF%20and%20DOC/publication/Brief%20on%20Leather%20sector%20and%20Tannery%20industries%20in%20Bangladesh.pdf>

### B. Leather goods:

The main items of exports for Bangladesh in this category are articles of leather (HS 4202) and articles of apparel and clothing accessories (HS 4203). These items accounted for 57.05% of exports in this category in 2015-16 as against 74.25% in 2012-13. Articles of leather include purses, bags, suitcases, trunks, etc. Export contribution of this product group has increased from 22.33% in 2012-13 to 34.78% in 2015-16. Articles of apparel and clothing accessories have registered a marked growth in the recent past, which may be attributed to the entry of leading Chinese/Taiwanese manufacturers of these products into Bangladesh. The total market size of this product category as of 2016 is US\$70 billion. Growth of exports of leather goods from Bangladesh has been over 50% during the period 2012-16.



### C. Footwear sector:

Leather footwear including ankle boots accounts for the largest segment of footwear from Bangladesh with a share of around 80% of total footwear in 2015-16. However, there has been growth in the sports shoes segment from 14% in 2012-13 to ~20% in 2015-16. It clearly indicates that

Table 12: Major products with export potential

HS4	value exported 2016 (USD mn)	export growth 2012-16 (% , p. a)	global trade 2016 (mn \$)	Major export markets (value in %, 2012-16 growth in %)	Top global importers (value in %, 2012-16 growth in %)	Top global exporters (value in %, 2012-16 growth in %)
<b>4202</b>	232	44%	61002	USA (25%, 69) Japan (14%, 30) Germany (11%, 25)	USA (19%, 1.6) Japan (9%,-2.8) Hong Kong (7%,-5.9)	China(42%,0.3) Italy(11%,2.2) France (10%, 0.9)
<b>4203</b>	21	56%	7338	Japan (44%, 102) USA (15%, 58) Canada (15%, 400)	USA(20%,-3) Germany (9%,-4) France (7%,-4)	China (19%,-11) Italy (15%,-3) India (12%, 0.3)
<b>6402</b>	107	44%	36245	Spain (30%, 53) Germany (23%, 55) France (13%, 34)	USA (20%,-3) Germany (8%, 6) Japan (6%,-7)	China (60%, 5) Vietnam (10%, 21) Germany (4%, 10)
<b>6403</b>	617	20%	50498	Germany (18%, 26) USA (16%, 42) Japan (13%,-2)	USA (23%,-1.2) Germany (9%0.9) France (7%,-0.4)	China (18%;4) Italy (15%,-2) Vietnam (12%, 16)
<b>6404</b>	164	22%	34403	Spain (25%, 12) France (17%, 14) India (7%, 122)	USA (22%, 17) Germany (8%, 17) Japan (6%, 9)	China (36%, 11) Vietnam (23%, 38) Belgium (9%, 31)



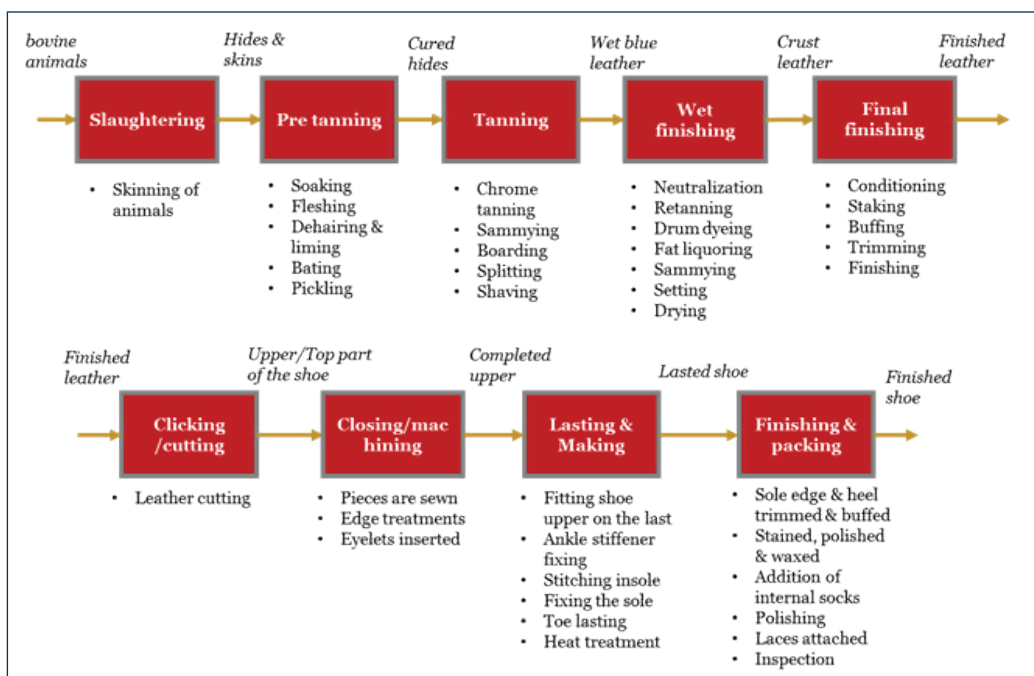
there is a sharp increase in manufacture and export of sports shoes with leather uppers. It augurs well, as such shoes are generally made by leading brands, and, subject to their satisfaction about the quality and price, their procurement might pick up speed.



### 5.1.1. Mapping the value chain

*Leather manufacturing in Bangladesh is vertically integrated as the country has a huge raw material base.* Tanneries source raw hides from butchers and prepare the hides first in a pre-tanning section after which the cured hides are tanned to produce wet blue. The wet blue is further processed to first make crust leather and then finished leather. The footwear manufacturing line includes four processes – cutting, machining, lasting, and finishing. All activities involved in leather processing and footwear manufacture are set out in *Figure 5-2*.

*Figure 5-2: Process flow diagram for finished leather and footwear sector:*



*The leather and footwear cluster include various constituent entities* such as core manufacturing units, input suppliers, upstream and downstream units, logistics and other business service providers, utility service providers, industry associations, quality testing centres, training and academic institutions. A stakeholder snapshot of the leather industry in

Bangladesh is presented in *Figure 5-3*.

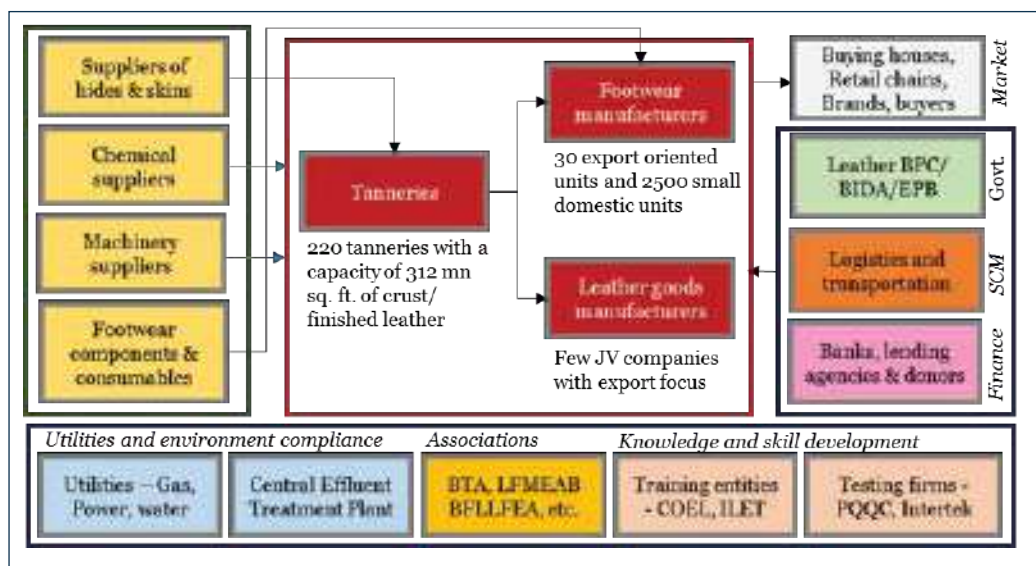
*Downstream sourcing (slaughtering, collection and pre-tanning):* Raw hides used for producing wet blue is mainly collected from local sources. Slaughterhouses are limited in number, non-existent in most locations, and poorly managed. Raw hides are collected mainly from leather depots located at Dhaka, Chittagong, Comilla, Kustia, Natore and Rangpur. Wet blue raw materials for producing crust are collected from local sources mainly in Dhaka. Calculated by value, about 95% of the chemicals used in leather processing are imported. There are about 100 organizations in Bangladesh that import chemicals for use in tanneries. In machineries, drums are extensively used at different levels in the processing of wet

blue and they are mostly made domestically. Machines and tools used in the processing of crust leather include plating machines, dyers, hook dryers, and drums. In the production of finished leather dusting machines, buffing machines, spraying machines are some of the commonly used machines. Most of the other machines used in leather processing

are imported from India, Italy and Germany. Machines used in the footwear manufacturing process are imported from Italy, India, Germany, Taiwan and Korea.

Manufacturers Exporters Association of Bangladesh (LFMEAB), and the Bangladesh Finished Leather, and Leather Goods and Footwear Exporters Association (BFLFEA) are the industry's associations. They represent more than 550 members.

Figure 5-3: Constituents of the leather and footwear industry



• **Tanneries:**

There were around 220 tanneries in the Hazaribagh area of Dhaka, which account for more than 90% of tanneries in the country. Out of these, around 113 were operational in Savar. Approximately 65% of these have the capacity to produce only crust leather. The SME sector dominates the tannery industry. According to the Bangladesh Tanner's Association (BTA), 57.89% of firms operating in this sector are proprietary, 32.33% are limited companies, and 4% are traded in stock markets.

• **Footwear Units:**

There are more than 2,500 small - scale footwear - manufacturing units and around 30 large export - oriented units in Bangladesh. Nearly 90% of all leather footwear - making units are located in and around Dhaka city with some in Chittagong, Khulna, and Bhairab.

• **Industry associations:**

The Bangladesh Tanner's Association (BTA), the Leather Goods & Footwear

• **Testing and quality control:**

Intertek, a leading provider of quality and safety services to industries, has recently inaugurated a comprehensive leather and footwear testing facility in Bangladesh to support the leather, footwear, and leather goods industries in South Asia. Pacific Quality Control Centre Ltd. is a joint venture between Japanese and Bangladeshi entities involved in third party inspection and quality testing of leather-goods. In addition, there are other major quality testing and certification agencies with local offices.

• **Components and consumables:**

Almost 80% of the components used for footwear manufacturing are imported. Artificial soles are imported from India, Indonesia, China, and Taiwan. Lining leather is sourced from China, Taiwan, and Pakistan. Insole leather is sourced from China, Italy, and India.

• *Skill development:*

The Institute of Leather Engineering & Technology (ILET) is the only technical educational institution in Bangladesh dedicated to leather technology. It offers undergraduate courses (4-year) in leather technology, footwear technology, and leather goods technology. Recently, Khulna University of Engineering Technology (KUET) started the Department of Leather Engineering to offer degree courses in leather engineering. The Centre of Excellence for Leather Skills Bangladesh Ltd. (COEL) is the country's first institute of its kind whose objective is to increase and improve the overall skill level of the workforce of the leather sector. The Leather Research Institute conducts research and development programs to seek innovations in leather processing technology, develop cost effective chemicals, etc.

• *Buying houses:*

International brands and buying houses have established offices in Dhaka to source leather goods and footwear from Bangladesh. Some of the prominent buying houses, which are procuring in large volumes, include Decathlon, H&M, PQC, Timberland, and KGS Sourcing Ltd. Buying houses play an important role in the sector by providing product designs, assisting in procuring components, ensuring quality checks, and managing shipments along with providing access to markets.

### 5.1.2. Current policy environment of the sector

*Export restriction:*

Prior to independence in 1971, Bangladesh exported most of the raw material for the leather sector. With the inception of chrome tanning and the manufacturing of wet blue leather in 1965, Bangladesh exported larger quantities of wet blue leathers. Post-independence, many abandoned industrial sheds were allotted freely, giving a thrust to the tanning sector in Hazaribagh. Manufacturing of crust leather began by about 1980, but the advance from crust to finished leather and leather products that the government sought in the 1990s was not easy to achieve. While some large tanners were able to move into making finished leather and some vertically integrated into making footwear and leather products, a sizable number of small and medium tanners did not progress beyond making crust leather. Some large tanners, typically those that are vertically integrated to footwear manufacturing units, moved out of Hazaribagh, and established new tanneries at other locations. With an eye to encouraging the export of value added products, the government banned the export of wet blue leather in 1991.

*Duties and taxes:*

The import tax (custom duty) regime in Bangladesh has seen significant reforms in the last decade and has moved towards uniformity. The system presents low tariffs of 2% to 5% for basic raw materials and capital goods, 10% for intermediate goods, and the top rate of 25% for final goods. However, leather and leather goods exporters have to pay a number of levies, taxes, and fees over and above custom

HS Code	Description	CD	SD	VAT	AIT	RD	ATV	Total rate (2016)	Total rate (2010/11)
41	Raw hides and skins	5	0	7	5	0	3	20	66
42	Articles of leather, leather goods	16	6	15	5	2	4	54	66
64	Footwear	25	31	15	5	3	4	128	92

duties and these have emerged as a dominant component of trade taxes for some product categories. These additional levies are supplementary duty (SD), value-added tax (VAT), advance income tax (AIT), regulatory duty (RD), and advance trade VAT (ATV). A comparison of the current import tariff with the tariff during 2010-11 for leather is provided on the table on previous page.

### *Incentives:*

All the export-oriented industries are exempt from import duties on imported raw materials, components, capital machinery. This facility can be availed either through a bonded warehouse facility or through duty drawback.

- *Cash incentive* - In order to encourage exports in accordance with the country's export-led economic growth strategy, the GoB provides export incentives to select export sectors. Exporters producing leather from the new tannery estate at Savar can avail cash incentives of 5% of FOB, to attract tanneries to move to Tannery Estate Dhaka (TED) in Savar. The Bangladesh Bank issues circulars every year listing the sectors that enjoy such cash incentives. Export firms and FDIs view this as a policy constraint to their future expansion as these cash incentives keep varying on a yearly basis, resulting in an unstable business environment for the export firms and FDIs.

- *Bonded warehousing* - The National Board of Revenue (NBR) provides Bonded Warehousing benefits to a wide range of industries to encourage export-oriented industrialisation and facilitate exports. The NBR provides this facility to export-oriented industries for importing inputs/raw materials and packaging materials without paying any duty or taxes. Having access to the bonded warehouse facility is important for export-oriented industries but is often difficult for smaller exporters. Direct and deemed exporters can have access to the bonded warehouse facility. The facilities are subject to yearly entitlement. The NBR

allows this yearly entitlement based on the production capacity of the capital machinery and previous year's performance (i.e. export and usage of raw materials) of the bonder in all sectors including leather. RMG is exempted from the requirement of annual entitlement.

- *Duty drawback* – This refers to the refund of duties and taxes paid on inputs/raw materials used for the manufacture of exported goods and services. Except a few items, all exports from Bangladesh are zero rated, which means that export goods and services are exempt from duties and taxes, and duties and taxes paid on the inputs/raw materials used for the manufacture of exported goods or services are refundable to the exporter. Small exporters, who depend on duty drawbacks, find the current process particularly cumbersome, because the calculation of co-efficient of the raw material requires industry production expertise. RMG is the only sector that has standardized co-efficient units for its products. For other sectors, they require a long processing time for approval.

- *Generalised system of preference scheme:* The GSP scheme benefits certain developing countries and helps integrate these countries into world markets. Bangladesh, as a least developed country (LDC), qualifies for GSP benefits under which developed countries provide preferential treatment to its exports in the form of reduced or zero rates of customs duties for most of the product categories (HS 01-97 except HS 93). Exports of leather, leather goods, and footwear also enjoy GSP benefits in select countries. Under this system, Bangladesh can avail zero import duties in 38 countries, including 28 countries in the EU and 10 other countries i-- Australia, Belarus, Canada, Liechtenstein, Japan, New Zealand, Norway, the Russian Federation, Switzerland and Turkey.

Japan grants preferential tariff treatment under its GSP scheme to 137 developing countries and 14 territories. Japan grants LDC duty-free and quota-free market

t access for 5,415 products, of which 1,383 are agricultural products and 4,034 are industrial products. The scheme defines specific rules to ensure the identification of origin of goods. Exporters need to follow these rules for accessing concessions under the scheme. Importing countries typically monitor the origin of these goods.

• **Export policy:** The Bangladesh export policy 2015-18 was aimed at improving the overall exports from Bangladesh to US\$60 billion by 2021. The latest government policy considered footwear and leather products among the highest growing sectors for the country. Key highlights of policy support to the sector are:

o Domestic market sales of up to 20% are allowed to an export-oriented business located outside of the EPZs. This means that leather industries exporting at least 80% of their manufactured products will be treated as 100% export-oriented industries – for the purpose of claiming incentives.

o Export subsidies are granted on select products; these range between 5% and 15%.

o Cash incentive of 5% for export of crust leather from tanneries relocated to Savar.

o Duty free import of all types of raw materials and machineries for export-oriented industries.

o Concessional duty on the import of specified machinery for the leather sector.

o Support in the form of tax holidays, duty free imports of raw materials and machinery for the export-oriented leather market, and bonded warehousing along with other policy supports.

o 90% loans against letters of credit and funds for export promotion.

o Export credit guarantee scheme.

According to the Export Policy, the special development sectors will benefit from incentives and government support, as listed below:

1) Extending investment credit at a reduced rate of interest on a high priority basis.

2) Moratorium on income tax.

3) Cash assistances and other subsidies that are consistent with the WTO Agreement on subsidies and countervailing measures.

4) Export credit on easy terms and reduced rate of interest.

5) Subsidised rate for air transportation.

6) Duty drawback and bond facilities.

7) Priority in getting utility connections (electricity, water, and gas).

8) Assistance in product marketing.

9) Assistance in global market access.

10) Necessary initiatives to attract FDI.

Given that the cash incentives and other policies are for a short duration, it is difficult for the investors to make investment decisions. It will therefore be appropriate if policy measures are applicable for at least five years, if not for a greater duration, to enable the potential investors to take informed decisions.

### 5.1.3. Major constraints in the leather sector

• **Environmental and Social Compliance:** The poor environmental performance of the leather production industry is a significant factor in the decline in exports of processed leather from Bangladesh and buyers moving out. In contrast, the leather



footwear industry, which uses environmentally compliant leather, increased its exports by 6% in the last FY. This contrasted with a global decline of 10%. The emphasis by global brands on adhering to sustainable practices across the value chain of the leather sector is increasing, as they establish ambitious targets to reduce the negative environmental and social impact on the entire supply chain. The poor environmental performance in the manufacture of processed leather in conjunction with the evolving environmental sustainability requirements of global brands means that the leather sector must adopt enhanced environmental safeguard practices to improve export competitiveness. The poor environmental performance of the industry can be attributable to (a) the lack of appropriate environmental regulations, (b) firms' lack of awareness and inadequate skills needed to comply with environmental rules and (c) obstacles that hinder access to capital investment.

- **Raw material:** About 60% of the skins and hides are sourced during the Eid-UI-Adha festival every year, and lack of awareness and infrastructure hinder proper flaying, collection, preserving, and pre-tanning of skins and hides; the hides and skins collected during the festival season are often damaged by flay cuts. The tanning capacity with available raw material resources has been estimated at 312 million square feet per year, which does not meet the need of the industry to achieve targeted exports.

- **Skilled workforce:** The labor constraint is more pronounced with supervisory, managerial, and other specialised resources, specifically for design and pattern making. There are also skill gaps that constrain tanneries from moving up the value chain from crust to finished leather, and translation issues that hinder local workers' understanding of the designs. Total lead-time from design to mass manufacturing of footwear is around 85 days, much higher than in competitor countries. There have been efforts to improve skills by providing short-term

training, but no long-term solution has been found for improving skills among the industry's workers.

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- **Access to finance:** Smaller tanneries and manufacturers struggle to get financial support from banks. Given that the sector has a huge concentration of small and medium enterprises (SMEs), lack of access to affordable finance for SMEs is a key constraint. Some tanners in Hazaribagh are reported to have cited financial constraints as one of the reasons for not relocating to TED Savar. Banks do not sanction loans to tanneries because the land titles at TED have not been transferred to their names.

- **Technology constraints:** More than 65% of the tanneries have the capability to produce crust leather only and have not invested in leather finishing. The use of high-end design software for new product design is minimal. The ability of firms to generate new designs is very low and there are no reputed commercial vendors within Bangladesh for providing/generating new product designs. Only a few major footwear manufacturers have in-house design, product development, and innovation capabilities.

- **Components and accessories:** Limited availability of accessories and components is an issue leading to the reduced capacity of firms to generate samples quickly. Capacity for manufacturing of moulds is lacking and there is a high dependency on imported moulds – resulting in increased lead times.

- **Product testing and quality assurance:** The general level of compliances and adherence to good management practices through certifications (ISO, Leather Working Group (LWG), etc.) is limited.

- **Limited product and destination markets:** Bangladesh has only 0.5% of the global leather market. Exports are limited to certain products and destinations in Europe. The underlying reasons for this limited exposure include lack of information about the destination markets, market trends, procedures to export, and lack of knowledge and measures to meet the compliance standards required by the destination markets.

### 5.1.4. Recommendations for improving leather exports

To improve leather exports, the sector should consider the following recommendations:

- **Ensuring compliances:** Tanneries, and leather footwear and leather goods manufacturers, view improving compliance for tanneries as one of the biggest issues for improving the leather sector in the coming years. Improving the social, environmental, safety, health, and chemical compliances among tanners will singlehandedly improve the acceptance of leather from Bangladesh. There is an assumption that the profitability for this sector is likely to increase with compliance, as order sizes increase, and buyers see the value in purchasing compliant-leather from Bangladesh. Compliance can ensure that the tanneries sustain their production without adversely affecting the environment. Key recommendations are:

- o Develop a social, environmental, chemical safety, occupational, and health compliance certification scheme for Bangladesh.

- o Provide or facilitate technical assistance to obtain the Leather Working Group (LWG), ISO 14001 certification, which is an internationally accepted and recognised certification for leather, leather goods and footwear.

- o Ensure performance of the Central Effluent Treatment Plant at TED Savar through an independent technical review and provide financial support for infrastructure improvements.

- o Develop a compliance performance matrix for the manufacturers, with associated incentives and disincentives for compliance and noncompliance, along with a monitoring mechanism. Monitoring, learning, and evaluation will be critical to these compliance-related interventions.

- **Access to finance:** To ensure that tanneries can purchase new machinery and equipment once they relocate, a special fund needs to be set up by financial institutions and multilateral agencies to lend at reasonable rates of interest. Attempts should also be made to ensure that existing funds for this sector are fully utilised. A larger proportion of the Green Transformation Fund should be made available to the leather sector.

- **Improving productivity:** Productivity improvements, which result from skill development and expertise and quality and process upgrades, are necessary to ensure that firms remain competitive in national and international markets.

- o Development of skills and knowhow: The facilities at ILET need to be upgraded to meet the evolving industry needs. These have to be procured and the necessary personnel have to be employed to operate the new facilities efficiently. To improve the quality of faculty, teaching,



methodology, and curriculum, ILET may benefit from a twinning partner, especially an international institute of repute in the leather sector. The twinning mechanism will have to be determined, and ILET will have to identify its objectives, purpose, and outcome of twinning. This will ensure that ILET is ready to provide any skilling-related support for the tanneries as the subsector looks poised to grow. Vocational training also needs to be provided for the tanneries and the Centre of Excellence for Leather Skill Bangladesh Limited (COEL), which provides this training, will need to expand its work.

o Improving design capability: To improve the state of fashion and design in the country, the setting up of a fashion and design studio is recommended. This studio can serve multiple purposes: as a training centre for local designers, as a workspace for international collaborations, as a reference library and as a host for exhibitions, competitions, and shows.

o Quality and process upgrading: It is necessary to assist tanners with technical experts directly from the market or through reputed institutions abroad. Identifying a suitable international expert will be an important step. The terms of engagement will have to be clearly defined to ensure that quality and processes are improved through this collaboration. Performance-based payments can be considered to ensure that this intervention produces material results. A common facility centre (CFC) needs to be set up. This would be particularly beneficial to small tanneries that would otherwise find the machinery and equipment in the CFC unaffordable.

• *Enabling trade and investment policy, regulations, and other GoB support:* Encouraging tanners to move up the product value chain will result in significant economic gains for the sector and the country. Following a two-year

leniency period, an export duty can be imposed on crust leather to deter its export from the country. This approach has been used and found to be successful in Kenya and Tanzania.

Some of the policy-related measures to improve the export of footwear and leather goods include:

- o *Authorising business associations to provide the utilisation declaration for a bonded warehouse.*

- o *Extending incentives to encourage setting up a components industry in Bangladesh that can support the leather goods and footwear manufacturers.*

There has to be more policy continuity and predictability, so that manufacturers can function effectively. Changes around value added tax (VAT), advance income tax (AIT) and other relevant business taxes must be kept at a minimum, so that manufacturers can plan accordingly.

- *Attracting investments:* In addition to allocation of land, it is important to attract both domestic and FDI into the leather sector. It is necessary to assess the competitiveness of local leather with other competing countries like Vietnam. For a major overhaul in the leather sector, investments from both domestic and foreign are key factors. Targeted investment promotion is essential for FDI and JV, along with a strategic engagement with retailers and brands to enhance the competitiveness of the sector.

- *Diversifying into new markets and new products:* In terms of product diversification, espadrilles are an innovative product that is currently gaining traction around the world. Based on an analysis of historical export-import patterns, some of the new markets that the subsector could potentially enter include the following:

- o *Sports footwear – USA, UK, France, Germany, Belgium, Netherlands, and Austria.*

o Footwear, outer soles of rubber/plastic uppers of leather coverage ankle, nesoi – Italy, France, UK, Belgium, Netherlands, and Canada.

o Footwear, outer soles of rubber/plastics uppers of leather, nesoi – USA, Germany, Japan, Italy, France, Belgium, Netherlands, and UK.

• **Diversifying into existing markets and new products:** Based on an analysis of historical export-import patterns, some of the new products that Bangladesh could cater to in existing markets are trunks and suitcases. Some of the new markets that the subsector could potentially enter include the following

o Handbags – USA, France, Italy, UK, Korea, Japan, Germany, and China.

o Gloves and mittens – USA, Germany, Japan, France, Italy, UK, Spain, and Sweden.

o Belts and bandoliers – USA, Germany, Japan, France, Italy, UK, and Korea.

o Other articles of leather – USA, Italy, Poland, Czech Republic, Germany, and France.

## 5.2. Plastics and recycling sector

The plastic goods manufacturing industry, including the recycling industry, in Bangladesh largely comprises small and medium enterprises that produce a wide array of products for domestic consumption and exports. The domestic plastic market, which is valued at US\$2.4 billion as of 2015, is poised for double-digit growth and is expected to reach US\$4 billion by 2020. Manufacturing of plastics is labour intensive, and the sector provides direct employment to more than 2 million workers in Bangladesh.

The plastic sector contributes 1.5% of the total exports of Bangladesh and has grown at a CAGR of 11.5% over the last decade. The export of plastic products can be categorized into two major groups- deemed and direct export.

• **Deemed exports:** More than 80% of the deemed exports of plastics include accessories such as hangers and packaging material for the Ready-Made Garments sector. The deemed exports are growing at an average annual rate of 12.4%. Almost all of the RMG accessories are locally sourced in Bangladesh. The units producing these accessories are

HS4	HS6	value exported 2016 (mn \$)	Export growth 2012-16 (% , p. a.)	global trade 2016 (billion \$)	Global growth 2012-16 rate (%)	Major export markets(value in %, growthin %)	Top global importers (value in %, growth in %)	Top global exporters (value in %, growth in %)
9503 Toys	950300 (wheeled toys, scale models, etc.)	40.0	161	46.7	4.0	•France (24.3%) •Belgium (19.6%) •Japan (12.1%)	•USA (31%, 7%) •Germany (6%, 4%) •UK (6.2%, 5%)	•China (48.8%, 13%) •HK (8.6%, -6%)
3923 Packaging goods	392321 (Sacks and bags)	22.3	9	4.6	2.00	• Poland (22%,1) • Germany (17%, 0)	• USA (22.3%, 5%) • Japan (11.7%, -1%) • Germany (6.9%, 0%)	• China (25.3%, 2%) • Germany (9%, -1%) • USA (6.5%, 5%)
	392390 (Conveyance/ packaging)	10.2	-4	7.4	1.00	• USA (85.6%, 5)	• USA (20.2, 5%) • Mexico (7.5%, 12%) • Germany (6.6%, 1%)	• USA (14.8%, 4%) • China (12.4%, 7%) • Germany (8.2%, 0%)
3924 Household plastics	392490 (Household plastics)	6.6	37	6.6	3.00	• USA (38%, 4) • India (13.8%, -1)	• USA (34.3%, 4%) • Germany (5.4%, 3%) • Japan (4.4%, -4%)	• China (46.3%, 22%) • USA (6%, -3%) • Germany (5.2%, 3%)
	392410 (Tableware kitchenware)	4.2	54	9.9	3.00	• USA (14.6%, 5) • Germany (13%, -1) • Spain (11.1%,5)	• USA (28.2%, 5%) • Germany (5.6, -1%) • France (4.7%, -4%)	• China (48.7%, 21%) • USA (4.9%, 3%) • Germany (3.6%, 2%)
3926 Garment accessories	392620 (Apparel accessories)	3.8	10	3.6	-3.00	• Japan (48%, 125%) • France (15%, 26%)	• USA (31.4, -5%) • Japan (1.2%, -2%) • France (4.8%, -7%)	• China (66%, -2%) • Vietnam (3.1%, 5%) • USA (2.6%, -6%)

Source: UN COMTRADE data

compliant with international quality standards and have also developed capabilities to export directly to other markets.

- **Direct exports:** Recycled waste and scrap plastic accounts for 26% of total plastic direct exports. Bangladesh has a sizeable plastic recycling cluster with a capacity to process 140 metric tonne of plastic waste every day. Other plastic goods that are exported include plastic packaging material, household consumer goods, and builder-ware made of plastics that include PVC pipes, fixtures, casings for electrical wire, etc.

Bangladesh exports plastic products under HS code 39 (Plastic goods). The following table presents the export profile of key plastic products that have a potential for growth:

- o Toys are a recent addition to the export basket with an export value of close to US\$40 million in 2016, and they have grown at an average annual rate of 161% in the last 5 years. Bangladesh exports only one HS6 category of Toys (950300) that includes products such as wheeled toys, plastic models, etc. The Chinese toymaker IX Models established a factory within the Uttara EPZ to manufacture toy models in 2012. Other leading toy exporters include RFL-PRAN and GSL Exports. Bangladeshi toys are exported to major global markets including France, Belgium, Japan, and Germany. The global market for this segment is US\$47 billion and it is growing at an annual rate of 4%.

- o Packaging goods including sacks and conveyance bags are an important export segment with a global market size of US\$12 billion that is growing at an annual rate of 2%. Bangladesh exports packaging goods worth more than US\$32 million to Germany and USA, which are among the largest importers.

- o Household plastic goods are key export products with a global market size of US\$16 billion, which is growing

by 3% every year. The export of household plastics from Bangladesh has crossed US\$10 billion and is growing at more than 35% annually. Bangladesh exports primarily to USA, which is the largest market for household plastic goods. China is a distinctively large exporter and competitor for Bangladesh.

- o Apparel accessories include hangers, buttons, and other plastic products used as accessories in garments. These accessories for the RMG sector in Bangladesh are mostly locally made in plastic factories that comply with export quality norms and regulations. Such indirect export of plastic accessories is estimated to be three times the size of direct plastic exports, exceeding US\$380 million in value.



### 5.2.1. Mapping of the value chain

The process value chain for the plastics industry in Bangladesh includes only conversion of polymers into various products using molding, shaping, and related activities. Given that all polymer input materials are imported by the plastics industry, the compounding process to produce higher-grade polymers is not taken up in Bangladesh.

The plastic conversion process involves melting polymers under high temperature, reshaping using various methods, and then cooling to harden the final plastic product. If the final process is irreversible, the plastic products are called thermosets

and if it is a reversible process, the product is called a thermoplastic. With the help of molds or dies, molten plastic is reshaped using various extrusion methods such as blowing, rotation, thermoforming, injection moulding, etc. For example, rotational moulding involves rotating the mold over a two-dimensional axis to distribute molten plastic as a coating over the mold. Injection moulding involves use of high pressure to push molten plastic into cold molds.

Once the plastic components are made, finalisation processes involve finishing, assembly of components, and packaging. The final plastic products are then either directly shipped to domestic or export markets, or used as accessories (hangers, buttons, etc.) in other product value chains. The manufacturing process flow for plastics sector in Bangladesh is shown below:

Figure 5-4: Process flow diagram for the plastic sector in Bangladesh:

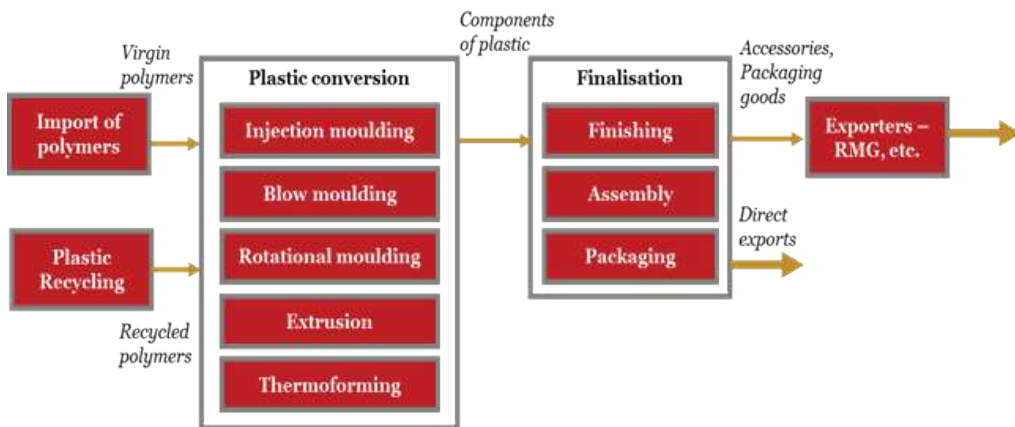
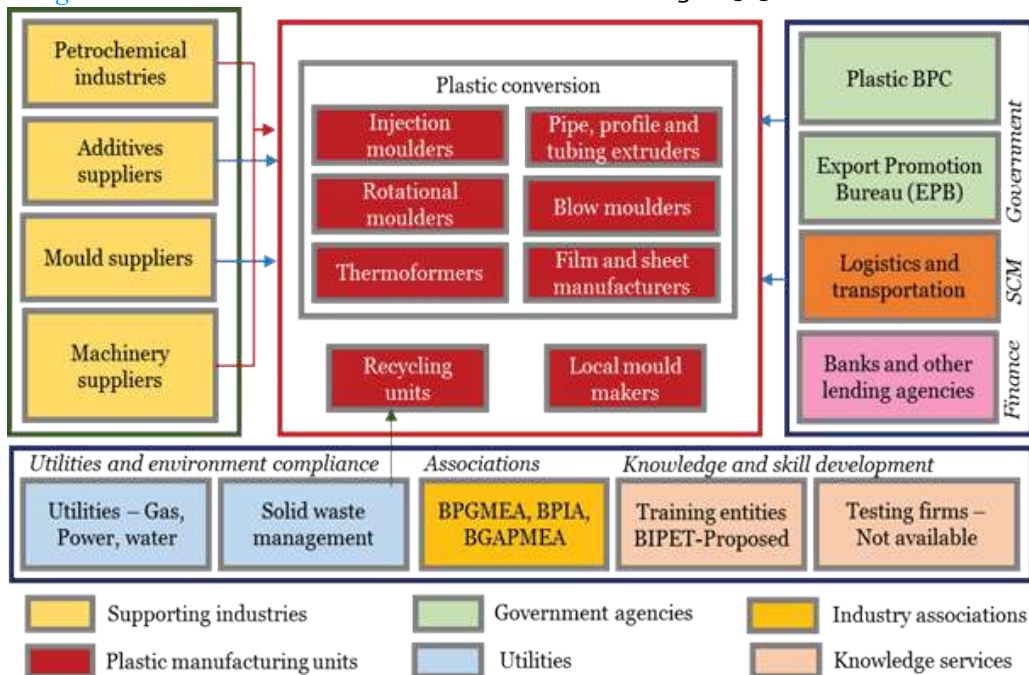


Figure 5-5: Plastic industry in Bangladesh

The industry's stakeholder ecosystem is shown in Figure 5-5



At present, there are about 5,000 plastics industries in the country, most of which are SMEs. The plastics factories are mainly differentiated based by the technology used in manufacturing – injection molding, extrusion, thermosetting, rotational molding, and blow molding. The following section discusses the types of plastic units, their geographic presence, and other industry characteristics:

- *Machinery and mold suppliers:* Nearly all capital machinery for plastic industries is imported from overseas. Small and low-end product manufacturers usually import cheaper machines from India, China, and Thailand. The high-end industries import their machines from Taiwan, Japan, and Europe. Each type of plastic product uses a specific type of polymer processing technology and equipment. A combination of them is respectively injection blow molding and extrusion blow molding, and roto-molding is also widely used. Corresponding automatic machines are largely imported, although semi-automatic and manually operated machines are made locally.

- *Bangladesh Plastic Goods Manufacturers & Exporters Association (BPGMEA)* is the most prominent trade association of the plastic industry in Bangladesh with over 1,500 member companies. They are the voice of plastics manufacturers in the country and represent the industry to deal with matters relating to government regulations, patent rights, import and export regulations, etc. BPGMEA is a member of the Asian Plastic Forum, enabling it to be informed about regional and global trends in the sector.

BPGMEA organizes -- jointly with Chan Chao Int'l Co. Ltd. -- a biennial "International Plastic, Packaging & Printing Industrial Fair" to bring various stakeholders from different countries under one roof to exchange knowledge and business relationships. It holds regular seminars, symposiums, and group discussions regarding the growth and potential of the plastics sector in the Bangladesh economy.

The other relevant association is *Bangladesh Garments Accessories & Packaging Manufacturers & Exporters Association (BGAPMEA)*, which has over 1,500 member companies. Plastics manufacturers account for almost 30% of the garment accessories and packaging materials exported as deemed exports.

Given the import dependency on virgin polymers and the price fluctuations in the global polymer market, the plastic manufacturers have formed the *Bangladesh Polymer Importers Association*, to improve their bargaining power and to collectively represent the sector in discussions with the government.

- *Knowledge and skill development:* Bangladesh has proposed setting up an exclusive technical institution for the plastic sector called the *Bangladesh Institute of Plastic Engineering & Technology (BIPET)* that will focus on skill development and research. BIPET is a promising initiative as it is designed to address one of the most critical constraints in the plastics sector, access to a skilled and well-trained workforce.

## 5.2.2. Current policy environment of the sector

- *Import duty exemption on capital machinery:* No import duty is levied on capital machinery for 100% export-oriented industries. However, an import duty of 2.5% to 7% is levied on all other industries; the rate of duty varies depending on the extent of export orientation.

- *Import duty exemption on raw materials:* For the plastics industry, the duty structure for import of raw materials (generally virgin polymers) is as follows:



Customs duty (CD)	5%
Value added tax (VAT)	15%
Advance trade VAT (ATV)	5%
Advance income tax (AIT)	4%
<b>Total</b>	<b>29%</b>

Products manufactured for export can avail exemption from import duty via two mechanisms:

- **Bonded warehousing:** NBR offers bonded warehousing facilities to export-oriented industries, allowing them to import raw materials without paying any duty or taxes. This helps enhance the export competitiveness of plastics manufacturers. In order to avail the facility, manufacturers need to acquire a bond license from the Customs Bond Commissionerate (CBC). The facility is available for both direct and deemed exporters. It is subject to yearly entitlement based on production capacity of capital machinery and previous year's performance (export and usage of raw

- **Duty exemption and drawback:** Under this facility, exporters not utilising bonded warehouses can claim a refund of the import duties paid. The payments are disbursed by the Duty Exemption and Drawback Office (DEDO).

- **Generalized system of preferences scheme:** In 2013, Bangladesh was excluded from the United States of America's Generalized System of Preferences (GSP) Scheme, as it was unable to meet statutory requirements around labour rights and workplace safety. Under the GSP, the USA allows import of goods from least developed and developing countries with lower or no zero duty benefit and plastics product from Bangladesh enjoys this facility. Without the GSP, Bangladesh's imports to the USA cost 15.61% in import duty. However, Bangladesh continues to enjoy these benefits under the European Union's GSP and the Japanese GSP schemes.

- **Export policy:** While the export policy 2012-15 identified the plastics industry as a thrust area, the export policy 2015-18 recognized it as one of 12 highest priority sectors in the country. This means that the plastics industry is eligible for a number of benefits, which include:

"...project loans at reduced interest rates on a priority basis, income tax rebate, possible financial benefits and subsidies on utilities as applicable under WTO agreement, export credit at lower interest rates and on soft terms, air transportation facilities on a priority basis, duty drawback/bond facilities, facilities for setting up ancillary industries including infrastructural development for reducing cost of production, expansion of institutional and technical capacity for improving and controlling quality of products, duty-free import of equipment for setting up compliant industry, assistance in production and marketing of products, assistance in exploring markets abroad; and necessary initiatives to attract foreign investment."(Export Policy 2015-18, Ministry of Commerce, Government of Bangladesh)

The policy calls for establishment of business promotion councils especially for the plastics industry, and for increasing the production and trade of plastics and related products.

### 5.2.3. Other incentives

- **Tax holidays:** The plastics industry does not enjoy the tax holiday or accelerated depreciation (on the machinery cost for new industry) benefit as these are applicable only for RMG factories inside the export processing zones (EPZs).

- **Incentives for local and foreign investment:** For the RMG sector, income tax exemption is provided on salaries paid to foreign nationals, for a period of three years. Tax exemption on royalties and exemption on interest of foreign loans under certain conditions are offered to investors in the plastics industry. The government is also undertaking the

development of an environment-friendly plastics industrial zone, which is expected to be completed by the year 2018.

- **Cash incentives:** Currently, 14 industries in Bangladesh enjoy cash incentives. The plastics industry was included in the list in 2016, where plastic exporters will receive a cash incentive of 10%. This cash incentive is not available for exporters availing the bonded warehouse or duty drawback facility.

#### 5.2.4. Major constraints in the plastics sector

Although the plastics industry has exhibited promising growth in terms of export, there are various challenges that need to be addressed to realise the full potential of the sector in the short to medium term. The major challenges are discussed below:

- **Compliance:** Testing laboratories are not available in Bangladesh to issue quality certifications required for exporting plastic goods. Currently, the plastic exporters are obtaining certification from Singapore, Germany and Hong Kong, which adds to the lead-time and cost. There are no national standards available to benchmark the quality of plastics products in Bangladesh against international standards. Poor safety, social and environmental standards in most of the production facilities lead to a poor perception in global markets. Additionally, firms face difficulty accessing compliance incentives like special funds, the Green Transformation Fund and duty exemption on safety equipment due to lack of clarity in regulations.

- **Availability of and access to finance:** The plastics industry is capital intensive and has a high working capital requirement. As all the units are dependent on imports for their raw materials, the procure-to-pay cycle is longer for conversions from raw materials to finished goods and therefore the cost of capital is high. Collateral requirements for

high in Bangladesh as compared to other low-income countries.

Trade credit is another important source for working capital plastics firms. It is not sufficiently available at affordable rates. SME plastics factories are reluctant to obtain formal funding through bank and non-bank financial institutions, as they require collateral of tangible assets (lands, buildings, etc.). Banking processes are time consuming and SME entrepreneurs often are not able to provide adequate documentation support when applying for financial support from banks. Moreover, the interest rates are high, and the terms and conditions are often not comfortable for the SME entrepreneurs. Commercial banks do not accept movable assets as collateral to secure loans. Low access to finance for small and medium-sized manufacturers that cannot furnish immovable assets for securing loans. Inadequate pre-shipment facilities like Back-to-Back L/Cs and export cash credit leads to increased working capital requirement for plastic manufacturers affecting their export competitiveness

- **Costs and lead time of raw materials:** Raw materials for the plastics industry such as polymer resins and additives are fully imported, as Bangladesh does not have a petrochemical industry. Bangladesh has a sizeable plastic recycling sector that produces recycled polymers at lower prices. However, the quality of such recycled plastic scrap is not good enough to be used in export oriented plastic manufacturing. Improving the quality of recycled plastic scrap can help in reducing import dependency on virgin polymers. Thus, the Bangladesh plastics sector depends on imports for the majority of its raw materials. Lack of trading houses/central bonded warehouses for bulk import of raw materials results in reduced bargaining power in raw material price negotiations in the international market and increased lead times for procurement



- **Skill:** Most plastic manufacturers have to hire unskilled workers and train them on the job for six months to one year under the supervision of a skilled worker. Attrition is high among trained workers, given the high demand for skilled workers. Trained workers also emigrate to the Middle East and other areas. This affects the overall productivity of plastics units and increases labour costs.

Technology: upgrading in the plastics industry involves use of Computer Numerical Control (CNC) machines, but workers who can operate CNC machinery are in short supply. This has forced many plastics manufacturers to continue using outdated machinery. Some companies have hired CNC operators from countries such as India, but these foreign workers are expensive. Hiring and retaining mid-level managers and skilled workers with technical and design knowledge is also a challenge in Bangladesh.

Very few technical courses are available that are relevant to the plastics industry. There is no polymer science course offered by any educational institution. BIPET, which is proposed to be a premium technical institute in the plastics sector, is yet to be fully functional with its own campus.

- **Technology:** The large export-oriented plastics industries have started investing in high-end technology such as CNC machines, and have in-house testing facilities. Their major constraint in technology upgrading is the shortage of skilled machine operators and technical

maintenance workers. As training is mostly provided on the job, the capacity expansion and upgrading are slow. The plastic SMEs use outdated and reconditioned machinery for various reasons such as affordability and cost constraints, shortage in skilled workers, lack of knowhow about appropriate technology. These machines face frequent breakdowns, which again affects capacity utilisation. Additionally, lack of a tool mold and die-making industry in the country leads to high costs and longer lead times

for the procurement of molds required for meeting export orders.

- **Market access:** Only a few large plastic manufacturers are involved in approaching global markets and identifying export opportunities. Most others, including SME manufacturers, have limited understanding of global market dynamics. Unlike the footwear or RMG sectors, there are no buying houses for plastic products to address the knowledge gap and improve market access. Lack of international testing facilities, and design translation capabilities of manufacturers affect the perception of importers.

- **Trade and investment incentives:** Lack of a single window clearance system for FDI approvals results in the reduced attractiveness of the country and consequently the plastics industry for foreign investment. Additionally, delays in receiving duty drawbacks affect the competitiveness of small exporters.

### 5.2.5. Recommendations for the plastics sector

To realise the vision and achieve the projected targets for the plastics industry, the following interventions are recommended:

- **Increase in ease of compliance:** National standards for plastics products need to be established, along with the setting up of testing and certification facilities for those standards. To facilitate compliance with environmental and safety regulations, it is suggested that incentives available to the RMG sector, like special funds of multilateral and bilateral agencies, the Green Transformation Fund and duty exemption on fire safety equipment, be extended to the plastics industry. In addition, the environmental classification of the industry should be revised from 'Orange-B' to 'Green' category.

- **Increase in availability of and access to finance:** SME credit-scoring methodology needs to be developed based on which commercial banks can accept movable .

movable assets as collateral. In addition, pre-shipment finance benefits available to the RMG sector (like Back-to-Back L/Cs and export cash credit), should be extended to the plastics industry.

- **Cost and lead-time reduction for raw materials:** Trading houses or central bonded warehouses for import of virgin polymers should be set up in free trade zones or special economic zones, so that manufacturers receive better prices and face shorter lead times during raw material procurement.

- **Technology upgrading:** A pilot tool mold and die-making center should be established by the government with the objective of helping SME manufacturers and to kick-start the mold-making industry in the country.

- **Improved market access:** For ensuring sustained rates of export growth, it is important that plastics manufacturers in Bangladesh keep pace with the requirements of international buyers and forge new business connections while leveraging existing ones. Therefore, it is suggested that financial incentives be provided to manufacturers to participate in international trade fairs and that BPGMEA take steps to collaborate with BGMEA for tapping into existing business relationships of the RMG sector.

- **Trade and investment incentives:** To spur the growth of the plastics industry, it is essential that the government provide incentives that encourage exporters and foreign investors to play a more proactive role in developing the sector. It is suggested that the government create a single window clearance mechanism for all FDI related approvals. Also, to prevent delays in duty drawback refunds, it is suggested that commercial banks should be allowed to process the payments.

- **Fiscal incentives:** Fiscal incentives can be provided to encourage investment in, and expansion of, the recycling industry. Additionally, certain measures should be taken to discourage production of single-use plastic package materials from

the environmental perspective.

- **Product diversification:** Diversifying into new products, or into those that are related to existing products, will help the plastics industry expand into areas that have high potential in the medium to long term. It is suggested that manufacturers consider plastic pharmaceutical packaging, plastic footwear, plastic furniture, and PVC pipes as potential new products for export from Bangladesh.

- **Market diversification:** To sustain the growth of the plastics industry of Bangladesh, it is important that the exporters strengthen their presence in existing markets as well as explore new markets with favorable business conditions. Potential markets for diversification suggested across different product categories are as follows:

- o **Sacks and bags:** Japan, Canada, Australia, Mexico, and Spain

- o **Tableware and kitchenware:** United Kingdom, Denmark, and Poland

- o **Household and toilet articles:** Germany, China, Spain, Poland, and Greece

- o **Apparel and clothing accessories:** India, Turkey, Poland, and Taiwan

- o **Flexible intermediate bulk containers:** Hungary, Ireland, Bulgaria, Japan, Republic of Korea, Poland, and Greece

- o **Tents of synthetic fibres:** Germany, United Kingdom, Belgium, Republic of Korea, and Turkey

- o **Toys:** Germany, Netherlands, Poland, and Latvia
- o **Toys:** Germany, Netherlands, Poland, and Latvia

### 5.3. Engineering goods sector

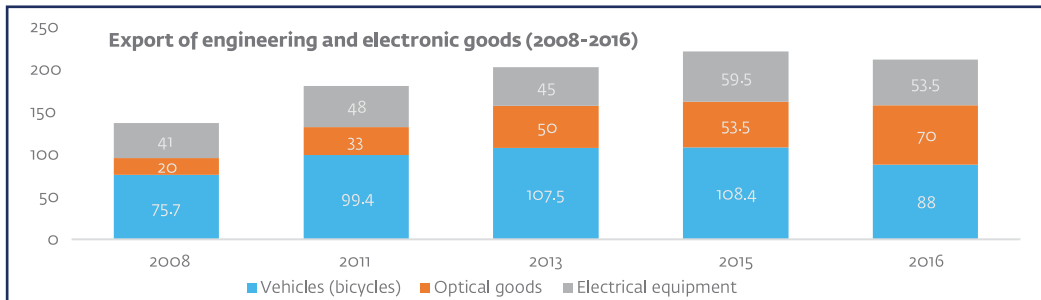
The engineering and electrical goods industry in Bangladesh is largely made of small and medium enterprises and produces a wide array of products that support industrial, agricultural, and other sectors of the economy by providing machinery parts, consumer items, pipeline fittings, equipment, etc. Except in a few product categories, most firms in this sector manufacture to meet the growing

domestic demand for engineering and electrical goods (import substitution). The sector in Bangladesh encompasses a broad range of component, intermediate, and final products that are grouped under major export categories such as electrical machinery and equipment (HS code 85), vehicles other than railway/tramway and rolling stock (HS code 87), and optical goods (HS code 90). The following sections present an overview of the export of engineering and electrical goods from Bangladesh and major constraints faced by export-oriented firms.

In terms of exports, the sector is in its infancy in Bangladesh and the few key products that are exported include bicycles, objective lenses, transformers and batteries. The sector contributes close to 0.4% of total exports from Bangladesh and it is growing at an average rate of 6% as shown in Figure 5-6.

Bicycles are the single largest export product in the engineering goods sector in Bangladesh. The export of bicycles has grown consistently at an average rate of 7% in the last 5 years. EU is the largest market for Bangladeshi bicycles, where the country enjoys a duty free quota free market access. The anti-dumping ban on Chinese bicycles by the EU has supported growth in the export of bicycles. Only a few large factories export bicycles as an original equipment manufacturer (OEM) for prominent European brands. The global market for bicycles is about US\$8 billion in size and Bangladesh contributes to less than 1% of global trade.

Figure 5-6: Export trend in engineering and electronic goods sector



The major products with export potential are discussed below:

HS4	HS6	Value exported 2016 (mn \$)	Export growth 2012-16 (% p. a.)	Global trade 2016 (billion \$)	Global growth 2012-16 rate (%)	Major export markets (value in %, growth in %)	Top global importers (value in %, growth in %)	Top global exporters (value in %, growth in %)
<b>8712 Bicycles</b>	871200 (Bicycles)	85.5	7	-1	7,915	<ul style="list-style-type: none"> <li>UK (43.3%, -1)</li> <li>Germany (20%, 19)</li> <li>India (8%, 148)</li> </ul>	<ul style="list-style-type: none"> <li>USA (18.5%, -1)</li> <li>Japan (8.9%, -6)</li> <li>Germany (9%, 0)</li> </ul>	<ul style="list-style-type: none"> <li>China (35.2%, 1)</li> <li>Taipei (17%, -4)</li> <li>Netherlands (9%, -4)</li> </ul>
<b>9002 Objective lenses</b>	900211 (Objective lens-cams)	12.40	7	-9	5,514	<ul style="list-style-type: none"> <li>China (73.6%, 27)</li> </ul>	<ul style="list-style-type: none"> <li>China (41%, 12)</li> <li>USA (17.9%, -5)</li> <li>China (14.2%, -4)</li> <li>Korea (12.3%, 4)</li> </ul>	<ul style="list-style-type: none"> <li>Japan (25.9%, -10)</li> <li>China (14.8%, -16)</li> <li>Korea (9.2%, 16)</li> </ul>
	900219 (Objective lens-others)	11.80	22	11	4,352	<ul style="list-style-type: none"> <li>Japan (30.8%, 43)</li> <li>China (22.5%, 13)</li> </ul>	<ul style="list-style-type: none"> <li>China (41%, 29)</li> <li>Netherlands (9%, 54)</li> <li>Vietnam (7%, 66%)</li> </ul>	<ul style="list-style-type: none"> <li>Taipei (29.6%, 45)</li> <li>China (19.6%, -1)</li> <li>Germany (15%, -5)</li> </ul>
	900190 (Lenses, prisms, mirrors)	9.50	10	-5	6,882	<ul style="list-style-type: none"> <li>China (48.2%, 4)</li> </ul>	<ul style="list-style-type: none"> <li>China (33.8%, -29)</li> <li>Japan (9.6%, -2)</li> <li>HK (7.9%, -16)</li> </ul>	<ul style="list-style-type: none"> <li>China (22.1%, -1)</li> <li>Korea (18.1%, -4)</li> <li>Japan (15.5%, -12)</li> </ul>
<b>8504 Transformers</b>	850431 (Transformer s)	5.02	29	-2	5,240	<ul style="list-style-type: none"> <li>Hong Kong (58.3%)</li> <li>HK (12.7%, -3)</li> <li>USA (8.7%, -1)</li> </ul>	<ul style="list-style-type: none"> <li>China (15.3%, 1)</li> <li>China (22.1%, -1)</li> <li>USA (8.7%, -1)</li> </ul>	<ul style="list-style-type: none"> <li>China (33.1%, 2)</li> <li>Hong Kong (14%, -6)</li> <li>Germany (10.1%, -5)</li> </ul>

Source: UN COMTRADE data from Trademap.

o Export products under optical goods include objective lenses for projectors and other devices, and LED based goods. Bangladesh exported US\$70 million worth optical goods of which objective lenses contributed US\$32 million. Japan, USA, and China are the major markets for optical goods from Bangladesh. These goods are manufactured within the EPZs of Bangladesh by Japanese firms.

o The export of transformers from Bangladesh has grown at 29% CAGR in the last five years with a global market size is estimated at US\$5 billion. The major market for transformers from Bangladesh is Hong Kong, which is also a leading manufacturer and exporter of transformers. Bangladesh has the opportunity to capture a larger share of the global market that is currently being served by countries such as Hong Kong and Germany.

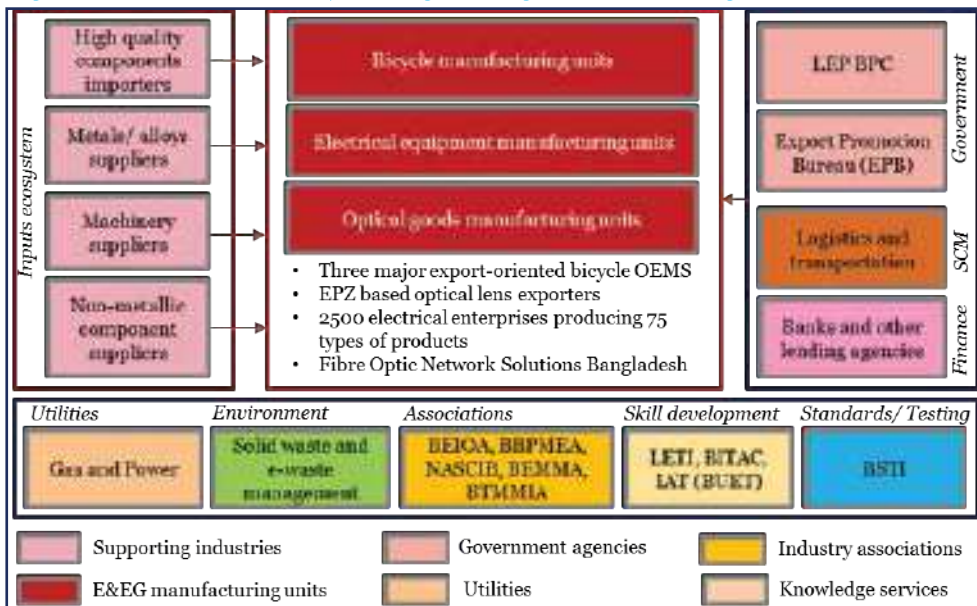
**Raw materials and inputs:** The bicycle manufacturing sector is split into two supply chains: export-oriented, original equipment manufacturers (OEMs), and the local small-scale bicycle and bicycle parts industry . The two supply chains operate independently with limited interactions or linkages between them. The inputs required for bicycle manufacturing are steel and alloy steel, aluminium, titanium, carbon fibres, etc. Other components required are wheels, derailleurs, breaks, and chains usually made of stainless steel. Many of the bicycle components are imported by the OEMs. The imported parts generally account for more than 60% of the bicycle's export value<sup>11</sup>

Most of the machinery deployed for the engineering and electrical goods sector is imported, especially if advanced technology and processing techniques are used for making the product. Non-metallic components are sourced locally (e.g. plastics, wood) or imported (e.g. optical glass, silicon wafers) depending on the type of product being manufactured. Some specialty chemicals for product processing are sourced by importers, which are procured from them by engineering and electronics enterprises.

### 5.3.1. Mapping the value chain

The engineering and electronic goods sector in Bangladesh consists of product-specific manufacturing and assembly units. The industry map for the

Figure 5-7: Constituents of the engineering and electronic goods



<sup>11</sup> Kathuria, S, Malouche, MM, *Toward New Sources of Competitiveness in Bangladesh: Key Insights of the Diagnostic Trade Integration Study, Directions in Development – Trade, 2015*

- **Production facilities:** There are about 2,500 electrical enterprises in Bangladesh employing more than 100,000 people. About 80% of electrical industrial enterprises are located in the Nawabpur, Sutrapur, Jatrabari, Shempur, and Keraniganj areas of Dhaka city. The rest of the electrical industries are located in Gazipur, Narayanganj, Chittagong, Barisha and Kustia districts. A relatively new electrical industrial park has been established in the Shempur-Kadamtali area near Dhaka city.

- **Industry associations:** The sector has many business membership organizations. The major associations are:

- o Bangladesh Bi-Cycle & Parts Manufacturers and Exporters' Association (BBPMEA): Bicycles have a major share in the exports of the light engineering sector as a whole. BBPMEA, the association for bicycle manufacturers, works to foster the sector. It also helps bicycle exporters in Bangladesh like Transworld Bicycle, Uniglory Cycle Industries, Mahin Cycles, and RFL.

- o Bangladesh Electrical Merchandise Manufacturers' Association (BEMMA): BEMMA is an association of all electrical merchandise manufacturers of Bangladesh. It has played an important role in helping modernise and cluster the unplanned and scattered electrical industry units of Bangladesh.

- o National Association of Small and Cottage Industries of Bangladesh (NASCIB): NASCIB is the foremost private sector trade association involved with the development and promotion of Micro-Small-Medium-Enterprises in Bangladesh. The association has more than 10,000 members and promotes the development of the Micro and Small sectors along with the recent growth of the Medium enterprises in all the 64 districts of the country<sup>12</sup>.

- o Bangladesh Engineering Industry Owner's Association (BEIOA): The Bangladesh Engineering Industry Owners' Association (BEIOA) has SME members who are engaged in the production and marketing of light engineering products. It mainly conducts promotional activities, provides services, and acts as a platform for its members<sup>13</sup>.

### 5.3.2. Current policy environment

- **Import and export tariffs and other trade and fiscal incentives:** In the export policy 2015-2018, the government considered light engineering products, including bicycles, as one of the special development sectors<sup>14</sup>. These sectors are deemed to produce products that have a high export potential but whose production, supply, and export bases require strengthening. These special development sectors are all slated to have the following broad incentives:

- o Supply of investment credit at a reduced rate of interest on a high priority basis.

- o Moratorium on income tax.

- o Cash assistances and other subsidies that are consistent with the WTO Agreement on Subsidies and Countervailing Measures.

- o Export credit on easy terms and at a reduced rate of interest.

- o Subsidised rate for air transportation.

- o Duty drawback and bond facilities.

- o Priority in getting utility connections (electricity, water, and gas).

- o Assistance in product marketing.

- o Assistance in global market access.

- o Necessary initiatives to attract FDI.

<sup>12</sup> [Nascib.org.bd](http://Nascib.org.bd)

<sup>13</sup> [www.beioa.org.bd](http://www.beioa.org.bd)

<sup>14</sup> Bangladesh Foreign Trade Institute, *A Study on Sector-based Need Assessment of Business Promotion Council- Light Engineering Sector, 2016*



However, these existing policy initiatives are not specific and are implemented in a largely ad-hoc manner. The background policy prescriptions are in place; they just need to be specified and turned into actionable, defined, and effective policy recommendations. In the 7th Five-Year Plan, the GoB laid emphasis on attracting FDI in the engineering and electrical goods sector to increase investment, for greater and easier market access, and for easier transfer of technology. To facilitate FDI in the sector, the government is planning to set up SEZs to encourage investments from countries such as Japan, China, and India.

- **Generalized system of preference scheme:** Export of engineering goods such as bicycles, objective lens, and electrical transformers enjoy GSP benefits in select countries. Under this, Bangladesh can avail zero import duties in 38 countries, including 28 countries in the EU and 10 other countries including Australia, Belarus, Canada, Liechtenstein, Japan, New Zealand, Norway, the Russian Federation, Switzerland, and Turkey. The EU GSP scheme also grants duty free access for 50 LDCs under the “Everything but Arms” scheme. The EBA scheme grants duty-free quota-free access to all products, except for arms and ammunition.

Japan grants preferential tariff treatment under its GSP scheme to 137 developing countries and 14 territories. Japan grants LDC duty-free and quota-free market

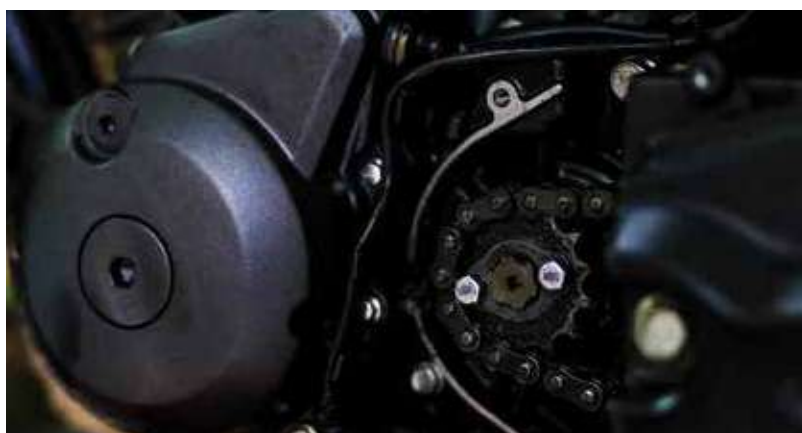
access for 5,415 products, of which 1,383 are agricultural products and 4,034 are industrial products. The scheme defines specific rules to ensure identification of origin of goods. Exporters need to follow these rules for accessing concessions under the scheme. Importing countries typically monitor the origin of these goods.

### 5.3.3. Major constraints

- **Raw material availability, cost, and sufficiency:** There exists a local component industry that uses scraps from ship breaking units in Chittagong to produce bicycle parts. However, exporters do not use these locally made components due to quality concerns.

Original equipment manufacturers (OEMs) that do not have deep enough pockets for investing in additional parts and components manufacturing, source parts from foreign markets. Thus, large export-oriented manufacturers depend on imported components and raw material, but there is a negative impact on lead-time from foreign sourcing of export-quality parts. It is estimated that the bulk of the lead time gap arises from the Bangladeshi firms’ need to source a majority of parts and components from abroad, which can take up to a month after all the required paperwork and shipping. Furthermore, logistical inefficiencies in shipping of imports add to the input cost and increase lead-time.

The basic raw material for transformers and converters includes copper cable for windings, radiator, tank, bushing, capacitors, etc. Bangladesh is mostly dependent on the ship breaking industry for getting copper, which is a major input in the transformers.



- **Labor availability, cost, and sufficiency:** The engineering and electrical goods sector is relatively less labor intensive. The share of labor costs in the production of a bicycle is low across all manufacturing stages in Bangladesh. The share of labor costs is about 10% at the frame assembly stage, 13% at the wheel assembly stage, and 2% at the final bicycle assembly stage. Direct labor costs associated with producing a bicycle range from US\$ 3.0 to US\$ 5.0 per bicycle<sup>15</sup>, when all the stages of production are included<sup>16</sup>. Although labor costs are important, they have a lesser impact on the competitiveness of bicycle manufacturing when compared to other labor-intensive industries like RMG. A skilled workforce is required to man the assembly line and operate the machinery. Such a workforce is not adequately available in Bangladesh. Most SMEs employed unskilled workers who are trained on the job by a relatively experienced yet under-qualified supervisor. This affects the productivity and export readiness of SME units. The lack of skilled workers has led many SMEs to delay upgrading their outdated machinery.

Bicycle manufacturing OEMs report difficulties in finding qualified workers in several areas. Finding the qualified welders needed for the frame assembly stages of production is reported to be particularly difficult. Welders are among the highest paid members of the workforce in assembly plants, earning up to US\$150 per month in Dhaka<sup>17</sup>. This is a relatively high manufacturing wage in Bangladesh. Yet despite the significant premium over standard assembly line wages (up to 50%), finding and attracting a sufficient number of qualified welders is a challenge. Finding and attracting qualified middle managers is also reported to be difficult as management and business graduates are reported to prefer working in the telecom and other service sectors. Migration, particularly to Gulf countries, is reported to be a particularly challenge for the industry.

As the export sector continues to grow in size, labor availability, skill development, and retention will be a greater challenge. A

robust skill development ecosystem that has institutions with good infrastructure and well-funded training programs is a top priority.



- **Utilities supply:** An uninterrupted power supply is a key requirement for engineering and electrical goods manufacturing, which is a power intensive process. Power cuts are very frequent and may range from less than an hour to four hours. During the summer the power shortage is acute. This is a major concern for the engineering industry as most of the machines used in the industry need retooling every time there is a power shut down. Such power cuts also affect the quality of bicycle parts manufactured.

The quality of electricity is extremely poor and creates major problems for SMEs that cannot afford generators. Although SMEs consider the price of electricity to be high (US\$0.09 per kilowatt-hour)<sup>18</sup>, it is generally the quality of electricity in relation to price that generates this perception.

- **Technology and process sophistication:** Technology used in the engineering goods value chain differs between large export-oriented manufacturers and cluster SMEs. While larger units use modern equipment and machinery in their units, SMEs use machinery that is more than 25 years old. Across the value chains of the whole engineering and electrical goods segment, the differences in technology and process sophistication between large units and SMEs are visible and significant.

SMEs operate with limited working capital and reserves and often find modern machinery and equipment to be

<sup>15</sup> World Bank Report, 2013

<sup>16</sup> Toward new sources of competitiveness in Bangladesh (Sanjay Kathuria and Mariem Mezghenni Malouche), 2016

<sup>17</sup> Attracting Investment in Bangladesh – Sectoral Analyses, A Diagnostic Trade Integration Study

<sup>18</sup> <http://www.unnayan.org>



unaffordable due to low utilization. There are economies of scale and invest collectively in modern expensive machinery.

### 5.3.4. Recommendations for the engineering goods sector:

- **Cost and lead-time reduction for raw materials:** The engineering goods sector in Bangladesh is dependent on imported raw materials. It is suggested that trading houses or central bonded warehouses for import of raw materials be set up in free trade zones or special economic zones, so that manufacturers receive better prices and face shorter lead times during raw material procurement. Additionally, it is suggested that an SME credit scoring methodology be developed based on which commercial banks can accept movable assets as collateral, which will reduce the cost of production. In addition, pre-shipment finance benefits available to the RMG sector (like back-to-back L/Cs and export cash credit) can be extended to the engineering sector industry.

- **Collaboration with foreign universities and institutes of repute:** BEIOA-LETI, the Light Engineering Training Institute of BEIOA, helps in skill development in the LE sector by conducting courses and workshops on lathe machine operations, welding, milling machine operation, CNC machine operation, CAD/CAM design, etc. BEIOA-LETI will gain from collaboration with international institutions that have the knowledge and experience of developing skilled professionals for the industry. Based on its objectives, BEIOA-LETI could carry out a study to identify institutions and universities most aligned to its needs. Professionals from the industry can be sent for short to mid-term techno-managerial courses in the partner institutes or universities.

- **Facilitate FDI:** Export in optical goods and electronics is driven by foreign investments. Most of these foreign firms have manufacturing facilities in competing locations such as China, Taiwan, South Korea, etc. With rising wages in these countries, the firms are keen to

translocate the factories/machineries into Bangladesh. Ease of importing used machinery and translocation of factories will accelerate export growth in these subsectors.

- **Common technical facilities:** Metal and heat treatment facilities are part of the quality assurance ecosystem in any developed engineering exporting sector. They are necessary in order to produce quality products and for scaling up production. With such services, firms will be able to treat metal to produce the desired characteristics, such as increased hardness or temper. Metal testing facilities would also enable firms to identify materials of foreign-made goods and proper substitutes could be selected if the original is unavailable domestically.

- **Improved market access:** The export market for engineering goods is still small and the domestic market is growing extensively. For ensuring sustained rates of growth, it is important that engineering goods manufacturers in Bangladesh continue to enhance the quality, product safety and functionality of the products to keep pace with the requirements of international buyers. It is also required to forge new business connections while leveraging existing ones. Therefore, it is suggested that financial incentives be provided to manufacturers to participate in international trade fairs.

## 6. Conclusion and The Way Forward:

### 6.1. A summary of the challenges ahead:

*For the US\$250 billion Bangladesh economy, exports are and will continue to be drivers of jobs and growth.* With around 2 million young people entering the job market every year and with a US\$75 trillion global export market, Bangladesh has to break into new markets with new products to fulfil its vision of export-led growth and greater employment opportunities. The domestic economy is growing but the rate is too slow to generate the kind of demand growth that would create 20 million additional jobs in the next ten years. The leading export sector, ready-made garments (RMG), offers lessons on how to develop new export sectors. Since productivity-adjusted low labor costs remain the primary basis of Bangladesh's comparative advantage, many more such labor-intensive exports could emerge over time to capture a share of world markets. However, the right policies should be in place to ensure this export-led growth is inclusive enough to attain Goal 8 (Higher Inclusive Economic Growth) and Goal 9 (Innovation and Industrialization) of the 2030 Sustainable Development Goals.

*Bangladesh's export growth in the global landscape is remarkable, but the composition of the export basket has not changed much over the past two decades.* Bangladesh aims to generate US\$54.1 billion in export earnings by FY 2020, a significant increase over the US\$35 billion earned in FY 15-16. The leading sector, textiles and apparels, usually referred to as ready-made garments (RMG), has created 4 million jobs overall. In 2016 it earned US\$28.67 billion and made up 82% of Bangladesh's export earnings. At the same time, several other less dominant but promising sectors are showing a positive export growth trend and are likely to drive economic diversification and job creation

and help manage volatility.

*Bangladesh's HHI (Herfindahl-Hirschmann Index), that measures the level of sectoral concentration in exports, is 1000 which is about five times that of larger export-driven economies such as Thailand, China and Vietnam.* Moreover, it is a matter of significant concern to the entire economy when the primary export industry shows signs of growth retraction. The rate of growth in RMG has been fluctuating for the last few years, declining from 8.21% in 2015 to 7.76% in 2016 to further declining to 7.74% in 2017 before making a comeback to 8.21% in 2018. This poses a special risk because there are no close substitutes that could absorb any shocks to the RMG sector. Jobs Diagnostics 2016 report of the World Bank showed that job-creating opportunities in RMG also slowed; between 2010 and 2013, employment in apparel grew by only 6% annually despite annual growth in output of 15%.

*Bangladesh has a very low number of sectors with relative comparative advantage.* A product space analysis (Hidalgo and Hausmann, 2009) for Bangladesh shows that the exclusive export sector RMG has a low product complexity and provides less opportunity and feasibility to organically diversify into new, more sophisticated sectors. However, it is important for Bangladesh to identify sectors strategically as a source of export diversification that could provide maximum benefit for the country.

Binding constraints in the several high potential export sectors are linked to issues of market access due to compliance and linkages, skills shortages and weak institutions for technology upgrading, shortfalls in infrastructure as well as comparatively below par state of trade infrastructure, and trade policy and incentives. Adherence to various technical and process quality standards, testing and accreditation mechanisms, and most importantly social and environmental standards are increasingly essential to export products. Natural entry barriers in terms of high costs of modern machinery

shut out many prospective entrepreneurs, and those who open businesses often lack knowledge of modern management and production practices linked to productivity, environmental and social standards. In addition, there are binding infrastructure constraints negatively affecting the development of some of the specific industrial clusters, such as dysfunctional common effluent treatment plants (CETPs) and poor road access. Sector competitiveness also suffers from transport and power constraints, which increase transaction costs relative to competitors. Reforms to trade policy and rationalisation have been sluggish and uneven, creating a significant anti-export bias.

Most comparator countries, as discussed in Chapter 2, have focussed on using digital technology to simplify procedures and reduce the cost of trade transactions, invest in improving trade logistics, and upgrade port facilities. Such interventions have an overarching impact on export competitiveness at the national and sector level. This has to be a focus area for Bangladesh to improve trade competitiveness and encourage export diversification.

Over the last few decades, Bangladesh has made stellar economic progress. The poverty rate has dropped to 24.3% in 2016 from 31.5% in 2010 – a significant step towards reaching the first Sustainable Development Goal (SDG) target of eradicating extreme poverty by 2030. Drawing on these impressive records, Bangladesh has laid out its grand vision to become an 'Upper Middle-Income Country' by 2021. In 2018, Bangladesh was deemed to have met the criteria for the first time to graduate from United Nations' Least Developed Countries (LDC) category to a 'Developing' country by 2024. The impending graduation from the LDC list creates opportunities but also underscores several risks facing Bangladesh exports unless appropriate and timely policy measures are taken.

## 6.2. Bangladesh's graduation from LDC status: key challenges facing export-led growth

In October 2017, at the request of the GoB, the Secretariat of the Committee for Development Policy (CDP) from the United Nations (UN), travelled to Dhaka to discuss the country's potential graduation from the LDC category. The Secretariat of the CDP met with officials from various ministries (Finance, Planning, Foreign Affairs), the Bureau of Statistics, the Prime Minister's Office, as well as with representatives from the private sector (Chamber of Commerce and BGMEA) and the Centre for Policy Dialogue, a research institute focusing on LDC-related issues. The objective of the meetings was to explain the graduation process, the criteria for graduation, as well as offer a detailed review of the data used in the analysis of Bangladesh's LDC status. Therefore, the country will likely be recommended for graduation at the following triennial review in 2021. Following the review, Bangladesh would officially graduate from the LDC status in 2024.

### *International aid*

There are a number of possible impacts to Bangladesh given this graduation. International aid or official development assistance is already a relatively small proportion of government expenditure (roughly 8.09% of total expenditure in FY 2017-2018) and appears unlikely to decline solely based on LDC graduation in the immediate future, even though the donors' official commitment is to prioritise assistance to LDCs. For FY 2017-2018, total foreign aid is estimated at approximately US\$4 billion, which is 1.4% of GDP. Multilateral donor agencies have multi-year strategic country engagement plans. Large projects are planned based on current country needs and are in line with these overarching strategic objectives. Graduation from an LDC will not necessarily translate into immediate changes in the development needs of Bangladesh. The changes in strategic

objectives will tend to evolve as Bangladesh develops, so immediate disruptions to official development assistance are not expected post 2024. Bangladesh also benefits from some additional international support measures for LDCs, such as UN-sponsored travel grants and academic scholarships, and reduced UN and peacekeeping budget commitments. However, these are relatively unimportant given the size of the economy.

In the long run, the cost of development finance and debt servicing liabilities will increase due to the cessation of access to concessional finance for LDCs. Between 1995 and 2018, Bangladesh has transformed itself from an aid-dependent country into a trade-dependent one, with external trade reaching almost US\$100 billion as of 2018. However, for poverty alleviation, social sector activities and infrastructural development, the role of official development assistance cannot be undermined. As a lower-middle-income country, Bangladesh is no longer eligible for low interest loans. After graduation, Bangladesh has to opt for blended finance modalities that would include loans from the development institutions and other sources with a high interest rate and shorter repayment periods. Bangladesh at that point should also explore more resources from institutions such as the Asian Infrastructure Investment Bank (AIIB), the New Development Bank (NDB), and other commercial sources.

### *Generalised system of preferences*

Generalised system of preferences The Generalised System of Preferences (GSP) scheme benefits certain developing countries by helping them integrate to world markets. Bangladesh, as an LDC, currently qualifies for GSP benefits under which developed countries provide preferential treatment to exports from Bangladesh in the form of reduced or zero rates of customs duties for most product categories (HS 01-97 except HS 93). Under this, Bangladesh can avail zero import duties in 38 countries, including 28 countries in the EU and 10 other countries,

including Australia, Belarus, Canada, Liechtenstein, Japan, New Zealand, Norway, Russian Federation, Switzerland, and Turkey. The EU GSP scheme also grants duty free access for 50 LDCs under the "Everything but Arms" scheme. The EBA scheme grants duty-free quota-free access to all products, except for arms and ammunition. The scheme defines specific rules to ensure identification of origin of goods. Exporters need to follow these rules for accessing concessions under the scheme. Importing countries typically monitor the origin of these goods.

Following graduation in 2024, the country would be given a three-year transition period before it fully loses duty-free and quota-free market access to the European Union (EU) under the Everything but Arms initiative for LDCs. This particular grace period is given to LDCs under the existing EBA rules to alleviate any adverse effects that may be caused by the removal of the tariff preferences

After 2027, provided that Bangladesh ratifies 27 conventions relating to human and labor rights (improved work conditions, higher poverty alleviation efforts, women's empowerment among others) as well as environmental protection (such as reduction of carbon emission) and good governance, Bangladesh may be granted access to the Generalised System of Preferences Plus (GSP+), giving it dedicated preferential tariff rates. The GSP Plus facilities grant full duty suspension for 66% of tariff lines to eligible countries that are vulnerable in terms of economic diversification and export volumes. In early 2018, Bangladesh's Commerce Minister, in a press conference held at the Ministry of Commerce regarding Bangladesh's LDC graduation, said Bangladesh would take all measures to ensure that it gains access to the GSP+ facilities. Bangladesh has already ratified 25 of the 27 conventions and is now assessing the last two. The EU has in particular raised the alignment of the Bangladesh Labour Act (BLA) and the Export Processing Zone (EPZ) Act with the ILO labor rights conventions as one of the priority actions. In addition, the Commerce

Minister pledged that Free Trade Agreements (FTAs) would be signed with those countries that do not give GSP to Bangladesh.

However, in the long run, (i.e. post 2027), *if Bangladesh fails to gain GSP+ status* or negotiate the necessary FTAs, there is likely to be a significant impact on exports. A study by the Centre for Policy Dialogue (CPD) indicates that Bangladesh would likely face additional tariffs of about 6.7% in the absence of LDC preferential treatment, resulting in a possible export loss of US\$2.7 billion in view of potential earnings (equivalent to 8.7% of Bangladesh's global exports in FY15). The CPD study further estimates that the impact would be most adverse in case of exports to the EU, where 97.8% of Bangladesh's exports currently enter on a tariff-free basis. In this market, Bangladeshi goods would face additional tariffs of 8.7%. Advanced developing countries like China and India have also allowed tariff-free access to Bangladeshi products. These preferential benefits will also not be available. Preference erosion would have adverse implications for export competitiveness, industrial production, and jobs unless compensatory measures are in place.

In order to combat these challenges, the primary thing to focus on is improving the overall capability of the economy. Broadly, there needs to be structural improvements in the diversification of the economy, overall technological upgrading, improved training, and skill development of human resources, and significant institutional strengthening. Attracting FDI will also become increasingly important. To remain globally attractive, the economy must undergo structural changes, achieve resource efficiency, and improve productivity. These are especially important in the light of the challenges posed by the Fourth Industrial Revolution. Bangladesh needs to adapt, improve export competitiveness, and diversify products and markets, in order to ensure the economy and specifically the exporting sectors remain globally competitive.

Bangladesh has to be a more proactive member in regional and sub-regional initiatives, such as the Bangladesh, Bhutan, India, Nepal Initiative (BBIN Initiative), the Bangladesh, China, India, Myanmar Forum for Regional Cooperation (BCIM), and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). Bangladesh should also remain an active participant in WTO negotiations.

On the other hand, looking at it from the sectoral perspective, Bangladeshi leather and leather goods and footwear exporters are confident that their sector will remain competitive against major competitors like Vietnam or Cambodia, reducing the importance of tariff preferences. Business leaders say that tariff advantages are not the key obstacle to export success, and that a number of other economic challenges are more important, including infrastructure, the exchange rate, and the outlook for the global economy. The leather sector is aiming to achieve the overarching strategic goals set out in the Export Roadmap, including ensuring compliances, improving access to finance, development of skills and knowhow, and improving quality and processes. These improvements will provide the competitive edge for the sector in the global market and ensure long-term sustainability of exports.

### 6.3. Country level diversification strategies and recommendations

Several sequential policy actions are required to enhance the competitiveness of key performing sectors for export diversification:

*Ensuring compliances:* one of the major recommendations that echoes across all exporting sectors is the need to increase the level of compliance. Compliance spans the social, environmental, safety, health, and quality issues across the board. Increasing the level of compliance among exporting firms will massively improve the perception of Bangladeshi products and enable greater market diversification and penetration.



#### *Availability of and access to finance:*

Generally, it is difficult for small and medium-sized manufacturers to furnish immovable assets (like real estate, land, etc.) as collaterals to secure loans from commercial banks. It is suggested that an SME credit scoring methodology be developed based on which commercial banks can accept movable assets as collateral. In addition, pre-shipment finance benefits available to the RMG sector (like Back-to-Back L/Cs and export cash credit) should be extended to all the export-oriented industries.

*Improving market access:* Market access can be improved through direct marketing efforts at both firm level and country level. Direct marketing efforts can ensure that firms have greater access to more companies and newer markets. Some of the direct marketing efforts include engagement of a PR firm that can bring more business for the sector as a whole as well as to individual firms. Country-specific efforts could include a publicity blitz, special exhibitions, and fairs. Business associations will have to play a role in identifying prominent international digital marketing avenues where their export goods are likely to see maximum traction. Country promotion helped push the RMG sector to its current heights. A similar strategy could be adopted for other exporting sectors. cash credit) should be extended to all the export-oriented industries.

#### **6.4. Short term actions: (six to twelve months)**

*Select high potential sectors* (a maximum of five) in the National Export Policy, identified based on their potential for export growth and contribution to job creation, as a source of export diversification. This should be coupled with a sector-specific export roadmap/action plan, steered by a high-level committee to monitor implementation, with clear roles and responsibility of each of the stakeholders.

#### *Access to finance: Review effectiveness and quality of the Export Development Fund (EDF)*

and then facilitate access for non-RMG priority sectors. Additionally, allowing associations to facilitate the application process on behalf of manufacturers would ease operations and fund allocation.

#### *Raw material and technology availability: Simplify the tax*

as well as ensure a consistent policy environment for a timeframe. Rationalise import duty for all sectors (current duty 20-60% for non-RMG, but exempted for RMG) for all fire safety equipment and systems such as fire doors (HS code 730830), fire sprinklers (842420), and alarm lights (853190) that are mandatory to comply with international safety standards for export-oriented manufacturing units.

#### **6.5. Medium term actions: (one to two year)**

*Ensuring compliances:* Adopt a sector-focused, five-year action plan/strategic export roadmap to improve environmental and social compliances and initiate its implementation through a monitoring mechanism. This would also require the identification of gaps in national product standards and testing parameters as required in international markets and taking necessary actions to adopt them.

*Access to finance:* Increase the allocation in the Green Transformation Fund (GTF) for non-RMG priority export sectors and offer banks incentives to consider non-RMG proposals and simplify the GSP system by automating the process for non-RMG priority sectors.

#### **6.6. Long term actions: (two to three year)**

*Improving trade logistics:* Allow the special bonded warehouses facility for all export oriented manufacturers in selected sectors to

minimise the higher cost of imported inputs and eliminate the difficulty in claiming duty drawback on the export of duty-paid imported raw materials.

**Ensuring compliances:** Adopt a national-level compliance framework targeted to each potential export sector and develop the institutional capacity to support firms to implement such a framework. Also, provide support to establish private sector-driven technology and service centres to provide the necessary technology and skills for exports, develop a database including information on international buyers, markets, opportunities and trends and strengthen institutions like the Business Promotion Council to maintain and update the information. Finally, introduce a national guideline/framework for CETP management and operations.

## 6.7. Firm-level diversification strategies

Although the quantity and quality of empirical evidence on export diversification has increased in the last decade, much of the literature focuses on trade diversification at the country-level. However, achieving export diversification at the country-level requires individual firms to diversify exports, and it is important that policy recommendations support the firm-level processes and innovation efforts required for introducing new products to export.

In general, there is not a lot of literature that focuses on the empirical studies at the firm level. However, the available literature suggests the following issues that are usually faced by firms that are expanding their export product basket:

- The rate of export failure is high. The majority of new products introduced by exporters are not sustained beyond the first year. Export sustainability is a critical challenge for maintaining diversification.
- Secondly, the existing exporters tend to diversify; stakeholder consultation

suggests that diversification is mainly carried out by existing exporters, rather than by new entrants to international markets. Export experience is critical for diversification.

- A third finding to emerge from analytical research is that diversification occurs mainly into similar and less-sophisticated products. The developmental literature suggests that in most cases, new products are similar or related to existing exported products, either in terms of sector, or the inputs used for production. They also tend to be of lower sophistication or technological content than existing exports. This changes when diversification in relation to the main domestic product for the firm is considered. In this case, diversification tends to occur in products more unrelated to core activities. This highlights the multiproduct nature of most firms than the fact that existing firms' capabilities constrain the scope for export diversification.

- Finally (and not surprisingly), firms that diversify are better performers and more internationally exposed.

These points suggest several implications for policy recommendations to facilitate export diversification. Possible policy guidelines are as follows:

- **Incentivize innovation:** Policies that incentivize investments in innovation and R&D will help firms acquire the capabilities that are vital if they are to diversify.
- **Implement environmental and social sustainability measures:** Firms must invest to improve their environmental and social standards and implement measures.
- **Support firms to consolidate in the domestic market:** Firms must improve their production base domestically, prior to diversifying. Therefore, policy frameworks that encourage export diversification should



also focus on eliminating existing constraints in domestic markets.

○ *Support export sustainability:*

While governments need to continue to support firms in breaking into new products and new markets, they equally need to address the sustainability of exports. This requires a more balanced approach of support policies such as Aid for Trade, giving more weight to measures that may facilitate consolidation of new trading relationships over time.

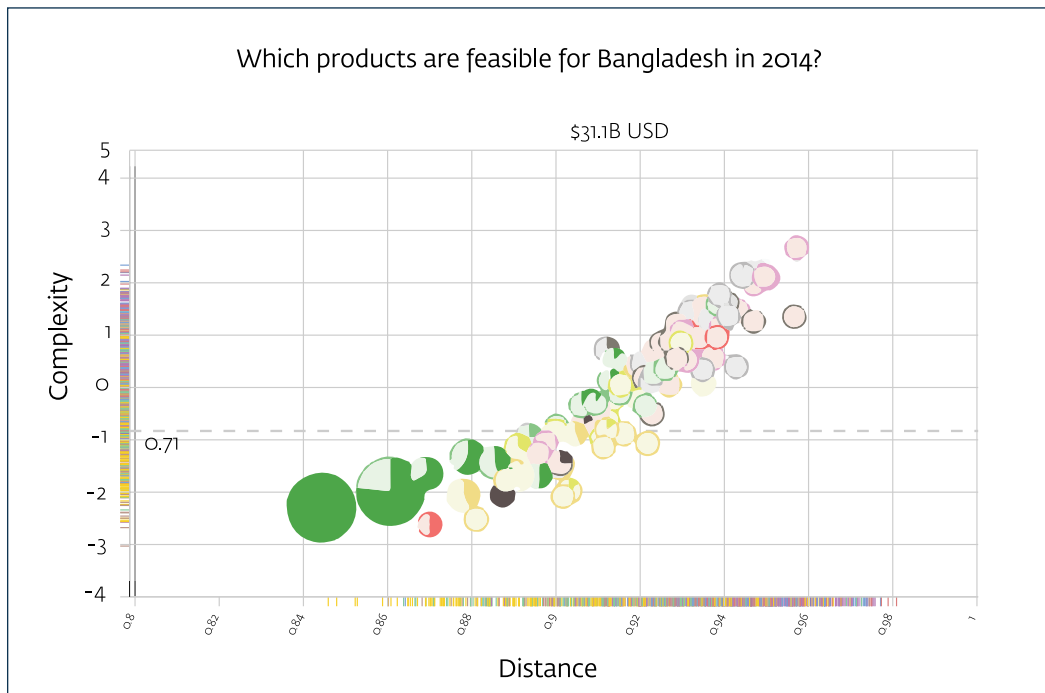
○ *Facilitate foreign exposure and links with international markets:*

Foreign exposure appears to increase diversification, so policies that encourage trade integration, FDI, or participation in international value chains can critically help firms acquire the necessary capabilities to boost export diversification.



## 7. Appendix A: Feasible sectors for Bangladesh from Atlas

Data from the Economic Complexity Atlas is used in plotting the graph for identifying the most suitable sectors for export diversification. The data was collected from the Atlas for each of the feasible sectors.



Source: [http://atlas.cid.harvard.edu/explore/pie\\_scatter/export/bgd/all/how/2014/](http://atlas.cid.harvard.edu/explore/pie_scatter/export/bgd/all/how/2014/)

List of sectors considered for identifying feasible sectors:

A. Distance, complexity, and opportunity gains of sectors in product space (2014)

Product description	HS Codes	Category	Distance	Complexity	Opportunity gain	Current size (2014)
Yarn of jute	5307	Textile	0.82	-2.02	0.00	486.00
Jute fibres	5303	Textile	0.82	-4.67	0.00	198.00
Footwear/Gaiters	64	Footwear/Headgear	0.86	-1.44	0.00	693.00
Fish and crustaceans	3	Animal and animal products	0.87	-1.89	-0.88	686.12
Basket ware	46	Wood and wood products	0.87	-2.49	-0.27	7.74
Woven fabric of jute	5310	Textile	0.87	-3.74	0.00	174.00
Coffee, Tea	9	Vegetable products	0.88	-2.38	-2.30	16.03
Headgear	65	Footwear/Headgear	0.89	-1.29	0.94	215
Leather goods	42	Raw hides, skins, leather and furs	0.89	-0.69	0.59	144.21
Tobacco	24	Foodstuffs	0.89	-0.9	0.23	110.16
Fruits and nuts	8	Vegetable products	0.89	-1.52	-1.64	94.02
Vegetables	7	Vegetable products	0.89	-1.42	-1.24	78.41
Lead products	78	Metals	0.89	-1.88	0.00	13.96
Veg. plaiting material	14	Vegetable products	0.89	-1.58	-0.29	0.39
Livestock	1	Animal and animal products	0.89	-1.48	-0.08	0.00
Leather/Hides	41	Raw hides, skins, leather & furs	0.90	-1.25	1.00	429.16
Oil Seed	12	Vegetable products	0.90	-1.8	-0.45	43.94
Feathers	67	Footwear/Headgear	0.90	-1.48	0.21	37.49
Ores slag and ash	26	Mineral Products	0.90	-1.23	-0.01	20.51
Sugars	17	Foodstuffs	0.90	-0.57	0.31	10.29
Resin	13	Vegetable products	0.90	-1.91	-0.02	0.04
Fertilizers	31	Chemicals & allied industries	0.90	-0.8	0.02	0.00
Explosives, Matches	36	Chemicals & allied industries	0.90	-1.02	-0.14	0.00
Furniture	94	Miscellaneous	0.91	1.11	2.00	43.72

Product description	HS Codes	Category	Distance	Complexity	Opportunity gain	Current size (2014)
Prep of meat	16	Foodstuffs	0.91	-0.26	0.82	31.58
Cement	25	Mineral products	0.91	-0.43	0.39	23.94
Vegetable, fruits, nuts	20	Foodstuffs	0.91	-0.36	0.78	23.78
Animal feed	23	Foodstuffs	0.91	-0.72	0.49	6.66
Products of animal origin	5	Animal and animal products	0.91	-0.62	0.96	5.60
Wood & articles of wood	44	Wood and wood products	0.91	-0.11	3.00	3.17
Milling products	11	Vegetable products	0.91	-0.54	0.23	2.95
Trees and plants	6	Vegetable products	0.91	-0.9	0.08	0.03
Ceramics	69	Stone/Glass	0.92	0.76	5.00	60.18
Toys	95	Miscellaneous	1	0.81	3.00	34.37
Cereals, flour, starch or milk	19	Foodstuffs	0.92	0.1	0.84	29.42
Beverages	22	Foodstuffs	0.92	0.06	2.00	12.99
Animal/Veg. fats	15	Vegetable products	0.92	-0.62	0.92	12.09
Misc. edible preps	21	Foodstuffs	0.92	0.38	2.00	4.58
Umbrellas	66	Footwear/Headgear	0.92	0.21	0.90	3.24
Mineral fuels	27	Mineral products	0.93	-0.21	0.43	84.69
Iron and steel	72	Metals	0.93	0.52	3.00	26.21
Rubbers	40	Plastics / Rubbers	0.93	1.07	10.00	12.50
Ships/Boats	89	Transportation	0.93	1.07	3.00	9.01
Articles of iron or steel	73	Metals	0.93	1.63	15.00	6.13
Precious stones	71	Stone/Glass	0.93	0.39	3.00	5.41
Cereals	10	Vegetable products	0.93	-0.82	0.25	5.16
Zinc	79	Metals	0.93	0.48	1.00	4.66
Misc. manufactured articles	96	Miscellaneous	0.93	0.45	8.00	4.12
Aluminium	76	Metals	0.93	1.25	6.00	0.94
Dairy, honey	4	Animal and animal products	0.93	0.73	3.00	0.56
Cocoa	18	Foodstuffs	0.93	1.24	0.51	0.52
Articles of base metal	83	Metals	0.93	1.27	6.00	0.52
Fur skins	43	Raw hides, skins, leather and furs	0.93	0.61	0.78	0.21
Tin products	80	Metals	0.93	0.92	0.60	0.00
Plastic	39	Plastics / Rubbers	0.94	1.77	17.00	102.89

Product description	HS Codes	Category	Distance	Complexity	Opportunity gain	Current size (2014)
Vehicles	87	Transportation	0.94	1.95	6.00	95.94
Electrical machinery	85	Machinery/Electrical	0.94	1.86	31.00	80.84
Copper	74	Metals	0.94	1.28	5.00	42.80
Inorganic chemicals	28	Chemicals & Allied Industries	0.94	0.94	7.00	38.71
Paper	48	Wood and Wood products	0.94	1.69	12.00	8.14
Glass	70	Stone/Glass	0.94	1.98	8.00	6.91
Stone	68	Stone/Glass	0.94	1.55	7.00	6.75
Meat & offal	2	Animal and animal products	0.94	0.41	3.00	3.83
Soaps	34	Chemicals and allied industries	0.94	1.46	4.00	1.87
Books	49	Wood and Wood products	0.94	1.36	6.00	1.60
Cosmetics	33	Chemicals and allied industries	0.94	0.89	4.00	0.80
Arms/Ammo	93	Miscellaneous	0.94	0.7	n/a	0.79
Rail/Tramway locomotives	86	Transportation	0.94	1.72	2.00	0.60
Cork products	45	Wood and wood products	0.94	1.36	0.37	0.00
Albuminoidal subs	35	Chemicals and allied industries	0.95	1.91	3.00	1.82
Tools	82	Metals	0.95	2.06	12.00	0.81
Works of art	97	Miscellaneous	0.95	0.75	3.00	0.27
Paints	32	Chemicals and allied industries	0.95	1.56	5.00	0.23
Clocks	91	Miscellaneous	0.95	2.23	5.00	0.19
Musical instruments	92	Miscellaneous	0.95	1.80	5.00	0.03
Optical instruments	90	Miscellaneous	0.96	2.68	27.00	66.85
Pharma	30	Chemicals and allied industries	0.96	2.49	6.00	65.19
Misc. chemical prods.	38	Chemicals and allied industries	0.96	2.59	6.00	2.16
Nickel products	75	Metals	0.96	1.69	1.00	1.33
Organic chemicals	29	Chemicals and allied industries	0.96	2.61	17.00	1.32
Aircraft	88	Transportation	0.97	3.17	2.00	0.51
Base Metals	81	Metals	0.97	1.78	0.71	0.08
Photo goods	37	Chemicals and allied industries	0.97	3.2	4.00	0.01



# 8. Appendix B: Supporting data for identifying high growth sectors

## 1. Employment

Total number of jobs in the sector was captured from the “Economic Survey for Bangladesh – 2013”. The data on the jobs was captured for the relevant sectors at level 2/3/4 of BSIC codes. Data on number of jobs in IT & ITES sector was captured from the article titled Bangladesh’s ICT Industry: A Boon for Women’s Employment, 2015, The World Bank.

The table below shows the Employment data for all the sectors.

BSIC Code	Sector	Total Employees 2013
151	Leather & Leather Products	39922
152	Footwear Products	87925
31	Furniture	609341
102, 120	Food processing	48580
222	Plastics	63919
20	Pharmaceutical products	38,664
27, 29, 30	Light Engineering	75,889
1314	Jute	76,751
2394	Ceramics	6034
	IT and ITES *	250,000

Source: <http://www.worldbank.org/en/news/feature/2015/05/08/bangladesh-ict-industry-a-boon-for-womens-employment>

The Light Engineering sector data was captured by adding the values in 3 different sub sectors described in the table below:

BSIC Code	Description
27	Manufacture of electrical equipment
29	Manufacture of motor vehicles, trailers and semi-trailers
30	Manufacture of other transport equipment

The Food Processing sector data was captured by adding the values in 2 different sub sectors described in the table below:

BSIC Code	Description
120	Tobacco

The Furniture sector employs the highest number of people while the Ceramics sector employs the least. The Food processing sector is also a big employer in Bangladesh industries.

## 2. Women employment

The total number of jobs for women in the sector was captured from the “Survey of Manufacturing Industries - 2012”. The data on the jobs was captured for the relevant sectors at level 2/3/4 of BSIC codes. Data on number of jobs in IT & ITES sector was captured from the article titled Bangladesh’s ICT Industry: A Boon for Women’s Employment, 2015, The World Bank.

The table below shows the data on female employees in all the sectors.

BSIC Code	Sector	Female Employees 2013
151	Leather & Leather Products	1021
152	Footwear Products	21043
31	Furniture	1701
102, 120	Food processing	19331
222	Plastics	9766
20	Pharmaceutical products	10024
27, 29, 30	Engineering goods	8400
1314	Jute	23694
2394	Ceramics	689
	IT and ITES *	84250

Source: <http://www.worldbank.org/en/news/feature/2015/05/08/bangladesh-ict-industry-a-boon-for-womens-employment>

## 3. SME focus

Total number of SME establishments in the sector was captured from the “Economic Survey for Bangladesh – 2013”.

The table below shows the number of SMEs in all the sectors.

BSIC Code	Sector	# of SMEs
151	Leather & Leather Products	1,150
152	Footwear Products	2,033
31	Furniture	19,163
102, 120	Food processing	851
222	Plastics	2,003
21	pharmaceutical products	499
27, 29, 30	Light Engineering	1,312
1314	Jute	30
2394	Ceramics	23
	IT and ITES *	520

Source: <http://www.worldbank.org/en/news/feature/2015/05/08/bangladesh-ict-industry-a-boon-for-womens-employment>



## 4. Contribution of sector to export basket

The year-wise export data (2010-2015) for each sector was captured from the “Intracen Trade Statistics” database. It is based on the HS codes – 2 Digit level for different sectors as mentioned in the database. It helped identify Bangladesh’s position in the world export market for each sector. The table below shows the Export data for all the Sectors:

HS Code – 2 Digit	Sector	Total Exports around World 2015 (USD Million)	CAGR growth around world (2010-2015)	Total Exports of Bangladesh 2015 (USD Million)	CAGR growth Bangladesh (2010-2015)	Share of Bangladesh in World Exports (2015)
41, 42	Leather & Leather Products	105,445	5.2%	508	11%	0.48%
64	Footwear Products	138,277	2.6%	827	27%	0.6%
94	Furniture	240,108	7.5%	46	20.7%	0.02%
3, 24	Food processing	140,430	3.8%	699	2.8%	0.5%
39	Plastics	554,128	-0.5%	89	8.6%	0.02%
30	Pharmaceutical products	868,322	1.3%	83	16%	0.01%
87, 85	Light Engineering	2,414,635	3.4%	271	10%	0.01%
53	Jute	900	-5%	666	4.1%	74%
69	Ceramics	56,868	8%	52	12.7%	0.09%
	IT and ITES*	453,318	39%	25	23%	0.01%

## 5. Foreign direct investments

The year-wise FDI data (2010-2015) for the sector was captured from the “Bank of Bangladesh database”. The FDI inflows have been given for broad sectors such as manufacturing, agriculture, etc. hence it could not be captured for all the sectors.

The table below shows the FDI in all the Sectors:

Sector	Sector wise FDI in USD Million					
	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Pharmaceutical products	9.0	14.0	30.4	48.0	25.7	39.97
Light Engineering	0.35	1.52	17.81	4.71	10.12	
Leather, Leather products	13	8.3	28	36.2	36.59	31.52
IT and ITES	4.5	8.5	20.3	29.69	4.44	4.4

## 9. Annex C: Case Studies

### *Export diversification strategy: case study of Cambodia - from export concentration to export diversification*

Cambodia demonstrated remarkable average annual economic growth of about 10% between 1998 and 2007. The textile and garment industry was the cornerstone of this export performance. The sector accounted for 16% of GDP in 2007 and represented the largest source of job growth. This expansion in the garment sector was also complemented by growth in the tourism sector.

The export concentration ratio of 0.415 in 2009 showed that the country relied heavily on exports from the textile and garment industry. The vulnerability associated with such a high Export Concentration Ratio (ECR) was compounded by a relatively limited export market. Cambodia's traditional export market comprised the United States, the European Union, Singapore, Thailand and Malaysia. The sensitivity of the economy to external shocks was revealed during the global economic slowdown in 2008. The garment exports showed a contraction by almost 20% of their value in 2008. By 2010, more than 45,000 jobs were lost in the garment sector. The economic growth in Cambodia slowed to 6.7 % in 2008 and the economy contracted by 1.9% in 2009.

In order to help reduce vulnerability to economic shocks and promote the generation of jobs, the Cambodian government decided to integrate its trade policy into a broader national development agenda. In 2001, a Diagnostic Trade Integration Study (DTIS) was conducted for Cambodia. This was later revised and paved the way for the adoption of Cambodia's Trade Integration Strategy in 2007.

The key objectives of the 2007 Trade Integration Strategy included:

1. Identifying a set of possible priority product or service sectors as a basis for strengthening and diversifying Cambodia's export basket;
2. Identifying bottlenecks, either common to all priority sectors or specific to each, that needed to be removed to promote development of those export sectors;
3. Linking trade sector development more clearly with human development and poverty reduction;
4. Serving as a basis for formulating clear trade sector development priorities shared by the Cambodian government, its development partners, and other concerned stakeholders to be implemented by all through a Trade Sector Wide Approach (SWAp).

### *Methodology used to derive the export potential of different sectors*

In order to develop a more strategic view of Cambodia's trade sector Cambodia's trade sector development, Diagnostic Trade Integration Strategy (DTIS) 2007 identified an initial basket of 19 export potentials and examined them through a series of "filters". The "filters" were meant to identify export potentials that may "mature" more quickly or that Cambodia may seek to encourage more rapidly based on their competitiveness strengths and weaknesses, their market access conditions, or their poverty reduction impact.

The basket of 19 export potential products were divided into two lists

*List 1 (Commodities that were exported in the year 2007):* Beer, Cashew Nuts, Cassava, Corn, Fishery, Footwear, Garment, Livestock, Rice (including organic rice), Rubber, Silk (including handicrafts), and Soybeans.

*List 2 (Services and Non-exported Products):* Fruits and vegetables, including organic produce, mango, palm and soap products, and pepper; Wood products, including sustainable construction materials such as bamboo flooring, panelling, etc.; Light manufacturing assembly, which might include bicycle and mopeds, light, electrical/electronics (e.g. fans, TVs), sewing machines, etc.; Tourism, including personal and business travel, and entertainment; Labour services, including construction services, household help, and farming; Transport and transport-related services; Business processes/web-based services, which might include computer services, architecture, engineering, bookkeeping, accounting, etc.

In order to explore development opportunities for each product or service sector four indexes were developed:

### *Export potential*

1. Index 1 measured export performance of Cambodia in the given product or service sector based on export value in 2005;
2. Index 2 measured demand conditions in world markets using a composite indicator including growth of international demand and Cambodia's access to international markets based on tariffs;
3. Index 3 measured domestic supply capacity. The index is based on the results of a survey of over 150 Cambodian firms that were questioned about supply issues such as the quality of products, productivity, costs of production, and the efficiency of supporting industries;

### *Human development assessment*

1. Index 4 measured the potential human development impact of each product or service sector on the Cambodian economy. The index is based on a rough estimate of 2005-2006 employment combined with other dimensions including employment

creation, income generation, employment of women, poverty reduction, rural development, environmental sustainability, and the impact and extent of forward and backward linkages. Those dimensions were developed through interviews with companies, discussions with experts, and literature review.

The table below is the output of the assessment of Cambodia's export development opportunities for the 19 products and services

*Table 13 Output of the assessment of export development opportunities*

Export Potential				Human Development			
List 1	Estimated exports in 2005 (\$ 1,000)	1. Export performance	2. World markets	3. Domestic supply conditions	Export potential assessment (average 3 indices)	Estimated employment	4. Human development assessment
Garments	2610,766	H (5,0)	H (3,5)	H (3,8)	High (4,1)	360,000	High
Footwear	156,513	H (4,1)	M (3,1)	H (3,5)	High (3,6)	4,500	Medium
Cassava	13	L (1,2)	H (5,0)	H (3,5)	High (3,5)	4,000	Low
Rubber	9,095	L (1,2)	H (3,9)	H (4,5)	High (3,2)	40,000	Medium
Fishery	100	M (3,0)	M (2,7)	H (3,5)	Medium (3,1)	260,000	Medium -High
Rice	200	H (5,0)	L (1,2)	M (3,0)	Medium (3,1)	2,940,000	Medium -High
Soybeans	34	L (1,7)	H (3,4)	M (3,0)	Medium (2,7)	16,500	Low - Medium
CashewNuts	50	L (2,0)	M (2,7)	M (3,0)	Low (2,6)	12,000	Medium
Silk	4	L (1,1)	M (2,7)	L (2,3)	Low (2,0)	20,500	Medium -High
Livestock	19	L (1,4)	M (3,1)	L (1,3)	Low (1,9)	400,000	Medium
Corn	25	L (1,5)	L (1,2)	L (2,5)	Low (1,7)	12,500	Low -Medium
Beer	0,975	L (1,0)	M (2,8)	L (1,0)	Low (1,6)	3,000	Low
List 2							
Fruits and Vegetables	0,269	L (1,0)	H (3,2)	Medium	Medium	..	Medium -High
Wood Products	5,547	L (1,1)	M (2,9)	Medium	Medium	..	Medium
Light Manufacturing	3,336	L (1,1)	H (3,3)	Medium	Medium	..	Medium
Tourism	..	High	High	Medium	High	..	High
Labour Services	..	Medium	High	Medium	Medium	..	Medium
Web-based services	..	Low	High	Low	Low	..	Low
Transport Services	..	Low	Medium	Low	Low	..	Low

Source: DTIS 2007

\*Indexes range from 1 (lowest ranking) to 5 (highest ranking). Product sectors rank "high" with an index of more than 3,1, medium with an index between 2,7 and 3,1, or low with an index of less than 2,7. "n.a." = not applicable. The composite indexes for livestock and beer do not take into account domestic supply conditions and socio-economic impact due to lack of comparable data. They are not directly comparable with other products in List 1.

The table below shows the comparison of the 19 products and services along the two dimensions of export potential and human development potential.

*Table 14: Comparison along the two dimensions of export potential and human development*

Human development Impact	Export Potential		
	Low	Medium	High
High			Garments Tourism
Medium High	Silk	Fishery Rice Fruits and Vegetables	
Medium	Livestock, Cashew Nuts	Wood products, Light Manufacturing, Labour Services	Footwear Rubber
Low-Medium	Corn	Soybeans	
Low	Beer, Web services, Transport Services-based		Cassava

Source:DTIS

### *Attractive market index*

The Diagnostic Trade Integration Strategy (DTIS) develops an Attractive Market Index for each product line in each of the 19 sectors and for each import market as a means to rank and identify where the most attractive new markets for expanded Cambodian exports might be found. The Attractive Market index combines

1. A measure of the strength of demand in the importing market (measured by the difference in the growth of that import in the given market and the growth of world imports for the same product);
2. The size of import markets, as measured by their share in world imports of a given product;
3. The openness of import markets for products from Cambodia, as measured by the ad valorem equivalent tariffs they apply to imports from Cambodia for a given product;
4. The preferential access to import markets (measured by the tariff differential between tariffs faced by Cambodia and those faced by its five major competitors in each import market).

The Attractive Market Analysis presented in DTIS 2007 suggested that the ability of Cambodian exporters to compete on the basis of tariff preferences in the 19 sectors was limited. Where it still exists (garments for the most part) it appeared to be shrinking rapidly. The implication of the disappearance of tariff-based competitive advantages was for Cambodian exporters

to compete on a different basis, including by developing cost advantages through improved production practices at home, and through strengthening their ability to meet non-tariff requirements of importing countries.

### *In-depth look at competitiveness conditions in the 19 export potentials*

The results were summarized in the 19 SWOT (Strength, Weakness, Opportunities, Threats) sector tables presented as Table AM-2 in the Action Matrix of the DTIS 2007. Developing 19 SWOTs were starting points rather than end points for the formulation of sector-specific interventions.

After the SWOT analysis, each of the sectors were analysed in detail. The detailed sector analyses helped in pointing to the shared cross-cutting areas where improvements would clearly benefit a wide range of sectors including trade facilitation, investment facilitation, SPS capacity, TBT capacity and Intellectual Property Rights capacity. Most of the export potentials also confront sector-specific issues, including skill development of producers, strengthening of supply chains, strengthening of processing capacity, access to quality inputs, organization of producers and many others. The initial phase consisted of examining 5 out of the 19 sectors to understand the issues that needed to be looked at in the context of trade development.

## *Strengthening the legal and institutional environment for competitiveness of export potentials*

Strengthening the ability of a growing number of product and service sectors to develop a competitive export capacity required intervention both at the product or service sector level and in areas of legal and institutional support that cut across most sectors. DTIS focused on five such cross cutting areas

- Trade Facilitation
- Investment Facilitation
- Technical Barrier to Trade
- Sanitary and Phyto-Sanitary Measures
- Intellectual Property Rights

Each of these five main areas are looked at particularly from the perspective of identifying improvements that might have the most direct impact on the 19 export potentials.

### *Implementation*

While this study was being developed, Cambodia's Ministry of Commerce (MoC) took steps to put in place a new institutional infrastructure for consultation, management, resource mobilization and monitoring required for a successful implementation of DTIS 2007. Key among those parallel developments was the creation of the Sub-Steering Committee on Trade Development and Trade-Related Investment by Anukret of March 2007 and the formation of the MoC's Department for International Cooperation by Anukret of August 2007 (the latter focusing on the reorganization of the MoC). Two factors were critical in determining the effectiveness of the new implementing mechanisms: clear involvement of and good coordination with other key ministries in the work of the Sub-Committee and the Department for International Cooperation; and vigorous development of Human Resources in MoC and concerned line Ministries in many aspects of trade policy formulation and trade strategy implementation.

## *Export diversification strategy: the case of malaysia - malaysia's shift to export diversification*

Malaysia is a different example of a resource-rich country that successfully diversified its exports.

In the 1950's, the Malaysian economy was precariously dependent on two primary commodities, namely rubber and tin. The focus of the economy in the late 1950's was on the production of consumer goods for the home market. The limitations of the import substitution strategy soon became apparent as the small domestic market became saturated. Further expansion seemed impossible. Accordingly, there was a radical shift from inward-looking import substitution to outward looking export promotion through export diversification in the 1970s.

It was readily apparent that primary exports could not provide the much needed growth impetus. Hence the emphasis was placed on manufactured exports in the 1970s.

The Malaysian economy recorded rapid growth from 1970 to 1997, with the exception of a brief recession in the mid-1980's. The economy grew by 8.3% between 1970 and 1980, slowed down to 5.9% between 1980 and 1990, but recorded unprecedented sustained high growth of about 9% from 1990 until it succumbed to the Asian financial crisis of 1997. The remarkable economic expansion was progressively led by manufacturing.

The manufacturing sector's share of GDP rose from 13% in 1970 to about 30% by 1997, while the sector's share of employment rose from 9% in 1970 to 26.4% in 1997. The manufacturing sector in Malaysia played an important role in the recovery of the economy from recession in 1998. The economy contracted by 7.5% in 1998 but recovered quickly expanding by 5.4% the following year. This shows the dominant position of the sector in the economy.

Malaysia moved away from its two main sources of export—rubber and tin —by

promoting other commodities, mostly palm oil, and by moving to higher value-added products like electronics and telecom equipment. The drastic transformation in Malaysian exports was shown with the share of tin and rubber in total exports falling from more than 60% in 1962 to less than 3% in 2008. During the same period, electronics and telecom components increased from less than 1% to nearly 50% and became the largest Malaysian export sector.

### *Key strategies involved in the process of export diversification*

The evolution of Malaysia's industrial policies can be distinguished in three phases:

1. Export-oriented industrialization (EOI) based on export-processing zones (EPZs) in the early 1970's.
2. A second-round of import-substituting industrialization (ISI) based on heavy industries in the early 1980's.
3. Liberalisation and a second round of export push in the late 1980's and a sustained shift toward more market-oriented policies in the 1990s.

The two Industrial Master Plans (IMP 1 & IMP 2) were landmark plans in promoting exports in the manufacturing sector. The IMP 1 (1986-95) was a long-term indicative plan for the development of 12 industrial subsectors, comprising seven resource-based industries and five non-resource based industries. The IMP 2 (1996-2005) adopted a Manufacturing ++ concept to integrate all the components of the value-added chain, combined with the cluster concept whereby related industries are geographically grouped to maximise intra-industry synergies.

### *Industrial master plan 1*

The first IMP (1986-1995) recommended the continuation of the export-led industrialization strategy but emphasized the promotion of resource-based industries in which Malaysia had already developed a strong foundation and the diversification of the non-resource based industries. The incentive system under the IMP was tied to industries in which Malaysia has a comparative advantage.

The First Industrial Master Plan was particularly instrumental in driving the 'multi-sector agglomeration' development strategy for the manufacturing sector. It accelerated the diversification of the domestic economy via the creation of a wider range of manufacturing activities in the country, thereby reducing the over-concentration on primary commodities. The positive impact of vertical diversification in the resource-based industries was seen in the following results:

1. Deepening of the forward and backward linkages in the economy, ensuring close interdependence and interconnectedness between upstream and downstream production. As the downstream production activities intensified, higher value-added output was generated within the domestic economy
2. Increased diversification led to higher profits for firms, sustained increases in wages, and higher tax revenue for the Government.
3. The growth of the resource-based industries led to an increase in productivity from the diversion of the underemployed or surplus labour force in the upstream agriculture sector to the manufacturing sector
4. The diversification was crucial in moderating the influence of commodity price volatility on the economy.

Statistics from – Industrial Restructuring in Malaysia: Policy shifts and the promotion of new sources of growth, ([http://www.nomurafoundation.or.jp/en/wordpress/wp-content/uploads/2014/09/20000127-28\\_Vijakumari\\_Kanapathy.pdf](http://www.nomurafoundation.or.jp/en/wordpress/wp-content/uploads/2014/09/20000127-28_Vijakumari_Kanapathy.pdf))

Felipe J., R. Briones, D.H. Brooks, A. Mehta and H. Verspagen (2013). 'Asia's Economic Transformation: Where to, How, and How Fast?'. Special chapter in Key Indicators for Asia and the Pacific 2013, Asian Development Bank (ADB).



## *Industrial master plan 2*

The IMP 2 (1996-2005) contributed to the further development of the sector by strengthening industrial linkages, increasing value-added activities and enhancing productivity. Malaysia's industrial competitive strength was built on relatively low labour costs, sound physical and policy infrastructure, a fairly educated workforce and the availability of support services. This led to an industrial structure that was low in skill intensity.

The export growth was led by foreign investment. The failure to develop sufficient domestic linkages had resulted in the growth of industries with high import content of capital formation and industrial output. Malaysia needed to avoid FDI that had low potential for linkages with the local economy and attract FDI that was conducive to developing indigenous supply capability.

The Second IMP was formulated at a time of widespread labour and skill shortages and increasing global competition, focused on increasing productivity and competitiveness. This new growth strategy was a shift from the assembly-intensive manufacturing to an integrated, industry wide approach encompassing both manufacturing and related services. This came to be known as the Manufacturing ++ strategy.

The key sectors under the Manufacturing++ strategy included:

***Resource based industries:*** Chemicals and Chemical products, Wood Products, Rubber Products, Processed food, Non-metallic mineral products, Petroleum products, Paper and pulp products, Beverages and tobacco

***Non-resource based industries:*** Electrical and electronics products, Machinery, appliances and parts, Optical and scientific equipment, Manufacture of metals, Textiles and apparels, Iron and Steel products, Transport equipment, Manufacture of plastics and Jewellery.

## *The manufacturing ++ strategy*

This strategy emphasized the development of industrial clusters, the requisites for the foundation of the economy such as human resources, technology, physical infrastructure, supportive administration and procedures, fiscal and non-fiscal incentives, and business support services. The clusters at various levels were of various kinds:

***Natural evolving clusters:*** Consisted mainly of resource-based industries including wood, rubber, palm, petroleum and chemicals.

***Policy driven clusters:*** Mainly consisted of heavy industries and included automotive, aerospace, machinery and equipment.

***Clusters with international linkages:*** This included electronics, electrical appliances and textile industries.

The Electronics industry in the manufacturing sector showed remarkable growth. The Electrical and Electronic (E&E) cluster had the essential features of a semiconductor cluster. Apart from principal manufacturers other supporting activities had also been established. The activities included suppliers of electronic components and providers of supporting business services. With respect to research and development, collaboration among industry, the government and academia was established through the formation of the collaborative research and resource centre. Initiatives were also taken to link the cluster with the global supply chain.

Other clusters that were developed included automotive, petrochemicals, furniture, textiles and apparels, providers of maintenance, repair and overhaul services in the aerospace industry.

The Government of Malaysia launched the first investment in its technology-based future, called the Multimedia Super Corridor (MSC) in 1996. The objective of MSC was to enable Malaysia to leap into knowledge intensive industries through the development of people, infrastructure

infrastructure and applications. It was a super high technology park, designed to enable Malaysians to participate in and benefit from the global information revolution. It was planned to be a high-tech hub for government and the private sector, based on the concept of intelligent offices providing fast and easy transport of data domestically and internationally through the use of a world class voice and data communication network. It was intended to act as a magnet to attract the world's most advanced, high tech research and development companies to Malaysia. The MSC was seen operating as a test bed for use by information technology and multimedia researchers from around the world.

## 10. Annex D: Snapshot of Studies On Export Diversification in Bangladesh

*Attracting investments in bangladesh – sectoral analysis, a diagnostic trade integration study, by the world bank, 2016.*

Attracting Investment in Bangladesh—Sectoral Analyses provides an in-depth analysis of eight manufacturing and services sectors of the Bangladeshi economy. Besides pointing to cross-cutting themes, the analysis also highlights some specific issues and actions that could help relieve constraints to faster export growth in these sectors.

The sectors include: shipbuilding, bicycles, jute products, non-leather products, the apparel industry, pharmaceuticals and IT-enabled services. Some of the key excerpts from the report for each sector is below:

**Shipbuilding:** The main challenges for shipbuilding include intermediate yard financing, infrastructure development, and quality. Key opportunities for growth include leveraging domestic demand, benefiting from increased national safety regulation, and expanding maintenance and repair services. To overcome the present challenges and leverage the identified opportunities, the roadmap requires action and focused implementation.

**Bicycle Industry:** The country needs to concentrate on production of bicycle parts rather than relying on imports for the bulk of their needs for bicycle parts. This would help the overall competitiveness of exports. For this, the parts industry will need to invest in modern tools and equipment, such as semi-automated and, where necessary, automated precision equipment. Better access to finance will

help those producers whose desire to invest in equipment has been hampered by financial access.

**Jute Industry:** Bangladesh can possibly become an attractive manufacturing hub for diversified jute products. Investment in modern milling and other equipment is necessary to maximize the cost savings. Creation of bank of higher value-added jute and jute-based fabrics used in handbags and other fashion accessories is necessary for Bangladesh. The fabrics can be sourced locally and owing to its jute quality should be priced competitively. The fabric bank will need to remain current in relation to color changes and other global fashion demands. Further assistance could include initial market research combined with partnerships with the buying community to track market and fashion trends to help stay on top of international demand.

**Non-Leather Footwear:** Bangladesh is highly competitive in the espadrille market and this could be a major niche area in the future, providing a substantial number of low-skilled to highly skilled jobs. To enhance competitiveness, Bangladesh could reduce and eliminate its own policy distortions, including removing entry barriers, and capitalize on the trend toward non-leather footwear. It could encourage further local value added and move into higher-quality and higher-value product markets.

**Apparel Industry:** Bangladesh should strengthen institutions for research and development and capacity building. This would help the industry maintain its competitiveness with existing apparel-manufacturing countries and new entrants and encourage best practices in garment manufacturing to be applied sector-wide. Leveraging technology can improve production efficiency and help move the sector beyond low labor costs as the sole means to profitability. Technology can also help Bangladesh adapt to the rapidly changing needs of fashion buyers. On the human resources side, increasing skills will improve the quality of products and increase resource efficiency.

Strengthening institutional capacity requires the support and involvement of firms, institutions, and government, and will be enhanced by collaboration with supply chain partners.

**Pharmaceutical Sector:** Bangladesh should consider opening up its domestic pharmaceutical market to global competition, allowing FDI through joint ventures to begin with. Similarly, import restrictions should be gradually lifted, to give the consumer a greater choice of drugs and induce domestic firms to compete not only on price, but also on quality. The government of Bangladesh has wanted to establish an API park since 2008, but plans are moving slowly. API production requires scale economies and Bangladesh may find it difficult to compete internationally in APIs. However, there are some options here. FDI-based tie-ups with Indian or Chinese firms that manufacture API competitively can help. Further analysis is needed to determine which APIs Bangladesh could produce on a scale relevant to the Bangladeshi environment and still be price competitive. As water treatment plants and waste management are expensive operations, common effluent treatment facilities would be beneficial. To produce APIs, ensuring the quality of education and human resources and a supply of skilled labor in the chemistry and engineering fields would need particular attention.

**ICT services:** Addressing the skills gap is a major priority for this sector. International experts can be instrumental in developing curricula and leading courses that will be relevant for multinationals requiring ITES-BPO services. Building on students' basic computer skills acquired from primary school, vocational secondary schools could offer courses appropriate to ICT and focus on the soft skills lacking in the market. Training would cover management practices, marketing techniques, and English language courses.

*Toward new sources of competitiveness in Bangladesh: key findings of the diagnostic trade integration study. Directions in development by kathuria, sanjay, and mariem mezghenni malouche. 2016.*

Toward New Sources of Competitiveness in Bangladesh: Key Findings of the Diagnostic Trade Integration Study includes a matrix of specific reforms to be implemented by the government with the support of development partners. The key findings of the Diagnostic Trade Integration Study which proposes a four-pillar strategy to sustain and accelerate growth includes:

- Breaking into new markets through better trade logistics to reduce delivery lags, and improved development of regional trading opportunities in growing markets, especially East and South Asia
- Breaking into new products through more neutral and rational trade policies, taxation, and bonded warehouse schemes; through concerted efforts to spur domestic investment and attract foreign direct investment to contribute to export growth and diversification; and through strategic development and promotion of services trade
- Improving worker and consumer welfare by improving skills and literacy, implementing labor and work safety guidelines, and making safety nets more effective in dealing with trade shocks
- Building a supportive environment, including sustaining sound macroeconomic fundamentals, and strengthening the institutional capacity for strategic policy making.

*Bangladesh - consolidating export-led growth – Country diagnostic study - ADb publication, 2016*

The study performs an overall diagnostic of economic development in Bangladesh, specifically, by assessing the causes of and constraints to current and future inclusive and sustainable growth. Three critical constraints are identified namely 1) an insufficient supply of reliable energy , 2) lack of economic diversification and,

3) uncertain property rights. Some of the key themes discussed in the study are as follows:

*Economic growth rate has been high, but quality investments are needed going forward-* Bangladesh has been able to reach its economic growth potential over the 10 years leading up to 2015. Underlying this success has been the reduction in the population growth rate and the dependency ratio and a decline in the volatility of output. External inflows have soared, spurred by exports of garments and remittance inflows. Nonetheless, foreign direct investment, at around 1% of GDP, is low compared with other countries at similar levels of development. Also, the country's high vulnerability to climate change-related damage continues to affect economic activity through setbacks and damage to the capital stock.

*Lack of energy infrastructure, uncertainties in property ownership and lack of self-discovery in non-RMG sectors are significant barriers for private investment-* The study applies the growth diagnostics methodology based on Hausmann, Rodrik, and Velasco (2005) to identify the main barriers to growth using similar countries as comparators. Insufficient or inadequate growth-promoting ingredients—such as access and cost of finance, geography, transport and energy infrastructure, education and skills of the workforce, macroeconomic stability, governance and coordination externalities—can deter private investment.

*Economic growth has been inclusive; poverty has declined; the provision of health, education, and basic infrastructure has improved; and financial inclusion has thrived-* Despite considerable challenges, the government has managed to successfully implement many programs in the areas of basic needs. The study also analyzes the development of and access to microfinance institutes. It finds that microfinance has been largely inclusive

*Measures to increase long-term energy supply and foster energy conservation are urgently needed-* The lack of reliable electricity supply and the impending shortage of natural gas are major binding constraints to economic growth. The study notes that unless the energy supply gap can be narrowed across the country, economic growth will not match its potential.

*The success of the RMG sector has inadvertently come at the expense of poor growth and limited prospects for diversifying into other sectors-* The RMG sector in Bangladesh was initiated in the late 1970s with nine export-oriented garment manufacturing firms earning less than a million dollars a year. By 2015, it was the second-largest garment exporter in the world behind the People's Republic of China, with continued prospects for growth. At the same time, some sectors considered promising in earlier days, such as leather products and shipbuilding, have not taken off despite substantial potential. Having a relative comparative advantage in just a few exports would be acceptable if other diverse sectors and services that cater to domestic consumers developed in parallel.

*In addition, the anti-export bias faced by non-RMG sectors limits competition and product diversification-* Two case studies are presented as illustrations of the challenges non-RMG sectors face in expanding their business: *leather processing and pharmaceuticals*. Policy makers have pitched both sectors as promising, but problems, including some that could be addressed through policies, have prevented their full development.

*Policies need to enhance opportunities for all-* The concluding chapter of the study presents a broad policy framework that takes into account the interactions of all the ideas that have emerged. One broad recommendation is to alter the tax regime to eliminate special exemptions and reduce tax distortions across sectors.

*A policy framework to enable self-discovery of economic activity is recommended-* Rather than identifying thrust sectors and targeting a specific share of industry to GDP, policy makers have to find better horizontal interventions (those that cut across sectors without “picking winners”), as well as dealing with the issues that deter foreign direct investment.

*Bangladesh- looking beyond garments; Employment diagnostic study- co-publication of the asian development bank and the International labour organization, 2016*

This Employment Diagnostic Study highlights key labor market trends and challenges in Bangladesh, analyzes in depth the major issues relating to employment, and makes recommendations for government and stakeholder consideration. One of the chapters deals with economic diversification and employment.

The report highlights the fact that while manufacturing will continue to be the engine of growth and a major source of productive employment, the manufacturing base will need to diversify, and the sector will have to grow about 12%-15% over the next 15 years.

While Bangladesh has successfully created manufacturing jobs, particularly in textiles and garments, it has been unable to create a large pool of jobs in industries outside ready-made garments. Jobs in the service sector are, for the most part, informal (particularly in wholesale and retail trade). Nonetheless, the analysis in this report shows that some areas of manufacturing as well as some promising service sectors-- such as information technology, software, machinery repair, and tourism -- have the potential to grow further if the right incentives are set. Jobs in agriculture for the most part continue to be informal and not very productive, yet Bangladesh has the opportunity to invest more in agricultural value chains, which would help to bring farmers to market and raise their incomes.

(Agosin, 2007)

The report discusses the diversification potential of key sectors, which are also mentioned in the draft industrial policy, 2015 of Bangladesh. These sectors with significant growth, export and employment potential include *agricultural products, leather and leather goods, pharmaceuticals, electronics, jute and diversified products, Information Technology and Tourism.*



# 11. Annex E: Sector Profiles

## Leather & footwear sector

The Bangladesh leather sector meets only 0.5% of the world's leather trade worth over US\$100 billion<sup>28</sup>. The industry is a significant contributor to the economy, both in terms of its domestic share and exports. It contributes about 2%<sup>29</sup> to industrial production, 0.6 % to the GDP<sup>2</sup> and around 3% to the country's total export earnings<sup>2</sup>. The sector is the 2nd largest<sup>1</sup> export industry in the country, employing about 558,000<sup>30</sup> people directly and 300,000 people indirectly in FY 2015-16.

### Global leather and footwear market

Bangladesh's trade policy focused mainly on import substitution resulting in higher import tariffs and quotas. This started to change in the 1980s with the liberalisation of the trade regime, a privatisation drive, the establishment of EPZs, and a slew of policies to promote exports and attract foreign direct investments (FDIs). In the early 1990s, exports started growing as trade reforms were introduced. The Multi-Fiber Agreement (MFA) helped Bangladesh with steady market access.

The world trade in leather, one of the most widely traded commodities- is currently growing and is estimated at over US\$100 billion a year. In 2013, leather footwear accounted for nearly fifty per cent of the total leather trade, amounting to US\$ 53.5 billion.

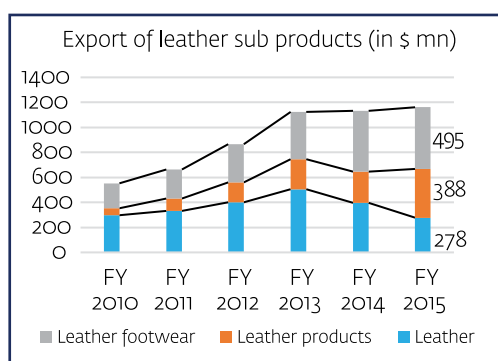
China dominates the exports share for footwear with close to 38% followed by Vietnam and Italy. Bangladesh ranks 21st in the world exports for footwear.

For raw hides and skins - Italy, USA, Brazil and Hong Kong are the top exporters. In the leather products sector, China is the largest exporter commanding close to 40% share followed by Italy, France and Hong Kong.

The largest importer of raw hides, skin and leather is China followed by Italy, Hong Kong, Vietnam and Germany. China accounts for about a quarter of the total world imports in this sector. Similarly USA, Japan, Hong Kong and France are the largest importers of leather articles such as hand bags, travel goods and so on. USA accounts for close to 20% share in the worldwide imports of leather products. In the footwear sector, the largest importers include USA, Germany, UK and France with USA accounting for nearly 22% of the global imports<sup>31</sup>.

### Export scenario of the leather sector in Bangladesh

The largest importer of raw hides, skin and leather is China followed by Italy, Hong Kong, Vietnam and Germany. China accounts for about a quarter of the total world imports in this sector. Similarly USA, Japan, Hong Kong and France are the largest importers of leather articles such as hand bags, travel goods and so on. USA accounts for close to 20% share in the worldwide imports of leather products. In the footwear sector, the largest importers include USA, Germany, UK and France with USA accounting for nearly 22% of the global imports.



\*Source: epb.portal.gov.bd

28. <http://documents.worldbank.org/curated/en/39733146800167011/pdf/99485-REVISED-Kenya-Leather-Industry.pdf>

29. epb.portal.gov.bd

30. <https://www.scribd.com/document/318173953/leather-industry-of-BD>



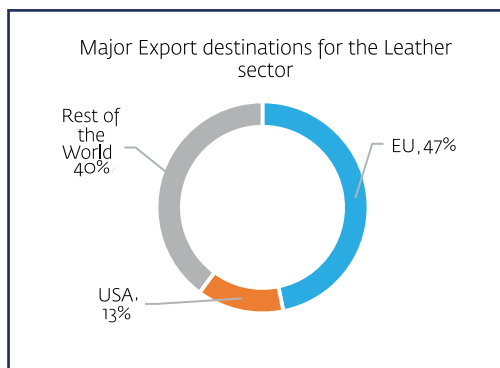
- Leather exports from Bangladesh stood at US\$ 1,382 billion in FY 2015-16, contributing 3 per cent to the total export earnings of the country.

- 95% of the total products are exported while only 5% of them are consumed domestically.

- In the future, exports from Bangladesh are expected to increase considerably. Total exports of leather and leather goods are expected to touch US\$ 5 billion by 2021<sup>32</sup>.

There are three broad components of the leather industry (i) leather tanning (ii) leather footwear and (iii) other leather products such as handbags, wallets etc.

Bangladesh's Leather exports are highly concentrated and dependent on the EU and Asian markets.



\*Source: epb.portal.gov.bd

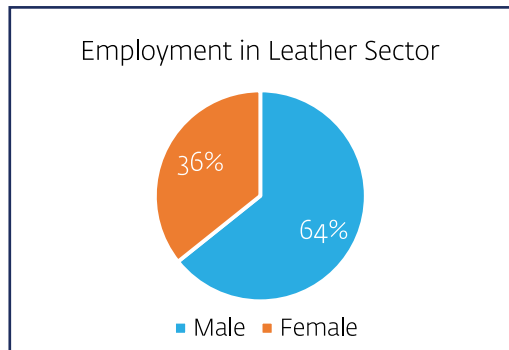
### Industrial base of the leather sector in Bangladesh

Hazaribagh District near Dhaka is the Leather capital of Bangladesh. There are two big clusters at Bhairab and Chittagong as well.

The industry employs around 558,000 people directly while 300,000 people are employed indirectly in the sector<sup>3</sup>. The

average wages of a labourer is USD 103/month<sup>33</sup>.

\*Source: <http://www.textiletoday.com.bd/leathertech-bangladesh-2016-exhibition-mend-new-entrepreneurs-demand/?print=print>



Sector	Female Employees	Male Employees	Female workforce (%)
Leather & Leather Products	14,522	25,400	36%
Footwear products	31,154	56,771	35%

\*Source: Economic Census of Bangladesh, 2013

More than 35% of the workforce in the leather sector is female.

### Export scenario of the leather sector in Bangladesh

- Leather sector likely to gain momentum in exports since China, and Brazil (the two largest leather exporters) have shifted their focus due to rising labour costs in the leather sector.

- Potentiality to attract foreign investments in this sector due to low labour costs, availability of raw hide, leather processing infrastructure & government incentives including duty-free machinery imports.

### Professional associations & institutions supporting the leather sector

1	Leather Sector Business Promotion Council (LSBPC)
2	Bangladesh Finished Leather, Leather Goods and Footwear Exporters Association (BFLLEA)- over 80 members

32. <http://fbcc.co.jp/wp-content/uploads/2014/08/A-Report-on-Leather-Leather-Goods-Industry-of-Bangladesh.pdf>

33. <http://www.ucanews.com/news/the-extremely-unhealthy-life-of-the-bangladesh-tannery-worker/70421>

## Plastic products sector

In Bangladesh, plastics industry started as a backward linkage industry of the export oriented RMG sector. Manufacturing of plastic and plastic based products is contributing significantly to the economy and has become an important segment of the manufacturing industry. The sector accounts for about 1% of the total industrial production. The country has formulated a vision of achieving a market size of USD 4 billion by 2020.

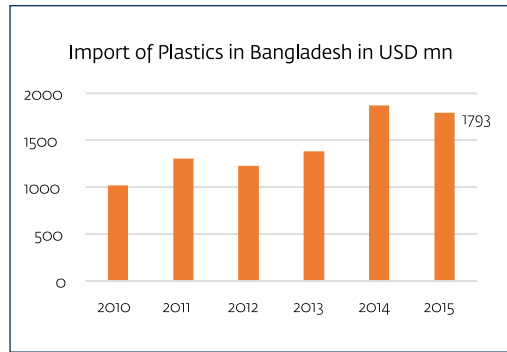
### Global Plastic Market

China is the leading exporter of plastic and plastic products, followed closely by Germany and USA. China, Germany and USA are also the largest importers of plastic products. Bangladesh ranks 55 in plastic imports as per 2015 values of imports. The imports of plastic and plastic products have seen a CAGR of 15% from 2001-2015. In 2015, the total import of plastic products was USD 1.8 Billion compared to USD 0.2 Billion in 2001. In the total import, the share of raw materials for production of plastic has increased from 49% in 2001 to 70% in 2015.

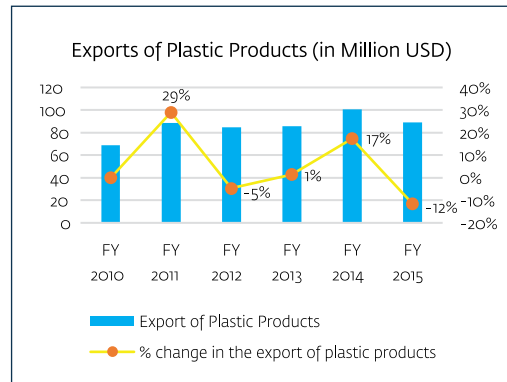
### Export scenario of Plastic products

- Export of Plastic products stood at US \$ 0.089 billion in FY 2015 and accounted for 0.28% of the total exports in the same year. Most of the plastic exports are not accounted for in the sector as it is exported as an input of RMG, hence the export figure alone does not suggest the right indication of the potential of the sector. Imports of plastics is increasing at 12% per annum.

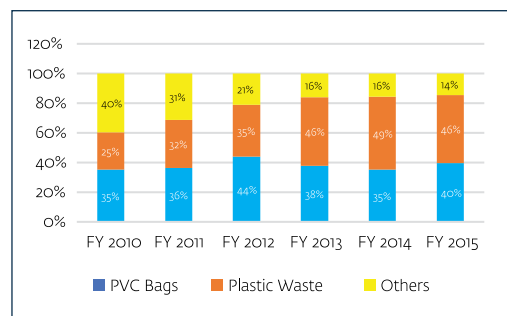
- The deemed exports of plastics in the country is estimated at USD 339 million in year 2011 and has been growing at same pace that of RMG sector. Considering the deemed export numbers, the contribution of plastic industries in exports accounts to over 1.3% and is among the top 5 sectors in exports from Bangladesh other than RMG.

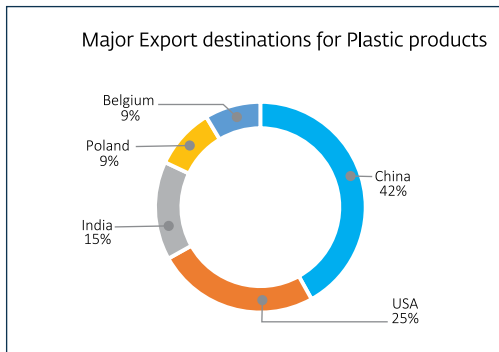


- Exports of Plastic products mainly consist of PVC bags and Plastic Waste which constitute 35% and 25% respectively. The exports of Plastic products have grown at a CAGR of 5% from FY 2010 to FY 2015 compared to a global average of 2.7%.



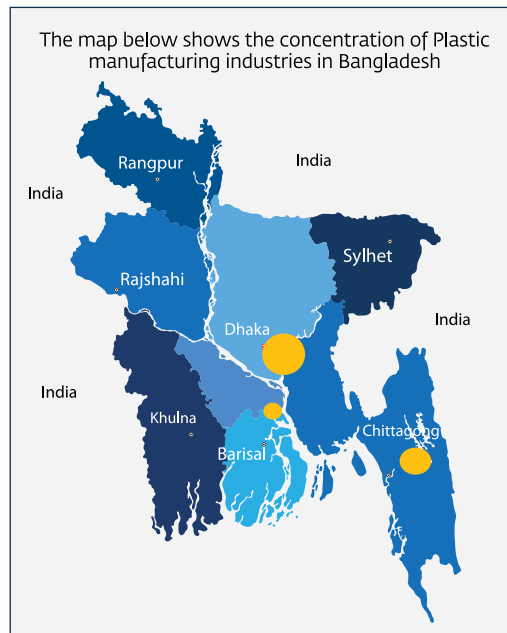
The share of different products in the total plastics exports from Bangladesh is shown in the graph below





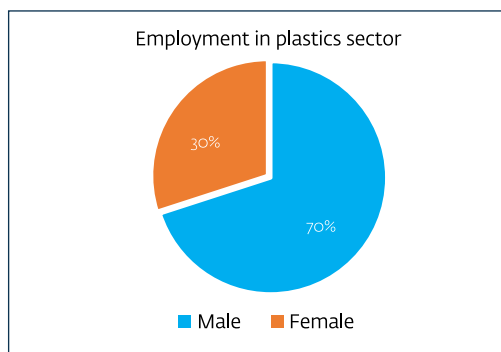
Source: [tradecompetitivenessmap.intracen.org/TP\\_TP\\_Cl.aspx?RP=050&YR=2015](http://tradecompetitivenessmap.intracen.org/TP_TP_Cl.aspx?RP=050&YR=2015)

**Industrial base of the plastic industry in Bangladesh** The plastic sector has around 3,000 manufacturing units that offer jobs to more than 2 million people directly and indirectly. The plastics recycling subsector, composed of around 300 small units in Dhaka employs 25,000 workers. Most of the plastic manufacturing units are located in Dhaka, Chittagong and Narayanganj. According to the Economic Census 2013, 30% of workforce in plastic sector is female.



### Advantages of the plastic industry

- Nearly 100% of the plastic production wastage are recycled for re-use, thus reducing the waste going into the environment.
- High growth potential
- Serves as a backward linkage industry for RMG sector
- Cluster approach resulting in low transportation costs



### Professional associations & institutions supporting the plastic sector

1. Bangladesh Plastic Goods Manufacturers & Exporters Association (BPGMEA)
2. Bangladesh Paduka Prostutkarak Samity (BPPS)
3. Bangladesh PVC Pipe Prostutkarak Samity (BPVCPSS)
4. Bangladesh University of Engineering & Technology (BUET)
5. Bangladesh Industrial Technical Assistance Centre, Ministry of Industries (BITAC)

BUET's academic programme includes a course on Polymers but none on processes and advanced materials. BITAC's Training in the plastics sector is limited to a basic 4 weeks Plastic Technology training programme aimed at industry workers.

Most of the raw materials of the industry are however imported from abroad. The production system uses 90% of original raw materials and 10% of recycled material.

Major sources of importing raw materials for plastic industry are: U.A.E., Kuwait, Thailand, Sri Lanka, Japan, Malaysia, China, India, USA, Singapore, and Germany.

## Furniture sector

Furniture is a labour intensive sector and Bangladesh has a large low cost manpower which is a vital factor in becoming competitive in the world market. It contributes about 0.07 per cent to industrial production, 0.021 per cent to the GDP and around 0.11 per cent to the country's total export earnings. The sector is a large employment provider in the country, employing about 1.8 million people directly in FY 2015-16.

### Global furniture market

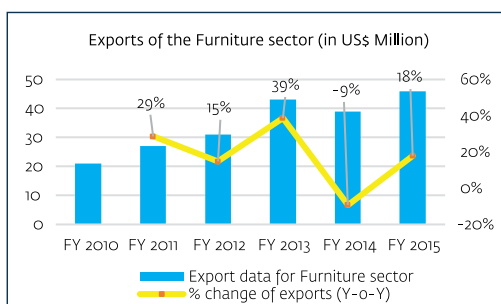
The World trade of furniture which accounts for about 1% of the world trade of manufactured goods amounted to US\$ 100 billion in 2012 .

China is the leading exporter of furniture accounting for close to 40% of the total furniture export share of the world, followed by Germany and Italy. Bangladesh ranks 76 in furniture exports as per 2015 values of exports.

USA, Germany and UK are the top 3 importers of furniture with USA commanding a share of almost 28% in the overall world imports. Bangladesh ranks 64 in furniture imports as per 2015 values of imports.

<sup>36</sup>[epb.portal.gov.bd](http://epb.portal.gov.bd)  
<sup>37</sup><http://euinspired.org.bd/docs/INSPIRED%20-%20Furniture%20Sector%20Report%20-%20Jan%20'13.pdf>

### Export scenario of the furniture sector

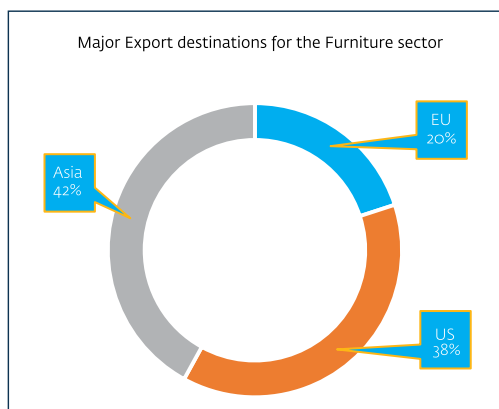


Source: [epb.portal.gov.bd](http://epb.portal.gov.bd)

- Furniture exports from Bangladesh stood at US\$ 0.41 billion in FY 2015-16, contributing 0.1 per cent to the total export earnings of the country.
- Exports of furniture from Bangladesh grew at a CAGR of 20.7% in the period 2010-2015
- In the future, exports from Bangladesh are expected to increase considerably and is expected to touch US\$ 35 billion by 2021.

<sup>38</sup>The EU Furniture market situation and a possible furniture products initiative- Centre for European policy studies, Nov 2014  
<sup>39</sup><http://www.textiletoday.com.bd/export-diversification-and-the-furniture-industry/>

Bangladesh's furniture exports are highly concentrated and dependent on the EU and US markets.

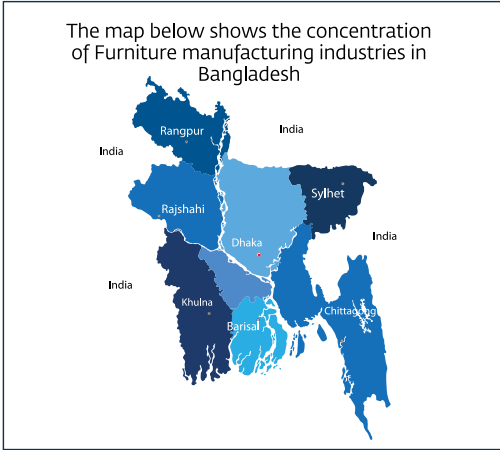


Source: [epb.portal.gov.bd](http://epb.portal.gov.bd)

### Industrial Base of the Furniture sector

At present about 70,000 enterprises and nearly 200,000 skilled and semi-skilled people are engaged in this sector. Among the employees working in furniture sectors, 20% are working in large industries and 80% are working in SMEs. Areas with a sizeable number of furniture companies are: Dhaka, Chittagong, Sylhet, Comilla, Tangail, Gazipur, Narayanganj, Jessore, Faridpur and Bogra.

<sup>40</sup><http://bibd.info/bangladesh-furniture-hold-shining-future/>  
<sup>41</sup><https://bdbanjjo.wordpress.com/tag/furniture-industry/>



*Professional associations & institutions supporting the furniture sector*

1	Bangladesh Furniture Industries Owners' Association (BFIOA)-over 1,300 listed members
2	Bangladesh Furniture Exporters' Association
3	Centre for Design & Technology Ltd.

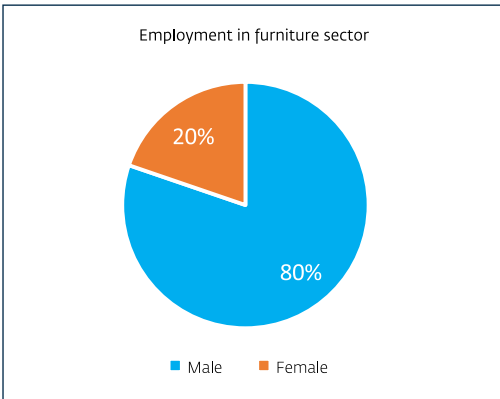
Centre for Design & Technology is the only visible service provider in the field of product design in the country, involved in rendering services to the furniture sector and organizing skills training.

Average wages in Bangladesh in the sector ranges from USD 37-120 per month<sup>2</sup>. The sector employees about 1.8 million people directly in FY 2015-16.<sup>2</sup>

*Advantage for furniture sector of Bangladesh*

- Excellent hand carving skills of the existing workforce.
- Lower labour costs - USD 37-120 per month

The government has included furniture as a high priority export sector and is providing export loans at lower interest rates and on soft terms.



## Light engineering sector

The light engineering industry is a high potential sector in Bangladesh. This labour-intensive sector produces 10,000 diverse types of products. It contributes around 2% of the GDP. The Light Engineering sector is a labour intensive industry employing 50 thousand people in 1030 SME enterprises across the country. Since data is available at BSIC code level and some data is available for Light Engineering as a broad sector, 2 HS Codes have been considered under the “Light engineering” category for analysis

85 - Electrical machinery and equipment  
87 – Vehicles and transport equipment’s  
Global Light Engineering Market

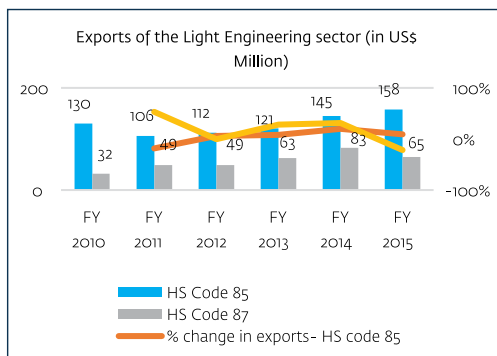
The world trade in light engineering products, one of the most widely traded commodities- is currently growing and is estimated at over US\$500 billion a year.

China dominates the exports share for electric and electronic equipment with close to 26% followed by Hong Kong and USA. Bangladesh ranks 94th in the world exports for this sector. For vehicles and other transport equipment, Germany and Japan are the top exporters. Bangladesh ranks 76 in this sector with total exports of 76 USD Million in 2015.

The largest importer of electrical and electronic equipment is China followed by USA, Hong Kong, and Germany. These top importers account for 50% of the world imports in the sector. Similarly USA, Germany, UK and China are the largest importers of vehicles and transport equipment. USA accounts for close to 20% share in the worldwide imports of vehicle.<sup>46</sup>

<sup>42</sup>[www.Bida.gov.bd](http://www.Bida.gov.bd)  
<sup>43</sup>Statistical yearbook of Bangladesh 2015

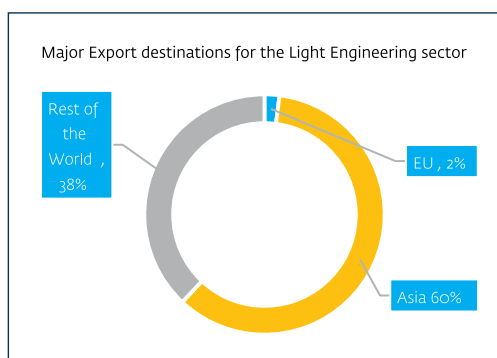
## Export scenario of the light engineering sector



<sup>44</sup>Economic Survey-2013  
<sup>45</sup>Intracen database  
Source: epb.portal.gov.bd

- Light engineering exports from Bangladesh stood at US\$ 223 million in FY 2015-16, contributing 2 per cent to the total export earnings of the country.

Bangladesh's Light Engineering exports are highly concentrated and dependent on Asian markets.



Source: epb.portal.gov.bd

## Industrial base of the light engineering sector in Bangladesh

More than 1200 factories and SMEs of varying sizes employing around 50,000 people in production of light engineering products such as electrical equipment, motor vehicles, trailers and semi-trailers and other transport equipment in the Dhaka Capital Region. The factories are

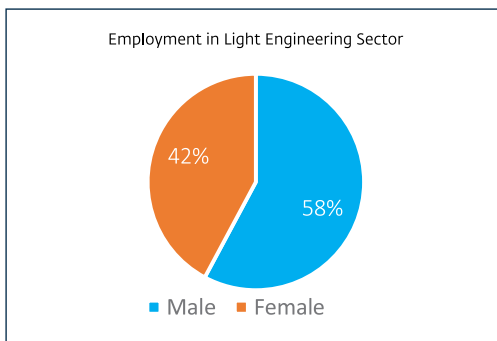
geographically concentrated in these districts because of the ready access to skilled labour, and lower transportation and other business transaction costs.

46As per data on Intracen database  
Source: Economic Survey

Sector	Male Employees	Female Employees	Female workforce (%)
Manufacture of electrical equipment	20807	5614	21%
Manufacture of motor vehicles, trailers and semi-trailers	3094	639	17%
Manufacture of other transport equipment	14099	5200	27%
<b>Total</b>	<b>38000</b>	<b>11453</b>	<b>23%</b>

Source: Economic Census of Bangladesh, 2013

*The light engineering sector employs more than 20% women workforce.*



The map below shows the concentration of Light Engineering manufacturing industries in Bangladesh



*Advantage of light engineering sector for Bangladesh*

- Availability of a large, skilled, and low-wage work force.
- Cash incentive facilities have been provided by the government to exporters of value-added light engineering products.
- Government incentives including duty-free machinery imports.

*Professional associations & institutions supporting the light engineering sector*

1	Light Engineering Product Business Promotion Council (LEPBPC)
2	Bangladesh Engineering Industry Owner's Association (BEIOA)
3	Bangladesh Electrical Merchandise Manufacturers Association (BEMMA)



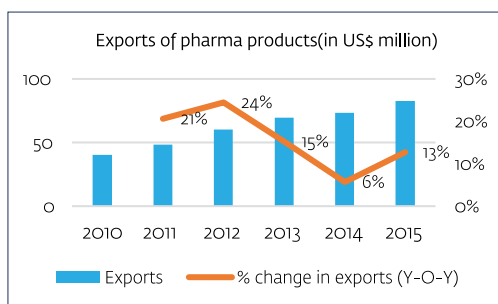
## Pharmaceuticals

The pharmaceutical industry is one of the most technologically advanced sectors currently in existence in Bangladesh. The industry is self-sufficient in nature. 2% of the drugs are imported and the remaining 98% of the demand is met by local production.<sup>47</sup> It accounts for 4% of the GDP and contributes to approximately 1% of total industrial production.<sup>48</sup> Bangladesh Pharmaceutical Industry exports a wide range of products covering all major therapeutic classes and dosage forms to 92 countries.<sup>49</sup>

### Global pharmaceutical market

For pharmaceutical products, Germany, Switzerland and USA are the top exporters. Bangladesh ranks 81 in this sector with a total exports of USD 82 Million in 2015.<sup>50</sup> In the pharmaceutical sector, the top 3 importers include USA, Germany and Belgium. In this sector Bangladesh ranks 102.

### Export scenario of pharmaceutical products



\*Source: epb.portal.gov.bd; intracen

- The exports have grown at a CAGR of 13% from FY 2010 to FY 2015.
- Besides regular forms like; Tablets, Capsules & Syrups, Bangladesh is also exporting high-tech specialized products

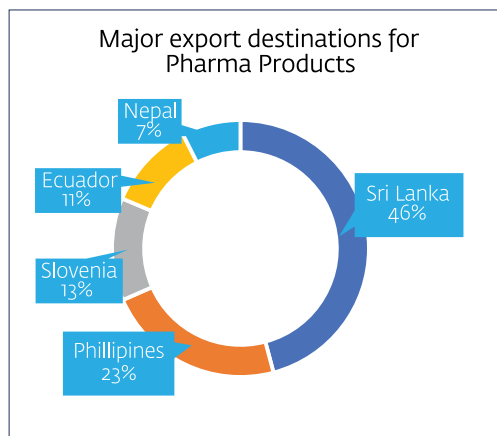
47. 2% of the drugs are imported and the remaining 98% of the demand is met by local production.

48. epb.portal.gov.bd

49. Bangladesh Pharmaceutical Industry exports a wide range of products covering all major therapeutic classes and dosage forms to 92 countries.

50. Intracen database

like HFA Inhalers, CFC Inhalers, Suppositories, Injectable, IV Infusions, etc. and have been well accepted by the Medical Practitioners, Chemists, Patients and the Regulatory Bodies of all the importing nations.

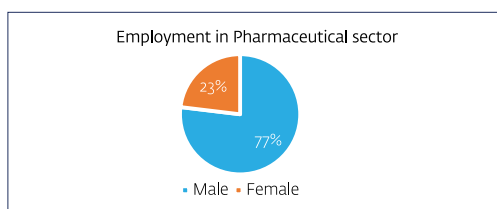


\*Source: intracen.org

The major export destinations from Bangladesh include India, Singapore, and Kenya wherein India accounts for nearly 60% of the total exports as per the value of exports in 2015-16.

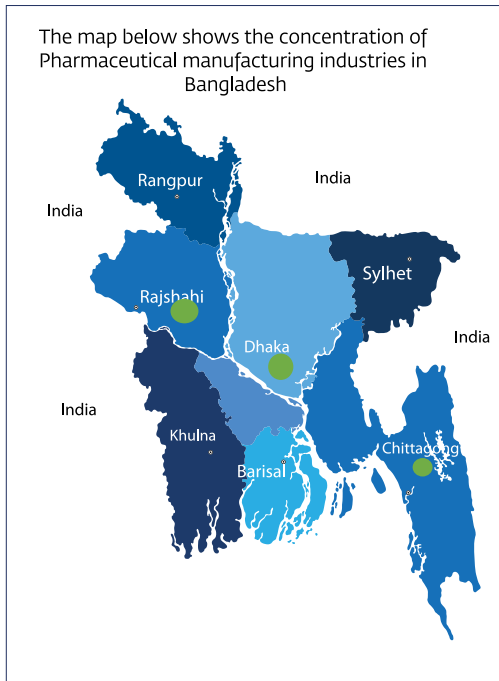
### Industrial base of the pharmaceutical sector

About 300 pharmaceutical companies are operating as of 2015. The industry manufactured about 5,600 brands of medicines in different dosage forms. There were, however, 1,495 wholesale drug license holders and about 37,700 retail drug license holders in Bangladesh. Bangladesh pharmaceutical industry is the largest white-collar intensive employment sector of the country employing around 115,000 workers.<sup>51</sup> Over 98% of the people employed are skilled workers and the remaining 2% are unskilled workers who are employed indirectly.



51. Pharmaceutical sector overview, EBL securities ltd, 21st May 2015

Dhaka, Chittagong and Rajshahi are some of the areas where Pharmaceutical manufacturing is concentrated.



### *Advantages of the pharma sector*

- Cost of labour is among the lowest in the world; 4 to 6 times cheaper than India and China
- Increasing number of international accreditations; Global footprint in more than 100 countries
- Investor friendly environment; WTO/TRIPS waiver till 2032
- Significant generic drug capabilities; Skills in diverse dosage delivery systems
- Medicine price in Bangladesh is currently among the lowest in the world.<sup>52</sup>

### *Professional Associations & Institutions supporting the Pharmaceutical sector*

Bangladesh Association of Pharmaceutical Industries (BAPI)

<sup>52</sup> [https://www.jetro.go.jp/ext\\_images/world/asia/bd/seminar\\_reports/20160413/p4.pdf](https://www.jetro.go.jp/ext_images/world/asia/bd/seminar_reports/20160413/p4.pdf)

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