# CAPACITY STRENGHTHENING FOR POLICY ANALYSIS

Policy Discernment Manual (PDM) at BIMSTEC and supra BIMSTEC LEVELS

### **SUBMITTED TO:**



INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

## **SUBMITTED BY:**



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# **ABBREVIATIONS**

| ADB     | Asian Development Bank   |
|---------|--|
| ADB     | Annual Development Program   |
| ALOP    | Appropriate Level of Protection                                    |
| AMS     | Aggregate Measurement of Support                                   |
| AoA     | Agreement on Agriculture   |
| APA     | Annual Performance Agreement                                       |
| APTA    | Asia Pacific Trade Agreement                                       |
| ASEAN   | Association of Southeast Asian Nations                             |
| BADC    | Bangladesh Agriculture Development Corporation                     |
| BAPA    | Bangladesh Agro-Processors Association                             |
| BCCSAP  | Bangladesh Climate Change Strategy and Action Plan                 |
| BCSA    | Bangladesh Cold Storage Association                                |
| BDS     | Bangladesh Standards   |
| BDT     | Bangladesh Taka  |
| BFDC    | Bangladesh Fisheries Development Corporation                       |
| BFSA    | Bangladesh Food Safety Authority                                   |
| BIMSTEC | Bay of Bengal Initiative for Multi-Sectoral Technical and Economic |
| DINDILO | Cooperation  |
| BIS     | Bureau of Indian Standards   |
| BPIA    | Bangladesh Poultry Industries Association                          |
| BPPA    | Bangladesh Public Procurement Authority                            |
| BREB    | Bangladesh Rural Electrification Board                             |
| BSTI    | Bangladesh Standards and Testing Institution                       |
| CCBA    | Cold Chain Bangladesh Alliance                                     |
| CD      | Custom Duties  |
| CEPA    | Comprehensive Economic Partnership Agreement                       |
| CIP     | Country Investment Plan  |
| CIT     | Corporate Income Tax   |
| CPTU    | Central Procurement Technical Unit                                 |
| CSDs    | Central Storage Depots   |
| CSO     | Civil Society Organization   |
| CTP     | Comprehensive Trade Policy   |
| DAE     | Department of Agricultural Extension                               |
| DAM     | Department of Agricultural Marketing                               |
| DFTP    | Duty-Free Tariff Preference  |
| DGF     | Director General of Food   |
| DLS     | Department of Livestock Services                                   |
| DSM     | Dispute Settlement Mechanism                                       |
| DVA     | Domestic Value Added   |
| ECNEC   | Executive Committee of the National Economic Council               |
| ECRRP   | Emergency Cyclone Recovery and Reconstruction Project              |
|         |  |

| EDI        | Electronic Data Interchange                             |
|------------|---|
| EP         | Essential Priorities                                    |
| EU         | European Union  |
| FAO        | Food and Agriculture Organization of the United Nations |
| FBCCI      | Bangladesh Chambers of Commerce and Industry            |
| FDI        | Foreign Direct Investment                               |
| FDI<br>FfW | Food for Work   |
| FIQC       |   |
| FPMU       | Fish Inspection and Quality Control                     |
|            | Food Planning and Monitoring Unit                       |
| FSSAI      | Food Safety and Standards Authority of India            |
| FTA        | Free Trade Agreement                                    |
| FVA        | Foreign Value Added                                     |
| FYP        | Five Year Plan  |
| GATT       | General Agreement on Tariffs and Trade                  |
| GDP        | Gross Domestic Product                                  |
| GE         | Genetically Engineered                                  |
| GFC        | Global Financial Crisis                                 |
| GHG        | Greenhouse Gas  |
| GMO        | Genetically Modified Organism                           |
| GPA        | Agreement on Government Procurement                     |
| GSP        | Generalized System of Preferences                       |
| GVC        | Global Value Chain                                      |
| HIC        | High-Income Country                                     |
| HS         | Harmonized System                                       |
| HVC        | High-Value crop   |
| ICD        | Inland Container Depot                                  |
| ICP        | Integrated Check Post                                   |
| ICT        | Information and Communication Technology                |
| IDA        | International Development Association                   |
| IDCOL      | Infrastructure Development Company Ltd.                 |
| IFAD       | International Fund for Agricultural Development         |
| IFC        | International Finance Corporation                       |
| IFPRI      | International Food Policy Research Institute            |
| IMED       | Implementation, Monitoring and Evaluation Division      |
| IMF        | International Monetary Fund                             |
| IPCC       | Intergovernmental Panel on Climate Change               |
| IPO        | Import Policy Order                                     |
| IRT        | Intra-Regional Trade                                    |
| ISFTA      | India-Sri Lanka Free Trade Agreement                    |
| ISM        | International Support Measures                          |
| ISPMs      | International Standards for Phytosanitary Measures      |
| LCS        | Land Customs Station                                    |
| LDC        | Least Developed Country                                 |
| LE         | Large Employers   |
| LMIC       | Lower Middle-Income Country                             |
| LSD        | Local Supply Depot                                      |
| MEP        | Minimum Export Price                                    |
| MFN        | Most Favoured Nation                                    |
| MFSP       | Modern Food Storage Project                             |
|            |   |

| MOC    | Ministry of Commerce                                   |
|--------|--|
| MoFood | Ministry of Food                                       |
| MOHFW  | Ministry of Health and Family Welfare                  |
| MRL    | Maximum Residue Limit                                  |
| NABL   | National Accreditation Board for Testing Laboratories  |
| NAP    | National Agriculture Policy                            |
| NAPA   | National Adaptation Plan of Action                     |
| NBR    | National Board of Revenue                              |
| NGO    | Non-Government Organization                            |
| NEC    | National Economic Council                              |
| NFNSP  | National Food and Nutrition Security Policy            |
| NFP    | National Food Policy                                   |
| NGO    | Non-Government Organization                            |
| NPR    | Nominal Protection Rate                                |
| NTB    | Non-Tariff Barrier                                     |
| NTM    | Non-Tariff Measure                                     |
| NTP    | National Trade Policy                                  |
| ODC    | Other Duties and Charges                               |
| OECD   | Organization for Economic Cooperation and Development  |
| OMS    | Open Market Sales                                      |
| OP     | Other Priorities                                       |
| PDM    | Policy Discernment Manual                              |
| PFDS   | Public Food Distribution System                        |
| PI     | Performance Indicator                                  |
| PPA    | Public Procurement Act                                 |
| PRI    | Policy Research Institute                              |
| РТА    | Preferential Trade Agreement                           |
| QR     | Quantitative Restriction                               |
| RIS    | Research and Information System                        |
| RMG    | Ready Made Garments                                    |
| RTA    | Regional Trade Agreement                               |
| RVC    | Regional Value Chain                                   |
| SAARC  | South Asian Association for Regional Cooperation       |
| SAFTA  | South Asian Free Trade Area                            |
| SCM    | Subsidies and Countervailing Measures                  |
| SD     | Supplementary Duties                                   |
| SIP    | Solar Irrigation Pump                                  |
| SOE    | State Owned Enterprise                                 |
| SPS    | Sanitary and Phytosanitary                             |
| SREDA  | Sustainable and Renewable Energy Development Authority |
| SSED   | Society for Social and Economic Development            |
| TBT    | Technical Barriers to Trade                            |
| TCB    | Trading Corporation of Bangladesh                      |
| TCL    | Temperature-Controlled Logistics                       |
| TPR    | Trade Policy Review                                    |
| TPU    | Trade Policy Uncertainty                               |
| TTI    | Total Tax Incidence                                    |
| US     | United States  |
| USD    | United States Dollar                                   |
|        |  |

| United States Department of Agriculture |
|---|
| Value-Added Tax                         |
| Vulnerable Group Development            |
| Vulnerable Group Feeding                |
| World Customs Organization              |
| World Food Programme                    |
| World Trade Organisation                |
|   |

### **EXECUTIVE SUMMARY**

The main objective of this Report is to develop a Policy Discernment Manual (PDM) for agriculture food trade policy. The PDM serves as a comprehensive guide for policymakers, analysts, and stakeholders involved in shaping agri-food trade policies. Recognizing the critical importance of agricultural trade in fostering economic growth, ensuring food security, and promoting sustainable development, the manual provides a structured framework for understanding trade policies in this sector by focusing on the areas of domestic agricultural policies, international trade policies for agriculture, the process for policy formulation and implementation, emerging global challenges, opportunities and future directions. The focus of this PDM is on agri-food trade between Bangladesh and India. Both are key members of the BIMSTEC and the conduct of agri-food trade between these two large countries is illustrative of the current trade policy practices and future challenges that need to be addressed to boost agri-food trade among these and other BIMSTEC countries. Many of the trade and non-trade barriers emerging from this PDM are a general reflection of the kinds of reforms needed for all BIMSTEC countries to boost agri-food trade.

To expand trade, Bangladesh has signed various trade agreements. Bangladesh has signed one free trade agreement (FTA) with South Asian countries known as the South Asia Free Trade Agreement (SAFTA), one bilateral preferential trade agreement (PTA) with Bhutan and is a member of the Asia Pacific Trade Agreement (APTA), which is a regional Preferential Trade Agreement (RTA). The primary goals of these agreements are to increase trade and investment among member countries and to foster regional cooperation.

To promote regional economic development through deeper collaboration, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) has emerged. The BIMSTEC members comprise of Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand. The BIMSTEC plays a significant role in regional trade. Because of complementing industrial capacities of member countries, historical ties, and proximity, intraregional commerce within BIMSTEC has been increasing. However, it is impeded from realizing its full potential by tariff and non-tariff barriers and logistical limitations.

The business for agri-food trade has grown substantially worldwide, with emerging and developing economies accounting for a significant portion of its USD 1.5 trillion trade in 2018. This pattern is also reflected in Bangladesh agri-food trade. Agri-food trade with BIMSTEC has expanded significantly. In particular, trade with India plays a dominant role in shaping food security in Bangladesh. As an exporter of agri-foods, Bangladesh has expanded the range of products it exports, with seafood taking precedence. Agri-food trade has been made more accessible by the decrease of tariffs brought about by trade liberalization globally and in BIMSTEC countries, especially India. On the domestic front, Bangladesh provides a range of supportive measures including subsidies to promote agri-food production and exports.

While food trade plays a pivotal role in the BIMSTEC region's agricultural trade, nonprocessed food dominates both exports and imports. In 2020, non-processed food accounted for 70 percent of food exports and 72.3 percent of food imports in the Intra-Regional Trade (IRT) of BIMSTEC. Notably, the region's food trade demonstrated growth rates in all sectors. regardless of global trade regimes, highlighting a key characteristic of regional food trade resilience.

Notwithstanding this progress, a range of domestic and trade related constraints impinge on efforts to expand agri-food exports in Bangladesh and other BIMSTEC countries. Global / regional value chain (GVC/ RVC) participation in the agri-food trade is also limited. In the case of Bangladesh, on the domestic front, these include domestic capacity constraints, low productivity, low technology, weak product quality, high-cost trade logistics and incentives. On the trade policy front, tariff and non-tariff measures (NTMs) continue to impede agriculture trade. Evidence shows that NTMs have now emerged as a major constraint to the expansion of agri-food exports. Trade policy uncertainty also affects market dynamics, Emerging global concerns relating to climate change, adverse effects of external shocks like Covid-19 and supply chain disruptions related to regional conflicts, and the re-emergence of global protectionist tendencies present important challenges. At the same time, technological break-through provides opportunities for raising domestic productivity, addressing climate change and enhancing participation in GVC/RVC that remain to be explored. So, moving forward, these diverse range of issues and challenges will need to be internalized in shaping future strategies for pushing agri-food trade in Bangladesh.

Improving trade laws, infrastructure, and skills is critical to encouraging participation in global value chains (GVCs) and ensuring food security. Understanding the dynamics of the agri-food trade and identifying areas that call for cooperation and policy action requires a better understanding of key issues, including GVCs, local and foreign value added, backward and forward linkages, and GVC participation.

To promote self-sufficiency within the climate-sensitive agriculture sector, various forms of government support, incentives, and social protection programs are in place in India and Bangladesh. Even though these forms of assistance have decreased recently, the level of agrifood sector protection is still high and can act as a roadblock to bilateral trade. Subsidies are included in the budget to guarantee that farmers can afford seeds, fertilizers, irrigation systems, energy, and other necessities. Market intervention is in place through the well-known Public Food Distribution System (PFDS) which keeps a buffer stock of food in case of emergencies, feeds food grains to programs that rely on food aid, offers price incentives to farmers to stimulate production, and stabilizes market prices in the face of price volatility. The Bangladeshi government offers cash incentives against items exported to promote exportoriented trade.

While the support measures are designed to promote domestic production and protect incomes of farmers, these policies will need to be carefully examined to check for consistency with WTO trade policy framework for agriculture, especially the Agreement on Agriculture (AoA). Presently Bangladesh is exempted from compliance owing to its least developed country status.

With the upcoming LDC graduation in 2026, Bangladesh needs to be prepared to phase away non-consistent support policies and design support policies that are fully consistent with WTO.

Bangladesh has done well to increase farm productivity, especially for rice. Policy efforts should continue to raise farm productivity and promote export-oriented farm production through adoption of better technology and development of infrastructure. Technology should also focus on helping the farm sector to adapt to climate change and participate in GVC/ RVC.

Considerable additional work is needed to develop a more supportive trade policy environment. Import duties on agricultural products in Bangladesh remain considerably high, which can often encourage trade through informal channels. As the date of LDC graduation approaches (November 2026), Bangladesh is not only faced with the impending phase out of International Support Measures (ISM) with consequent significant preference erosion, but there is also the rising challenge of getting its tariff and non-tariff measures compliant with WTO rules before the cut-off date. That is an enormous challenge when it comes to the structure of para-tariffs, though some of the rates that exceed bound rates are already being phased out. The challenge will be phasing out RD and SD (ODCs) and removing direct subsidies on exports, both on manufacturing and agricultural products.

Trade licensing requirements in Bangladesh, such as for rice, and a plethora of non-tariff barriers, such as prolonged health and quality related clearance procedures, lack of standardization, absence of testing facilities, and absence of mutual recognition agreements concerning quality assurance, serve as serious impediment to formal trade with India. Productwise regulations on standards in food preparation and packaging are not mapped by trading countries to facilitate official trade. The Bureau of Indian Standards (BIS) and the Bangladesh Standards and Testing Institute (BSTI) could establish a technical working group to speed up harmonization of standards and technical regulations for selected agricultural products.

On the trade logistic front, the development of the land customs stations (LCSs) into Integrated Check Posts (ICPs) has escalated the cost of formal trading due to high warehousing and transshipment charges. The lengthy and cumbersome process of obtaining permits and approvals at the border has discouraged many traders from engaging in cross-border trade.

These inefficiencies of customs clearance procedures along with the plethora on NTBs have encouraged a booming informal trade between Bangladesh and India on agri-food products that undermines the effectiveness of formal trade policies and hurts government revenue from customs duties and taxes. Speedy efforts through a consultative and cooperative approach between Bangladesh and India officials to address these two NTBs are critical to boost formal trade in agri-food.

Addressing this substantial range of policy issues in a coherent and systematic manner will require substantial upgrading of policy capacity in the government of Bangladesh, especially in relation to ensuring the consistency of its trade and domestic support policies with WTO commitment in the post-LDC graduation phase. Additionally, new support measures will have to be developed to protect farm incentives and raise farm productivity. Along with capacity build up, a system of monitoring and evaluation will be necessary to check for the effectiveness

of government policies. Unfortunately, there is no established system of monitoring policies in Bangladesh overall and for trade policies. The only indirect way it happens is through open public debate based on research and analysis conducted by private think tanks. While this public goods role of think tanks has expanded in recent years and can be further promoted to augment domestic policy making capacity, there is no guarantee that the government pays adequate attention to all the research analysis and conclusions about the effectiveness of government policies. Often influential trade bodies and donor agencies armed with these research findings have played a role in bringing about policy change, but the absence of a formal policy review mechanism is a glaring gap in policy making in Bangladesh. Along with a partnership between the government, the private sector trade bodies and private research institutions, the government needs to institute a formal mechanism for monitoring and evaluating government policies and developing flexibility to change as necessary to ensure effectiveness.



# FUNDAMENTALS OF AGRI-FOOD TRADE POLICY

### **1.1. OVERVIEW OF AGRI-FOOD TRADE**

International agri-food trade not only provides livelihood for farmers and people employed along the food supply chain, but also enables food security through imports in food deficit countries. Agri-food trade has been rising steadily, reaching a share of over 7% of total global trade.

Recognizing the potential role of trade, food security strategies in developing countries rely on agricultural production complemented by international trade. Agri-food trade plays a critical role in ensuring adequate food supplies – of staple and non-staple food products – for meeting regular consumption needs across both developed and developing countries. Thus, agri-food trade is a major instrument for maintaining stability across borders in the matter of food production, consumption, and distribution. This gives rise to certain trade policy issues related to agri-food trade that are distinct from general international trade in goods and services.

The main objective of this Report is to develop a Policy Discernment Manual (PDM) for agriculture food trade policy. The PDM serves as a comprehensive guide for policymakers, analysts, and stakeholders involved in shaping agri-food trade policies. Recognizing the critical importance of agricultural trade in fostering economic growth, ensuring food security, and promoting sustainable development, the manual provides a structured framework for evaluating and formulating trade policies in this sector by focusing on the areas of agri-food trade policy, domestic agricultural policies, international trade policies for agriculture, the process for policy formulation and implementation, emerging trends, and future directions. The focus of this PDM is on agri-food trade between Bangladesh and India. Both are key members of the BIMSTEC and the conduct of agri-food trade between these two large countries is illustrative of the current trade policy practices and future challenges that need to be addressed to boost agri-food trade among these and other BIMSTEC countries. Many of the trade and non-trade barriers emerging from this PDM are a general reflection of the kinds of reforms needed for all BIMSTEC countries to boost agri-food trade.

The PDM is organized in 6 Chapters. The first chapter provides an overview of the evolution of agri-food trade between Bangladesh and BIMSTEC with a focus on India, which is the largest BIMSTEC trading partner for Bangladesh. Chapter 2 provides a detailed review of agricultural sector policies with their implications for agricultural trade. Chapter 3 contains a comprehensive review of agri-food trade and cross-border policies along with case studies of agri-food trade with India. Chapter 4 reviews the process of agri-food policy formulation and implementation. Chapter 5 discusses emerging issues in agri-food trade owing to growing tendency towards protectionism, global concerns related to climate change, and changing

technology. Finally, Chapter 6 provides a brief review of the findings from several recent Bangladesh-India trade studies and their implications for policies.

#### 1.1.1 Issues in Agricultural Trade

The key aspects of domestic and international trade policies impinging on agri-food trade include the following:

**Subsidies:** To ensure adequate domestic production and supply at affordable prices, governments often provide agricultural subsidies that could include production or input subsidies (e.g. fertilizer) that affect relative prices of exports and imports thus distorting international prices and undermining fair competition. The practice of agricultural subsidies by developed countries remains a sticking point in WTO negotiations, a matter still unresolved.

**Export restrictions**: Some countries may impose export restrictions on certain agricultural products to ensure domestic food security or price stability, which can affect global supply and prices, often causing suffering in food deficit low-income countries.

**Tariffs and non-tariff barriers**: High protective tariffs on agricultural commodities are common in many countries; together with non-tariff barriers they can significantly impact the flow of agricultural products, including agri-food, between countries.

**Sanitary and phytosanitary measures (SPS):** Regulations related to food safety, animal health, and plant health can create barriers to trade if they are not harmonized between countries, or customs administration in some countries abuse this WTO-compliant safety measure to impede the smooth flow of imports with a protectionist motive.

**Market access**: Ensuring fair and equitable market access for agricultural products, particularly for developing countries, is an ongoing challenge in trade negotiations.

**Trade agreements**: Bilateral and multilateral trade agreements can either facilitate or hinder agricultural trade depending on the terms negotiated and member countries involved.

**Environmental concerns**: Trade policies may need to address environmental issues related to agriculture, such as deforestation, water usage, or GHG emissions (livestock farming).

**Intellectual property rights**: Issues such as geographical indications and patents can affect agricultural trade, particularly for specialty products.

Addressing these issues requires careful negotiation and cooperation among countries to balance the interests of producers, consumers, and the environment.

#### 1.1.2 World Trade Organization (WTO) Agricultural Trade Policy Rules and Regulations

Considering these distinct features of agricultural and agri-food trade, the World Trade Organization (WTO) has several rules and agreements governing and facilitating agricultural trade.

Agreement on agriculture (AoA): This agreement, established in 1995, aims to liberalize agricultural trade and reform domestic agricultural policies to ensure adequate supplies across borders at competitive prices. It includes commitments on market access, domestic support, and export subsidies.

**Market access**: WTO members commit to reducing tariffs and eliminating non-tariff barriers to agricultural trade through tariffication and tariff reduction schedules. In addition, domestic interventions in the agricultural sector (particularly agri-food) need to be compliant with WTO rules so as not to impede or distort seamless trade.

**Domestic support**: WTO members agree to limit domestic support measures that distort trade, such as price support programs and production subsidies. Domestic support is categorized into three "boxes": amber box (trade-distorting), blue box (less trade-distorting), and green box (non-trade-distorting).

**Export subsidies**: The AoA seeks to phase out export subsidies for agricultural products, with developed countries required to reduce and eventually eliminate them, while developing countries like Bangladesh have longer transition periods.

**Special and differential treatment**: Developing countries are granted special and differential treatment, including longer implementation periods and flexibility in meeting commitments.

**Sanitary and phytosanitary measures (SPS) agreement**: This agreement sets out the rules for food safety and animal and plant health measures, ensuring they are based on science and not used as unjustified barriers to trade.

**Technical barriers to trade (TBT) Agreement**: This agreement addresses technical regulations, standards, and conformity assessment procedures, ensuring they do not create unnecessary obstacles to trade.

**Dispute settlement mechanism (DSM):** The WTO's DSM provides a mechanism for resolving disputes between WTO members regarding agricultural and agri-food trade issues.

These rules aim to promote a fair and transparent trading system for agricultural products while ensuring food security, consumer safety, and environmental sustainability.

#### 1.1.3 Progress with Agriculture and Agri-food Trade

The quantity of food and agricultural commodities (agri-food) traded internationally has doubled in real terms over the previous several years, reaching USD 1.5 trillion in 2018, albeit there was some slowdown since the global financial crisis (GFC). The global agriculture and food markets are witnessing a greater participation from emerging economies and developing nations as their exports account for almost one-third of global exports. Many factors, including greater trade policy certainty, reduced transportation costs, trade agreements, falling import tariffs, and bilateral and regional trade agreements, have contributed to the expansion of trade in food and agriculture.

Increased trade policy predictability is one of the main benefits of trade agreements. To facilitate a more rules-based agri-food trade, **The Agreement on Agriculture**, (AoA) was enacted under WTO on January 1, 1995, and comprises specific commitments to reduce support and protection in the areas of domestic support, export subsidies, and market access. These rules relate to country-specific commitments to improve market access and reduce trade-distorting subsidies which are contained in the individual country schedules of the WTO Members and constitute an integral part of the GATT. The Agreement also considers non-trade concerns, including food security and the need to protect the environment, and provides special and differential treatment for developing countries, including an improvement in the opportunities and terms of access for agricultural products of export interest to Members. However, commitments to average tariff reduction schedules for developing countries, least developed countries, and net food importing nations are more relaxed.

Bangladesh is a net food importing nation and a least developed country (LDC) as recognized by the Economic and Social Council of the United Nations and is therefore not mandated to undertake reduction under the AoA commitments. However, since it is soon expected to graduate from LDC status, several benefits such as duty-free access to exports, direct cash assistance, and currency retention schemes are set to expire. The government has adopted a slow phase-out of protective measures and rationalization of tariffs to ease the transition process.

An important initiative to promote trade within the South and Southeast Asian region is the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). Members include Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand. Each of these countries has a strong agriculture and agri-food industry base and is a major participant in global agricultural trade. As such, BIMSTEC provides a foundational framework for regional cooperation in agriculture and agri-food trade aided by well-functioning value-chains and agri-food industry. This effort could be strengthened through standardizing regulatory norms, easing cross-border trade, limiting tariff and non-tariff barriers, and encouraging investments in efficient farming and food processing within the BIMSTEC framework.

While agriculture and agri-food trade has grown for the BIMSTEC region, the role of agriculture as share of GDP has declined for each country. Figure 1.1 below shows the agriculture, forestry, and fishing value added as a percentage of GDP for the BIMSTEC member countries for the period years 2000 to 2022.

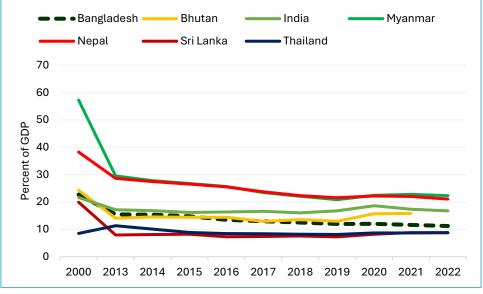


Figure 1.1: Trends in Agriculture Value Added (% of GDP)

Nonetheless, Bangladesh and other BIMSTEC countries, being producers, importers, and exporters of diverse range of agricultural commodities such as rice, fruits, vegetables, and processed meals, can expect to capitalize on the increasing demand for variety of food products and to ensure food-security within the region. For example, Bangladesh's dependence on imports for a few agri-food items, such edible oils, wheat, edible oils, and pulses cannot be ignored, being frequently challenged by abrupt price fluctuations and occasional supply disruptions arising from export controls by large exporters. These could get minimized and better streamlined through a well-functioning well-synchronized trading system within this region as well as beyond. However, for that to materialize, Bangladesh and the member countries will have to overcome different obstacles and hurdles to fully realize their potential in the agri-food sector. These include ensuring only minimal quantitative controls over agrifood supply chain, promoting trade openness, removing non-tariff obstacles and bottlenecks in infrastructure and logistics.

#### 1.1.4 Bangladesh Tariff Restrictions on Agricultural Trade

An indication of the magnitude of tariff and non-tariff restrictions that constrain Bangladesh agri-food trade is provided below. The full range of tariff and non-tariff barriers to agri-food trade is discussed in detail in Chapter 3. A major trade reform that happened in the 1980s is the removal of most quantitative restrictions on trade. Instead, Bangladesh moved to tariff and para tariff measures to regulate trade. Nevertheless, some important quantitative restrictions on agri-food restrictions still prevail.

The structure of tariffs and protection that governs agri-food trade in Bangladesh may be discerned from Table 1.1a-b.

Source: World Bank

| WTO Agri-Food                                      | CD   | ODC  |      | NPR |     |      | TTI   |     |
|--|------|------|------|-----|-----|------|-------|-----|
| Classification<br>(HS-2 digit)                     |      |      | Avg  | Max | Min | Avg  | Max   | Min |
| 1. Live Animals &<br>Animal products (HS<br>01-05) | 22.7 | 17.9 | 40.6 | 63  | 0   | 56.7 | 86.6  | 5   |
| 2. Cereals, Fruits &<br>Vegetables (HS 06-14)      | 17.5 | 14.6 | 32.1 | 80  | 0   | 52.4 | 110   | 0   |
| 3. Fats & Oils (HS 15)                             | 14.1 | 4.2  | 18.3 | 58  | 0   | 42.4 | 101.3 | 15  |
| 4. Prepared Food (HS<br>Code 16-24)                | 21   | 12.2 | 33.2 | 153 | 0   | 66.2 | 278   | 5   |

Table 1.1a: Bangladesh Average Tariffs, Para Tariffs, on Agri-Food, FY2022

Source: ASYCUDA generated NBR data, PRI staff estimates

#### Table 1.1b: Average tariffs, Para Tariffs on Demerit Goods, FY2022

| Demerit goods  | CD | ODC | NPR |     |     | TTI |     |      |
|--|----|-----|-----|-----|-----|-----|-----|------|
|  |    |     | Avg | Max | Min | Avg | Max | Min  |
| Alcoholic Beverages,<br>Tobacco (HS 2203-08,<br>2402-03) | 25 | 56  | 81  | 378 | 28  | 432 | 572 | 57.2 |

Source: ASYCUDA generated NBR data, PRI staff estimates

*Note:* CD refers to Custom Duties, ODC refers to other duties and charges, NPR= Nominal Protection Rate; TTI= Total Tax Incidence

Table 1.1a shows the distribution of applied tariffs and para-tariffs (ODCs), with resultant nominal protection and revenue implications. NPR is a protection indicator while TTI is a revenue indicator. Except for fats & oils, which are subject to average tariffs of 18.3%, below overall average of 27% NPR in FY2022, average NPR for the three other agri-food categories is subject to higher protective tariffs, ranging from 32% to 40%. In the fats & oils category are edible oils (palm and soybean) which are imported on a massive scale (\$2.9 billion in FY2022) and regarded as essential consumption items with tariffs typically kept in the range of 0-5% to ensure lower prices in the marketplace. Nevertheless, the maximum tariffs are found in the prepared food category which includes agro-processed food, like snacks and beverages (NPR=153%). Beverages like mineral water and fruit juices are also subject to the highest trade taxes (TTI=278%), mostly on account of the higher rates of Supplementary duties (SD), while CD is capped at 25%. Given that average, the overall TTI for FY2022 was estimated at 57%, It is clear that agri-food imports were subject to the highest rate of trade taxes.

The above analysis excludes such demerit products as alcoholic beverages and tobacco which are usually subject to the highest rate of tariffs and overall trade taxes (Table 1.1b), the objective being to discourage such consumption or raise the maximum revenue from the import or domestic sale of these products.

#### **1.2. OVERVIEW OF INTRA-REGIONAL TRADE (BIMSTEC)**

Promoting intraregional trade and investment in the Bay of Bengal area was one of the main goals for establishing the BIMSTEC. The trade of products and services among member states within the BIMSTEC is defined by several complimentary features, including geographic

closeness, historical ties, and complementary production capacities. Agriculture, textiles, electronics, and equipment are important industries that drive intra-regional commerce; each member country contributes according to its comparative advantages with a few industries, including textiles and agriculture, that have substantial intra-BIMSTEC trade flows because of the existence of supply networks and value chains between member nations. Nevertheless, trade taxes, as illustrated for Bangladesh above, non-tariff barriers, and logistical limitations prevent intra-BIMSTEC commerce from reaching its full potential. Higher trade and investment within the BIMSTEC region have substantial potential for boosting the respective economies, creating jobs, and reducing poverty. The BIMSTEC nations need to make use of the enormous potential of intraregional trade by using their respective comparative advantages and promoting greater economic integration. For this purpose, they will have to find ways to work together to develop institutional capacity, harmonize trade policies, harmonize regulations and regulatory requirements, and improve trade-related infrastructure.

#### 1.2.1 Bangladesh Trade with BIMSTEC Countries

Bangladesh's trade with BIMSTEC countries reached the highest level of \$17 billion in 2022 or 13% of its total trade. In FY2022, exports and imports to BIMSTEC reached their peaks at \$1.9 billion and \$15.4 billion, respectively (Table 1.2-1.3). Thus, the BIMSTEC as a region has emerged as a significant trading partner of Bangladesh, with trade on a rising trajectory over the years (Figure.1.2).

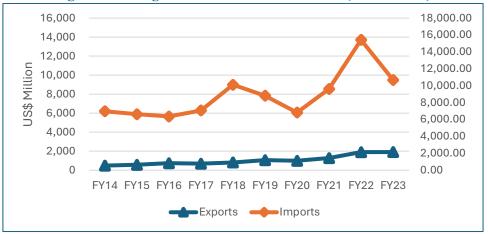
| Country   | FY14   | FY15   | FY16   | FY17   | FY18   | FY19     | FY20   | FY21     | FY22     | FY23     |
|-----------|--------|--------|--------|--------|--------|----------|--------|----------|----------|----------|
| Bhutan    | 2.89   | 2.98   | 2.38   | 2.91   | 4.42   | 4.55     | 4.74   | 5.46     | 8.04     | 9.04     |
| India     | 395.73 | 462.82 | 636.57 | 580.60 | 689.35 | 930.68   | 865.61 | 1,097.92 | 1,678.62 | 1,708.14 |
| Myanmar   | 11.80  | 17.01  | 26.02  | 19.47  | 18.34  | 25.11    | 25.03  | 27.82    | 29.02    | 32.69    |
| Nepal     | 13.89  | 22.43  | 30.56  | 32.06  | 41.94  | 36.88    | 44.05  | 55.43    | 96.37    | 40.54    |
| Sri Lanka | 20.01  | 30.84  | 18.58  | 21.74  | 24.83  | 27.75    | 25.88  | 47.02    | 50.22    | 57.47    |
| Thailand  | 37.64  | 32.15  | 23.46  | 29.86  | 30.15  | 28.47    | 25.95  | 40.92    | 33.12    | 57.38    |
| BIMSTEC   | 481.95 | 568.23 | 737.57 | 686.64 | 809.03 | 1,053.44 | 991.26 | 1,274.57 | 1,895.39 | 1,905.23 |

Table 1.2: Annual Exports from Bangladesh to Countries of the BIMSTEC (US\$ Million)

Source: Table 3.6 – Annual Export Receipts of Goods and Services – Bangladesh Bank

| Table 1.3: Annual Imports into | Bangladesh from Countries of the BIMSTEC ( | <b>US\$ Million</b> ) |
|--------------------------------|--|-----------------------|
|                                |  |                       |

| Country   | FY14     | FY15     | FY16     | FY17     | FY18      | FY19     | FY20     | FY21     | FY22      | FY23      |
|-----------|----------|----------|----------|----------|-----------|----------|----------|----------|-----------|-----------|
| Bhutan    | 22.51    | 28.72    | 21.60    | 33.14    | 32.38     | 49.93    | 40.88    | 38.83    | 35.48     | 36.71     |
| India     | 6,036.10 | 5,827.72 | 5,453.63 | 6,149.42 | 8,635.24  | 7,647.39 | 5,793.49 | 8,593.49 | 13,941.59 | 9,457.92  |
| Myanmar   | 92.17    | 31.48    | 38.76    | 48.64    | 188.88    | 90.92    | 119.59   | 97.06    | 163.13    | 151.06    |
| Nepal     | 21.52    | 12.04    | 9.43     | 9.73     | 10.08     | 9.85     | 9.47     | 4.81     | 5.64      | 2.81      |
| Sri Lanka | 66.65    | 43.54    | 50.51    | 49.96    | 47.74     | 62.61    | 54.69    | 117.72   | 134.23    | 88.34     |
| Thailand  | 741.39   | 685.49   | 790.57   | 781.93   | 1,195.44  | 957.19   | 801.50   | 765.44   | 1,142.22  | 941.91    |
| BIMSTEC   | 6,980.34 | 6,628.99 | 6,364.50 | 7,072.81 | 10,109.76 | 8,817.89 | 6,819.62 | 9,617.36 | 15,422.29 | 10,678.75 |





#### **1.3. IMPORTANCE OF AGRI-FOOD IN BANGLADESH TRADE**

Food security is an important rationale for seamless trade in agricultural products, especially food commodities. Agriculture has been a success story for Bangladesh and its growth and diversification has helped improve its food security and poverty alleviation. Whereas Bangladesh produced only 10 MMT of rice in 1971, that production has risen more than fourfold to over 40 MMT in 2023. Agri-food trade, comprising cereals, fruits, vegetables, animal products, and processed meals, is an important component of international trade. While Bangladesh has been exporting a wide variety of agri-food items, especially frozen shrimps and fish to USA, Europe and other foreign markets, agri-food imports are predominant, particularly of cereals like rice and wheat, besides pulses, edible oils, and spices. India is the principal source for Bangladesh imports of cereals, pulses, spices, which partly illustrates the thriving economic relations between the two neighboring countries. Significant amounts of edible oils are also imported by Bangladesh' primarily from Indonesia and Malaysia.

**Bangladesh agri-food trade:** Important features of Bangladesh agri-food trade (Table 1.4) reveal that imports of agri-food products are a more significant component (12-14%) of total imports than are exports of agri-food products as a share of total exports. Import dependence on cereals, vegetables, edible oils, for consumption appears to be substantial at over \$10 billion in FY2022. Since RMG predominates the export basket, agri-food is only a small component (3-4%) of total exports.

| WTO Category                        | Im       | ports     | Exports  |          |  |
|-------------------------------------|----------|-----------|----------|----------|--|
| By HS2 Code                         | 2021     | 2022      | 2021     | 2022     |  |
| Live Animals (1-5)                  | 371.48   | 358.98    | 497.82   | 555.27   |  |
| Cereals, Vegetables & Fruits (6-14) | 4,073.19 | 7,663.24  | 240.35   | 256.81   |  |
| Fats & Oil (15)                     | 2,203.09 | 2,891.20  | 195.35   | 230.09   |  |
| Prepared Food (16-24)               | 1,384.25 | 1,321.13  | 571.99   | 653.01   |  |
| Total Agri-Food                     | 8,032.02 | 12,234.55 | 1,505.51 | 1,695.19 |  |
| Total Export-Import                 | 65,595   | 89,162    | 38,758   | 52,083   |  |
| Agri-Food share (%)                 | 12.24    | 13.72     | 3.88     | 3.25     |  |

Table 1.4: Bangladesh Agri-Food Trade in FY2021-2022 by WTO Category (US\$ Million)

Source: ASYCUDA Data generated from the National Board of Revenue (NBR)

Source: Bangladesh Bank

India agri-food trade: In comparison to Bangladesh, India's reliance on agri-food imports is much less (around 5%). However, India is a major global exporter of cereals (#1 rice exporter) and vegetables (e.g. onions) with 11-14% share of its total exports (Table 1.5). India generally applies higher protective tariffs on its agri-food sector, which partly explains the small share of such imports in total imports.

| WTO Category                         | Imp   | orts       | Exports    |            |  |  |  |  |
|--------------------------------------|---|------------|------------|------------|--|--|--|--|
| By HS2 Code                          | 2020-2021   | 2021-2022  | 2020-2021  | 2021-2022  |  |  |  |  |
| Live Animals (1-5)                   | 226.95  | 257.67     | 8,915.79   | 11,178.44  |  |  |  |  |
| Cereals. Vegetables & Fruits (6-14)  | 6,887.68  | 8,468.10   | 19,767.42  | 23,411.81  |  |  |  |  |
| Fats & Oil (15)                      | 11,308.09   | 19,354.94  | 1,633.17   | 1,547.07   |  |  |  |  |
| Prepared Food (16-24)                | 2,795.20  | 3,403.99   | 9,442.33   | 11,336.41  |  |  |  |  |
| Total Agri-Food                      | 21,217.92   | 31,484.70  | 39,758.71  | 47,473.73  |  |  |  |  |
| Total Export-Import                  | 394,435.88  | 613,052.05 | 291,808.48 | 422,004.40 |  |  |  |  |
| Agri-Food share (%)                  | 5.37  | 5.13       | 13.62      | 11.24      |  |  |  |  |
| Source: TradeStat - Ministry of Comn | Source: TradeStat – Ministry of Commerce, Government of India |            |            |            |  |  |  |  |

#### Table 1.5: Indian Trade in Agri-Food by WTO Category (US\$ Million)

Agri-food trade Bangladesh-BIMSTEC: Bangladesh's trade in agri-food products in the BIMSTEC region may be discerned from Table 1.6. For the two recent years reviewed, the BIMSTEC region is a major source for both agri-food exports and imports from Bangladesh. Thus, BIMSTEC accounts for 25-31% of total Bangladeshi agri-food and 25-33% of total agrifood imports are substantial significant (24.7-30.5%). India is the leading trade partner for Bangladesh agri-food trade Food trade with other member countries is more limited but there is considerable potential for much larger trade with the other BIMSTEC members once the trade processes and logistics in the region are streamlined.

| Exp    | Export   |   | oort  |
|--------|--|---|---|
| 2021   | 2022   | 2021  | 2022  |
| 2.1    | 3.1  | 31.8  | 41.1  |
| 316.6  | 424.0  | 1824.7  | 3654.2  |
| 4.6    | 2.2  | 3.0   | 5.9   |
| 3.3    | 5.8  | 77.7  | 198.5   |
| 35.6   | 72.8   | 3.3   | 6.5   |
| 9.9    | 9.8  | 38.1  | 67.0  |
| 374.1  | 517.8  | 1978.6  | 3973.2  |
| 1505.4 | 1695.1   | 8,032.0   | 12,234.5  |
| 24.9   | 30.5   | 24.6  | 32.5  |
|        | 2021<br>2.1<br>316.6<br>4.6<br>3.3<br>35.6<br>9.9<br>374.1<br>1505.4 | 2021         2022           2.1         3.1           316.6         424.0           4.6         2.2           3.3         5.8           35.6         72.8           9.9         9.8           374.1         517.8           1505.4         1695.1 | 2021         2022         2021           2.1         3.1         31.8           316.6         424.0         1824.7           4.6         2.2         3.0           3.3         5.8         77.7           35.6         72.8         3.3           9.9         9.8         38.1           374.1         517.8         1978.6           1505.4         1695.1         8,032.0 |

#### Table 1.6: Agri-Food Trade of Bangladesh with BIMSTEC (US\$ Million)

Source: Export Promotion Bureau, ASYCUDA generated data from NBR

Bangladesh-India Trade: The trading relationship between India and Bangladesh is a prime example of economic cooperation between contiguous neighbors. Trade between these countries is facilitated under the South Asian Free Trade Area (SAFTA), where Bangladesh has been provided by preferential duty-free access of substantial number of its export items to the Indian market. These adjacent nations have a vibrant trading connection fueled by their shared production complementarities and proximity. Their commercial ties are centered around among other things, electronics, equipment, textiles, and agricultural products. Bangladesh exports garments, textiles, and agricultural products to India in return, while India becomes a major supplier of machinery, electronics, and textiles to Bangladesh.

Bangladesh and India trade got a boost since the trade liberalization episode in both countries in the early 1990s. The pattern for imports from India by Bangladesh illustrates an upward trend, particularly since FY2017. Overall trade (imports and exports) has been on an upward trajectory for the past two decades (Figure 1.3). However, during the COVID period there had been a dip between FY 2019 and FY 2020 but taking off sharply after FY 2020. While both Bangladesh imports from and exports to India grew substantially during the period, the import growth was sharper. While this indicated a better trading environment between the two countries this created a sharper gap in the trade balance between the two countries. While this can happen in international trade, it also means that more could be done to improve the trade balance through higher exports from Bangladesh to India by using the different tariff advantages that have been given to Bangladesh by India.



#### Figure 1.3: Trend in Bangladesh-India Trade

Source: Bangladesh Bank, Ministry of Commerce India

**Agri-food trade with India:** Agri-food trade is an important part of the overall Bangladesh-India trade. Bangladesh's imports of oil seeds, oleaginous fruits, and other miscellaneous grains from India have significantly grown over time, rising from USD 8.4 million in FY2019–20 to USD 53.68 million. The Figure 1.4 below shows the percentage of selected agricultural product imports in total imports from India by Bangladesh for a 4-year period. Cereal has the highest share of imports among other imported agricultural products. It started at a low of about 0.7%, reaching a peak in the fiscal year 2021-2022 before declining in the fiscal year 2022-2023. The second highest food import is sugar and sugar confectionery for the past two fiscal years. In FY20, the highest imported agri-product was coffee, tea, mate, and spices with a share of 3.3%. It plummeted by more than half of the share in FY22 but slightly increased in FY23.

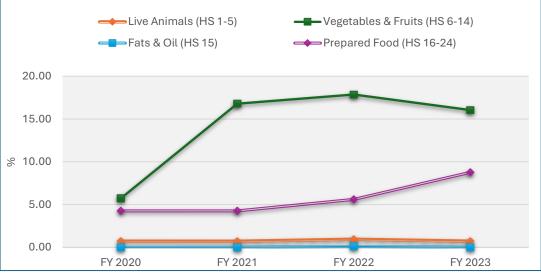


Figure 1.4: Bangladesh Agri-Food Imports as a Percent of Total Imports from India

Source: Bangladesh Bank, Ministry of Commerce India

#### 1.4. DYNAMICS OF AGRI-FOOD TRADE AND ROLE OF GVC

Trade is vital to the livelihoods of farmers and other workers in the food supply chain. A growing share of agro-food trade is taking place in global value chains (GVCs) - agricultural and food processing value chains that are spread over several countries - linking agro-food sectors and other sectors of the economy from across the world. Additionally, it increases customer choice for goods and helps to lower food insecurity globally. While trade in all foods grew between 1995 and 2018 it is trade in processed food products that makes up most of the agri-food industry's commerce. Agri-food trade dynamics are significantly impacted by variations in supply and demand, which are influenced by variables including weather patterns, population increase, and shifting dietary preferences. The environment is further shaped by market factors that affect market access, trade flows, and price fluctuations. These factors include tariffs, trade agreements, currency exchange rates, and geopolitical developments. Furthermore, the agri-food trade is significantly shaped by government policies, rules, subsidies, and trade agreements, which have an impact on market dynamics, trade trends, and competitiveness. The agri-food sector has been transformed by technological advancements in agriculture production, processing, logistics, and communication. These advancements have made production, distribution, and marketing processes more efficient.

The intensive phase of globalization experienced over the two decades since 1995 saw the rapid rise of global value chains (GVCs), particularly in East and Southeast Asia. Emergence of GVCs through production fragmentation and integration across borders was the epitome of the efficiency dividends of globalization that provided the impetus to trade in intermediate goods (led by trade in parts and components) becoming the fastest growing segment of international trade. GVCs are now a significant component of the commerce in agricultural and food products as well. Intra-regional trade in agri-food products make up nearly a quarter of intra-regional BIMSTEC trade., Therefore, measures to strengthen the ability to compete in

contemporary regional value chains (RVCs) should be implemented in addition to trade policies that support open markets.

The GVC in agricultural and food production has been made feasible by technological breakthroughs that have transformed production and trading operations. A contemporary food value chain often consists of many steps. Initially, input providers give farmers access to seed, fertilizer, and other inputs so they may grow crops that are either sold to wholesalers or used as inputs by processors. Food travels via several channels before reaching consumers, starting with processors, and ending with distributors, wholesalers, and retailers. GVC capitalizes by using technology smartly to distribute value chain specialization by countries and using proper coordination to ensure seamless distribution to final consumers in each country.

However, participation in the BIMSTEC agro-food RVC is presently very limited. Greater role will require not only structural adjustments in the production and marketing process, but importantly in liberalizing trading environment by rationalizing tariff and non-tariff barriers (NTB) and overcoming policy, regulatory and other institutional constraints, as well as overcoming logistical barriers and inefficiencies.

Another limiting factor that will need to be addressed is political economy considerations. As the RVC transformation process progresses, the proportion of value added from the food sector to the overall agri-food value added rises, whilst the proportion from agriculture falls. This has a major downside impact on the income of farmers, who tend to mainly be small holders and fall at the lower end of the poverty chain. So, a key policy challenge is how to incorporate smallholder farmers in the development process and integrate them into local and international markets. In general, adequate counter supportive measures would need to be initiated, to allow markets to be competitive for the entry of even small farmers. Some examples of these policies are enhanced rural infrastructure and services, education, and productive technology. Apart from these measures, farmers may also benefit from inclusive business models that are backed by governments and civil society and driven by the private sector, such contract farming, which can help them integrate into more complicated and contemporary value chains.

# **1.5. TRADE IMPACT FROM EXTERNAL SHOCKS, NATURAL DISASTERS, PANDEMIC.**

Agricultural production, as we all know, is subject to the vicissitudes of climate and weather conditions, which in turn affects agri-food trade. Extreme weather events can disrupt agricultural markets and trade, but agricultural trade can, in turn, help address food supply and food security concerns in the wake of these events. Trade gets negatively impacted by external shocks like global financial crisis, wars, natural disasters, and global pandemic. The most recent was the shock from the COVID-19 epidemic in the spring of 2020, together with the travel restrictions imposed to control it. These measures severely affected transportation-dependent goods and services, particularly air and ground freight, and the supply of agricultural labor both domestically and abroad. Food and agricultural input transportation was hampered which disrupted local and international food value chains' logistics. The far-reaching impacts of the COVID outbreak, including disruptions to global supply chains, contractions in

economic activity, and reductions in passenger flight operations that also carry cargo, likely played a major role in creating serious logistical bottlenecks which years beyond the pandemic period. Trade disruptions were also experienced following the Russia-Ukraine conflict.

The BIMSTEC area has been significantly impacted by the Covid-19 pandemic. In several member nations, the pandemic led to a temporary halt in commerce and a greater dependence on automated methods known as process distancing for customs processing. All BIMSTEC nations had a sharp decline in trade in 2020 as shown in Table 1.7.

| Countries  | 2017   | 2018   | 2019   | 2020  | 2021   | 2022   |
|------------|--------|--------|--------|-------|--------|--------|
| Bangladesh | 30.00  | 32.51  | 31.58  | 26.27 | 27.72  | 33.78  |
| Bhutan     | 76.79  | 79.74  | 76.12  | 71.83 | 77.58  |        |
| India      | 40.74  | 43.62  | 39.91  | 37.80 | 45.67  | 49.23  |
| Nepal      | 44.64  | 48.45  | 49.25  | 40.92 | 43.05  | 49.40  |
| Sri Lanka  | 47.14  | 49.81  | 49.43  | 37.03 | 41.26  | 46.52  |
| Thailand   | 120.89 | 120.84 | 109.69 | 97.80 | 117.24 | 133.88 |
| Myanmar    |        |        |        |       |        |        |

#### Table 1.7: Trade (% of GDP) in BIMSTEC countries

Source: WDI, World Bank

*Natural Disaster shocks impacts agriculture and agri-food trade:* A growing number of risks and hazards, including drought, flooding, water shortages, diminishing agricultural yields and fishery resources, loss of biological diversity, and environmental degradation, are posing a danger to global agriculture. Extreme weather and variations in the availability of water are two of the main variables that affect agricultural output both directly and indirectly. The productivity of agricultural systems can be impacted by floods and high rains in both good and negative ways. Reduced ground water, or the amount of water stored for irrigation, combined with a lack of rainfall causes an agricultural drought. Events with extremely high temperatures are also detrimental to agricultural output. Heat stress can have an impact on an animal's fertility, liveweight gain, milk output, and death in the livestock subsector.

While natural disasters, which can principally be linked to climate change. presents problems for agriculture, it also produces a large amount of greenhouse gas (methane) emissions. Figure 1.5 displays a steady upward curve, indicating that agricultural emissions worldwide have been continuously increasing over the past several decades. This will have implications on future agriculture production and agri-trade unless mitigation measures are undertaken. Policies and regulations along with innovations will have to evolve to overcome this challenge, and BIMSTEC could play a role in this effort.

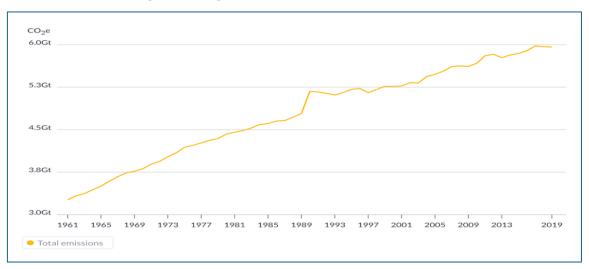


Figure 1.5: Agriculture GHG Emissions Worldwide

Source: FAOSTAT Emissions Database

#### **KEY CONCEPTS RELATED TO AGRICULTURE AND FOOD TRADE**

- Agricultural commodities: These are products derived from farming activities, including crops (such as grains, fruits, and vegetables) and livestock products (such as meat, dairy, and eggs). Chapters 01-24 of the Harmonized System cover the codes (HS codes) identifying all traded agri-food products.
- Agricultural value chain: The whole range of goods and services necessary for an agricultural product to move from the farm to the final consumer.
- Agriculture: Production, processing and marketing of crops and livestock from producer to consumer. Agriculture as defined is a major part of overall natural resource-based activity. Forestry and fisheries are therefore also included in the CA.
- Agrifood systems: Cover the journey of food from farm to table including when it is grown, fished, harvested, processed, packaged, transported, distributed, traded, brought, prepared, eaten and disposed of. They also encompass non-food products that constitute livelihoods and of all the people, as well as the activities, investments and choices that play a part in this food and agricultural products.
- **Backward linkages:** The degree to which countries rely on imported inputs in the production of exported commodities. It is measured as the share of value of imported inputs in total exports. In GVC analysis, this share is calculated as the ratio of foreign value added in exports over the sum of foreign and domestic value added in exports.
- **Bilateral and multilateral agreements:** Treaties between two (bilateral) or more (multilateral) countries that regulate the terms of trade between them, including agreemtns to reduce tariffs and other trade barriers.
- **Capital:** The economic framing of the various stocks in which each type of capital embodies future streams of benefits that contribute to human well-being
- **Domestic value added (DVA):** The value of exports that is created by domestic production factors, such as land and labour. Domestic value added contributes to gross domestic product (GDP) for each country.
- **Downstream:** A sector in a country with mostly backward linkages (either domestic or international).
- **Export subsidies:** Subsides given to traders to cover the difference between internal market prices and world market prices. The elimination of agricultural export subsidies is part of the Nairobi Package adopted at the WTO's Tenth Ministerial Conference in December 2015.
- Fair trade: A trading partnership based on dialogue, transparency, and respect that seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers.
- Fertilizer: Fertilisers provide essential nutrients for maintaining agricultural crop yields and quality, and for growth in production. The three most important nutrients are nitrogen (N), phosphorus (P), and potassium (K).

- Food and Agriculture Organization (FAO): A United Nations Agency based in Rome and given the charge to improve efficiency of production and distribution of agricultural products.
- **Food Security:** A condition in which all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life.
- Foreign value added (FVA): The value of exports that originates from imported inputs. For example, if fertilizers were imported to produce agricultural commodities for exports, in GVC analysis they are considered as foreign value added.
- Forward linkages: The extent to which exported commodities are used later in the value chain of another country to be further exported to a third country (or, less commonly, to be re-exported back to the home country). Forward linkages are measured as the value of intermediate exports sent indirectly through third countries to final destinations.
- Global value chain (GVC): Series of stages of production of a commodity or service (the value chain) that encompasses at least three countries. GVC analysis focuses on value added that is the amount by which the value of a traded product increases at each production stage located across countries.
- **Regional vale chain (RVC):** Same as GVC but at the regional level
- Gross domestic product (GDP): The value of goods and services produced in the country.
- **GVC participation:** The sum of backward and forward GVC linkages. When measured in US dollars, it is the GVC participation level; the GVC participation rate is derived from this level by dividing by gross exports.
- **GVC-related trade:** Trade that takes place within GVCs.
- **Policy failure:** When a policy, even if it is successful in some minimal respects, does not fundamentally achieve the goals that proponents set out to achieve. Policy failures are dependent on the policy landscape, whose contours are shaped by fiscal policies, regulations, and standards.
- Upstream: A sector in a country that has many forward value chain linkages (either domestic or international).
- Value added: A means of increasing the value of agricultural commodities by improvements (e.g., breeding wheat with high protein content) or processing (e.g., grinding wheat into flour).
- **Food security**: A condition in which all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life.



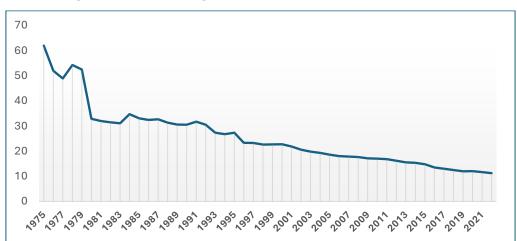
# BANGLADESH DOMESTIC AGRICULTURAL POLICIES

### 2.1. OVERVIEW

A major determinant of Bangladesh development success since independence has been the focus on food security and rural poverty with utmost attention to agriculture. The famine of 1974 was a wakeup call for the young nation that was still recovering from the devastations of the 1971 war of independence. With an 80 percent poverty rate, many of whom lived in rural areas and depended on agriculture as the main source of livelihood, the government recognized that food security and rural poverty reduction were inter-linked. The key to both rested with the development of a strong and diversified agriculture base that was able to feed the large population while also providing opportunities for decent farm income and employment. Consequently, from the early years after independence solid attention was given to agriculture strategy with a combination of incentives to the pre-dominantly private sector led agriculture, public investment to promote and support private farm investments, and institutional framework to guide and implement a sound agriculture policy.

#### 2.1.1 Overview of Bangladesh Domestic Agriculture

Agriculture is a vital component in underpinning economic growth in Bangladesh. Despite a steady decline (Figure 2.1) in its GDP contribution, the agricultural sector remains a crucial component of Bangladesh's economy. Down from over 60% of the GDP in 1975, the climate-sensitive sector was responsible for about 11.38 percent of the country's GDP in FY 2022-23 and employed around 45.33 percent of the total labor force (Labor Force Survey 2022 Provisional Report).





Source: World Bank national accounts data

The agriculture sector in Bangladesh comprises crops, livestock, fisheries, and forestry. The sector has focused on achieving basic food self-sufficiency and is dominated by the production of rice, largely through traditional subsistence farming by smallholder farmers. Production is slowly moving towards greater diversification with high-value crops (HVCs) such as fruits and vegetables, livestock, and fisheries, as market demand has increased significantly over the last decade. The Food and Agriculture Organization (FAO) of the United Nations ranked Bangladesh No. 1 in the world in hilsa fish production, and third in the production of freshwater fish in a report titled 'The State of World Fisheries and Aquaculture (SOFIA)-2022'.<sup>1</sup> According to a comprehensive analysis of country-wise agricultural production statistics by the Food and Agriculture Organization of the United Nations (FAO), Bangladesh ranked among the top ten global producers of 22 agricultural products in 2021, as shown in Table 2.1 below.<sup>2</sup>

#### Table 2.1: Bangladesh's Ranking in Global Agricultural Production

| Hilsa fish (Ilish)  | globally ranked 1 <sup>st</sup> |
|---|---------------------------------|
| Jute, betel nuts, dry chilies                                     | globally ranked 2 <sup>nd</sup> |
| Rice, garlic, other sugar crops                                   | globally ranked 3 <sup>rd</sup> |
| Freshwater fish   | globally ranked 3 <sup>rd</sup> |
| Berries (18am, jujube, karamcha, Bengal currant, Burmese grape),  | globally ranked 4 <sup>th</sup> |
| other aromatic spices   |                                 |
| Lentils and tropical fruits (jackfruit, lychee, and others)       | globally ranked 6 <sup>th</sup> |
| Onion, potato, ginger, eggplant, bean seeds, and coconut coir     | globally ranked 7 <sup>th</sup> |
| Tea and pumpkin   | globally ranked 8 <sup>th</sup> |
| Mango, guava, cauliflower, broccoli, beans, and bird feed (seeds) | globally ranked 9 <sup>th</sup> |

**Bangladesh Agri-exports and imports:** The country exports more than 700 items including 63 basic agro-processed products most of which are cereal grains, frozen fish, shrimp and other frozen food products, processed meat, tea, vegetables, tobacco, cut flowers, fruits (including dry fruits), spices, drinks, juice, dry food, and other processed agricultural products including livestock, poultry, and fish feed to more than 140 countries. The major export destinations include the European Union (EU), the United States (US), the Middle East, and the Gulf. Although Bangladesh imports bulk commodities such as wheat, soybeans, and pulses, there are niche segment opportunities for high-value agricultural product imports, particularly in more affluent urban centers such as Dhaka and Chittagong. Strong consumer demand exists for imported fresh fruits, tree nuts, and dairy products, as well as processed food products.<sup>3</sup>

#### 2.1.2 Public Procurement in Food and Agriculture Commodity Trade

While both international and domestic agricultural commodities, inputs, food and food products trade and marketing in Bangladesh are overwhelmingly in the private sector domain, there is still some public sector interventions that works to stabilize prices and supply of certain essential commodities of daily necessity and provide food support to the vulnerable parts of

<sup>&</sup>lt;sup>1</sup> https://dailyindustry.news/bangladesh-ranks-3rd-in-producing-sweetwater-fish/

<sup>&</sup>lt;sup>2</sup> https://en.prothomalo.com/bangladesh/nrp15yhu1z

<sup>&</sup>lt;sup>3</sup> https://www.trade.gov/country-commercial-guides/bangladesh-agriculture-sectors

the population. For this there are elaborate institutional arrangements. The import part of such intervention is conducted by the Trading Corporation of Bangladesh (TCB) and domestic food supply and price stabilization is undertaken by the Ministry of Food and its agencies. Bangladesh's public food system operates under policies and an organizational structure led by the Director General of Food (DGF) under the Ministry of Food. The DGF oversees various branches that handle food procurement, storage, transportation, and distribution. Both DGF and TCB conduct their actions within the public procurement system of Bangladesh, governed by the Public Procurement Act 2006 (PPA) and the Public Procurement Rules 2008.

Such public procurement is governed by WTO rules under the Agreement on Government Procurement (GPA) which calls for public authorities to engage in such procurement, say on grounds of food security and other forms of market intervention, as needed, if they follow the principles of openness, transparency, and non-discrimination. Public procurement of foodgrains for ensuring domestic price stability did give rise to contentious debate in some WTO Ministerial meeting when such policy undertaken by large economies like India could have impact on international prices. As an LDC, Bangladesh has so far not attracted attention but following LDC graduation it needs to conform to the multilateral rules governing such public procurement.

*Public sector support for agriculture production.* The government regularly provides subsidies to agriculture through budgetary allocations every year. For FY2023-24, the national parliament approved a budget allocation of USD 4.014 billion (BDT 437 billion) for the agricultural sector (agriculture, food, fisheries, and livestock), accounting for 5.7 percent of the total budget. The budget includes provisions for subsidies to ensure affordable fertilizers, seeds, irrigation facilities, and other essential materials for farmers.

The Bangladesh agricultural sector has experienced a continued increase in agricultural subsidy allocation, which reached a peak of USD 2.526.7 billion in FY2022-23 (based on an average USD/BDT exchange rate of 102.9) though the amount has declined sharply between FY2023 and FY2024 (Figure 2.2 below).



Figure 2.2: Bangladesh Subsidy Allocation for Agriculture Sector (Taka billion)

Source: PRI Fiscal Database \*Denotes proposed budget allocation for FY2023-24

The proposed subsidy allocation for FY2023-24 amounts to USD 1.71 billion (BDT 175.33 billion), which is 2.3 percent of the total budget, a 32.6 percent decline from the previous fiscal year's subsidy allocation as shown in Figure 2.2 above. It is worth noting that the reduction in subsidy allocation is due to the recent decline in fertilizer prices in the global market.

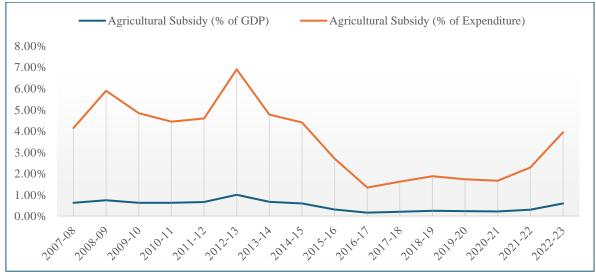


Figure 2.3: Bangladesh Agricultural Subsidy as a Percentage of GDP and Total Expenditure

Source: PRI Fiscal Database

Although the agricultural subsidy both as a percentage of total government expenditure and a percentage of GDP has declined significantly since FY2012-13, an increasing trend can be observed from FY2016-17, peaking at 0.59 percent of GDP and 3.94 percent of total expenditure in FY2022-23 (Figure 2.3).

#### 2.1.3 Agricultural Storage

Proper warehousing facilities are critical for efficient marketing of agriculture products and so have an impact on both domestic and international trade. Bangladesh has warehouse/storage facilities both in the public sector and the private sector all over the country to store different types of agricultural commodities, which are discussed below. Insufficient storage facilities, such as warehouses and cold storage, as well as poor awareness of technology to preserve harvests, present major challenges for rural farmers in Bangladesh. Many existing storage facilities are unusable or poorly maintained, while others are owned by middlemen, making them inaccessible to poor farmers. Spoiled produce is destroyed or sold to middlemen at a very low price, who capitalize on farmers' lack of access to storage and poor market linkages. Some of the produce is processed and the rest is sold in cities and towns at higher prices. Rural farmers, therefore, often produce at a loss.

**Public food grain storage:** The current public food grain storage capacity is estimated to be 2.18 million MT, with traditional go-downs constituting a large portion of the total capacity. However, the shelf-life of grains stored in these facilities is typically less than 12 months. The Ministry of Food (MoFd) plans to expand the total storage capacity to 3.5 million tons. Moreover, the government has undertaken the building of 200 paddy silos with a capacity of

5,000 tons each. So far, 30 of these silos have received approval.<sup>4</sup> A survey by IFPRI (2019) identified a total of 633 Local Supply Depots (LSDs), 13 Central Storage Depots (CSDs), 6 silos, and 1 multistoried modern warehouse, giving a total of 653 storage facilities across different administrative divisions, some of which are not functional.<sup>5</sup>

**Warehouse/storage facilities in the private sector:** Beyond the public storages there are over 100,000 privately owned small rice mills that are responsible for processing most of the nation's rice output, and so critical in the domestic grain trade. There are also a few larger sized rice mills in the private sector with storage facilities to facilitate rice trade in the country. The private sector is mostly engaged in small-volume, high-turnover grain storage, and not much in longer term bulk grain storage. This is mostly attributed to the high construction costs of modern silos, including the high land value in Bangladesh, and low margins on inter-temporal grain storage. There is of course scope and opportunity to increase private sector participation and bringing in efficiency in public sector storages through private-sector management of government-owned facilities and public-private partnerships in nutrient fortification of rice stored in Government facilities.<sup>6</sup>

**Cold storage:** Bangladesh has a tropical climate where temperature ranges between 23 degrees Celsius to 34 degrees Celsius. Seasonal vegetables and fruits require storage in refrigerated warehouse facilities known as "Cold Storage". Many perishable products such as tomatoes, carrots, green chili, beans, cauliflower, and mango need to be preserved as around 30-40% of them get wasted due to the absence of proper post-harvest storage, processing plants, and transportation facilities in the season. Due to such inadequacies, the farmers suffer huge spoilage of perishable produce and become victims of exploitation by middlemen and local wholesalers at both producers' and consumers' ends.

| Items             | Average Useful Storage Life (days) with Temperature (°C) |        |                |               |  |  |  |  |
|-------------------|--|--------|----------------|---------------|--|--|--|--|
| Food Product      | 0°C  | 9°C    | 22°C           | 38°C          |  |  |  |  |
| Meat              | 6-10   | 2-4    | 1              | <1            |  |  |  |  |
| Fish              | 2-7  | 2-3    | 1              | <1            |  |  |  |  |
| Poultry           | 5-18   | 2-8    | 1              | <1            |  |  |  |  |
| Dry Meat and Fish | >1000  | >1000  | >350 but <1000 | >100 but <350 |  |  |  |  |
| Fruits            | 2-180  | 2-120  | 1-20           | 1-7           |  |  |  |  |
| Dry Fruits        | >1000  | >1000  | >350 but <1000 | >100 but <350 |  |  |  |  |
| Leafy Vegetables  | 3-20   | 2-10   | 1-7            | 1-3           |  |  |  |  |
| Root Crops        | 90-300   | 50-240 | 7-50           | 2-20          |  |  |  |  |
| Dry Seeds         | >1000  | >1000  | >350 but <1000 | >100 but <350 |  |  |  |  |
| DIY Secus         |  | >1000  | >350 but <1000 | >100 but <550 |  |  |  |  |

#### Table 2.2: Average Useful Storage Life of Some Essential Items

Source: WFP, Logistics Cluster (2022)

The cold storage industry in Bangladesh has witnessed significant growth in recent years due to increasing demand for preserved agricultural products both domestically and internationally.

<sup>&</sup>lt;sup>4</sup> https://www.dhakatribune.com/bangladesh/314691/food-minister-food-grain-storage-capacity-to-be

<sup>&</sup>lt;sup>5</sup> IFPRI Public food grain storage facilities in Bangladesh: An assessment of functionality, repair needs, and alternative usage (2019)

<sup>&</sup>lt;sup>6</sup>https://dgfood.portal.gov.bd/sites/default/files/files/dgfood.portal.gov.bd/page/cb9f6c96\_eeef\_486e\_adb9\_c7b3 e786f761/Final%20TOR%20for%20Integrated%20Research%20Program-08-06-01-15.pdf

With the rise of export-oriented agriculture, the need for reliable cold storage facilities has become more pronounced. There are cold storage facilities being built in both the public and private sector. Business entities are investing in this sector for their own need and for renting it to others. Development partners like USAID and UNICEF are also assisting corporate bodies to construct cold storage for fruits/vegetables and pharmaceuticals.

**Various types of cold storage facilities in Bangladesh:** The country has around 368 cold storage facilities of which 170 are small (< 6000 MT), 128 are medium (6000-10000 MT), and 48 large (> 10000 MT) across different districts with a cumulative capacity of 24,18,430 MT. Munshiganj alone accounts for 73 facilities (33 small, 30 medium, and 10 large). The Bangladesh Agriculture Development Corporation (BADC) has 29 cold storage units for fish, fruit, and vegetables having a total storage area of 193,829 sq. ft and a total storage capacity of **23,280 MT**. Out of the 29 facilities, 5 are dehumidified. The largest cold storage facility under BADC is established in Dhonbari, Tangail having 20,000 sq. ft of storage area and a total storage capacity of 6,000 MT.<sup>7</sup>

**Cold chains:** A cold chain is an environmentally controlled logistics chain, ensuring uninterrupted market link from farm-gate to the consumers. It consists of refrigerated storage and distribution related activities in which the crop/produce is maintained within predetermined ambient parameters relating to temperature, humidity, etc. Cold chains generally comprise of Modern Pack Houses with Pre-coolers and a small cold room, Transportation (Refrigerated / normal trucks depending on product), Cold Storage (Bulk) at farm gates for long term inventory, Cold Storage (Hub) near Consumption Centers as a distribution platform, and Ripening Units.

The presence of efficiently running cold chains is important for both domestic and international trade in perishable commodities. Bangladesh does not have a well-structured temperature-controlled supply chain and an integrated cold chain facility. There is limited post-harvest storage infrastructure such as cold storages (current capacity 2.4 million MT in cold storages all over the country against the demand of 4.5 million MT)<sup>8</sup> with most of these facilities being used for the storage of potatoes. The absence of temperature-controlled logistics infrastructure in Bangladesh results in significant post-harvest losses as reported by The Food and Agriculture Organization (FAO), with post-harvest loss of 26 percent for fruits and 12-30 per cent for fish<sup>9</sup>. The country faces annual post-harvest losses of about \$2.4 billion due to the lack of essential cold chain infrastructure and services known as temperature-controlled logistics (TCL). Up to 44 percent of all perishable food produced in the country is wasted each year in the absence of TCL<sup>10</sup>. This loss is mostly borne by the farmers, drives up prices for consumers, and discourages processors from investment. An analysis conducted by Cold Chain Bangladesh Alliance (CCBA) demonstrates that profits for a vegetable cold chain are low. For example,

<sup>&</sup>lt;sup>7</sup> https://dlca.logcluster.org/26-bangladesh-storage-assessment#id-2.6BangladeshStorageAssessment-Storagecapacityofpublicsector

<sup>&</sup>lt;sup>8</sup> https://savor-coldchainbangladesh.com/

<sup>&</sup>lt;sup>9</sup> https://www.thedailystar.net/business/economy/news/bid-develop-cold-chain-infrastructure-3283216

<sup>&</sup>lt;sup>10</sup> https://www.thedailystar.net/business/economy/news/ensure-cold-chain-logistics-reduce-24bn-post-harvest-losses-3554851

the average cost per kilogram of conventional, open-back transport using bamboo baskets was 2.25 BDT/kg while the refrigerated truck, packed in plastic crates, was 4.92 BDT/kg, or more than double the cost (119%). The farmers need to bear the cost of renting a truck with the cost of hiring a refrigerated truck being substantially higher. The refrigerated produce does not increase farmer gains enough to make it worth the cost. In addition, losses both in profit and production are higher if the cold chain is not maintained following delivery to market<sup>11</sup>. An integrated cold chain with necessary cold storage facilities at major locations can address all the issues and reduce such losses.

Bangladesh Cold Storage Association (BCSA) in collaboration with The United States Department of Agriculture (USDA) undertook the initiative to develop international standard cold chain management in the country in 2023. Under the agreement, steps will be taken to enhance the technical skills of the workers engaged in the cold storage industry of the country, ensure the maximum use of technology, and improve the capacity of the existing cold storages. The cold storages scattered across the country will be developed to international standards which will bring drastic changes in the cold chain management and supply system of agricultural products in the country<sup>12</sup>. High import duties on equipment such as vehicles, freezers, chillers, and storage facilities, are a big impediment. The availability of continued electricity is another critical factor in ensuring a good cold chain network.

#### **Box-1: Steps to Strengthen Integrated Cold Chain Network**

USAID, together with the Bangladeshi company Golden Harvest, initiated Bangladesh's first integrated cold chain network in 2013. By 2015, Golden Harvest invested over \$9 million in 19 cold storage units in five districts of Bangladesh, 6,950 freezers for retail outfits, and 30 refrigerated trucks, but these are being largely used for the storage and transport of ice cream, dairy, and frozen food, failing to establish linkages with high-value vegetable producers.

Cold Chain Bangladesh Limited in collaboration with International Finance Corporation (IFC), initiated another project in 2018 for the preservation and transportation of frozen food and highly perishable agro-products. Primarily, cold storages will be set up at 12 places in the country with a dedicated fleet of refrigerated trailers which will carry highly perishable food items to and from the warehouses. Other companies will be able to store and transport their products, including medicines, frozen fish, meat, fruits, and bakery items using the facility paying at a fixed rate.

#### 2.1.4 Public Food Distribution

Bangladesh has a well-established Public Food Distribution System (PFDS) system, the origin of which dates to colonial times when a food distribution system was developed to address the 1943 Bengal famine. The objectives of the PFDS are to supply food grains to food-based social assistance programs; provide price incentives to farmers to encourage production; maintain a buffer food stock in case of emergencies; and stabilize market prices in the face of price

<sup>&</sup>lt;sup>11</sup> https://pdf.usaid.gov/pdf\_docs/PA00MBPM.pdf

<sup>&</sup>lt;sup>12</sup> https://thefinancialexpress.com.bd/trade/us-to-help-bangladesh-build-international-standard-cold-chain

volatility. Until 2014 the PFDS operated through nine distribution channels, of which the following four are monetized channels that include subsidized distribution programs such as Open Market Sales (OMS), Essential Priorities (EP), Other Priorities (OP), and Large Employers (LE). The following five channels are non-monetized: Food for Work (PFDS-FfW), Vulnerable Group Development (VGD), Vulnerable Group Feeding (VGF), Test Relief (TR) and Gratuitous Relief (GR). From 2014 onwards, a Work for Money (WfM) component was gradually integrated into the FfW.<sup>13</sup>

Table 2.3 below shows budget allocation of the different programs<sup>14</sup>. Agricultural subsidies and OMS have seen considerable reductions of about 15% and 10% respectively. However, the largest increase in public food distribution allotment (29%) has been for rations dedicated to families of martyred/injured freedom fighters.

| Description  | Revised Budget 2022- | Budget 2023-24    |
|--|----------------------|-------------------|
|  | 23 (Taka in Million) | (Taka in Million) |
| Vulnerable Group Feeding (VGF)                           | 15422                | 10897.9 (-29.3%)  |
| Gratuitous Relief (Food)                                 | 6218.5               | 6486.8 (4.3%)     |
| Food Assistance in Ctg-HTA                               | 4044.1               | 4093.8 (1.2%)     |
| Food For Work (FFW)                                      | 9897.3               | 9919.7 (0.2%)     |
| Open Market Sales (OMS)- Food                            | 23383.4              | 21100.4 (-9.8%)   |
| Food friendly Program                                    | 24485.7              | 28987.9 (18.4%)   |
| Food Subsidy (Others)                                    | 18388.7              | 19066.1 (3.7%)    |
| Agricultural Subsidy                                     | 254806.1             | 217008.8* (-      |
|  |                      | 14.8%)            |
| Agricultural Rehabilitation                              | 5000.0               | 6000.0 (20.0%)    |
| Ration for the Martyred Family and Honorable Injured     | 620.0                | 800.0 (29.0%)     |
| Heroic Freedom Fighters                                  |                      |                   |
| Integrated livestock development to improve the socio-   | 756.2                | 450.0 (-40.5%)    |
| economic and standard of life of the backward minorities |                      |                   |
| living on the plain land                                 |                      |                   |
| Hilsa Resource Development and Union Level Fisheries/    | 1037.8               | 1103.8 (6.4%)     |
| Indigenous Fish, Snail Cultivation/Agriculture           |                      |                   |
| Technology Program                                       |                      |                   |
| Poverty reduction of marginalized population and         | 1144.0               | 438.5 (-61.7%)    |
| ensuring employment of the extreme poor in northern      |                      |                   |
| areas/ production and marketing of nutritious high value |                      |                   |
| cereals  |                      |                   |
| Total  | 365203.7             | 109344.9          |

| Table 2.3: Budget Allocation | for Social Security | <b>Programs Related</b> | to Agriculture and Food |
|------------------------------|---------------------|-------------------------|-------------------------|
|------------------------------|---------------------|-------------------------|-------------------------|

Source: Ministry of Finance, Social Security Programs Fiscal Year 2023-24 Note: \* The share of agricultural subsidies for landless (0.02 Hec.), marginal (0.02-0.20 Hec.) and small (0.21-1 Hec.) farmers have been shown here

 $<sup>^{13}</sup>$  https://socialprotection.org/discover/programmes/public-food-distribution-system-pfds  $^{14}$  Chrome-

 $extension://efaidnbmnnnibpcajpcglclefindmkaj/https://mof.portal.gov.bd/sites/default/files/files/mof.portal.gov.bd/page/f2d8fabb_29c1_423a_9d37_cdb500260002/Chapter-7\%20\%28English-2023\%29.pdf$ 

The agricultural subsidy in the proposed budget for FY 2023-24 amounts to USD 2006 million (BDT 217 billion) which is **14.8% lower** than the amount of BDT 254.8 billion allocated in the revised budget of the previous FY (Table 2.5).

## 2.2. POLICY INSTRUMENTS IN AGRICULTURE

Policy interventions in agricultural markets are widespread across developed and developing countries. Nevertheless, international agro-food markets have evolved and got more integrated through GVCs, though countries continue to provide support and impose barriers through measures that distort trade and limit the benefits that international agro-food markets can deliver for consumers. Trade economists argue that these measures have significant and negative effects on the <u>welfare</u>, resilience and food security of consumers and producers, as well as on agricultural sustainability, besides reducing <u>agricultural and food trade volumes</u>.

Bangladesh is no exception. Though agricultural markets overall are mostly outside the ambit of administrative control, with a thriving privately driven market for basic food products, policy interventions – regulatory or promotional -- still exist to ensure adequacy of supply and stability of prices. Agriculture policy in Bangladesh is the overall responsibility of the Ministry of Agriculture. However, several other ministries and agencies are involved, including the Ministry of Fisheries and Livestock; the Ministry of Food and Disaster Management; the Ministry of Water Resources; the Bangladesh Water Development Board; the Local Government Engineering Department; and the Ministry of Local Government, Rural Development, and Cooperatives. Under these ministries, outreach and extension agencies, research institutes, and organizations remain responsible for technology dissemination. Coordination in the ministries is carried out through inter-ministerial meetings. The institutional framework for agricultural policy has remained unchanged.

## 2.2.1 Supporting Policies in Agriculture

**Bangladesh's Export Policy 2021-2024:** This is basically a non-binding promotional document that specifies the goals of export expansion and diversification with cash subsidies and other support measures. The policy encourages companies to diversify, expand, and simplify trade and investment. The government will prioritize 14 sectors to boost foreign currency earnings, which include Jute products (including multipurpose jute products), Agricultural products, processed agricultural products, fruits, and, cut flowers as the highest priority sectors. Agricultural products under the special development sector include value-added frozen fish, cashew nuts (raw and processed), crab (live and processed), and halal meat and meat products.

**Bangladesh Import Policy Order 2021-24:** This Order, which is valid for three years, is a binding regulatory law governing all imports. It creates an import regime – import processing and controls – that is consistent with WTO rules under the various Agreements to which Bangladesh is a signatory. Various restrictions on agri-food imports apply, but they are, in principle, compliant with WTO AoA, SPS and TBT Agreements. Over the past few years, bans or restrictions for protection reasons have been eliminated. The present policy focuses on

business-friendly, synchronization of clauses with the introduction of some new directives which are indispensable at this stage of the changed global system. Several new changes include the separation of fees-related issues and increasing the role of CCI&E, references of concerned laws/acts/rules in several import activities, changes of HS Codes, increased number of mandatory standards, the introduction of bonded warehouse facilities for small exporters, etc.

Agricultural imports are heavily restricted through quantitative controls to provide protection to farmers, but these controls are often changed. In the past applicable amount of import without conditionalities was set at one lac taka, which was increased to fifteen thousand US dollars (taka 1.5 lacs). In the case of rice import without LC, the yearly amount has been increased to five lac USD, which was two lac USD in the old policy. The time for the opening of LC has been simplified and will depend on the contracts of buyers and sellers. For shipment of goods, instead of 17 months in the earlier policy, it has been increased to 24 months. Import flexibilities have been increased in many places and can help support the manufacturing sector.

The National Agriculture Policy (NAP 2013): This aims to improve food and nutrition security and quality of life for rural people through increased productivity, agricultural diversification, and competitiveness. It identifies specific objectives, such as sustainability and profitability in agricultural production, research, and extension, and promoting the export of agricultural products. The policy also has different strategies for R&D areas, including technology transfer, building an information database, PPPs, and IPR protection. New issues have been incorporated in NAP 2018, including research on agriculture development; technology transfer and agriculture extension mechanization; specialized agriculture; ICT; marketing of agricultural products; women empowerment; and nanotechnology.

**National Food and Nutrition Security Policy 2020 (NFNSP):** This seeks to ensure access to safe and nutritious food at an affordable price, improve market access, stabilize food markets, and improve value chain and marketing systems.

**National Tariff Policy 2023:** This aims to promote the liberalization of trade and rationalization of tariffs to enhance the competitiveness of domestic industries, expand and diversify exports, encourage investment, and create employment. The NTP sets out various key goals, including achieving the development targets outlined in the Perspective Plan 2021 and the 8th Five Year Plan (8FYP), addressing post-LDC graduation challenges in trade, increasing exports by reducing policy incentives that discourage exports, simplifying the tariff structure, promoting foreign and domestic investment through a predictable tariff regime, generating employment through exports, ensuring participation in global and regional value chains (GVCs and RVCs), responding to external shocks, and improving consumer welfare by reducing excessive protection tax.<sup>15</sup>

**The Food Safety (Labeling) Regulation (2017):** This replaced the Pure Food Rules, of 1967, and determines all the major aspects of food packaging and labeling. Marketing, labeling, and

<sup>&</sup>lt;sup>15</sup> https://thefinancialexpress.com.bd/views/opinions/no-mercy-to-errant-health-clinics

packaging materials of genetically modified organism (GMO) food requirements are based on the Biosafety Rules.

**National Food Policy 2006 (NFP 2006):** This seeks to enhance purchasing power, increase access to food, and ensure adequate nutrition for all. During the last WTO review period, the NFP was implemented through a Plan of Action (2008-15) which included: providing guidance for 26 strategic areas of interventions and more than 300 action agendas; identifying responsible actors (government and non-government); and suggesting a set of priority targets and indicators for monitoring progress. To this end, the authorities undertook a Country Investment Plan (CIP) for Agriculture, Food Security, and Nutrition (2011-15), which laid out 12 priority programs anchored in the policy, programmatic, and investment framework of Bangladesh. The CIP also detailed a monitoring framework for the effective implementation of the food policy agenda in the country.

## 2.2.2 Bangladesh Agricultural Sector Incentives

Bangladesh has implemented a series of incentives to enhance the productivity and development of its agricultural sector. These measures aim to promote the sector's growth, which is crucial to the country's economy. The promotion of food self-sufficiency is of utmost importance with policies targeting areas such as food grain, nutrition security, export diversification, and biotechnology advancement. Domestic support measures include subsidies, concessional credit for the purchase of agricultural inputs including fertilizer and equipment, seed distribution, a corporate income tax break, ranging from five to ten years, and benefits to new enterprises in fertilizers, insecticides, and agricultural equipment.

## Incentives related to Agro and Food processing:

- Reduced Corporate Income Tax (CIT) for 5 to 10 years depending on location, for industrial undertakings engaged in processing of locally produced fruits and vegetables.
- Complete tax exemption on income from rice bran oil production for up to 10 years.
- 20% special rebate on electricity consumption to agro-processing units.
- Tax exemption on royalties, technical know-how/assistance-related fees (and their repatriation).
- Exemption of import duties on capital machinery.
- Full repatriation of profits & initial investment amount.

## **Incentives for Exporters:**

- 50% tax exemption for income derived from export.
- No VAT imposition on export goods.
- 20% export subsidy/ cash incentive for exporters of locally processed agricultural products and 100% halal meats.
- Duty-free market access (preferential treatment) to 52 nations.<sup>16</sup>

<sup>&</sup>lt;sup>16</sup> <u>https://bida.gov.bd/agro-</u>

processing#:~:text=Bangladesh%20exports%20more%20than%20700,to%20more%20than%20140%20countrie <u>s</u>.

### 2.2.3 Agricultural Price Support

The AoA distinguishes between support programs that stimulate production directly and those that are considered to have no direct effect. Domestic policies that have a direct effect on production and trade must be cut back. WTO members calculated how much support of this kind they were providing per year for the agricultural sector (using calculations known as "total aggregate measurement of support" or "Total AMS") in the base years of 1986-88. Developed countries agreed to reduce these figures by 20% over six years starting in 1995. Developing countries agreed to make 13% cuts over 10 years. Least-developed countries do not need to make any cuts. (This category of domestic support is sometimes called the "amber box"). Measures with minimal impact on trade can be used freely and are in a "green box". They include government services such as research, disease control, infrastructure, and food security. They also include payments made directly to farmers that do not stimulate production, such as certain forms of direct income support, assistance to help farmers restructure agriculture, and direct payments under environmental and regional assistance programs. Also permitted, are certain direct payments to farmers where the farmers are required to limit production (sometimes called "blue box" measures), certain government assistance programs to encourage agricultural and rural development in developing countries, and other support on a small scale ("de minimis") when compared with the total value of the product or products supported (5% or less in the case of developed countries and 10% or less for developing countries).

**Agriculture and rural credit policy and program 2023-24:** The Government of Bangladesh has decided to disburse BDT 35,000 crores of Agriculture & Rural credit for the FY 2023-24. Out of this, 50% is fixed for Agriculture and Rural credit, 13% for the fisheries sector, 15% for the livestock sector, and 22% for the other sectors to increase agriculture production and rural development. Banks will be able to use their network (Branches, Sub-branches, agent banking, contract farming, group loan disbursement) and bank MFI linkages to achieve the target of disbursement of loans. Under this policy and program, loans will have to be disbursed to new farmers on a priority basis. The maximum limit for loans for income-generating activities in rural areas will be TK 5 lakhs<sup>17</sup>.

**Open market sales:** During the WTO review period, poor farm incomes were supported through domestic procurement of rice and wheat from poor farmers. In 2018, rice and flour were sold to poor families led by women under the Open Market Sale (OMS) policy. Under this policy, the authorities purchased rice and wheat flour, and sold it to poor families, at a per kilogram price of USD 0.36 for rice and USD 0.2 for wheat. The authorities sold 5 kg of rice per day to lower-income families until the Boro harvest in April 2018. In 2017, the program supplied 56,962 MT of rice (3%) and 301,456 MT of wheat (48%) of total rice and wheat distribution under the public food distribution system. According to the authorities, the OMS for lower-income families continued until 2018. The OMS budget allocation for food is BDT 2110.04 crore in FY 2023-24 (Table 2.5), which is 9.8 percent lower than the previous year.

Aggregate measure of support: Most of the product-specific aggregate measures of support (AMSs) related expenditure were used for price support for rice and wheat, and non-specific AMSs mainly focused on subsidizing fertilizer imports. During the WTO review period,

<sup>&</sup>lt;sup>17</sup> <u>https://www.bangladeshtradeportal.gov.bd/index.php?r=site/display&id=1966</u>

Bangladesh made no WTO notifications on domestic support for agriculture. Its most recent notification dates to 2011 and covers the level of domestic support for FYs 2002/03, 2004/05, and 2006/07.

**State owned enterprise (SOE) operations:** SOE operations support, directly or indirectly, the agriculture sector. Since 2015, the Trading Corporation of Bangladesh (TCB) has maintained a buffer stock of some selected essential commodities, to stabilize their market prices. In 2018, the TCB regulated five commodities: refined sugar, refined soybean oil, red lentils, chickpeas, and dates. In addition, it maintains a buffer stock of refined sugar, refined soybean oil, and red lentils. The quantity of the buffer stock depends on the market situation; according to the authorities, the buffer is not less than 500 MT for each item.

## 2.2.4 Agricultural Subsidies

The WTO Agreement on Agriculture prohibits export subsidies on agricultural products unless the subsidies are specified in a member's list of commitments. Where they are listed, the agreement requires WTO members to cut both the amount of money they spend on export subsidies and the quantities of exports that receive subsidies. Taking averages for 1986-90 as the base level, developed countries agreed to cut the value of export subsidies by 36% over the six years starting in 1995 (24% over 10 years for developing countries). Developed countries also agreed to reduce the quantities of subsidized exports by 21% over six years (14% over 10 years for developing countries). Least-developed countries do not need to make any cuts. Developing countries (including LDCs) are allowed, under certain conditions, to use subsidies to compensate for the higher costs of marketing and transporting exports. But these options will close as Bangladesh graduates out of LDC status in 2026.

Cash incentives have been provided for agricultural rehabilitation assistance programs, and state-trading operations were undertaken by the Bangladesh Agriculture Development Corporation (BADC) for the public storage of food grains, such as rice and wheat. Other types of support available to agricultural sector inputs included subsidies for utility services, such as lower electricity tariffs for irrigation pumps, and a 20% reduction in electricity invoices for agro-based industries.

| Category   | <b>Previous Export Incentive</b> | Revised Incentive <sup>18</sup> |
|--|----------------------------------|---------------------------------|
| Fruits, Vegetables, and agro-processing          | 20% (subsidy)                    | 15%                             |
| Potato   | 20% (cash)                       | 15%                             |
| Seeds  | 20% (subsidy)                    | 10%                             |
| 100% halal meat and meat processed items         | 20% (subsidy)                    | 15%                             |
| Buffalo, cow, and other cattle offal             | 10% (subsidy)                    | 8%                              |
| Crab and eel (Live, frozen, and softshell)       | 10% (subsidy)                    | 8%                              |
| Rice   | 15% (subsidy)                    | 5%                              |
| Locally produced tea                             | 4% (subsidy)                     | 3%                              |
| Frozen shrimp (depending on rate of ice coating) | 7%- 10% (cash)                   | 6%- 9%                          |
| Frozen fish (depending on rate of ice coating)   | 2%- 5% (cash)                    | 2%-4%                           |

| Table 2.4: Cash I | Incentives for Agro-based | <b>Exporters for the F</b> | <b>Financial Year 2023-2024</b> |
|-------------------|---------------------------|----------------------------|---------------------------------|
|                   |                           |                            |                                 |

Source: Bangladesh Bank Circular, 30-01-2024 and 24-08-2023

<sup>&</sup>lt;sup>18</sup> https://www.bangladeshtradeportal.gov.bd/index.php?r=site/display&id=1980

*Note:* The current circular's incentive structure shall be applicable for the period starting from January 1, 2024, and lasts until June 30, 2024.

Agricultural subsidy in the proposed budget for FY 2023-24 (Table 2.6) amounts to **BDT 21,700.88 crore** which is **14.8% lower** than the amount of BDT 25480.61 crore allocated in the revised budget of the previous fiscal year.

**Cash incentives for plant and plant-based products:** The rate of cash incentives for the Plant and Plant-based product export from Bangladesh in FY 2022-23 were as follows:

- Agriculture (Fresh Vegetables and Fruits) and Agro-processed products: 20%
- Potatoes export: 20%
- Export of aromatic Rice: 15%
- Vegetable and grain seed export: 20%
- Locally produced tea export: 4%

**Export incentives:** To support export-oriented trade, the Bangladesh Government is providing cash incentives against the export of goods, including agricultural and agri-food exports. In addition to cash incentives on exports, there are other behind-the-border support mechanisms that impinge on agri-food exports. Under the provisions of WTO, countries that graduated from Least Developed Country (LDC) status are considered ineligible for allowing incentives. As Bangladesh is on the way to graduating from LDC in 2026, and the absence of export incentives provision afterward might hamper the export growth, the government has opted for a gradual phase-out approach to the export incentives. Bangladesh Bank issued a circular in January 2024 announcing changes of cash incentives on the export of goods under specific 43 sectors as mentioned in the former circular issued in August 2023.

A summary of support policies (drawn from Export Policy FY2021-2024) are provided below:

- **Finance:** (a) Venture Capital facilities are offered to agricultural farms up to 5 Acres to produce export-oriented vegetables, fruits, fresh flowers, Orchids, Ornamental Plants, fisheries, and animal products. (b) Provision of low-interest loans and tax benefits to promote industrialization and exports in this sector, in addition to the reduction of ttariffs on imports of international quality packaging materials for agricultural products.
- **Standards and accreditation.** (a) Establishment and capacity building of an International Standard Accredited Testing Laboratory by the Government, the Private Sector, or as a Joint Venture (JV) to ensure the improved quality of products and meet Sanitary and Phyto-Sanitary standards. (b) (BSTI) and the Department of Fisheries (DoF) shall provide the support necessary to ensure fish feed imported does not contain contaminated ingredients, while DoF shall take the steps necessary to improve and enhance the system of determining standards.
- **Storage.** (a) Cold Storage being set up in the 3<sup>rd</sup> Terminal of the Hazrat Shahjalal International Airport and other International Airports to maintain the quality and freshness of perishable goods like fresh vegetables, fruits, flowers, plants, and animal products. (b) Support for establishment of an Integrated Cooling Chain to prevent the

quick degradation of products, with support for import of Reefer Vans and Reefer Containers.

- **Freight.** Airlines to fix freight charges at reduced rates in the case of exports of vegetables, fruits, flowers, and other incentivized goods.
- **SPS improvements**. Upgrade the existing Testing Facility to international standards and obtain the Accreditation relevant to fulfil the SPS requirement of importing countries.
- Quality control and traceability. Special system of monitoring and traceability developed for all stages from hatching to the production of fish, processing, and packaging to avoid risk of exporting contaminated frozen food.
- **Research and innovation.** Support for research and innovation of a variety of exportoriented agricultural products according to the demands of the export market.
- Land allocation. Allotments of Government Khas land for the enterprising exporters for the foliage and production of vegetables, flowers, and fruits.

A quick review of these support mechanisms suggests they are WTO-compliant production incentives that could substitute for cash incentives for exports and last beyond LDC graduation.

## 2.3. IMPACT OF DOMESTIC POLICIES ON INTERNATIONAL TRADE

**Export restrictions/prohibitions:** Trade facilitation is a major issue to address as a developing country. This will necessitate a new shift in the trade policy regime to enhance productive capacity and competitiveness. However, several agricultural commodities remain subject to export restrictions/prohibitions to ensure adequate domestic supply.

#### Table 2.5: Export Restricted Agricultural Products FY 2023-24

| Export Prohibited Agricultural Products  |
|--|
| Jute seeds and hemp seeds  |
| Rice (excluding government-to-government rice and fragrant rice)                                 |
| All types of lentils (other than processed)  |
| Shrimps other than chilled, frozen, and processed  |
| Onion, Garlic, and Ginger  |
| All processed lobsters (Macrobrachium rosenbergii) smaller than 61/70 count/pound                |
| Shrimp (Penaeus monodon) smaller than 71/90 count pounds   |
| Deer of smaller size than 100/200 count/pound or brown (Metapenaeus Monoceros) Saga or Yole      |
| (Metaponaeus brevicornis) Covered or White (Fenneropenaeus indicus) shrimp, Bagtara or Cat Tiger |
| or Rainbow   |
| All types of frogs or frog legs  |
| Agricultural Items Subjected to Conditional Export   |
| Soyabean oil and palm oil  |
| Sugar  |
| Hilsa fish   |
| Fragrant rice  |
| Coarse grain lentil (mung daal)  |
| Raw jute   |
| Source: Ministry of Commerce   |

**Complex tariff structure undermines trade:** Lack of transparency in the trade regime begins at the border where a complex tariff structure awaits importation of goods, including agricultural products. While the World Customs Organization (WCO) has codified all traded and tradable goods under the Harmonized System with 6-digit codes, Bangladesh has added two more digits to add specificity to differentiated products that could be subject to differentiated tariffs. But rather than having a transparent and simple structure of trade taxes, the prevailing structure remains complex and non-transparent<sup>19</sup>. Simplifying the trade tax regime by moving to fewer tariff slabs and uniform rates for similar products has been the objective of NBR over many years. But progress in this direction has been impeded by ad hoc imposition of para-tariffs on a regular basis giving rise to frequent complaints and conflicts between Customs and traders, regarding classification of goods - where similar goods have different rates. Since Bangladesh tariffs are among the highest levels, the incentive to evade customs taxes is rampant leading to malfeasance in the processing of clearance of goods. Thus, lack of transparency in the tariff structure of Bangladesh not only affects efficiency in overall trade transactions but also has salutary impacts on agri-food trade which results in distortions and price instability in agri-food markets.

**Discrepancies in setting quality standards:** In terms of fish and fruit juice exports, metals, and contaminants such as Lead, Mercury, Methyl Mercury, Tin, Aflatoxin, and Cadmium are absent in Bangladeshi standards which are included in The Food Safety and Standards Authority of India (FSSAI). There is also ambiguity in determining permissible limits for hazardous contaminants. Multiple testing requirements in the case of fish imports and divergent food quality standards need to be harmonized to encourage bilateral trade. Divergence arises when the Maximum Residue Limit (MRL) of specified parameters by the importing country is more than the MRL of the same parameters specified by the exporting country. For instance, fruit juice and rice are two such products with divergent standards in both countries<sup>20</sup>.

**Import restrictions:** Regulation of imports is implemented through the activation of the Fouryear Import Policy Order, the current one spanning FY2021-24. In principle, the IPO includes a set of rules on import restrictions that are WTO-compliant. Import bans or restrictions (QRs) for trade protection are now off the table. Bans or restrictions apply on health, environment, or national security ground. A good number of goods have been included in the prohibited list, which was in the controlled list earlier. Some of these products include shrimps (of specific HS Code), Poppy Seeds (of specific HS Code), grass, bhang, opium, wine lees and argol, liquefied propane and butanes (which are part of LPG), and artificial mustard oil. It seems that the government is sincere in protecting the environment and addressing climate change issues.

<sup>&</sup>lt;sup>19</sup> For instance, instead of having just one import tax, like custom duty that is recognized by WTO, there are multiple trade taxes that are imposed in a non-uniform fashion, adding to the complexity and non-transparency of the trade tax regime.

<sup>&</sup>lt;sup>20</sup> https://cuts-citee.org/pdf/project\_report-ntbagr.pdf

There are some supportive directives in the policy. However, proper implementation will justify its benefits.<sup>21</sup>

**Issues with import license:** Although import licenses per se are not required for imports into Bangladesh, in addition to the standard Letter of Credit Authorization (LCA) import procedure, a permit, clearance, prior permission, or approval may be required for certain controlled or restricted imports, thus implicitly imposing import licensing requirements. IPO provisions require mandatory nuclear radiation tests for imported milk, dairy, edible oils, vegetable seeds, grains, and other food products; the relevant certificates must be submitted in conjunction with other required certificates to Customs. In 2007, Bangladesh notified the WTO Committee on Import Licensing that its import licensing system was abolished in FY 1983/84 and that no import license was required for any item entering the country. According to the authorities, some items require prior permission equivalent to automatic import licensing. Bangladesh's notification under the 2012 Decision on Notification Procedures for Quantitative Restrictions is pending.<sup>22</sup>

**Labelling requirements:** Under Section 7 of the Import Policy Order 2021-2024, a rule is to mark the 2% of the packing with the name, address, and TIN of the importer. It does not serve the purpose intended and only adds some cost for the import into Bangladesh. It may be deleted to make imported products competitive<sup>23</sup>.

**Mandatory packaging requirements:** About 3 percent of the country's total export income comes from jute and jute products. Therefore, the contribution of the jute sector to the development of agriculture and the socioeconomic condition of this country is significant. Moreover, the government has enacted the 'Mandatory Packaging Act 2010 and 'Rules for Mandatory Packaging with Jute Bag 2013'. According to this rule, jute fibre packaging is compulsory for 17 items.<sup>24</sup>

**Price limit for importing perishable items using Lands Customs Stations:** For each consignment of perishable items, a maximum of USD 50,000 valued goods can be imported using Teknaf Customs Station. For other land Customs Stations, the import limit of a maximum of USD 10,000 valued goods is allowed. However, essential food items can be imported irrespective of price limits<sup>25</sup>.

**Condition for competitive import price:** A provision of import with competitive price under section no 5-4 of the Import Policy Order 2021-2024 includes a condition of obtaining a price from three sources from at least two countries for the competitiveness of price and importers

<sup>&</sup>lt;sup>21</sup> https://businesspostbd.com/opinion/import-policy-order-2021-2024-an-analysis-2022-07-

<sup>23#:~:</sup>text=Several%20new%20changes%20have%20been,introduction%20of%20bonded%20warehouse%20fa cilities

<sup>&</sup>lt;sup>22</sup> www.wto.org/english/tratop\_e/tpr\_e/s385\_e.pdf

<sup>&</sup>lt;sup>23</sup> <u>https://www.researchgate.net/publication/360688651\_Evaluation\_of\_Import\_Policy\_Order\_2021-2024</u>

<sup>&</sup>lt;sup>24</sup> chrome-

 $extension://efaidnbmnnnibpcajpcglclefindmkaj/https://mof.portal.gov.bd/sites/default/files/files/mof.portal.gov.bd/page/f2d8fabb_29c1_423a_9d37_cdb500260002/Chapter-7\%20\%28English-2023\%29.pdf.$ 

<sup>&</sup>lt;sup>25</sup> FAQ\_Export-import\_Plant & Plant-based Products\_BTF\_Land O Lakes

are bound to submit the documents to Import control office. The same rule was also in previous IPOs and could not be followed both by importers and the regulating authority. Interestingly, it is not practical to submit a quotation to the authority for approval before import<sup>26</sup>.

**Protectionism in agri-food trade:** Table 1.1a in Chapter 1 provided the state of protective tariffs and overall trade taxes. The agro-processing or prepared food sub-sector is the beneficiary of the highest rates of protective duties and trade taxes, well above the overall average NPR of 27% or TTI of 57% in FY2022. Within the agri-food sub-sector, there are variations in tariffs and trade taxes. Bangladesh is one of the world's largest inland fishing nations, with shrimp being an important agricultural export. The National Shrimp Fish Policy has been in place since 2014. According to the WTO Trade Policy Review (TPR), average MFN tariff protection for fish and fishery products remains high (23.8% in 2018/19, 23.4% in 2011/12 on an HS basis), and certain support measures, including concessional loans, are available for fish production and processing. The current average MFN applied tariff rate on cereals rose from 3.7% in 2011/12 to 5.8% in 2018/19. Customs duties on rice rose from zero in 2011/12 to 25% in 2018/19 and have been subject to large fluctuations during the review period. In 2017, they were reduced from 10% to 2%, to ensure domestic supply at an affordable price, which was 40% higher in 2017 than in the previous year.<sup>27</sup>

#### 2.4. DOMESTIC PRICES AND INTERNATIONAL TRADE

Bangladesh economy is now more integrated with the world economy than ever before. Therefore, domestic prices of all traded products, including agri-food products, reflect international commodity prices supplemented by tariffs or para-tariffs. It is the protective tariffs that raise domestic prices above world prices. Table 1.1a has shown that nominal protective rates for agri-food products substantially exceed average NPR as well as average TTI (total tax incidence). Consequently, domestic prices of agri-food products are typically higher than international prices. All agricultural and agri-food products are exported and sold in the domestic market. When it comes to exports of agri-food products, this protective element creates anti-export bias that makes domestic sales more profitable than exports, thus undermining the incentive to export. Which is why, despite being internationally competitive, there is no traction in the expansion of agri-food exports that would in turn contribute to export diversification.

| SI. | Item                                 | Quantity (Kg) | Value (in million<br>USD) | Unit<br>(USD/Kg) | Price |
|-----|--------------------------------------|---------------|---------------------------|------------------|-------|
| 1   | Jute Goods                           | 535000000     | 189.95                    | 1.53             |       |
| 2   | Shrimps, frozen                      | 35144232      | 89.67                     | 11.93            |       |
| 3   | Cotton, Bangladesh Sg                | 1,9946838000  | 41.50                     | NA               |       |
| 4   | Raw jute                             | 211000000     | 34.18                     | 1.02             |       |
| 5   | Jute, raw white A bottom             | 194051926000  | 32.45                     | 0.00             |       |
| 6   | Tobacco whole/part stem/strip virgin | 30777918      | 29.99                     | 2.91             |       |
| 7   | Fish                                 | 11195000      | 26.23                     | 3.71             |       |

| Table 2.6: Ex | port of Agricultural | <b>Products and Rec</b> | uisites FY21-22 |
|---------------|----------------------|-------------------------|-----------------|
|               | port or righteuterun | I TOURCES and Itee      |                 |

<sup>&</sup>lt;sup>26</sup> https://www.researchgate.net/publication/360688651 Evaluation of Import Policy Order 2021-2024

<sup>&</sup>lt;sup>27</sup> https://www.wto.org/english/tratop\_e/tpr\_e/tp485\_e.htm

| SI. | Item   | Quantity (Kg) | Value (in million<br>USD) | Unit Price<br>(USD/Kg) |
|-----|--|---------------|---------------------------|------------------------|
| 8   | Eels fish frozen                                     | 7596296       | 17.34                     | 4.50                   |
| 9   | Mixtures of two/more spices, other                   | 7739956       | 14.74                     | 4.19                   |
| 10  | Raw Cotton   | 61079000      | 13.19                     | 0.49                   |
| 11  | Jute, raw white, grades B, C, D or E                 | 16704534000   | 13.17                     | NA                     |
| 12  | Leather of other animal (not hair on)                | 815998        | 11.82                     | 21.25                  |
| 13  | Bladder and gut of animal not fish                   | 1774896       | 11.46                     | 8.31                   |
| 14  | Vegetable seeds for sowing                           | 4199133       | 11.46                     | 3.14                   |
| 15  | Seeds, for sowing, other                             | 4195083       | 10.43                     | 3.14                   |
| 16  | Crabs, frozen  | 950266        | 10.21                     | 12.43                  |
| 17  | Rice, beaten (Muri)                                  | 6083936       | 7.26                      | 1.88                   |
| 18  | Prepared food: other                                 | 608396        | 7.25                      | 18.84                  |
| 19  | Tobaco N/stem/strip F/cure N/virgin                  | 4882604       | 6.60                      | 2.14                   |
| 20  | Non-alcoholic beverage, other n.e.c                  | 13456365      | 4.92                      | 0.76                   |
| 21  | Fish filet dry salted in brine not smoked            | 3582072       | 4.41                      | 2.03                   |
| 22  | Chillies, dry  | 2213087       | 4.28                      | 3.28                   |
| 23  | Fish dry salted/ in brine not smoked                 | 3486116       | 3.46                      | 1.89                   |
| 24  | Balsam Mucilages & thickeners                        | 513453        | 2.78                      | 9.59                   |
| 25  | Vegetable, fresh or chilled other                    | 1699396       | 2.76                      | 2.59                   |
| 26  | Plant & part etc., used in perfumery                 | 430273        | 2.14                      | 9.94                   |
| 27  | Cigar chroot/cigrillo cigarete other                 | 515259        | 1.29                      | 6.71                   |
| 28  | Fruits, fresh, other                                 | 848266        | 1.07                      | 3.27                   |
| 29  | Spices   | 689000        | 0.88                      | 4.01                   |
| 30  | Tea  | 635000        | 0.87                      | 3.37                   |
| 31  | Turmeric (curcuma)                                   | 369819        | 0.70                      | 3.48                   |
| 32  | Rice medium quality                                  | 957851000     | 0.56                      | 0.00                   |
| 33  | Black tea packing not exceeding 3 kg                 | 398129        | 0.46                      | 2.22                   |
| 34  | Food preparations, other                             | 123010        | 0.44                      | 7.05                   |
| 35  | Green tea, other (not fermented)                     | 128490        | 0.39                      | 5.44                   |
| 36  | Tea n.e.c  | 107865        | 0.24                      | 5.20                   |
| 37  | Meat of bovine animal                                | 71121         | 0.13                      | 6.43                   |
| 38  | Cigarette tobacco                                    | 56562         | 0.12                      | 7.75                   |
| 39  | Black cumin seeds                                    | 104373        | 0.11                      | 3.77                   |
| 40  | Milk powder fat<=1.5%) W/sugar                       | 156790        | 0.11                      | 1.52                   |
| 41  | Plant & part herb etc., for medicine                 | 15648         | 0.07                      | 8.57                   |
| 42  | Fish salted, not dried/smoked & fish in brine, other | 53537         | 0.03                      | 2.23                   |
| 43  | Molasses, cane flavored coloured                     | 73884000      | 0.02                      | 0.00                   |
| 44  | Leather, semi-finished sheep skin                    | 2980          | 0.02                      | 36.71                  |
| 45  | Veg mtrl use for plaiting: other K                   | 187791        | 0.01                      | 0.37                   |
| 46  | Bamboo   | 182395        | 0.01                      | 0.18                   |
| 47  | Whiskies   | 1896          | 0.00                      | 10.24                  |
| 48  | Sugarcane/beet chem pure/solid other                 | 10698000      | 189.95                    | 0.002                  |
| 49  | Bones (uncrushed)                                    | 52640         | 89.67                     | 0.25                   |
| 50  | Betel leaves   | 4000          | 41.50                     | 2.98                   |
| 51  | Green tea, packing                                   | 84            | 34.18                     | 4.55                   |

Source: National Accounting Wing, BBS

Bangladesh earns most of its agricultural export earnings from jute products and raw jute, which are quit appropriately not subject to high protective tariffs. However, the unit price of such products is quite low in the international market (Table 2.8), thanks to competition from numerous substitutes of jute fibre. Over the years, Bangladesh has not been able to develop or innovate varieties of jute products by using this natural and eco-friendly fibre, partly because

the jute industrial sector has been under ownership and management of public sector officials Privatization of the public jute mills and supportive measures for higher value-added product exports could help the country achieve higher foreign currency earnings through greater trade in those product categories. Frozen shrimps constitute the second highest-earnings as an agrifood export commodity. But remarkably, this promising export product has shown no sign of growth since independence, with exports still floundering around \$400-500 million, an amount that was prevalent during the early years of independence. The global shrimp market is highly competitive, and Bangladesh has failed to catch up with the major players in India, Thailand, and Vietnam, in applying technologically intensive shrimp culture processes. Moreover, this agro-processing industry continues to suffer from limited access to finance (because of being mostly small-holders), regulatory challenges, such as certification and standards requirements in exports, in addition to nagging environmental issues that has plagued this industry for decades.

Nevertheless, Bangladesh does enjoy lower producer prices compared to the global market for many of the selected agricultural products. When compared to the producer prices of India, Bangladesh exhibits a price advantage in several products, highlighted in Table 2.7 below. The country is unable to benefit from international trade in these product categories due to various institutional and infrastructural bottlenecks, besides the prevalence of anti-export bias policies. Moreover, retail market prices often diverge significantly from producer prices due to high protective tariffs and other non-tariff barriers to imports.

| Item   | Bangladesh | India  | Price<br>Difference | Global<br>Avg. |
|--|------------|--------|---------------------|----------------|
|  |            |        | (BD and<br>IND)     | Avg.           |
| Areca nuts   | 3163.1     | 2856.6 | 10.7%               | 1199.2         |
| Bananas  | 435.9      | 311.6  | 39.9%               | 911.97         |
| Barley   | 474.5      | 296.9  | 59.8%               | 378.8          |
| Cabbages   | 182.8      | 271.1  | -32.6%              | 593.3          |
| Cauliflowers and broccoli                                    | 234.1      | 547.9  | -57.3%              | 1064.3         |
| Chickpeas, dry   | 736.6      | 816.6  | -9.8%               | 1594.4         |
| Chillies and peppers, dry (Capsicum spp., Pimenta spp.), raw | 3020.8     | 1675.3 | 80.3%               | 2635.9*        |
| Chillies and peppers, green (Capsicum spp. and Pimenta spp.) | 505.8      | -      |                     | 1621.1         |
| Coconuts, in shell   | 188.4      | 150.9  | 24.9%               | 572.5*         |
| Cotton lint, ginned  | 545.8      | 1824.1 | -70.1%              | 1895.13        |
| Cucumbers and gherkins                                       | 288.4      | -      |                     | 938            |
| Eggs from other birds in shell, fresh, N.E.C.                | 2892.8     | -      |                     | 4681*          |
| Ginger, raw  | 1201.4     | 924.8  | 29.9%               | 1549.2*        |
| Green garlic   | 1135.6     | 2310   | -50.8%              | 2571.8         |
| Groundnuts, excluding shelled                                | 801.6      | 570    | 40.6%               | 1336           |
| Hen eggs in shell, fresh                                     | 2773.9     | 1157.7 | 139.6%              | 2487.9         |
| Jute, raw or retted  | 392.4      | 363.7  | 7.9%                | 496.4*         |
| Lemons and limes   | 679.4      | 614    | 10.7%               | 1184.3         |
| Lentils, dry   | 952.1      | 531.9  | 79.0%               | 1587.3         |

#### Table 2.7: Producer Prices in FY2022 (USD/tons)

| Item  | Bangladesh | India  | Price                         | Global  |
|---|------------|--------|-------------------------------|---------|
|   |            |        | Difference<br>(BD and<br>IND) | Avg.    |
| Linseed   | 680        | 742.9  | -8.5%                         | 862.7*  |
| Maize (corn)  | 208.5      | 237.3  | -12.1%                        | 571.2   |
| Mangoes, guavas, and mangosteens                            | 401.8      | 843.6  | -52.4%                        | 1952.5  |
| Meat of buffalo, fresh or chilled                           | 1221.3     | -      | 021170                        | 5425.6* |
| Meat of buffalo, fresh or chilled (biological)              | 1070.9     | _      |                               | 3275*   |
| Meat of cattle with the bone, fresh or chilled              | 1326.7     | 648.8  | 104.5%                        | 5960.5  |
| Meat of cattle with the bone, fresh or chilled (biological) | 1109.2     | 322.4  | 244.0%                        | 3243.7  |
| Meat of chickens, fresh or chilled                          | 1346.1     | -      |                               | 2969.5  |
| Meat of chickens, fresh or chilled (biological)             | 1046.5     | 2333.2 | -55.1%                        | 2167.6  |
| Meat of ducks, fresh or chilled                             | 999.3      | -      |                               | 4455.7* |
| Meat of ducks, fresh or chilled (biological)                | 751.4      | -      |                               | 3102.5* |
| Meat of goat, fresh or chilled                              | 1947.8     | -      |                               | 6269.8* |
| Meat of goat, fresh or chilled (biological)                 | 1418.3     | 2418.5 | -41.4%                        | 4940.1  |
| Meat of sheep, fresh or chilled                             | 2171.5     | 5207.5 | -58.3%                        | 6625.5  |
| Meat of sheep, fresh or chilled (biological)                | 1576.9     | -      |                               | 4468.7  |
| Onions and shallots, dry (excluding dehydrated)             | 535.9      | 246.8  | 117.1%                        | 602.4   |
| Oranges   | 147.9      | 843.6  | -82.5%                        | 692.2   |
| Other beans, green  | 412.4      | 400.5  | 3.0%                          | 1675    |
| Other oil seeds, n.e.c                                      | 351        | -      |                               | 1274*   |
| Papayas   | 564.4      | 334.8  | 68.6%                         | 819.3   |
| Peas, dry   | 476.8      | 511.2  | -6.7%                         | 775.6   |
| Pineapples  | 194.3      | 476.5  | -59.2%                        | 1183    |
| Potatoes  | 239.4      | 212    | 12.9%                         | 557.1   |
| Pumpkins, squash, and gourds                                | 181.2      | -      |                               | 732.1   |
| Rape or colza seed  | 647.3      | 476.7  | 35.8%                         | 640.7   |
| Raw milk of buffalo   | 248.4      | 611.9  | -59.4%                        | 1128.5  |
| Raw milk of cattle  | 239.7      | 465.3  | -48.5%                        | 659.6   |
| Raw milk of goats   | 278.7      | -      |                               | 1240.5  |
| Rice  | 280.5      | 551.9  | -49.2%                        | 720.4   |
| Sesame seed   | 645.8      | 736.6  | -12.3%                        | 2373.5  |
| Soya beans  | 462.6      | 421.3  | 9.8%                          | 740.2   |
| Spinach   | 175        | -      |                               | 1199.7  |
| Sugar cane  | 47.6       | 21.3   | 123.5%                        | 116.5   |
| Sweet potatoes  | 198.4      | 229.1  | -13.4%                        | 893.6   |
| Tomatoes  | 402.3      | 319.8  | 25.8%                         | 1172.3  |
| Unmanufactured tobacco                                      | 973.6      | 1458   | -33.2%                        | 4179.5  |
| Wheat   | 277.5      | 308.1  | -9.9%                         | 445.2   |

Source: FAOSTAT, producer prices

\*Global average figures contain include countries available at the FAOSTAT database

**Bangladesh has post-harvest losses of fruits and vegetables because of storage challenges.** According to a study by FAO, potato is the second most produced crop, where production has overtaken domestic annual demand. However, the country still faces shortage, as more than 25% of potatoes are lost after harvesting due to lack of cold storage infrastructure and climate-resilient seed varieties. Similarly, with around 40% of tomatoes being lost during post-harvest, the country must rely on imports to meet demand.<sup>28</sup> Mango is the most grown fruit in Bangladesh and can be produced at more than 52% reduced price compared to India. However, 30% of produce is spoiled post-harvest due to excess supply and lack of cold storage facilities. Emphasizing greater bilateral trade could therefore benefit both nations. Onion is the most imported crop in Bangladesh as more than 25% of domestically produced onions are lost after harvest. There is an acute shortage during off-season onion production, raising prices. Local onion and imported onion prices were BDT 100 (\$0.91) per kilogram and 80 (\$0.73) per kilogram in October 2023, up by about 86 percent and 43 percent from the same period in the previous year. Bangladesh primarily imports onions from India. A report by United States Department of Agriculture (USDA) forecasts that onion prices in Bangladesh will continue to rise due to India's imposition of a minimum export price (MEP) of \$800 per MT. This higher MEP is expected to limit Bangladeshi onion imports from India<sup>29</sup>

<sup>28</sup> https://www.fao.org/hand-in-hand/hih-IF-

 $<sup>2023/</sup>bangladesh/en\#:\sim:text=In\%20Bangladesh\%2C\%20the\%20Hand\%2Din, boost\%20exports\%20has\%20been\%20lacking.$ 

<sup>&</sup>lt;sup>29</sup> chrome-

extension://efaidnbmnnnibpcajpcglclefindmkaj/https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName=Periodic%20Price%20Update%20and%20Food%20Security%20Status-Week%20of%20October%2022%20203%20 Dhaka Bangladesh BG2023-0022.pdf.



# BORDER POLICIES AND INTERNATIONAL TRADE IN AGRI-FOOD SECTOR

## **AGRI-FOOD SECTOR**

## 3.1. OVERVIEW OF BANGLADESH TRADE POLICY

International trade has been an engine of Bangladesh's economic transformation for nearly thirty years. Among other attributes, trade and industry have been key drivers of this development phenomenon while agriculture provided critical support to ensuring adequate food supplies thus fully eliminating dependence on food aid. From under 10% of GDP in 1972, the share of industry has risen to 37%. In keeping with stylized facts of development, the share of agriculture in GDP has declined to 11.2%. International trade is now at \$130 billion, compared to a mere \$6 billion in 1990. The Perspective Plan 2041 (PP2041) stipulates that industry will be the lead sector driving growth acceleration.

The trade liberalizing reforms of the 1990s, albeit incomplete, generated enough momentum to stimulate export-oriented manufacturing growth, job creation, and poverty reduction for the next two decades, and the momentum continues to this day. Thus far, trade and output growth in the Bangladesh economy have grown in tandem with each other (Table 2.1). Merchandise exports, imports, and total trade in FY2022 have grown to three times what they were in FY2000. Exports, imports, and trade averaged annual growth rates of 11%, 13%, and 12%, respectively. GDP growth has been rising alongside this trade phenomenon. The planning and performance of the last decade were evenly matched thanks to the government's strategy of facilitating rather than interfering in private business and investment initiatives.

| Trade in \$ billion      | FY2000 | FY 2010 | FY 2015 | FY 2019 | FY2022 |
|--------------------------|--------|---------|---------|---------|--------|
| Exports (\$ billion)     | 5.7    | 16.2    | 30.7    | 39.9    | 52.0   |
| Imports (\$ billion)     | 7.6    | 21.4    | 37.8    | 55.4    | 82.5   |
| Total Trade (\$ billion) | 13.3   | 37.6    | 68.5    | 95.3    | 134.5  |
| Avg decadal GDP growth   | 4.8    | 5.9     | 6.3     | 7.2     | 6.6    |

#### Table 3.1. Trade and Growth in Bangladesh

Source: Bangladesh Bureau of Statistics; Bangladesh Bank.

However, it would be a mistake to describe the current Bangladesh economy as characterized by a high degree of trade openness (Table 2.2 gives a snapshot of Bangladesh's trade regime). The initial spurt of liberalizing trade reforms soon gave way to creeping protectionism with the invocation of para-tariffs in the tariff structure that created a highly protected import-substituting manufacturing sector alongside a 100% export-oriented readymade garment (RMG) sector operating within a sort of free-trade enclave. What thus emerged was a "dualistic trade and industrial regime" that yielded notable export success, but on the back of RMG

exports alone. Export performance in non-RMG exports has been feeble, if nonexistent, resulting in a highly concentrated export basket with RMG constituting 84% of overall exports in 2023.

| Policies                               | Bangladesh 2004/05 | Bangladesh 2022/23    |
|--|--------------------|-----------------------|
| Exchange Rate                          | Unified            | Unified               |
| Exchange Rate determination            | Free float         | Crawling peg, managed |
| Payment convertibility                 |                    |                       |
| Current account                        | Yes, some limits.  | Yes, some limits.     |
| Capital account                        | No                 | No                    |
|  |                    |                       |
| Import restriction (trade reasons)     | No                 | No                    |
| Import restriction (non-trade reasons) | Yes, SPS, TBT etc. | Yes, SPS, TBT etc.    |
| Tariff Structure                       |                    |                       |
| Top normal CD rate                     | 25                 | 25                    |
| Top normal protection rate             | 60                 | 86.5                  |
|  |                    |                       |
| Average CD rate                        | 16.3               | 14.8                  |
| Average other protective taxes         | 6.3                | 12.46                 |
| Average CD + other protective taxes    | 26.5               | 27.26                 |
| (NPR)                                  |                    |                       |
|  |                    |                       |
| Number of normal CD slabs              | 4                  | 6                     |
| % of ad valorem tariff lines           | 99.95              | 99.95                 |
| % of tariff lines with specific duties | 0.05               | 0.05                  |
| Uses of anti-dumping                   | No                 | No                    |
| Avg of bound tariff rates              | 188.3              | 156.3                 |
| Export Policies                        |                    |                       |
| Some export QRs                        | Yes                | Yes                   |
| Some export taxes.                     | Yes                | Yes                   |
| Some direct export subsidies           | No                 | Yes                   |
| Indirect export subsidies              | Yes                | Yes                   |
| Trade openness: trade-GDP ratio (%)    | 33                 | 33.78                 |
| CD=customs Duty. NPR= Nominal Prot     | ection Rate        |                       |

#### Table 3.2: Snapshot of Trade Regime in Bangladesh

Source: Bangladesh Bank, NBR; PRI staff estimates.

For much of the next quarter-century, the bulk of job creation in Bangladesh will take place in a diversified manufacturing sector that is globally competitive, export-oriented, and focused on breaking into emerging markets while expanding its market share in developed economies around the world. The Government's Sixth, Seventh, and Eighth Five Year Plans, the Perspective Plan 2010-21 and the Perspective Plan 2041 have all laid out the blueprint for trade and industrial policies for growth acceleration through an outward-oriented trade and industrial policy regime, with agriculture providing the backbone of steadfastness by ensuring food security and jobs. Therefore, over the next 25 years, Bangladesh's progress to middle-income and high-income status will have to be largely driven by a high-performing export sector that is competitive in a highly globalized world, that considers the gains from trade with proximate and contiguous regions, including South Asia and BIMSTEC.

#### **3.2. UNDERSTANDING BORDER POLICIES**

For several decades, trade has been a handmaiden of growth for the Bangladesh economy. Consequently, the relative importance of border procedures and policies for seamless importexport transactions has amplified. Border policies consist of actions taken by a country or a group of countries to regulate the cross-border movements of people, goods, and animals. The term 'trade barrier' denotes any regulation or policy that restricts international trade, such as tariffs, quotas, licenses, and the like. Essentially, a trade barrier is a government-imposed restraint on the flow of international goods or services. These restraints can be overt but are more often subtle and difficult to assess. There are times when even WTO-compliant regulations could be used to create trade barriers.

Tariffs, which were the main trade barrier at the end of World War II (WWII), have been on a sharp decline over the past 75 years, resulting in a global average of around 6 per cent today. This decline in traditional tariff barriers has immensely contributed to the growth of international trade. Reduction in tariffs has also shifted the attention to other kinds of trade barriers - commonly known as non-tariff barriers (NTBs). Anything that makes trade more difficult can be classified as an NTB, including compliance with a different regulatory regime, inadequate infrastructure, excessive paperwork, language differences, border checks, quotas, phytosanitary rules, specific requirements linked with production & trade, or labelling conditions. Owing to their perishable nature of farm products, NTBs are more harmful in the case of trade in agricultural products, and agri-food products.

It is worth noting that trade barriers are ubiquitous and can significantly impede the free flow of goods and services across borders. There are few restrictions on Bangladesh exports except those that are needed to conform to quality and standards requirement under WTO rules, which are often readjusted to meet nationally determined regulations related to health, environment, and national security. However, beyond tariffs, imports into Bangladesh are subject to a plethora of regulatory norms and policies laid out in the 4-yearly Import Policy Orders, which are legislated so as to conform to WTO rules. In addition, several bilateral, regional, and international agreements, standards, and norms regulate the legal and policy regime concerning the country's cross-border trade management, promotions, and services. At the regional level, Bangladesh is a member of the South Asian Free Trade Area (SAFTA) and the Asia Pacific Trade Agreement (APTA). Bangladesh also participates in the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC).

*Cross-border issues in Bangladesh-India trade.* Analysts of South Asia trade have repeatedly pointed out that South Asian countries face more trade and non-trade barriers in trading with their neighbors than with the rest of the world. So is the case with Bangladesh-India trade. Studies have also shown that Bangladesh and India would both gain by opening their markets to each other. Indian investments into Bangladesh could be very important for the latter to ramp up its exports, including products that would broaden trade complementarity and enhance intra-industry trade. Challenges exist, however, including NTBs in both countries, excessive bureaucracy, weak trade facilitation, and customs inefficiencies. Trade in education and health care services offers valuable prospects, but also suffers from market access issues. To enable

larger gains, Bangladesh-India cooperation should go beyond goods trade and include investment, finance, services trade, trade facilitation, and technology transfer, and be placed within the context of regional cooperation. These trade and investment enhancing measures are an integral part of on-going bilateral negotiations for a more comprehensive agreement called Comprehensive Economic Partnership Agreement (CEPA) that is expected to take bilateral economic cooperation to greater heights, well beyond what was achieved under SAARC or SAFTA.

Addressing non-tariff barriers in agricultural and agri-food trade. While tariff concessions have been offered under SAFTA, there would be greater benefit in addressing non-tariff and para-tariff barriers in both countries. Given that bilateral trade is overwhelmingly in India's favor, while the primary concern is Bangladeshi exports to India, a few notable examples of non-tariff and para-tariff barriers in both are worth highlighting. Most trade between Bangladesh and India occur through land ports. At present, there are 10 land ports operating to facilitate trade between the two countries. It is a matter of fact that these land ports are the main points of friction in the exchange of goods over the border. Because Agro-Food processed exports must adhere to extremely strict food safety and health regulations set forth by India's Food Safety and Standards (Packaging and labeling) Regulations of 2011, they are subject to the most extensive use of SPS measures. Under the Ministry of Health and Family Welfare, the Food Safety and Standards Authority of India (FSSAI) is responsible for enforcing the law. It should be highlighted that although these rules seem to be consistent with the WTO, the lengthy processes and procedures naturally increase transaction costs and cause delays, making it impossible for small businesses to participate in exporting while major businesses are excluded.<sup>30</sup>

There is a lack of collaboration in terms of standards and compliance with SPS regulations between the two countries. For instance, many agriculture or food products are subject to stringent SPS inspections and testing. The certification provided by the Bangladesh Standards and Testing Institution (BSTI) for many of these products are not recognized by FSSAI or the customs authority. As a result, lengthy retesting is done at the border, or samples are sent to Bureau of Indian Standards (BIS). Moreover, many exporters of Bangladesh must get separate certification from laboratories in Singapore or Hong Kong, which incurs additional cost and acts as a significant barrier for many exporters.

Furthermore, the Indian rules of testing and standards are different from the WTO mandated regulations, which create additional requirements for the exporters to comply. Apart from these, India also imposes several discriminatory and WTO-inconsistent packaging and labeling requirements on Bangladeshi products (mostly edible products). The lack of collaboration between the authorities transforms these NTMs into NTBs (Sattar, 2015)<sup>31</sup>.

<sup>&</sup>lt;sup>30</sup> Bangladesh-India trade: Handicap of non-tariff measures, authored by Dr. Zaidi Sattar, The Financial Express, January 29, 2015

<sup>&</sup>lt;sup>31</sup> Zaidi Sattar, *Bangladesh-India trade: Handicap of non-tariff measures*. The Financial Express, January 29, 2015

Bangladesh also imposes several NTBs and supplementary duties on Indian exports. Some of them are as follows: (a) Bangladesh has imposed over 20-60 percent supplementary duty on import of plastics and other products from India. (b) Bangladesh still maintains 225 items in its sensitive list in terms of trade with India, covering machinery, pharmaceuticals, textiles, etc. (c) Other issues include the cases of port restrictions in both countries. Not all Indian ports can accept cargoes from Bangladesh. There are also port restrictions imposed by Bangladesh on Indian exports<sup>32</sup>. Similarly, exports of yarn, milk powder, fish, sugar, and potatoes from India (particularly from the northeastern states and West Bengal) face port restrictions in Bangladesh.

Moreover, Indian companies and professionals face difficulties in sending remittances back to India. Indian exporters can remit dollars converted from taka only as royalty, consultancy and "other charges", and there is a ceiling on the repatriable amount (for example, under 'royalty', only 6 percent of the sale proceeds in Bangladesh can be repatriated). This creates problems for knowledge-intensive sectors like software, IT and telecom, architecture, and so on. Thus, non-tariff measures/barriers such as standards, certification, regulations, labeling, documentation and public procurement, licensing, countervailing measures, tariff quotas, and anti-dumping measures are all matters of contention between India and Bangladesh. Non-tariff barriers are the most difficult and undermine the trade potential of both countries. Sanitary & Phytosanitary and Technical Barriers to Trade and related measures have been found to account for 86.3 percent of all barriers across South Asia. Besides, other hurdles such as stringent visa regimes, inadequate physical connectivity, restrictions in opening bank branches, lack of testing facilities at the border, non-honoring of irrevocable letters of credit, etc., have been faced by exporters and importers in both countries.

It is well known that harmonization of standards tends to increase the export variety of a partner country, and this may well apply to Bangladesh 's exports to India. An arrangement for recognition in India of certificates issued by Bangladeshi testing laboratories for export products will help exports. There have been misunderstandings regarding acceptance of test certificates issued by Bangladesh Standards and Testing Institute (BSTI) labs for products accredited by National Accreditation Board for Testing Laboratories (NABL-India). Addressing and eliminating these NTBs could boost bilateral trade to its potential<sup>33</sup>. Testing laboratories could be part of customs stations, at least to cater to testing requirements of more commonly traded products. Mutual recognition of testing laboratories and test reports from accredited laboratories by customs authorities will be very useful. Greater use of information technology in customs, to expedite processes such as electronic transfer of test reports and certificates of origin would help bilateral trade as well as the global trade of the two countries. This could be addressed if Bangladesh and India implement a single window system for customs. In parallel, harmonization of HS codes at 8-digit level will reduce disputes on classification and also provide the basis for establishing a system of seamless exchange of data between the customs authorities of Bangladesh and India. Such non-tariff measures/barriers can easily reduce the potential gains from tariff liberalization. Therefore, the next generation

<sup>&</sup>lt;sup>32</sup> Summary record of India-Bangladesh Commerce Secretary level discussions held at New Delhi on 28-29 March 2012. Available at http://commerce.nic.in/WhatsNew/IndiaBangladeshTalk.pdf

<sup>&</sup>lt;sup>33</sup> A Glass Half Full: The Promise of Regional Trade in South Asia. World Bank, 2018.

of trade talks between the two countries should give the highest priority for reduction of nontariff measures/barriers.

## 3.2.1 Tariffs

Tariffs are a widely practiced form of trade barrier, which take the form of a tax levied on imported goods to raise their relative price compared to domestically produced goods. Typically, tariffs are imposed as taxes or duties on imports, which are subsequently passed down to the end consumers. The purpose of tariffs is often to provide protectionist measures that benefit domestic producers and generate revenue. In essence, a tariff is a tax that increases the cost of imported goods for consumers, and it is one of several trade policies that can be implemented by countries. Customs authorities of the importing country are responsible for collecting revenue from tariffs. In Bangladesh, the average tariff protection for agriculture increased in recent years and remains higher than the overall applied MFN average (see Table 1-1a).

## 3.2.2 Quotas

Following the intensive phase of trade liberalization in Bangladesh in the 1990s, quantitative restrictions (QRs) on imports that were used for protection purposes got completely phased out by the early 2000s. Existing QRs are now largely WTO-compliant except for a few export restrictions (e.g. on wet blue leather). Most protective QRs (e.g. on some textile products) have been replaced by tariffs – a process known as tariffication. Sadly, protective tariffs have sometimes been so high as to act as *a de facto* ban. Because of the weakness and inefficiencies in customs administration, many WTO compliant NTMs could be abused to impede seamless trade.

## 3.2.3 Sanitary and Phytosanitary Measures

Sanitary and phytosanitary (SPS) measures are taken to protect human, animal, or plant life and health from potential risks that may arise due to the introduction, establishment, and spread of pests and diseases, as well as from potential risks related to additives, toxins, and contaminants in food and feed. These measures are regulated by the World Trade Organization's (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement). The SPS Agreement establishes rules that guide WTO Members in developing, adopting, and enforcing sanitary (human or animal life or health) and phytosanitary (plant life or health) measures that may impact international trade. Each WTO Member has the right to maintain an appropriate level of protection (ALOP) it considers necessary to safeguard human, animal, or plant life or health within its territory. To minimize the trade-distorting effects, SPS measures must be applied only to the extent necessary, be based on scientific principles and evidence, and be free from unjustifiable restrictions on international trade. Bangladesh is a member of the World Organization for Animal Health (OIE). In partnership with the Bangladesh Standards and Testing Institution (BSTI), the United Nations Food and Agriculture Organization (FAO) Food Safety Programme supports capacity development activities. Bangladesh signed SPS-related MoUs with Sri Lanka, Vietnam, India, and the Russian Federation.

In Bangladesh, several ministries and agencies including the Ministry of Agriculture, the Ministry of Health and Family Welfare, the Ministry of Fisheries, the Bangladesh Food Safety Authority/Ministry of Food, and the BSTI/Ministry of Industries are responsible for SPS measures. Food safety standards are set by the BSTI, which are generally based on the international Codex Alimentarius standards. The BSTI focuses on the implementation of the Bangladesh Standards (BDS) of Agricultural and Food Products. Laws and regulations governing food safety and SPS standards incorporate maximum residue limits (MRLs) for chemicals, toxins, harmful residues, and other contaminants, food additives, and rules for genetically modified food products or ingredients. The Bangladesh Food Safety Authority (BFSA), a statutory body established in 2015 under the Ministry of Food, ensures the overall coordination of the food inspection framework. All established MRLs are implemented across the board for both imported and locally produced products. As of 2022, there were 619 food BDSs, of which 88 (about 14%) were mandatory. The BDSs covered 27 standards for pesticides (including one insecticide), 19 for food additives (including colorings and artificial sweeteners), 4 for Irradiated Food Products, and 18 for Food Hygiene and Safety Management.<sup>34</sup> All Genetically Engineered (GE) products must be approved before they can be imported or sold domestically, and genetically modified raw materials may be imported for scientific purposes only. The International Standards for Phytosanitary Measures (ISPMs) guidelines are followed for carrying out food import inspections. Shipping documents must include radioactivity test reports and certificates declaring the food "fit for human consumption", and "not mixed with harmful substances", and indicating the country of origin. Customs carries out physical tests, including organoleptic tests, at the port of entry. Products not complying with the rules may be re-labeled correctly, downgraded to purposes other than human consumption, or destroyed. The Food Safety (Labeling) Regulation, 2017, determines all the major aspects of food packaging and labeling. Marketing, labeling, and packaging materials of genetically modified organism (GMO) food requirements are based on the Biosafety Rules.

**Sanitary measures:** The Ministry of Health and Family Welfare (MOHFW) and the Ministry of Fisheries and Livestock cooperate for the prevention and control of human and animal exotic diseases that are transmissible through international trade (e.g. human cases of avian influenza). Animals and animal products remain subject to inspection and quarantine. Meat from EU countries must be certified as free from bovine spongiform encephalopathy (BSE). Quality Control (QC) laboratories administered by the Ministry of Fisheries and Livestock are involved in the testing of pre-export samples of fish and fish products (including fish feed and feed ingredients) and samples under the residue monitoring program (RMP). Exportable fish and fish products are harvested, collected, transported, preserved, processed, and packed as per the Fish Inspection and Quality Control (FIQC) regulations and the importing country's standards. As of 2018, pre-export tests of fish, shrimp, and fishery products were conducted in three QC

 $<sup>^{34}</sup> https://bsti.portal.gov.bd/sites/default/files/files/bsti.portal.gov.bd/page/b5ede8e7_aff6_4651_82a4_94ee498ca 073/2022-02-08-09-09-ab56f97111f7bc385f23fc48f0f1f1bb.pdf$ 

laboratories in Dhaka, Khulna, and Chattogram. Bangladesh continues to face challenges in meeting standards for its fish exports, particularly to the EU market, which is the largest importer of Bangladeshi shrimp. Under a livestock diseases prevention and control project, Bangladesh constructed 24 quarantine stations in different sea, land, and airport entry points, to enhance the level of border controls and inspections, to ensure the protection of human, animal, and plant life or health in its territory, in line with relevant OIE obligations.

Phytosanitary measures: The Department of Agricultural Extension of the Ministry of Agriculture oversees all plant and plant products permitted for importation through the National Plant Quarantine Authority. Phytosanitary measures are governed by the Destructive Insects and Pest Rules, 1966, the Plant Quarantine Act, 2011 (amended in 2018), The Plant Quarantine Rules, 2018, and the Pesticide Act, 2018. As of 2018, the list of plants and plant products permitted for importation covered 125 items (including cereals, fruits, vegetables, spices, oil seeds, pulses, flowers and flower bulbs/seeds, herbaceous/ornamental plants, timber logs, and forest products, coffee, tea, tobacco, cotton, and some industrial (non-food) crops). It also contained a list of 38 weed species subject to quarantine. Any imported plants or plant products must be accompanied by a phytosanitary certification, issued by the authorities of the exporting country, and are subject to quarantine and inspection. If the requirements are not met, the Quarantine Officer may return the commodity, reject entry, destroy it, or allow entry subject to treatment. As of November 2018, Bangladesh had 32 plant quarantine stations/entry points, of which 3 are in international airports, 3 in seaports, 3 in river ports, 1 in an Inland Container Depot (ICD), and 22 in border land ports. The law requires perishable items to be issued a phytosanitary certificate within 24 hours. For other items, the requirement may be extended based on the need for fumigation, inspection, or testing. The transaction time is usually one to two hours if there are no issues during inspection. Testing may take up to three days, and in the case of seeds, the transaction time may exceed three days.

#### 3.2.4 Safeguard Measures

The WTO's Agreement on Safeguards ("SG Agreement") sets forth the rules for the application of safeguard measures under Article XIX of GATT 1994. Safeguard measures are defined as "emergency" actions concerning increased imports of products, where such imports have caused or threaten to cause serious injury to the importing Member's domestic industry. Such measures restrict imports of a product temporarily and take the form of suspension of concessions or obligations, quantitative import restrictions, or duty increases to higher than bound rates. SG agreement is one of the three types of contingent trade protection measures, along with anti-dumping and countervailing measures, available to WTO Members. In compliance with the WTO Agreement on Safeguards, Bangladesh has incorporated relevant provisions under Section 18E of the Customs Act, 1969. The laws, regulations, and administrative procedures relating to safeguard measures were notified in 2002.

**Conditions for application of safeguard measures:** The guiding principles of the Agreement dictate that such measures must be temporary, imposed only when imports are found to cause or threaten serious injury to a competing domestic industry, generally applied on a non-selective (i.e. most-favored-nation, or "MFN") basis, and progressively liberalized while in

effect. The Members imposing them are also generally required to pay compensation to the Members whose trade is affected. The determination of the *"increased quantity of imports"* can be of either an absolute increase or an increase relative to domestic production. *"Serious injury"* refers to significant impairment of a domestic industry. Investigating authorities consider all relevant factors, including the absolute and relative rate and amount of import increase, market share, and changes in sales, production, productivity, capacity, utilization, profits and losses, and employment of the domestic industry. *"Threat of serious injury"* refers to an imminent factual threat, not mere allegations, or remote possibilities. Safeguard measures can be implemented even in the absence of present serious injury if a threat is identified. In the case of tariff measures, other than the general requirements, the Agreement does not provide any guidance as to how the level of an increase in the tariff above the bound rate should be set.

In the case of quantitative restrictions, the level must not be below the actual import level of the most recent three representative years, unless there is clear justification for setting a different, lower, level. Rules also govern how quota shares are to be allocated among supplier countries based on past market shares. Quota levels may be modulated if (i) the percentage increase in imports from certain Members has been disproportionate to the overall increase in imports, (ii) the reasons for the departure from the general rule are justified, and (iii) the conditions of such a departure are equitable to all suppliers of the product concerned. In terms of compensation, a member applying SG measure must provide an equivalent level of concessions and other obligations for affected exporting Members. The affected Members can agree on trade compensation. In the absence of an agreement, affected exporting Members may retaliate, unless disapproved by the Council for Trade in Goods.<sup>35</sup> Duration and review of measures: The maximum duration of any safeguard measure is four years unless it is extended consistent with the Agreement's provisions. The extension is eligible only if the continuation is found necessary through a new investigation and only if there is sufficient evidence showing that the industry is adjusting. Safeguard measures cannot exceed eight years and must be gradually liberalized during their application period. Measures extended beyond the initial period must still be liberalized. Those lasting more than three years must be reviewed mid-way and may need to be withdrawn or liberalized faster. Special and differential treatment: Developing country Members receive special and differential treatment in the form of a de minimis import volume exemption, where safeguard measures may not be applied to single, low-volume (imports of less than 3 percent of a particular product) developing country Members. Developing country Members may extend the application of a safeguard for an extra two years beyond the normally permitted duration. The rules for re-applying safeguard measures concerning a given product are also much more relaxed for such Members.

#### 3.2.5 Other Border Policies

Regulatory NTBs imposed by Bangladesh which has placed an export ban on Hilsa fish, an import ban through land ports in Tripura, different packaging requirements, imposition of the mandatory requirement of using jute bags for exporting food items, and publication of trade rules and regulations in local language are some of the barriers, affecting Indo-Bangladesh

<sup>&</sup>lt;sup>35</sup> https://www.wto.org/english/tratop\_e/safeg\_e/safeg\_info\_e.htm

bilateral agriculture trade. Policies of different quality standards and multiple testing requirements on both sides of the border create impediments to trade. For example, in the case of rice import, Indian standards have not mentioned any parameters for fungicides and herbicides. But Bangladesh standards specify testing residue of five fungicides and three herbicides' parameters at the time of import. Technical barriers include India's frequent transformations of non-tariff measures designed to ensure compliance with sanitary and phytosanitary standards into non-tariff barriers and technical barriers to trade for Bangladesh. Visa issues have also been a significant barrier to trade between India and Bangladesh. Obtaining visas for business travel is a time-consuming and expensive process, which has deterred many traders from doing business between the two countries.

#### 3.2.6 All Barriers Related to Time to Trade

The lack of adequate infrastructure, including ports, roads, railways, and customs facilities, has been a significant barrier to trade between India and Bangladesh. Poor infrastructure has increased the cost of transportation and slowed down the movement of goods between the two countries. The existence of infrastructural NTBs, particularly sub-optimal trade infrastructure, limited cold storage and warehousing, limited banking facilities, poor internet connectivity, and inadequate testing laboratories, among others, have created bottlenecks at the border. According to a study by the Asian Development Bank (ADB), underdeveloped trade facilities at borders cause the average time required from entry to exit to be about 4 hours for import and 3–6 hours for export at crossings such as Akhaura, Sonamasjid, and Tamabil. About half of this time is spent waiting for inefficient procedures to be completed. Perishable goods are particularly affected by such slow and unpredictable operations.<sup>36</sup> Roads in Bangladesh are being developed, but border crossings remain as bottlenecks. Well-equipped land customs stations and modernized land ports are lacking to make cross-border trade faster, less costly, more predictable, and more secure. Moreover, most ports along the India-Bangladesh border are non-Electronic Data Interchange (EDI) ports, which lead to paper submission of documents and delays timely clearance of goods at land ports. Regulatory barriers such as multiple testing requirements make cross-border trade a lengthy and cumbersome process.

#### 3.2.7 Cost to Trade

In addition to tariff barriers, non-tariff barriers (NTBs) considerably escalate the cost of doing cross-border trade. Most of the trade between Bangladesh and India takes place via land customs stations (LCSs) with 60-70 percent of their total volume through Agartala and Petrapole land ports. Various kinds of barriers at the border, behind the border, and beyond the border, hinder cross-border trade between these two countries. These include technical, infrastructural, procedural, financial, and policy-induced barriers that raise the cost of doing cross-border trade, thereby hindering them from achieving their true trade potential. So much so that the World Bank (2018) report cites that trade costs of imports to India from Brazil are significantly less than imports from some South Asian countries, including Bangladesh. The development of LCSs into Integrated Check Posts (ICPs) has escalated the cost of trading due

<sup>&</sup>lt;sup>36</sup> https://blogs.adb.org/blog/bangladesh-needs-expand-trade-its-neighbors

to high warehousing and transshipment charges. Multiple testing requirements in the case of fish products substantially increase costs and cause delays.

### 3.2.8 Hidden Barriers Like Trust

Problems such as the involvement of syndicates near the border and the presence of fake intermediaries pose hidden barriers to cross-border trade. Labour unions and syndicates at border points often create an artificial labour crisis, fix high labour hire charges, and distort markets. Informal payments/money collection at various junctions by local civic volunteers are identified as a major impediment for truckers and transporters. In the case of India and Bangladesh, there is the presence of multiple intermediaries in their land ports, given the existence of sub-optimal trade infrastructure. These intermediaries often maximized profit through trading while the primary growers or farmers remained on a subsistence level. The rent-seeking behaviour of officials and informal payment practices for fast clearance are other hindrances to trade through formal channels. Institutional Arrangements such as the absence of fixed rates at private parking places and inaccurate weighing facilities of private warehouses create unnecessary additional costs. Weight calculations with private warehousing facilities at Indian LCSs often vary with the government-procured weighing mechanisms on the Bangladesh side, impeding the trade flow. The lack of coordination and communication between the two countries on trade issues has caused disputes among cross-border traders, stakeholders, and customs officials.

## 3.2.9 Trade Policy Uncertainty

The WTO and its multilateral agreements of trade aim to ensure that trade flows as smoothly, predictably, and freely as possible. WTO members specifically make commitments not to increase tariffs above some bound rates. Trade Policy Uncertainty (TPU) arises when there is a risk of a tariff reversal or the uncertainty of abruptly increasing tariff rates over a bound or generally prevalent one. Uncertainty over future trading conditions can induce firms to delay entry into a foreign market and act as a barrier to trade. The risk of a trade policy reversal acts as a fixed cost to enter an export market and therefore hurts the extensive margin of trade. Thus, trade agreements make important contributions by increasing the predictability of trade policy. The WTO defines TPU as the degree of flexibility that both multilateral and preferential trade agreements provide. Specifically, applied tariffs are allowed to vary up to a certain limit or bound rate. TPU therefore, points to the gap between the bound and the applied rate and has negative implications of tariff overhang on the extensive and the intensive margins of trade<sup>37</sup>. TPU is a more important obstacle to trade for countries with poor-quality institutions. Such policy uncertainties can change prices and other incentives relevant to the decisions of firms, workers, and consumers, and have both direct and indirect implications to cross-border trade<sup>38</sup>.

To avoid TPU in general, Bangladesh Government is cognizant of the need for alleviating any notions of uncertainty in trade policy by announcing an Import Policy Order and an Export

<sup>&</sup>lt;sup>37</sup> https://www.wto.org/english/res\_e/reser\_e/ersd201505\_e.pdf

<sup>&</sup>lt;sup>38</sup> https://www.annualreviews.org/doi/abs/10.1146/annurev-economics-021622-020416

Policy every three years (current period, 2021-2024), while overall tariff, VAT and other trade taxes are adjusted primarily during the announcement of the annual Budget. Some modest adjustments are made to tariffs and ODCs only under exceptional circumstances such as unanticipated events like the Covid-19 pandemic.

## 3.3. THE ROLE OF THE WORLD TRADE ORGANIZATION (WTO) IN AGRI-FOOD TRADE AND ITS IMPLICATION FOCUSING ON INDIA OR BANGLADESH AND DEVELOPING COUNTRIES IN GENERAL

Agri-food trade is a key component of the global economy's interconnectedness, providing a stable foundation for ensuring adequate and timely supplies of agri-food products in deficit regions on the one hand and ensuring food security on the other. With the responsibility of overseeing and promoting global trade, the World Trade Organization (WTO) sits at the center of this complex network of economic interactions. The Agriculture Agreement (AoA) requires WTO members to cut back on their exports of subsidized goods. However, a few importing nations rely on the large, industrialized nations' low-cost, subsidized food supplies. These include some of the world's poorest nations, and while their agricultural sectors may benefit from lower export subsidies and higher pricing, they may require short-term support to adjust to higher import prices and eventually to export. A special legislative resolution lays forth goals and specific actions for the distribution of food aid and development assistance for agriculture.

WTO-supported trade liberalization seeks to promote free and open trade by lowering obstacles like tariffs and quotas. This offers developing countries, like Bangladesh and India, a chance to take advantage of their competitive advantages in agri-food products and get access to international markets. But getting entry to the market is not without its difficulties.

Within the WTO framework, the subject of agricultural subsidies continues to be controversial. Rich countries heavily subsidize their agricultural industries, which distorts international markets and disadvantages producers in developing ones. With their rapidly growing agricultural industries, Bangladesh and India bear the burden of this imbalance. The WTO's Agreement on Agriculture (AoA) aims to control these subsidies, yet differences still exist, making developing country farmers less competitive. It will need coordinated action to change subsidy programs and provide fair playing conditions for all parties involved to address this gap.

The World Trade Organization (WTO) includes provisions for Special and Differential Treatment (S&D) in its accords because it acknowledges the special difficulties that developing nations experience. These measures give developing countries with longer implementation timelines more flexibility in achieving their trade responsibilities. When it comes to protecting developing countries' interests in the face of differences in economic strength and resources, S&D provisions are essential.

Central to the' WTO's mandate is its dispute settlement mechanism (DSM), providing a forum for resolving trade disputes among member states. Developing countries have utilized this mechanism to challenge trade measures perceived as unfair or discriminatory. Bangladesh can

also address trade disputes and protect its interests in the agri-food industry through the WTO's dispute settlement system.

Bangladesh is a prominent participant in the global trade arena's agri-food sector, thanks to its abundant agricultural resources and growing export business and an inventive member of the WTO, contributes at least MFN treatment to all its trading partners and obtains the special and differential treatment provided for in the WTO Agreements. Moreover, Bangladesh can benefit from trade liberalization initiatives supported by the WTO, given its wide range of agricultural products, from fruits and rice to jute and fisheries. Bangladeshi exporters now have more opportunities to reach international markets and increase their agri-food exports because of reduced tariffs and quotas. Not just exports, imports of agri-food products, which are often critical for food deficit countries, are suitably enabled by the WTO's AoA, which contains rules regarding unjustified export controls on agri-food products.

Bangladesh benefits from Special and Differential Treatment (S&D) provisions within the WTO framework as a developing country since these rules consider its development problems and capacity restrictions. These clauses give Bangladesh flexibility in fulfilling its trade commitments and offer crucial assistance to its agri-food industry. To improve Bangladesh's involvement in the international agri-food trade, however, focused capacity-building initiatives and technical support are required for the effective use of S&D regulations. Bangladesh may become a major player in the global agri-food industry by making proper use of S&D provisions and building institutional capability. To fulfil international standards and obtain market access, Bangladesh's agri-food exports needs to strictly adhere to sanitary and phytosanitary (SPS) requirements. However, Bangladesh has major obstacles in achieving the strict SPS criteria set by importing countries due to limited resources and technical capacity. Enhancing Bangladesh's regulatory competence and promoting the harmonization of SPS requirements need cooperative efforts within the WTO framework, such as technical assistance and capacity-building programs. By tackling these issues, Bangladesh can strengthen its standing in the international market and open new export markets for agri-food products.

Bangladesh's participation in the World Trade Organization has great potential to expand its agri-food commerce and promote sustainable growth in the industry. Through the utilization of trade liberalization opportunities, the promotion of fair treatment, and the settlement of issues pertaining to subsidies, standard compliance, and dispute resolution, Bangladesh has the potential to solidify its standing as a major participant in the international agri-food industry. Bangladesh can map out a course for equitable and sustainable development within the WTO framework by working together, utilizing the transformative potential of agri-food commerce to the advantage of its people and economy.

## 3.4. REGIONAL/FREE TRADE AGREEMENTS AND THEIR IMPACT ON AGRI-FOOD TRADE- THE ROLE OF SENSITIVE PRODUCTS- BOUND VERSUS APPLIED TARIFFS

Bangladesh does have many bilateral trade agreements with other WTO members, but these do not constitute any reciprocal preferential arrangement or market access. When it comes to

preferential trade agreements, like FTA or RTA, Bangladesh stands far behind countries such as Vietnam, or even India. At the regional level, Bangladesh is a member of the South Asian Free Trade Area (SAFTA), which is the only FTA in Bangladesh's bag. Another regional trade agreement is the Asia Pacific Trade Agreement (APTA), which is not an FTA, but offers some tariffs concessions selectively. Bangladesh also participates in the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), which is yet to take shape as a regional FTA, though there are good prospects and growing interest among members. Such regional trade agreements (RTAs) or FTAs aim to promote regional cooperation, expand trade and investment, strengthen intraregional economic cooperation, promote intraregional trade, and liberalize trade among member nations. Under the Trade Linearization Program of SAFTA, all the import tariffs have been brought down by between 0-5 percent. As an LDC, Bangladesh is enjoying 0% tariff access on all items exported to India except only 25 items (i.e. alcohol, drugs, narcotics, etc.) under SAFTA. Bangladesh remains a beneficiary under the Generalized System of Preferences (GSP) schemes, particularly the DFQF schemes, of Australia, Canada, the European Union, Iceland, Japan, Montenegro, New Zealand, Norway, the Russian Federation, Switzerland, and the United States (until 2013). It is also entitled to DFQF schemes provided by certain Members of the WTO, including China, Chinese Taipei, Chile, India, Kazakhstan, the Republic of Korea, the Kyrgyz Republic, Tajikistan, Thailand, and Turkey.

#### 3.4.1 Trade Agreements and Their Impact on Agri-food Trade

Trade flows are significantly affected by the existence of preferential trade agreements, like FTAs or RTAs, both concerning impacts on pre-existing trade flows (intensive margin) and on new, previously non-existent trade flows (extensive margin). Tariff concessions are among the key elements of these agreements, especially in agriculture, where tariff barriers are generally high. According to a study by the OECD, the share of global agro-food trade between countries with Regional Trade Agreements (RTAs) rose from slightly over 20% in 1998 to nearly 40% in 2009. The study indicates that the preferential margin for agricultural products is approximately 9% in agreements among South-South countries. South exports to the North (i.e. high-income OECD countries) receive a preferential margin of nearly 15% after eight years, while North exports to the South receive a much lower 4.2% preferential margin. Therefore, based on the 78 RTAs analyzed, agreements between lower-income nations with high-income ones generally grant substantially higher benefits for the former<sup>39</sup>, an arrangement that is consistent with the WTO rules regarding Special and Differential Treatment for low-income and developing economies.

SAFTA, an FTA, which gives Bangladesh duty-free access to other member countries, barring sensitive lists compiled by each member country. Though SAFTA has not shown to have actually expanded the share of intra-South Asia trade (mostly due to the India-Pakistan rivalry), it did result in trade expansion for other members, though not to their full potential. India-Bangladesh trade has certainly taken off since the trade liberalization episodes in both countries since the early 1990s. India-Bangladesh trade accounts for the largest share of SAFTA trade

<sup>&</sup>lt;sup>39</sup> https://www.oecd-ilibrary.org/the-impact-of-regional-trade-agreements-on-trade-in-agricultural-products\_5k3xznkz60vk.pdf

(over 50%). Though the bilateral trade deficit is overwhelmingly in India's favor, it is not upsetting Bangladesh's overall trade deficit since it is made up from surpluses with Europe and North American countries. After China, India remains the second largest source of imports. More importantly, India is a cheap and competitive source of much needed raw materials, intermediate and capital goods (70% of imports) destined for the productive sectors of the economy. SAFTA tariff reductions have reached their finality, with Bangladesh getting duty-free access for much of its exports, including RMG. Once, RMG exports got zero-tariff access to the Indian market, exports have been rising fast, crossing the \$1 billion milestone in 2019 and \$2 billion in 2022.

A large gaping bilateral trade deficit also exists with China which happens to be known as the "world's factory" and is a cheap and cost-effective source of all categories of imports. Although China offers preferential tariff concessions to Bangladesh under the APTA and WTO, Bangladesh exports have been growing faster into India than into China, simply because India has offered duty-free access but China, which is itself a highly competitive supplier of RMG, has not. Despite these concessions, the presence of high non-tariff barriers, such as administrative delays, excessive quality-control measures, have contributed to a lack of progress in fulfilling Bangladesh's exports potential vis-à-vis India. While special and preferential tariff margins offer some benefits, Bangladesh needs to take a comprehensive approach to enhance its exports, which requires addressing not only tariff barriers but also non-tariff barriers that hinder trade. The on-going CEPA negotiations and their conclusion into an agreement is likely to change that landscape.

#### 3.4.2 Bound vs Applied Tariff

Data on WTO members' tariffs are of two types: Bound rates which are the ceiling rates as listed in members' "schedules" or lists of commitments, and Applied rates which are the rates members currently charge and can be lower than the bound rates. The overall distribution of bound and applied CD rates for agricultural and manufacturing products in the Bangladesh tariff schedule is presented in Table 3.3. Note that when it comes to MFN applied rates, only tariffs (CD) are recognized by WTO. Para-tariffs are excluded in the measure of averages or maximum applied rates. Though the ceiling of bound rate commitment has been set at 200% for both agriculture and manufacturing products, 70% of agricultural tariff lines are subject to this binding, with an average of bound rates at 186%. In manufacturing, only 5% of tariff lines have lower bindings, at an average rate of 38%. For both the product categories, applied CD rates are far below bound rates. This divergence implies that tariffs can be raised up to 200%, which does create a degree of uncertainty, though that kind of tariff escalation is unlikely.

| WTO Agriculture/                  | No. of HS | % Bound | Average | Maximum |  |
|-----------------------------------|-----------|---------|---------|---------|--|
| Manufacturing Classification      | Code      | rate    |         |         |  |
| Bound CD rates =>>                |           |         |         |         |  |
| Agricultural Products (HS 01-24)  | 1,579     | 70.4    | 186.1   | 200     |  |
| Manufacturing Products (HS 25-97) | 5,956     | 4.9     | 37.8    | 200     |  |
| Total                             | 7,535     | 19      | 156.3   | 200     |  |
| Applied CD rates=>>               |           |         |         |         |  |
| Agricultural Products (HS 01-24)  | 1,579     |         | 20.39   | 25      |  |
| Manufacturing Products (HS 25-97) | 5,956     |         | 13.36   | 25      |  |
| Total                             | 7,535     |         | 14.83   | 25      |  |

Source: WTO, and PRI staff estimates.

In Bangladesh, the Applied MFN tariff protection varies substantially across and within sectors, averaging 18.1% for agricultural products, an increase since 2011/12, and 14.1% for nonagricultural products in 2018/19 (WTO definitions). In agriculture, average tariffs are highest for beverages, spirits and tobacco, and sugars and confectionery, both at 25%, followed by dairy (23.1%), coffee and tea (22.9%), fruits, vegetables, and plants (21.3%), and fish and fishery products (23.8%). The average MFN tariff rate is 14.0 percent, with average rates for agricultural products higher than for industrial goods. The maximum MFN applied CD rate is 25 percent. According to WTO Trade Policy Review (TPR) 2019, average MFN tariff rates increased for almost all agricultural product categories, except for fats and oils. Bangladesh maintains a low binding coverage, with all its agricultural products tariff lines (WTO definition) being bound, compared to 4.9% on non-agricultural goods. In 2018/19, the overall gap between the simple averages of MFN applied and bound CD rates stood at 147.2 percentage points (168.3 percentage points for agricultural goods and 25.9 percentage points for nonagricultural goods)<sup>40</sup>. Bangladesh provides concessions for the import of capital machinery and equipment, as well as for specified product categories (end user concessions), which makes determinations of tariff rates a complex and non-transparent process.

| Part A.2 Tariffs and imports by product groups |                    |           |     |         |                    |           |     |  |  |
|--|--------------------|-----------|-----|---------|--------------------|-----------|-----|--|--|
| Product groups                                 | Final bound duties |           |     |         | MFN applied duties |           |     |  |  |
|  | AVG                | Duty-free | Max | Binding | AVG                | Duty-free | Max |  |  |
|  |                    | in %      |     | in %    |                    | in %      |     |  |  |
| Animal products                                | 193.8              | 0         | 200 | 100     | 19.3               | 7.7       | 25  |  |  |
| Dairy products                                 | 152.5              | 0         | 200 | 100     | 24.0               | 0         | 25  |  |  |
| Fruit, vegetables, plants                      | 189.7              | 0         | 200 | 100     | 21.3               | 2.1       | 25  |  |  |
| Coffee, tea                                    | 187.5              | 0         | 200 | 100     | 22.5               | 0         | 25  |  |  |
| Cereals & preparations                         | 186.1              | 0         | 200 | 100     | 16.3               | 13.2      | 25  |  |  |
| Oilseeds, fats & oils                          | 172.8              | 0         | 200 | 100     | 10.3               | 23.9      | 25  |  |  |
| Sugars and confectionery                       | 172.9              | 0         | 200 | 100     | 33.8               | 0         | 122 |  |  |
| Beverages & tobacco                            | 200.0              | 0         | 200 | 100     | 25.0               | 0         | 25  |  |  |
| Cotton   | 200.0              | 0         | 200 | 100     | 3.5                | 30.0      | 5   |  |  |
| Other agricultural products                    | 183.4              | 0         | 200 | 100     | 11.4               | 15.1      | 25  |  |  |
| Fish & fish products                           | 54.7               | 0         | 200 | 7.6     | 23.7               | 4.4       | 25  |  |  |

#### Table 3.4: Bound Tariffs and MFN Applied Tariffs by Product Groups (2022)

Source: WTO

<sup>&</sup>lt;sup>40</sup> https://www.wto.org/english/tratop\_e/tpr\_e/s385\_e.pdf

| Part B Exports to major trading partners and duties faced |                   |            |                       |            |            |          |          |                   |       |
|---|-------------------|------------|-----------------------|------------|------------|----------|----------|-------------------|-------|
|   | Bilateral imports |            | Diversification       |            | MFN AVG of |          | Pref.    | Duty-free imports |       |
| Major markets   |                   | in million | n 95% trade in no. of |            | traded TL  |          | margin   | TL                | Value |
|   |                   | US\$       | HS 2-digit            | HS 6-digit | Simple     | Weighted | Weighted | in %              | in %  |
| Agricultural products                                     |                   |            |                       |            |            |          |          |                   |       |
| 1. India  | 2021              | 463        | 8                     | 12         | 33.3       | 30.5     | 30.5     | 97.6              | 100.0 |
| 2. China  | 2021              | 77         | 5                     | 6          | 10.5       | 10.7     | 10.7     | 100.0             | 100.0 |
| 3. Nepal  | 2021              | 74         | 4                     | 4          | 24.5       | 11.7     | 3.3      | 0.0               | 0.0   |
| 4. European Union   | 2021              | 74         | 16                    | 47         | 14.4       | 10.4     | 10.4     | 100.0             | 100.0 |
| 5. United Kingdom   | 2021              | 36         | 10                    | 43         | 10.9       | 8.0      | 8.0      | 100.0             | 100.0 |

#### Table 3.5: Exports to Major Trading Partners and Duties Faced

Source: WTO

Table 3.4 above shows that the applied MFN tariffs for agricultural imports in Bangladesh are much lower than the bound rates of the WTO. Table 3.5 shows duties imposed on Bangladeshi exports. It is notable that India, despite being the largest export market for agricultural products, imposes the highest rates of MFN tariffs on agricultural products.

## 3.5. MARKET ACCESS AT DIFFERENT LEVELS – BANGLADESH-INDIA TRADE

Under the WTO definition, market access for goods means the conditions, tariff, and non-tariff measures, agreed by members for the entry of specific goods into their markets. The new rule for market access in agricultural products is "tariffs only". Agricultural imports restricted by quotas and non-tariff measures before the Uruguay Round have been replaced by tariffs that provide somewhat equivalent levels of protection.

Bangladesh and India share a long, porous border of over 4,000 km with many land customs stations (LCSs) for trade. Their economic and trade ties are heavily influenced by their sociocultural connections. Currently, Bangladesh is enjoying India's 'Duty-Free Tariff Preference (DFTP) Scheme', which was established in 2008 after a decision was made at the World Trade Organization's (WTO) Hong Kong Ministerial Conference (MC6). This scheme provides duty-free access to 98.2% of traded products into India, with some exceptions guided by a reserved (sensitive) list of products. However, Bangladesh has received tariff benefits through the South Asian Free Trade Agreement (SAFTA), which is currently in a state of dysfunction.<sup>41</sup> Furthermore, certain Bangladeshi producers have improved their marketing strategies, which has aided in increasing exports to India.

While both nations have made efforts to improve trade, these efforts have only played a limited role in boosting Bangladesh's exports to India. The main reason behind the widening trade deficit from the Bangladesh side in bilateral trading activities is the presence of various tariffs,

<sup>&</sup>lt;sup>41</sup> https://fairbd.net/non-tariff-barriers-to-india-bangladesh-trade-

explained/#:~:text=Lack%20of%20infrastructure,goods%20between%20the%20two%20countries.

non-tariff barriers, and anti-dumping measures in India. Of them, Non-Tariff Barriers (NTBs) have had a particularly adverse effect on Bangladesh's exports to India. Such barriers can limit market access or even prevent trade altogether. Examples of NTBs include technical regulations, sanitary and phytosanitary measures, customs procedures, and licensing requirements. In the case of India and Bangladesh, both countries practice several NTBs, resulting in challenges for market access and trade.

## **3.6. CASE STUDIES OF BORDER POLICIES- WHY IS TRADE BELOW POTENTIAL**

Several studies have focused on the main constraints to enhancing agri-food trade between Bangladesh and India. These studies have also provided specific recommendations regarding policy changes.

*India-Bangladesh Agriculture Trade: Demystifying Non-Tariff Barriers to India-Bangladesh Trade in Agricultural Products and their Linkages with Food Security and Livelihood*: The study by CUTS International<sup>42</sup> and USAID published in 2019 highlights non-tariff barriers (NTBs) as the principal cause of suboptimal cross-border trade. Similar conclusions were reached in a PRI study on NTBs in India-Bangladesh trade<sup>43</sup>. NTBs are more harmful than tariffs because the impacts of such barriers are hidden and difficult to assess. These include technical, infrastructural, procedural, and policy-induced barriers that raise the cost of doing cross-border trade, thereby hindering them from achieving their true trade potential. The analysis is based on primary as well as secondary data from approximately 250 stakeholders which include farmers, supply chain actors, policymakers, exporters, importers, custom house agents, transporters, and port authority officials in West Bengal and Tripura. The findings were further validated in stakeholder workshops conducted in Kolkata, Agartala, and New Delhi.

**Recommendations:** Several recommendations were made. These include:

- Coordination between officials from ICPs, various chambers of commerce, and border management agencies in selected land ports should be promoted to carry forward the agenda of trade facilitation.
- Establishment of quarantine facilities near LCSs or ICPs to improve the current level of bilateral trade.
- Establishment of public and private accredited testing laboratories to set up mobile testing facilities at strategic locations near land ports.
- Brokering a Mutual Recognition Arrangement between India and Bangladesh to resolve the divergence in food standards.
- Establishment of Inland Container Depots (ICDs), dry ports, and bonded warehouses at strategic locations to ease congestion at land ports. In addition, existing government

<sup>&</sup>lt;sup>42</sup> Available from: <u>https://cuts-citee.org/pdf/project\_report-ntbagr.pdf.</u>

<sup>&</sup>lt;sup>43</sup> Bangladesh Country Report: Non-Tariff Measures in India-Bangladesh Trade Analysis based on Perceptions of Exporting-Importing Firms. PRI Report prepared for the World Bank, September 2014.

schemes on direct port delivery and authorized economic operators can be introduced at land ports to expedite the clearance of imported cargo.

- Encouragement of Private sector participation in the development of ICDs and dry ports.
- Collective efforts from both countries in establishing complementary domestic and trade policy reforms.

## Impact of RTA and PTA on Bangladesh's Export: Application of a Gravity Model

The study by Muhammad Shariat Ullah and Kazuo Inaba published (2011)<sup>44</sup>, reveals that export flows from Bangladesh have not benefitted from the preferential and free trade agreements. The growth of Bangladesh's exports to the bloc partner countries is substantially lower than the country's aggregate export growth. The trade agreements reviewed in this paper represent a case of restricted regionalism or "inverse regionalism", meaning there is bilateral distrust, political conflict, and a higher volume of illegal and informal bilateral trade. Instead of signing new bilateral agreements, efforts should be made to function within the existing agreements more effectively and to gain market access for the export commodities in which Bangladesh possesses competitive advantages.

**Recommendations:** The study made several recommendations. These include:

- Removal of the high non-tariff barriers and strengthening the enforcement mechanisms.
- China, India, and Korea account for the major share of intra-regional export flows and could allow duty-free entry of a maximum amount of goods from the other member countries. Progressive liberalization by these major partners can play a vital role in mitigating bilateral trade deficits and streamline the success status of the RTAs.
- Simultaneous participation in multiple agreements might complicate the implementation of trade-related provisions. Hence, the unification of multiple agreements into a common agreement might lead to a higher degree of regional integration.

**Bangladesh's Formal and Informal Agricultural Trade with SAARC Countries: Emerging Trends and Policy Challenges (2018)**<sup>1</sup>: The amount of Bangladesh's trade misinvoicing was about 32.6 percent of its recorded formal trade with SAARC countries between 2013 and 2015. The paper finds that Bangladesh's import duties on agricultural items are still significantly high. Also, various non-trade barriers such as lengthy procedures, lack of harmonization, absence of testing facilities, and lack of mutual recognition arrangements as

<sup>44</sup> 

https://www.researchgate.net/publication/257579996 Impact of RTA and PTA on Bangladesh's Export Application of a Gravity Model.

regards quality assurance, etc. encourage a part of the trade to take place through informal channels. A significant share of the informal trade was on account of the informal cattle trade between Bangladesh and India. This was roughly estimated to be between USD 620 to 660 million per year. The paper recommends that strengthening port capacity and customs facilities, harmonizing customs rules and regulations, cross-border data sharing, pursuing strategic trade liberalization policies for agricultural trade items, and undertaking innovative border initiatives such as border haats could help reduce informal trade in agricultural goods.

Agricultural Trade Between Bangladesh and India: An Analysis of Trends, Trading Patterns and Determinants (2012)<sup>45</sup>: The amount of Bangladesh's trade mis-invoicing was about 32.6 percent of its recorded formal trade with SAARC countries between 2013 and 2015. The paper finds that Bangladesh's import duties on agricultural items are still significantly high. Also, various non-trade barriers such as lengthy procedures, lack of harmonization, absence of testing facilities, and lack of mutual recognition arrangements as regards quality assurance, etc. encourage a part of the trade to take place through informal channels. A significant share of the informal trade was on account of the informal cattle trade between Bangladesh and India. This was roughly estimated to be between USD 620 to 660 million per year. The paper recommends that strengthening port capacity and customs facilities, harmonizing customs rules and regulations, cross-border data sharing, pursuing strategic trade liberalization policies for agricultural trade items, and undertaking innovative border initiatives such as border haats could help reduce informal trade in agricultural goods.

**Economic Reforms and Agriculture in Bangladesh: Assessment of Impacts using Economy-wide Simulation Models (2012)**<sup>46</sup>: This study considers several scenarios for economic reforms at the global, regional, and domestic levels that have important implications for the agricultural sector and the overall economy of Bangladesh. The simulation suggests that global agricultural trade liberalization under a WTO–Doha agreement would lead to a rise in the prices of agricultural products in the global market as well as in the domestic market. A Bangladesh–India bilateral FTA would result in limited expansion in the agricultural sector. The government needs to take into consideration sectoral effects while pursuing any bilateral FTA deal with any country. Subsidies in Bangladesh are often wrongly targeted. Enhancing agricultural productivity, improving marketing opportunities, and ensuring effective implementation of competition policies and laws can encourage producers to increase agricultural production, and at less cost to the government.

<sup>&</sup>lt;sup>45</sup> chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://open.cmi.no/cmi-

xmlui/bitstream/handle/11250/2474780/Agricultural%20Trade%20between%20Bangladesh%20and%20India% 3a%20An%20Analysis%20of%20Trends%2c%20Trading%20Patterns%20and%20Determinants?sequence=1& isAllowed=y.

<sup>&</sup>lt;sup>46</sup> chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-dhaka/documents/publication/wcms\_204089.pdf.

## 3.7. FORMAL AND INFORMAL TRADE – DETERMINANTS OF LEVELS AND DISTRIBUTION

It is widely acknowledged by experts that a significant volume of goods is smuggled from India into Bangladesh. This informal trade is driven by a range of factors, including cross-border production and supply chains, high tariffs, the anticipation of higher profit margins, social networks among locals, networks among informal traders across the border, and the government's border and trade policy measures. Import duties on agricultural products in Bangladesh remain considerably high. Additionally, non-trade barriers such as prolonged procedures, lack of standardization, absence of testing facilities, and absence of mutual recognition agreements concerning quality assurance, among other things, encourage some trade to occur through informal channels.

Agricultural items that are generally traded through informal channels between Bangladesh and India include seed varieties of rice, jute, pulses, other vegetables, and spices like tomato and onion. Other items are fresh vegetables, betel nuts, and seasonal fruits such as mango, banana, apple, guava, etc. Informal trade also includes spices like fresh onion, turmeric, ginger, etc. Some of the other food items are sugar, salt, etc. Cattle imports into Bangladesh informally across the border is an acknowledged fact, which meets a significant part of local demand, particularly during religious festivities.

#### 3.7.1 The Case of Informal Seed Trade

Informal seed trade between Bangladesh and India occurs due to several reasons, such as the longevity of seeds, higher yield rate, and productivity, as well as the fact that seeds are less affected by pesticides. Price differences, grain weights, proximity to the local market, easy access and availability, and cultural, social, and ethnic relations also contribute to this trade. It is important to note that informal seed trade takes place both through informal import (e.g. Swarna, JR 520) and export (e.g. BRRI 28, 29). However, rice is a notified crop which means that, without government release, rice seeds cannot be traded formally. The process involves a rigid set of regulations. In most cases, traders who use informal channels cannot bring seeds in appropriate packaging and labelling, with the required standards of humidity and other weather parameters, due to the risk of being caught by law-enforcing agencies. Therefore, the likelihood of adulteration rises in the case of informal trade. Informal trade also increases the threats of pest attack and germination of seeds, which could lead to adulteration of indigenous seed varieties. This poses a risk to food security and safety and is also dangerous for farmers as they don't have the opportunity to claim damage originating from contaminated/adulterated seeds.

#### 3.7.2 The Case of Informal Cattle Trade

Cross-border cattle trade between Bangladesh and India is a massive business. Reports suggest it is worth millions of dollars per year. India is the primary trading partner, but Bangladesh also trades informally with Nepal and Myanmar. Nearly all cattle traded through informal channels come from India. Smuggled cattle can become legal in Bangladesh if they are found unclaimed and roaming near the border. Each year, approximately 15 million cattle come to Bangladesh from India through informal channels. A cattle trader can claim ownership of the animal by paying Tk. 500 as a customs charge. Despite strict surveillance by BSF along the involved

corridors, the cattle trade remains an ongoing reality. In FY2016-17, about 154,251 animals were traded through only three corridors of Rajshahi. Of these, 82.3% were cows, 17.2% were buffalo, and the rest were small ruminants. The transshipment of the cattle across the border is carried out by low-key handlers, mostly living in border areas.<sup>47</sup>

#### 3.7.3 Mis-invoicing

A report showed that the average amount of trade mis-invoicing in Bangladesh's formal agricultural trade with SAARC countries was around USD 470.8 million, which accounted for 32.6 percent of the recorded trade inflows over a three-year period ending in 2015. However, the amount of mis-invoicing in agricultural trade varies significantly from year to year. For example, the average mis-invoicing for illicit inflows in 2013 was found to be USD 734 million. A possible reason for this trade mis-invoicing could be that importers declare a lower value to avoid paying higher CDs (Customs Duty) levied on agricultural commodities.

#### 3.7.4 Informal Trade and SPS Concerns

The trade in agricultural commodities requires the establishment of minimum standards to ensure public health is protected. These commodities are highly susceptible to viral, fungal, and bacterial attacks, making the adoption of Sanitary and Phytosanitary (SPS) measures and quarantine requirements paramount. Many agricultural goods are perishable and require prompt customs clearance to mitigate the risk of wastage and to reduce the associated cost of doing business. Thus, the operational procedures governing agricultural trade are of critical importance. In a broader sense, difficulties related to trade facilitation, such as delays in customs clearance, onerous documentation requirements, transshipment, and the lack of green channels, may also be considered non-tariff barriers (NTBs), encouraging trade through informal channels which can be hazardous for human health.

## 3.8. SUMMARY OF POLICIES IMPINGING ON FORMAL AND INFORMAL TRADE

Apart from tariff barriers, non-tariff barriers (NTBs) can also contribute to informal trade by creating difficulties for traders to comply with regulations and standards. Import duties on agricultural products in Bangladesh remain considerably high, which can often encourage trade through informal channels. Additionally, non-trade barriers such as prolonged procedures, lack of standardization, absence of testing facilities, and absence of mutual recognition agreements concerning quality assurance, among other things, encourage some trade to occur informally. Some agricultural products such as rice, are a notified crop and are not allowed to be traded formally without a government release. The process involves a rigid set of regulations, encouraging trade through informal channels. The quasilegal provision in the case of cattle allows for unclaimed cattle roaming near the border, to be traded legally. Under this agreement, each year, around 15 million cattle come to Bangladesh from India through informal channels. Policies such as excessive testing requirements, MRLs, and the absence of mutually recognized quality standards between trading countries play an important barrier to formal trade. Product-

<sup>&</sup>lt;sup>47</sup>https://www.researchgate.net/publication/326929280\_Bangladesh's\_Formal\_and\_Informal\_Agricultural\_Trad e\_with\_SAARRC\_Countries

wise regulations on standards in food preparation and packaging are not mapped by trading countries to facilitate official trade. The Bureau of Indian Standards (BIS) and the Bangladesh Standards and Testing Institute (BSTI) could establish a technical working group to speed up harmonization of standards and technical regulations for selected agricultural products. The development of LCSs into Integrated Check Posts (ICPs) has escalated the cost of formal trading due to high warehousing and transshipment charges. The lengthy and cumbersome process of obtaining permits and approvals at the border has discouraged many traders from engaging in cross-border trade. This informal trade can undermine the effectiveness of formal trade policies and hurt government revenue from customs duties and taxes.



## POLICY FORMULATION AND IMPLEMENTATION

#### 4.1. FORMULATING EFFECTIVE AGRI-FOOD TRADE POLICIES

Since Bangladesh is a Lower Middle-Income Country (LMIC) with a population of 170 million that imported food worth Taka 1 trillion (US\$ 9 Billion) in FY23, the importance of the formulation of effective policies for trade in agri-food and products is more significant than ever. Ensuring food security and adequate supplies in the market of staple and other food products is intricately related to an effective and consistent agri-food trade policy. Formulation of such a policy does require coordination between the relevant Ministries and related agencies of the Government: (i) Ministry of Finance; (ii) Ministry of Commerce; (iii) Ministry of Agriculture; (iv) Ministry of Food; (v) Ministry of Fisheries and Livestock; (vi) Ministry of Industries; (vii) Bangladesh Bank; (viii) National Board of Revenue; (ix) Bangladesh Customs; and (x) Export Promotion Bureau. Agri-food trade must also be in harmony with overall policies in agriculture, food production and distribution, and policies related to production and marketing of fisheries and livestock. If the goal of an effective agri-food trade policy is to enhance food security and adequate supplies of food products in the marketplace, trade and industrial policies must be coherent with fiscal and monetary policies. Nevertheless, the primary responsibility of formulating agri-food related trade policy rests with the Ministry of Commerce, with timely inputs and interaction with the Ministry of Food, Ministry of Agriculture, and Ministry of Finance.

#### 4.2. POLICYMAKING PROCESS

According to its Constitution,<sup>48</sup> Bangladesh is a Parliamentary Democracy whose Institutions have been established to mirror those that are prevalent in the Westminster System followed by other members of the Commonwealth of Nations. According to the current System, a proposed Policy (or Bill of Law for the Parliament) is drafted by the concerned Ministry after carrying out due consultations with the other relevant Ministries.<sup>49</sup>

As is the case in other countries of the world, the Cabinet is the highest level consultative and decision-making body within the Executive Branch of the State in Bangladesh – and in line with the Westminster System of Parliamentary Democracy, it is chaired by the Prime Minister

<sup>&</sup>lt;sup>48</sup> "The Constitution of the People's Republic of Bangladesh." *Legislative and Parliamentary Affairs Division, Ministry of Law, Justice and Parliamentary Affairs – Government of the People's Republic of Bangladesh.* November 4, 1972. <u>http://bdlaws.minlaw.gov.bd/act-print-367.html</u>.

<sup>&</sup>lt;sup>49</sup> "Allocation of Business Among the Different Ministries and Divisions (Schedule I of the Rules of Business, 1996)." *Cabinet Division – Government of the People's Republic of Bangladesh*. October 19, 1996.

https://cabinet.portal.gov.bd/sites/default/files/files/cabinet.portal.gov.bd/legislative\_information/1323 7291\_40e2\_4538\_84ab\_37ec65fe11ea/Rules%20of%20Business%2020170001.pdf.

as the Head of the Government. As mentioned earlier, every Draft Policy and/or Bill of Law for the Parliament is placed before the Cabinet for discussion and approval. It is during these Meetings that proposals are made, questions raised, concerns expressed, and consensus reached between the different Ministries (represented by their respective Ministers and/or Ministers of State) of the Government. If the Cabinet wants some amendments to be made to the Draft Policy, it is then sent back to the respective Ministry. On the other hand, when a consensus is reached on the Draft Policy, it is approved by the Cabinet and made operational by the respective Ministry or Division as per its plan. It is critical that there is seamless coordination among ministries to ensure that cross-cutting issues of any policy is addressed, and the Cabinet provides that platform. As an example, Ministry of Agriculture,<sup>50</sup> the Ministry of Food and the Ministry of Fisheries and Livestock, Ministry of Commerce, and National Board of Revenue (NBR) all have links to agri-food trade, and for appropriate and effective policy formulation this coronation is absolute.

The exact process is followed by the respective Ministry while drafting a Bill of Law for the Parliament – which also has to go through the process of presentation before and approval of the Cabinet before it is placed before the Parliament by the respective Minister or Minister of State (or another Member of Parliament if the Minister or Minster of State in charge of the Ministry related to the Bill is not an MP).<sup>51</sup> Upon placement of the Bill, it is sent to the Parliamentary Standing Committee for the Ministry, which drafted it – for further scrutiny.<sup>52</sup> Once the Committee has returned the Bill to the House with its approval, it is placed on the Floor for a Vote – which it usually passes. The final step in this process is the signing of the Bill into Law by the President, upon which it becomes effective.

However, what we call Fiscal Policy or Monetary Policy are not legislative Acts as such. So is the case with trade policy. Ministry of Finance implements fiscal policy primarily through the enactment, with Parliamentary approval, of the annual Budget, while the conduct of monetary policy is the domain of the Bangladesh Bank. As for trade policy, which is the preserve of the Ministry of Commerce, it is the outcome of a set of regulatory legislations (e.g., Import Policy Order, Customs Act, Tariff SROs in the Budget) and non-binding policy formulations (e.g. Export Policy), in addition to promotional drives by the MOC to seek market access in potential export markets under existing multilateral rules or via preferential trade agreements. In this context, the most critical administrative agencies in the formulation of Bangladesh's overall trade policy and, within it, agri-food trade policy, are the Ministry of Commerce and its agency, Bangladesh Trade and Tariff Commission, in concert with the National Board of Revenue (NBR), with regular inputs from the Ministries of Food and Agriculture.

<sup>&</sup>lt;sup>50</sup> "List of Ministries and Divisions (According to Allocation of Business)." *Cabinet Division – Government* of the People's Republic of Bangladesh. March 30, 2023. <u>https://cabinet.gov.bd/site/page/55bcf4d6-</u> dd85-45c1-94b6-bcb06e4b1b12/45/Ministries-&-Divisions.

<sup>&</sup>lt;sup>51</sup> "Rules of Procedure of Parliament of the People's Republic of Bangladesh." *Bangladesh Parliament*. 1974. <u>http://www.parliament.gov.bd/images/pdf/Rules\_of\_Procedures\_English.pdf</u>.

<sup>&</sup>lt;sup>52</sup> "Names of Committees for the 11<sup>th</sup> Parliament (English)." *Bangladesh Parliament Secretariat*. 2019. http://www.parliament.gov.bd/index.php/en/parliamentary-business/committees/list-of-committees/name-of-committees-for-11th-parliament-english.

#### 4.3. STAKEHOLDER ENGAGEMENT

There is a practice of stakeholder consultation during the policy formulation stage. The Ministry/Directorate proposing a new policy or law initiates a stakeholder consultation process For example the Ministry of Food for its policies will likely hold consultations with other relevant Ministries, Departments including the Department of Agricultural Extension (DAE), the Department of Agricultural Marketing (DAM), the Department of Fisheries and the Department of Livestock Services (DLS), other Directorates, Universities, Ministry of Commerce, NBR, and different international agencies like FAO, IFPRI, World Bank, etc.

The policy formulation consultation stage can involve Inception Workshops and Dissemination Workshops with representatives from the Private Sector – for example, the Federation of Bangladesh Chambers of Commerce and Industry (FBCCI), the Bangladesh Agro-Processors Association (BAPA) and the Bangladesh Poultry Industries Association (BPIA) – to make the process more inclusive.

#### 4.4. MONITORING AND EVALUATION OF POLICIES

There is a well-established system for monitoring project implementation but there is very little formal mechanism for monitoring the implementation of policies. The Government has established an Implementation, Monitoring and Evaluation Division (IMED) under its Ministry of Planning to monitor and evaluate the implementation of the Development Projects in operation. The functions of the IMED are:<sup>53</sup> (i) Monitoring and evaluation of the implementation of Development Projects included in the Annual Development Programme (ADP); (ii) Collection and compilation of Project-wise Data for the preparation of Quarterly, Annual and Periodical Progress Reports for information of the Cabinet, the National Economic Council (NEC), the Executive Committee of the National Economic Council (ECNEC), the Ministries, Divisions and other stakeholders concerned; (iii) Rendering such advisory or consultancy services to the Ministries and Divisions concerned on the implementation of Projects as and when necessary; (iv) Field inspection of Projects for on the spot verification of the status of implementation and such other works of coordination as may be necessary for the removal of problems of implementation, if any, with the assistance of related Ministries and Agencies; and (v) Submission of Project Inspection Reports to the Cabinet and the Ministers concerned when attention at such levels are considered necessary.

From 2014-15, the Government also introduced a system of Annual Performance Agreements (APAs) between the Cabinet Division and the Ministries and Divisions – to lay down Performance Indicators (PIs) to measure the performance of the Ministries and Divisions every year, both in terms of quality and quantity.<sup>54</sup> Soon enough from 2015-16, the Ministries and

<sup>&</sup>lt;sup>53</sup> "History and Functions." *Implementation, Monitoring and Evaluation Division, Ministry of Planning – Government of the People's Republic of Bangladesh*, 1996. <u>http://www.imed.gov.bd/site/page/c1063994-21f0-408a-ab1f-1475d3ba0e43/History-&-Function</u>.

<sup>&</sup>lt;sup>54</sup> Rahman, Dr. Md. Mushfiqur, Md. Abdulla Harun, Mohammad Abdul Wadud Chowdhury, Dr. Mohammad Azizul Haque, and R. H. M. Alaol Kabir. "Annual Performance Agreement in Bangladesh – An Analysis on Implementation of Mandatory Strategic Objectives." *Bangladesh Journal of Administration and Management* –

Divisions also started to sign APAs with the Directorates, Departments and Corporations under their jurisdictions to monitor and evaluate their performances.

Unfortunately, there is no established system of monitoring policies including trade policies. The only indirect way is through open public debate based on research and analysis conducted by private think tanks. While this public goods role of think tanks has expanded in recent years, there is no guarantee that the government pays adequate attention to all the research analysis and conclusions about the effectiveness of government policies. Often influential trade bodies and donor agencies armed with these research findings have played a role in bringing about policy change, but the absence of a formal policy review mechanism is a glaring gap in policy making in Bangladesh.

The proof of a sound trade policy lies in the effective facilitation of trade, as seamless as possible, within the framework of the rules-based multilateral regime of WTO. The hallmark of an effective trade policy lies in the stimulation of exports as well as seamless importation of inputs into the economy while maintaining a sustainable balance of trade and international payments.

#### 4.5. CONFLICT AND COMPATIBILITY BETWEEN DOMESTIC/ REGIONAL/ MULTILATERAL POLICIES

Bangladesh is a Member of the World Trade Organization (WTO) and a signatory to its Agreement on Agriculture (AoA)<sup>55</sup>, in addition to many other Agreements governing trade in agricultural and agri-food products. Thus, the Government will be expected to regularly review its policies regarding Tariffs on agricultural imports, cash subsidies on agricultural exports, and production subsidies to farmers after graduation of the country from the Category of a Least Developed Country (LDC) in 2026. At the same time, the Government will also have to request the High-Income Countries (HICs) to continue the provision of preferential access for exports from Bangladesh – to avoid facing the high tariffs that the HICs often impose on agricultural imports to protect their farmers.

As the date of LDC graduation approaches (November 2026), Bangladesh is not only faced with the impending phase out of International Support Measures (ISM) with consequent significant preference erosion, particularly in zero-day market access, there is also the rising challenge of getting its tariff and non-tariff measures compliant with WTO rules before the cut-off date. That is an enormous challenge when it comes to the structure of para-tariffs, though some of the rates that exceed bound rates are already being phased out. The challenge will be phasing out RD and SD (ODCs) and removing direct subsidies on exports, both on manufacturing and agricultural products.

*Bangladesh Civil Service Administration Academy*. 2019, 32, No. 2 (September 1, 2019): 01–14. <u>https://journal.bcsadminacademy.gov.bd/index.php/bjam/article/view/32/33</u>.

<sup>&</sup>lt;sup>55</sup> "Agreement on Agriculture." Uruguay Round Agreement – World Trade Organization, January 1, 1995. https://www.wto.org/english/docs\_e/legal\_e/14-ag.pdf.



## EMERGING TRENDS AND FUTURE DIRECTIONS

#### 5.1. GLOBALIZATION AND ITS EFFECTS ON AGRI-FOOD TRADE

The landscape of agri-food trade has undergone significant transformation due to globalization, marking the onset of a new era characterized by increased interconnectedness and interdependence among nations. Indeed, the era of hyper-globalization that characterized trade since the 1990s and lasted about 2010, saw the rise of GVCs in manufacturing as well as agricultural trade. That intense phase of globalization has slowed down, replaced not only by growing protectionist trends in many developed and developing countries, but also with the new trends for near-shoring or friend-shoring that restricts GVC development to regional or contiguous blocks at the expense of efficiency. To the extent that globalization remains on the landscape of trade it will continue to have diverse impact on agri-food trade, influencing production, distribution, and consumption (Table 5.1).

| Effect                        | Data Description   | Source  |
|-------------------------------|--|---|
| Increased<br>Trade            | Total trade value rose from<br>\$126.8 billion in 2019 to<br>\$131.6 billion in 2020 | Developments in Agriculture Trade in the<br>BIMSTEC Region by Research and<br>Information System for Developing Countries<br>(RIS). |
| Shifting<br>Trade<br>Patterns | Fruits, vegetables, and<br>processed foods lead intra-<br>regional trade expansion   | Developments in Agriculture Trade in the<br>BIMSTEC Region by Research and<br>Information System for Developing Countries<br>(RIS). |
| Potential<br>Challenges       | Data limitations hinder<br>analysis of product-level<br>trade flows                  | Data issues in analyzing agri-food trade in<br>BIMSTEC by International Food Policy<br>Research Institute (IFPRI).                  |

#### Table 5.1: Effects of Globalization on Agri-food Trade

#### 5.1.1. Agricultural Trade at BIMSTEC Level

An in-depth examination of the four HS sections within the agricultural sectors—animal products, fruits & vegetables, fats and oil, and prepared foods—reveals the attractiveness of the agriculture trade sector within BIMSTEC. Fruits & vegetables trade particularly stood out, dominating a significant portion of regional agriculture trade, comprising 39.6 percent of agriculture exports and 31.6 percent of agriculture imports in 2003. This sector accounted for 5.5 percent of total exports and 2.1 percent of total imports for the region worldwide. Over

time, it remained the largest component in both agriculture exports and imports. By 2020, the sector witnessed a consistent growth, with imports reaching USD 18.9 billion and exports totaling USD 34.7 billion, as revealed in the study by Mohanty and Gaur (2022), depicted in Figure 5.1 and 5.2.

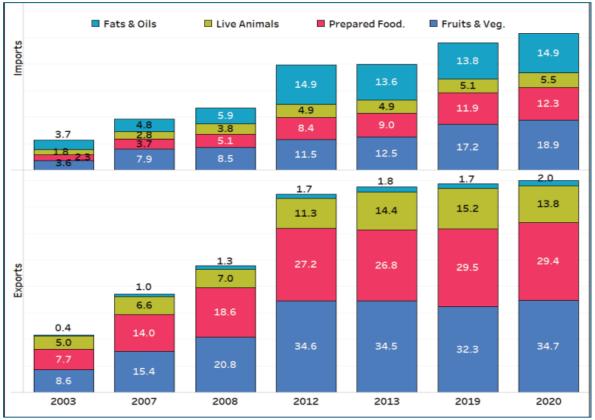


Figure 5.1: Agricultural Trade at BIMSTEC Level (in Billion USD)

While food trade plays a pivotal role in the region's agricultural trade, non-processed food dominated both exports and imports within the food sector, as illustrated in Figure 5.2. In 2020, non-processed food accounted for 69.98 percent of food exports and 72.3 percent of food imports in the Intra-Regional Trade (IRT) of BIMSTEC. Although the share of processed food exports in the food sector was relatively small, it showed consistent growth from 19 percent in 2003 to 30 percent in 2020, mirroring a similar trend in imports from 21 percent to 28 percent over the same period. Notably, the region's food trade demonstrated positive growth rates in all sectors across various periods, regardless of global trade regimes, highlighting a key characteristic of regional food trade resilience. This upward trajectory in regional food trade could facilitate support for intra-regional trade. While numerous agricultural products are traded in the region, certain commodities stand out in demand within the trade basket. Identifying and promoting the trade of these commodities could further enhance IRT.

Source: Extracted from Mohanty & Gaur (2022)

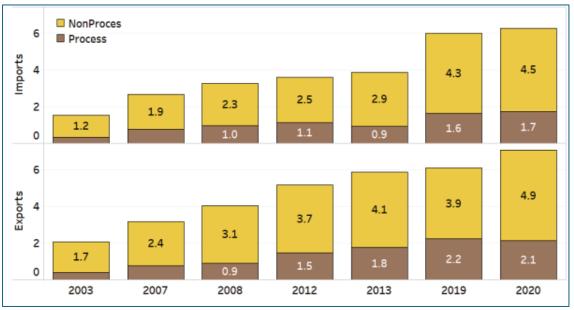


Figure 5.2: Intra-BIMSTEC Trade in Processed and Non-Processed Food (in Billion USD)

Source: Extracted from Mohanty & Gaur (2022)

However, the subsequent sections of the study shed light on Bangladesh's agri-food sector in the context of climate change, technological progress, as well as the challenges and prospects it faces. The nation's reliance on international trade regulations and its vulnerability to climate change underline the necessity for strategic planning to effectively navigate the intricate landscape of the global agri-food market. Technological advancements, spurred by globalization, have significantly bolstered the efficiency of the agri-food supply chain. As Bangladesh weighs the advantages against the hurdles, it remains imperative for the country to continually refine its approach to agri-food trade, ensuring sustainable growth and fair advantages for all stakeholders.

#### 5.2. CLIMATE CHANGE AND AGRICULTURAL AND FOOD TRADE POLICIES

Agriculture in Bangladesh, contributing over 11.20% to the GDP and employing nearly 41% of the workforce, is particularly vulnerable to the impacts of climate change. The country has experienced an average temperature increase of approximately 1.2 degrees Celsius since the pre-industrial era, leading to altered precipitation patterns and an increased frequency of extreme weather events. For instance, the Intergovernmental Panel on Climate Change (IPCC) predicts a rise in the occurrence of intense cyclones and storm surges, posing a severe threat to the country's coastal agricultural regions. In response, Bangladesh has taken several initiatives considering the different areas (Table 5.2).

| Policy Area                             | Key Policies   | Objectives  | Climate Change Connection  |
|---|--|---|--|
| Agricultural<br>Adaptation              | National Adaptation<br>Plan of Action<br>(NAPA)                      | - Develop climate-resilient<br>crop varieties Promote<br>sustainable farming practices<br>Strengthen early warning<br>systems.          | Directly addresses the need to<br>adapt agriculture to increasing<br>climate variability and extreme<br>events.                  |
| Trade and Food<br>Security              | Import restrictions<br>(occasional)                                  | - Protect domestic farmers<br>during climate-related harvest<br>shortfalls Stabilize domestic<br>food prices.                           | Reactive measure in the face of climate-disrupted production.  |
| Climate<br>Mitigation in<br>Agriculture | Bangladesh Climate<br>Change Strategy and<br>Action Plan<br>(BCCSAP) | - Reduce greenhouse gas<br>emissions from agriculture<br>Promote conservation<br>agriculture and resource<br>efficiency.                | Contributes to the global effort<br>to mitigate climate change<br>while improving agricultural<br>sustainability and resilience. |
| Technology and<br>Innovation            | Partnerships for technology transfer                                 | - Access to drought-tolerant<br>seeds, water-saving irrigation,<br>etc Build capacity to adapt<br>farming techniques.                   | Essential for tackling the increased unpredictability brought about by climate change.   |
| Disaster Risk<br>Management             | Investment in<br>cyclone shelters,<br>flood defenses                 | - Protect lives and<br>infrastructure, including<br>agricultural assets Minimize<br>disruption to food production<br>and supply chains. | Reduces the devastating impact<br>of climate-related disasters on<br>food security.  |

#### Table 5.2: Policy Areas Addressing the Connection Between Climate Change and Agriculture

Bangladesh has implemented agricultural strategies, including the adoption of flood-tolerant rice varieties and improved water management practices. However, the integration of climate considerations into food trade policies is equally crucial. The nation's vulnerability is highlighted by instances such as the 2022 floods, which disrupted transportation routes and impacted food supply chains. Collaborative efforts with international partners and adherence to sustainable trade practices are imperative, exemplified by initiatives like the World Trade Organization's AoA, which promotes fair and equitable trade while recognizing the importance of food security. Balancing climate resilience in both domestic agricultural policies and international trade relations is imperative for Bangladesh to navigate the complex challenges posed by climate change and ensure a sustainable and secure food future.

#### 5.2.1 Agriculture's Contribution to Air Pollution and Climate Change

The conversion of tropical forests into agricultural land, the expansion of rice and livestock production, and the increased use of nitrogen fertilizers have all significantly contributed to greenhouse gas (GHG) emissions. Despite seasonal and annual variations, agriculture accounts for approximately 30 percent of the total global anthropogenic emissions of GHGs. In the past, tropical forest clearance and land use change were major factors in carbon dioxide (CO2) emissions, but they are likely to play a smaller role in the future. Nowadays, more attention is given to methane (CH4) and nitrous oxide (N2O) since agriculture is responsible for half or more of the total global anthropogenic emissions of these GHGs. Mineral fertilizer use and cattle production are the main contributors to N2O emissions from agriculture. Rice cultivation is a major agricultural source of methane. Total methane emissions from rice production could decrease, through controlled irrigation, better nutrient management, and high-yielding varieties

of rice, which emit considerably less methane than the widely used traditional and modern cultivars. Agriculture is the dominant source of anthropogenic ammonia emissions, which are around four times greater than natural emissions. Livestock production, particularly cattle, accounts for about 44 percent, mineral fertilizers for 17 percent, and biomass burning and crop residues for about 11 percent of the global total.<sup>56</sup>

Environmental goods, services, and technologies, which help to reduce environmental risk and minimize pollution and resource use, are critical to the transition to a low-carbon economy and to adapt to climate change. The scope of environmental goods and services is broad and includes products and technologies that reduce environmental risk and minimize pollution and resource use, such as air pollution control systems, renewable energy equipment, and treatment of waste and wastewater. They can also include environmentally preferable products, which cause less environmental harm over their life cycle (i.e., production, consumption, disposal), such as organic agricultural products and electric vehicles.<sup>57</sup>

The Environmental Goods Agreement (EGA) aims to build on the commitment that Leaders of the Asia-Pacific Economic Cooperation (APEC) made to reduce tariffs on <u>a list of 54</u> <u>environmental goods</u> by the end of 2015, by taking the next step of eliminating tariffs on these 54 goods and expanding product coverage to include additional environmental technologies. The EGA's product coverage is still under negotiation.<sup>58</sup>

While the list of environment goods is still under negotiation, WTO has come up with an indicative list based on environmental usage, such as:

- air pollution control
- cleaner and renewable energy
- energy efficiency
- environmental monitoring analysis and assessment
- environmental remediation and clean-up
- environmentally preferable products
- noise and vibration abatement
- resource efficiency
- solid and hazardous waste management
- wastewater management and water treatment

The complete list of some 400 products can be seen in ANNEX-A. In general, they can be classified into two main groups: Goods for Environmental Management (GEMs) and Environmentally Preferred Products (EPPs). EPPs are products inherently more environmentally friendly in their production, use, or disposal. GEMs can be further divided into 9 sub-categories.

<sup>56</sup> https://www.fao.org/3/Y4252E/y4252e14.htm

<sup>&</sup>lt;sup>57</sup> https://www.wto.org/english/tratop\_e/envir\_e/policy\_brief\_environmental\_goods\_e.pdf

<sup>&</sup>lt;sup>58</sup> https://ustr.gov/trade-agreements/other-initiatives/environmental-goods-agreement

| Agri-food Classifications     | 4 Digit HS Codes |
|-------------------------------|------------------|
| Live animals; animal products | 0101-0511        |
| Cereals, Vegetables, Fruits   | 0601-1404        |
| Fats and oils                 | 1501-1522        |
| Prepared foodstuffs           | 1601-2404        |

#### **Table 5.3: Agri-food Classifications**

Source: PRI staff compilation

The agri-food items based on the four classifications in Table 5.3 range from HS chapters 01 to 24. The WTO, OECD, and APEC lists of environmental products do not specifically include agri-food products covered under these classifications, as the list is still evolving. However, it includes goods (equipment, technology, or specific materials) that are *inputs required* for sustainable agriculture, forestry, and fisheries although not direct *outputs* emerging from these activities.

OECD/APEC lists mostly contain products of which developing countries are net importers.

Some of the few products in the OECD/APEC in which developing countries (as a group) were net exporters e.g.: Methanol, ethanol, mats and screens, fluorescent lamps, and plastics. Most top exporters are middle-income or emerging economies (Mexico, Singapore, Korea, Malaysia, and Brazil).

Trade liberalization in environmental goods has the potential to mitigate climate change by limiting greenhouse gas emissions. Such trade liberalization can also increase energy efficiency through the reduction in import prices of energy-related environmental goods (EREGs) and a reduction in the costs of intermediate and capital goods used in electricity production from renewable energy sources. Jute and jute products (natural fibers) are agricultural EPPs. Trade liberalization in jute products can present growth potential for Bangladesh, although it is not an agri-food product. Similarly, agricultural equipment and inputs that use environmentally friendly technology, can have a positive impact on the growth of the agricultural sector of Bangladesh and also promote sustainable agricultural practices, if protection is reduced for such products.

#### 5.3. TECHNOLOGICAL ADVANCES IN AGRICULTURE

In Bangladesh, technological advances in agriculture have been pivotal in addressing challenges and transforming the sector to enhance productivity, sustainability, and resilience. Several significant technological trends have surfaced to enhance farm production, while other advancements streamline both domestic and global agri-food trade. The following technological breakthroughs have notably boosted efficiency and productivity in the agricultural sector:

*Mechanization and precision agriculture:* Mechanized tools for sowing, harvesting, and threshing are on the rise, reducing labor needs and improving efficiency. However, this can be expensive, unsuitable for small farms, and may have environmental impacts if not managed sustainably. Therefore, nowadays, Bangladesh has seen an increasing adoption of precision agriculture technologies, including GPS-guided tractors, drones, and sensors. These tools help farmers optimize resource use, monitor crop health, and reduce environmental impact. However, precision agriculture is not yet scaled up commercially throughout the country, this advanced technology is particularly beneficial in maximizing yields in small and fragmented land holdings.

*Improved crop varieties and biotech:* Bangladesh has seen continued development of highyielding rice varieties, as well as crops with greater resistance to salinity, drought, and pests (Table 5.4). Moreover, the introduction of Bt brinjal (eggplant), a Genetically Modified (GM) crop resistant to pests, has significantly reduced pesticide use and increased yield for farmers. Research is underway for other GM crops with enhanced traits.

| Items   | 2020-2021 | 2021-2122 |
|---|-----------|-----------|
| Rice seed (salinity, drought, cold, submergence, flood, tidal tolerant) | 6164.325  | 5681.868  |
| Wheat seed (salinity and temperature tolerant)                          | 16227.820 | 15800.810 |
| Pulses seed (drought and temperature-<br>tolerant)                      | 129.670   | 134.500   |
| Oil seed (salinity tolerant)  | 174.430   | 63.012    |

#### Table 5.4: Climate Tolerant Seed Production (MT)

Source: MoA, and 8th Five Year Plan Mid-Term Review

*ICT-Based extension services:* Information and Communication Technology (ICT) solutions are being utilized for agricultural extension services. Farmers receive guidance and advice through digital platforms, reducing the reliance on traditional extension services and promoting efficient knowledge dissemination. Some ICT-based extension services are given in Table 5.5.

| Service<br>Name         | Operator   | Description   |
|-------------------------|--|---|
| E-AGRI                  | BangladeshAgriculturalResearch Institute (BARI)                        | Provide services on crop varieties, technology, opinion, and suggestion from expert.  |
| Krishi<br>Batayan       | Bangladesh Ministry of Agriculture                                     | Nationwide radio program featuring agricultural experts   |
| AIS Krishi<br>Directory | Agricultural Information<br>Services under Government of<br>Bangladesh | Online platform for various agricultural resources<br>including crop information, market information, weather<br>forecasts, and expert advice       |
| Krishibid<br>Portal     | Krishibid Group  | Online portal for information on agricultural inputs like<br>seeds, fertilizers, and pesticides, and facilitates online<br>application and purchase |

#### Table 5.5: ICT-Based Extension Services in Bangladesh

*Solar-powered irrigation:* Solar-powered irrigation is gaining traction in Bangladesh, offering a sustainable and cost-effective solution for farmers, especially in remote areas with limited

access to grid electricity or where diesel prices are volatile (Table 5.6). The National Database of Renewable Energy (SREDA) lists the total number of installed solar irrigation pumps as 2,877 (approximate) till 2024.

| Operator   | Areas Served   | Source   |
|--|--|--|
| Infrastructure Developmen<br>Company Ltd. (IDCOL)  | Countrywide (Over 50,000 solar-<br>powered irrigation pumps projected<br>for installation by 2025) | The Financial Express - Solar Power<br>to Revolutionize Bangladesh<br>Irrigation <sup>59</sup> |
| Bangladesh Rural Electrification<br>Board (BREB)   | Rural areas  | National Database of Renewable<br>Energy (SREDA) <sup>60</sup>                                 |
| BangladeshAgriculturaDevelopmentCorporation(BADC)  |  | National Database of Renewable<br>Energy (SREDA) <sup>61</sup>                                 |
| Society for Social and Economic Development (SSED) | Remote, off-grid areas   | Solar Irrigation Pump (SIP) Project <sup>62</sup>  |

Table 5.6: Solar-Powered Irrigation Operators in Bangladesh

Although these technological advancements primarily impact production stages, they also have an indirect effect on agri-food trade as production is the paramount issue. However, in Bangladesh, the agri-food trade has been significantly influenced by a range of technologies, each playing a pivotal role in modernizing and enhancing various aspects of agri-food processing for trade.

**Post-harvest management techniques.** Post-harvest management is one of the most prominent techniques among them. Post-harvest management for instance, small-scale processing units setting up units for processing fruits and vegetables into jams, pickles, or dried products helps utilize excess produce and extend its shelf life, adding value and reducing waste. Moreover, government agencies and NGOs provide training to farmers on proper harvesting techniques, storage methods, and packaging practices that enhance food-trade opportunities.

Blockchain is another technology that is being explored to improve transparency and traceability in the agri-food supply chain, ensuring the authenticity and quality of products from farm to end user<sup>63</sup>. Furthermore, cold chain infrastructure and refrigeration technologies enable better preservation of perishable goods, extend their shelf life, and facilitate their export to distant markets<sup>64</sup>. Moreover, by enhancing the quality and safety of food products, these technologies boost consumer confidence both domestically and internationally, thus expanding export opportunities for Bangladeshi agricultural products.

<sup>&</sup>lt;sup>59</sup> <u>https://thefinancialexpress.com.bd/views/solar-power-to-revolutionise-bangladesh-irrigation-1552917511</u>

<sup>&</sup>lt;sup>60</sup> <u>https://ndre.sreda.gov.bd/index.php?id=1&i=4</u>

<sup>&</sup>lt;sup>61</sup> <u>https://ndre.sreda.gov.bd/index.php?id=1&i=4</u>

<sup>&</sup>lt;sup>62</sup> <u>http://sdrs.org.bd/?p=sip&active=act\_project</u>

<sup>&</sup>lt;sup>63</sup> Hasan, I., Habib, M. M., Mohamed, Z., & Tewari, V. (2023). Integrated agri-food supply chain model: an application of IoT and blockchain. *American Journal of Industrial and Business Management*, *13*(2), 29-45.

<sup>&</sup>lt;sup>64</sup> Han, J. W., Zuo, M., Zhu, W. Y., Zuo, J. H., Lü, E. L., & Yang, X. T. (2021). A comprehensive review of cold chain logistics for fresh agricultural products: Current status, challenges, and future trends. *Trends in Food Science & Technology*, *109*, 536-551.

*e-Commerce platforms.* Furthermore, technological advancements have facilitated the growth of digital and e-commerce platforms such as Sadai, Krishibid, Aamar Shop, Shop Up, etc. for agri-food trade. These online platforms provide farmers with valuable market information, enabling them to make informed decisions about when and where to sell their produce, reducing the role of intermediaries, and ensuring fair prices.

Overall, the impact of technology on agri-food trade has been transformative, driving innovation, efficiency, and sustainability across the entire food system. However, it's important to note that while technology presents numerous opportunities for the agri-food trade for Bangladesh, there are also challenges that are addressed in the following section.

#### 5.4. FUTURE CHALLENGES AND OPPORTUNITIES

The future of agriculture faces a myriad of challenges and opportunities as the world grapples with evolving environmental, social, and economic dynamics. Recognizing and addressing these factors will be crucial for ensuring sustainable and resilient food systems, particularly for developing countries like Bangladesh. Here are some key future challenges and opportunities in agri-food trade:

#### 5.4.1 Challenges in Agri-Food Trade

*Climate change:* In Bangladesh, climate change poses a significant threat to agricultural productivity and, consequently, agri-food trade. The country is vulnerable to erratic weather events, increased temperatures, and altered precipitation patterns, which can lead to fluctuations in crop yields. These climate-related challenges can hinder Bangladesh's ability to meet domestic food demand and impact its capacity to export agricultural products. Moreover, as a major rice-producing country, any disruptions in rice production due to climate change can significantly affect both domestic food security and the country's position in the global rice market.

**Resource scarcity:** Bangladesh faces challenges related to resource scarcity, particularly in terms of water and arable land. With a growing population and increasing urbanization, the pressure on limited agricultural resources is intensifying. Sustainable resource management practices are crucial for mitigating these scarcities and ensuring the country's ability to sustain agricultural production. Additionally, addressing resource scarcity issues is essential for maintaining the competitiveness of Bangladesh's agri-food exports in the global market, as sustainability concerns become increasingly important for consumers and trade partners.

*Biodiversity loss:* Agricultural intensification in Bangladesh, driven by the need to increase food production, can contribute to the loss of biodiversity. This loss affects ecosystem services crucial for agriculture, such as pollination and natural pest control. Preserving biodiversity is essential for ensuring resilient and sustainable food systems in Bangladesh. Moreover, as consumer preferences worldwide shift towards sustainably produced goods, maintaining biodiversity can enhance the marketability of Bangladeshi agricultural products and support the country's agri-food trade efforts.

*Technology gaps:* While technological advances present opportunities, there are disparities in technology adoption in Bangladesh. Bridging these technology gaps is crucial for improving productivity, enhancing product quality, and reducing production costs, all of which are essential for remaining competitive in agri-food trade.

*Health hazards to agricultural workers and livestock:* Agricultural workers face several climate-related health risks. These include exposure to heat and other extreme weather, more pesticide exposure due to expanded pest presence, disease-carrying pests like mosquitos and ticks, and degraded air quality. Heat and humidity can also affect the health of animals raised for meat, milk, and eggs. Thus, these hazards can lead to reduced productivity and increased production costs, affecting the competitiveness of Bangladeshi agricultural products in the global market.

#### 5.4.2 Opportunities in Agri-Food Trade

**Data-driven agriculture:** Harnessing big data and analytics can revolutionize farming practices in Bangladesh. By utilizing data to optimize resource allocation, predict crop diseases, and make informed decisions, Bangladeshi farmers can increase yields and improve the quality of their produce, which can lead to greater export opportunities and enhanced competitiveness in global markets.

*Vertical farming and urban agriculture:* Given Bangladesh's densely populated urban areas and limited arable land, vertical farming and urban agriculture present significant opportunities for meeting the growing demand for food in urban centers. By investing in these innovative farming methods, Bangladesh can increase domestic food production, reduce dependence on food imports, and potentially develop new export markets for high-value urban-grown produce.

Agroecology and regenerative agriculture: Agri-food trade in Bangladesh stands to benefit greatly from the implementation of sustainable practices. With the opportunity to position itself as a leader in sustainable agriculture, Bangladesh can promote practices like agroecology and regenerative agriculture. These approaches not only prioritize environmental stewardship but also enhance soil health, biodiversity, and resilience to climate change. By adopting sustainable practices, Bangladeshi farmers can differentiate their products in the market, appealing to environmentally conscious consumers who seek ethically produced goods. Moreover, by adhering to sustainability standards, Bangladeshi agricultural products may command premium prices in global markets, further boosting export revenue. Through a commitment to sustainable agriculture, Bangladesh can not only enhance its agri-food trade sector but also contribute to long-term environmental sustainability and food security.

**Organic farming:** Bangladesh's agri-food trade sector holds immense promise, particularly in organic agriculture. Blessed with fertile soil and a favorable climate, Bangladesh is poised to become a major player in organic farming. As global awareness of organic products continues to rise, Bangladesh stands to capitalize on this trend by expanding its organic farming sector. Products such as organic rice, vegetables, poultry and livestock products, organic fish, and spices have the potential to find a niche market abroad, particularly in regions like Europe,

North America, and Asia where demand for organic produce is high<sup>65</sup>. By investing in organic certification, sustainable farming practices, and market access initiatives, Bangladesh can unlock new opportunities for export growth, bolstering its agri-food trade and contributing to economic prosperity and sustainable development.

*Spices and condiments:* Bangladesh's agri-food sector boasts a diverse range of products, notably including spices and condiments like turmeric, ginger, garlic, and chili peppers. Leveraging the country's rich agricultural resources and expertise, Bangladesh has the potential to become a key player in the global spice market. Exporting these spices in bulk or as value-added products such as powders, pastes, and extracts presents a lucrative opportunity for revenue generation. With increasing demand for authentic and high-quality spices worldwide, Bangladesh can capitalize on its reputation for producing aromatic and flavorful varieties.

Navigating the challenges and capitalizing on opportunities will require collaborative efforts among governments, the private sector, research institutions, and local communities. Overall, by focusing on these areas and addressing challenges, Bangladesh can significantly boost its agri-food trade sector and contribute to economic growth and development.

<sup>&</sup>lt;sup>65</sup> Ferdous, Z., Zulfiqar, F., Datta, A., Hasan, A. K., & Sarker, A. (2021). Potential and challenges of organic agriculture in Bangladesh: a review. *Journal of Crop Improvement*, *35*(3), 403-426.

# CHAPTER 6

## AGRICULTURAL TRADE STUDIES FROM THE INDIA-BANGLADESH REGION

In the fiscal year 2021-22, the trade volume between India and Bangladesh surpassed US\$18 billion, solidifying Bangladesh's position as India's primary trade partner in South Asia. Notably, India stands as Bangladesh's second-largest trading partner, following China. Moreover, Bangladesh ranks among the significant markets for India's agricultural exports. It is noteworthy that a substantial portion of the bilateral trade occurs through informal channels between the two nations.

In this context, the economic ties between India and Bangladesh underscore the robust nature of their trade relations. The exceeding trade volume signifies a mutually beneficial partnership, with Bangladesh playing a pivotal role in India's South Asian trade dynamics. As India's second-largest trading partner, Bangladesh not only contributes substantially to the overall trade scenario but also emerges as a vital market for India's agricultural products.

However, the reliance on informal channels for a considerable portion of bilateral trade poses both challenges and opportunities (Table 6.1).

| Studies                    | Findings                            | Policy recommendation           |
|----------------------------|-------------------------------------|---------------------------------|
| India Bangladesh           | Key barriers to India-Bangladesh    | Simple and transparent rules    |
| <b>Trade Potentiality-</b> | trade:                              | and regulation, quick disposal  |
| An Assessment of           | Inadequate border infrastructure,   | of sanitary and phyto-sanitary  |
| <b>Trade Facilitation</b>  | Non-tariff barriers (NTBS),         | issues, harmonization of        |
| Issues <sup>66</sup>       | Lack of transport connectivity,     | standards, mutual recognition   |
|                            | limited trade services, etc.        | of standards certifications are |
|                            |                                     | tasks that have to be tackled   |
|                            | Potential for increased trade:      | urgently.                       |
|                            | The study finds that if these trade |                                 |
|                            | barriers are addressed, bilateral   |                                 |
|                            | trade between India and             |                                 |
|                            | Bangladesh could significantly      |                                 |
|                            | increase.                           |                                 |
|                            |                                     |                                 |
|                            | Local markets known as "Border      |                                 |
|                            | Haats" have been effective in       |                                 |

#### Table 6.1: Some Agricultural Studies from the India-Bangladesh Region

<sup>&</sup>lt;sup>66</sup><u>https://cuts-crc.org/pdf/India-Bangladesh</u> Trade Potentiality-An\_Assessment\_of\_Trade\_Facilitation\_Issues.pdf

| Studies   | Findings   | Policy recommendation   |
|---|--|---|
|   | facilitating small-scale trade and<br>improving livelihoods in border<br>communities.  |   |
| <u>India-Bangladesh</u><br><u>Agriculture Trade<sup>67</sup></u>                          | India-Bangladesh trade in<br>agricultural products has declined<br>due to non-tariff barriers,<br>increased domestic production in<br>Bangladesh, and trade diversion.   | Cut barriers (NTBs)<br>Diversify imports.<br>Regional trade.  |
| Islam (2019) <sup>68</sup> .<br>Bangladesh trade<br>with India: Trends<br>and patterns    | Persistent Trade Imbalance:<br>Bangladesh has a large and<br>growing trade deficit with India.<br>India's Dominance: India has a<br>stronger position in global trade<br>and a more diversified export<br>basket, leading to a dominant<br>position in bilateral trade.<br>Bangladesh's Export<br>Concentration: Bangladesh's<br>exports to India are primarily<br>focused on ready-made garments,<br>with limited diversification into<br>other sectors.<br>Comparative Advantage:<br>Bangladesh has a revealed<br>comparative advantage in select<br>products (mainly garments),<br>while India has an advantage | Diversify exports: Go beyond<br>traditional products to<br>compete better.<br>Up the game: Invest in<br>infrastructure, skills, and<br>technology.<br>Formalize informal<br>trade: Bring hidden trade into<br>the system.<br>Work together: Strengthen<br>regional cooperation for<br>smoother trade. |
| Rahman (2017) <sup>69</sup> .<br>Impacts of Farakka<br>barrage on<br>hydrological flow of | across a wider range of products.<br>Due to the farakka barrage the<br>salinity rises makes the soil less<br>suitable for agriculture, reducing<br>crop yields and threatening food  | Dialogue and Cooperation:<br>Ongoing dialogue and<br>cooperation between India<br>and Bangladesh are crucial to   |
| Ganges River and  |  |   |

 <sup>&</sup>lt;sup>67</sup> <u>https://cuts-citee.org/pdf/project\_report-ntbagr.pdf</u>
 <sup>68</sup> Islam, A. M. (2019). Bangladesh trade with India: Trends and patterns. Athens Journal of Business & Economics, 5(2),123-140.

<sup>&</sup>lt;sup>69</sup> Rahman, M. M., & Rahaman, M. M. (2017). Impacts of Farakka barrage on hydrological flow of Ganges River and environment in Bangladesh. Sustainable Water Resources Management.

| Studies  | Findings  | Policy recommendation   |  |
|--|---|---|--|
| Studies<br>environment in<br>Bangladesh  | Findings<br>security in the coastal region of<br>Bangladesh.  | Policy recommendationfind sustainable solutions thatbalance their needs.Joint Water Management:Implementing a joint watermanagement frameworkcould facilitate equitablesharing and ensureenvironmental sustainability.Alternative WaterManagement: Both countriescan explore alternativemeasures like improved wateruse efficiency and rainwaterharvesting to reducedependence on river water.Environmental Restoration:Initiatives aimed at restoringdegraded ecosystems likemangrove forests can mitigatethe negative environmentalimpacts.Infrastructure Development:Upgrading infrastructure,such as canals and water |  |
| Ahmed & Ahmad<br>(2013) <sup>70</sup> . Sudden<br>onion price surge in<br>Bangladesh: A<br>situation analysis for<br>policy. | The market supply of onion in<br>Bangladesh declined not only<br>because of the reduction in<br>imports from India but also<br>because local traders took<br>advantage of the situation by<br>curbing the release of their stored<br>onions into the market in order to<br>make extra profit. | <ul> <li>storage facilities, could help<br/>manage water resources more<br/>effectively in Bangladesh.</li> <li>Short-term: <ul> <li>Diversify onion import<br/>sources beyond India.</li> <li>Carefully assess impacts<br/>of government imports on<br/>prices and farmers.</li> <li>Monitor and prevent<br/>speculative storage during<br/>peak import season.</li> <li>Ensure timely access to<br/>high-quality farming<br/>inputs.</li> </ul> </li> </ul>   |  |

<sup>&</sup>lt;sup>70</sup> Ahmed, A. U., & Ahmad, K. (2013). Sudden onion price surge in Bangladesh: A situation analysis for policy.

| Studies | Findings | Policy recommendation   |
|---------|----------|---|
|         |          | <ul> <li>Medium-term:</li> <li>Encourage more<br/>competition in the onion<br/>trade.</li> <li>Improve accuracy and<br/>timeliness of agricultural<br/>production data.</li> </ul>  |
|         |          | <ul> <li>Long-term:</li> <li>Increase domestic onion production through research and technology.</li> <li>Develop and disseminate new high-yield onion varieties.</li> <li>Strengthen extension services and support policies for farmers.</li> </ul> |

As both countries continue to navigate the complexities of global trade, fostering cooperation, and exploring avenues for formalizing trade practices will likely contribute to sustained growth and prosperity in the India-Bangladesh economic partnership.

### REFERENCES

- Ahmed, A. U., & Ahmad, K. (2013). Sudden onion price surge in Bangladesh: A situation analysis for policy.
- Ahmed, T. (2023), 'Periodic Price Update and Food Security Status-Week of October 22, 2023', Global Agricultural Information Network (GAIN)
- Ahmed, W. (2023) 'Solar Irrigation: A Game-Changer in Agriculture', *The Financial Express* (March 01)
  - Available at: <u>https://thefinancialexpress.com.bd/views/opinions/no-mercy-to-errant-health-clinics</u>
- Bangladesh Bank. (2023) 'Agriculture and Rural Credit Policy and Program 2023-24'. Bangladesh Trade Portal
- Bangladesh Bank. (2024) 'Bangladesh Government revises incentive rates of 43 sectors' Bangladesh Trade Portal
- Bangladesh Parliament Secretariat. (2019). "Names of Committees for the 11th Parliament (English)."
- Bangladesh Parliament, (1974) Rules of Procedure of Parliament of the People's Republic of Bangladesh
- Bangladesh Standards and Testing Institution. (2022), 'List of Bangladesh Standards (BDS) on Agricultural and Food Products'
- Bari, E. Rahman, M. (2018) 'Bangladesh's Formal and Informal Agricultural Trade with SAARC Countries-Emerging Trends and Policy Challenges', CPD Working Paper 114, Centre for Policy Dialogue
- Begum, F.A. (2022) 'Import Policy Order 2021-2024: An analysis', *The Business Post*, 23 July 2022.
- Bureau, J. and S. Jean (2013) 'The Impact of Regional Trade Agreements on Trade in Agricultural Products', OECD Food, Agriculture and Fisheries Papers, No. 65, OECD Publishing, Paris.

- Cabinet Division Government of the People's Republic of Bangladesh, (1996). Allocation of Business Among the Different Ministries and Divisions (Schedule I of the Rules of Business, 1996)
- Chakma, J. (2024) 'Ensure cold chain logistics to reduce \$2.4bn post-harvest losses', *The Daily Star*
- CUTS (2014) India-Bangladesh Trade Potentiality: An Assessment of Trade Facilitation Issues, Cuts International.
- CUTS (2019) India-Bangladesh Agriculture Trade: Demystifying Non-Tariff Barriers to India-Bangladesh Trade in Agricultural Products and their Linkages with Food Security and Livelihood, Jaipur, CUTS International
- Ferdous, Z., Zulfiqar, F., Datta, A., Hasan, A. K., & Sarker, A. (2021) 'Potential and challenges of organic agriculture in Bangladesh: a review', Journal of Crop Improvement, 35(3), 403-426.
- Han, J. W., Zuo, M., Zhu, W. Y., Zuo, J. H., Lü, E. L., & Yang, X. T. (2021) 'A comprehensive review of cold chain logistics for fresh agricultural products: Current status, challenges, and future trends', Trends in Food Science & Technology, 109, 536-551
- Hand-in-Hand Initiative. (2023) 'Bangladesh Investment Plans and Opportunities', Food and Agriculture Organization
- Handley, K. and Limão, N. (2022), "Trade Policy Uncertainty", Annual Review of Economics, 14(1).
- Hasan, I. Habib, M. M., Mohamed, Z., & Tewari, V. (2023). Integrated agri-food supply chain model: An application of IoT and blockchain. American Journal of Industrial and Business Management, 13(2), 29-45.
- Islam, A. M. (2019) 'Bangladesh trade with India: Trends and patterns', Athens Journal of Business & Economics, 5(2),123-140.
- Islam, A. M. (2019) Bangladesh trade with India: Trends and patterns. Athens Journal of Business & Economics, 5(2),123-140.
- Kabir. R, Yunus. M, Hossain. T. (2019). 'Public food grain storage facilities in Bangladesh,' IFPRI, WP 002,
- Legislative and Parliamentary Affairs Division, Ministry of Law, Justice, and Parliamentary Affairs, (1972). The Constitution of the People's Republic of Bangladesh,
- Milad, M. (2024) Bangladesh among top ten producers of 22 Agri products, Prothomalo. Available at: https://en.prothomalo.com/bangladesh/nrp15yhu1z

Ministry of Finance. (2023) 'Chapter 7: Agriculture', Bangladesh Economic Review 2023

- Ministry of Food, Government of the People's Republic of Bangladesh. (2015). Terms of Reference for Integrated Food Policy Research Program
- Mohanty, S. K., & Gaur, P. (2022) Developments in Agriculture Trade in the BIMSTEC Region.
- Osnago, A., Piermartini, R. and Rocha, N. (2015) 'Trade policy uncertainty as barrier to trade', World Trade Organization.
- PRI Report. (2014). 'Bangladesh Country Report: Non-Tariff Measures in India-Bangladesh Trade. Analysis based on Perceptions of Exporting-Importing Firms'. Report prepared for The World Bank.
- Rahman, M. and Dutta, D. (2012) 'The Gravity Model Analysis of Bangladesh's Trade: A Panel Data Approach', Journal of Asia-Pacific Business, 13(3):263-286. ResearchGate
- Rahman, M. M., & Rahaman, M. M. (2017) 'Impacts of Farakka barrage on hydrological flow of Ganges River and environment in Bangladesh', Sustainable Water Resources Management.
- Rahman, M. M., & Rahaman, M. M. (2017) Impacts of Farakka barrage on hydrological flow of Ganges River and environment in Bangladesh. Sustainable Water Resources Management.
- Rahman, M., Ahamad, M., Islam, N., Amin, M. (2012) 'Agricultural Trade between Bangladesh and India: An Analysis of Trends, Trading Patterns and Determinants', CPD-CMI Working Paper Series
- Rahman, M.M. (2024) 'No mercy to errant health clinics' The Financial Express. April 21, 2024.
- Raihan, S. (2012), 'ECONOMIC REFORMS AND AGRICULTURE IN BANGLADESH: Assessment of Impacts using Economy-wide Simulation Models', International Labour Organization (ILO)
- Sajibur, (2023) 'US to help Bangladesh build International Standard Cold Chain', The Financial Express. (23 May) Available at: https://thefinancialexpress.com.bd/trade/us-to-help-bangladesh-build-international-standard-cold-chain
- Sattar, Z. (2015) Bangladesh-India trade: Handicap of non-tariff measures. The Financial Express, January 29, 2015
- Shariatullah, M. and Kazuho Inaba (2011). Impacts of RTA and PTA on Bangladesh's Exports. Application of a Gravity Model. ResearchGate

Siddiqui, M.S. (2022) 'Evaluation of Import Policy Order 2021-2024', Research Gate.

- Tanaka, Y. (2021) 'Bangladesh Needs to Expand Trade with Its Neighbors', Asian Development Blog
- Team, F. (2023), 'non-tariff barriers to India-Bangladesh Trade explained'. FAIR
- USAID Bangladesh. (2016) Cold Chain Bangladesh Alliance (CCBA) Final performance Report, AID-388-A-13-00004
- World Bank Group. (2018), 'A Glass Half Full: The Promise of Regional Trade in South Asia'
- World Trade Organization. (1995). *Agreement on Agriculture*, Uruguay Round Agreement, (Articles 1 7)

WTO Secretariat. (2019) 'Trade Policy Review', World Trade Organization

#### WTO list of Environmental Goods of Interest

| Category   | 4-Digit HS Codes   |
|--|--|
| AIR POLLUTION CONTROL (APC)  |  |
| Condensers for steam or other vapor power units, producer gas or water gas<br>generators, Vacuum pumps, Air or vacuum pumps, air or other gas<br>compressors and fans, Machinery for liquefying air or other gases, Filtering<br>or purifying machinery and apparatus for gas, Motor vehicles  | 8404, 8405, 8414, 8419,<br>8421, 8702, 8703, 8704,<br>8705, 9026   |
| RENEWABLE ENERGY (RE)  |  |
| Towers and lattice masts, Steam and other vapor turbines, Hydraulic turbines,<br>and water wheels, Gas turbines of a power exceeding, Compression-type<br>refrigerating, freezing equipment, Instantaneous or storage water heaters, AC<br>generators (alternators), Electric generating sets, Static converters, Electric<br>accumulators, Photosensitive semiconductor devices, Optical fibers and<br>optical fiber bundles, Lenses, prisms, mirrors and other optical elements,<br>Solar boiler (water heater), Solar collector and solar system controller, Motor<br>vehicles  | 7308, 7611, 8405, 8406,<br>8410, 8411, 8415, 8418,<br>8419, 8483, 8501, 8502,<br>8503, 8504, 8506, 8507,<br>8537, 8541, 8702, 8703,<br>8704, 8705, 9001, 9002,<br>9032   |
| WASTE MANAGEMENT, WATER TREATMENT AND REMEDIATIO   |  |
| <i>Clean Up or Remediation of Soil and Water (R/C)</i><br>Centrifuges, Parts of centrifuges, Electric space and soil heating apparatus,<br>Other floating structures   | 8421, 8516, 8907   |
| Management of Solid and Hazardous Waste (SHW)<br>Other plates, sheets, film, foil, and strips, of polymers of ethylene, Aluminum<br>casks, drums, cans, boxes and similar containers, Steam or other vapor<br>generating boilers, Industrial or laboratory furnaces and ovens, Distilling or<br>rectifying plants, Machinery for cleaning or drying bottles or other containers,<br>Tamping machines and road rollers, Hydraulic presses for working metal,<br>Splitting, slicing or paring machines, Mixing, kneading, crushing, grinding,<br>screening, sifting, homogenizing, emulsifying or stirring machines.   | 3920, 7612, 8402, 8404,<br>8417, 8419, 8422, 8429,<br>8462, 8465, 8466, 8474,<br>8479, 8505, 8514  |
| Waste Management, Recycling and Remediation (WMR)<br>Mats/screens of vegetable materials, Super-heated water boilers and parts of<br>steam generating boilers, Auxiliary plant for steam, water, and central boiler  | 4601, 8402, 8404   |
| <i>Wastewater Management and Water Treatment (WWM)</i><br>Non-wovens: Of man-made filaments, Waterless urinal, composting toilet,<br>Cast iron pipes, gutters and manholes for waste and potable water<br>applications, Reservoirs, tanks, vats and similar containers for any material,<br>Composting systems of organic matter, Waste containers, whether or not<br>combined with a compactor, Other articles of iron or steel, Hand pumps,<br>Other centrifugal pumps, Filtering or purifying machinery and apparatus for<br>liquids, Taps, cocks and valves for water and wastewater, Parts of the<br>machines and apparatus   | 5603, 6910, 7303, 7304,<br>7306, 7309, 7310, 7324,<br>7325, 7326, 8413, 8419,<br>8421, 8428, 8481, 8543,<br>8543   |
| ENVIRONMENTAL TECHNOLOGIES (ET)  |  |
| Carbon Capture and Storage Technologies (CCS), Gas Flaring Emission<br>Reduction Technologies (GFR), Efficient Consumption of Energy<br>Technologies (EC)<br>Sulphur (Crude or Unrefined), Petroleum Gases, Other Gaseous<br>Hydrocarbons, Aluminum Oxide, Aluminum Hydroxide, Diethyl Ether and<br>Other Acyclic Ethers, Their Halogenated, Sulfonated, Nitrated Derivatives,<br>Alcohol Peroxides, Ether Peroxides, Ketone Peroxides, Their Derivatives,<br>Acetone, Butanone, Ionones, Methylionones, Other Ketone-alcohols, Ketone-<br>aldehydes, Polymers of Propylene or Other Olefins, Petroleum Resins,<br>Coumarone, Indene, Coumarone-indene Resins, Polyterpenes, Cellulose<br>Ethers, Tubes, Pipes and Hollow Profiles, of Iron or Non-alloy Steel, Cold-<br>drawn or cold-rolled, Other Tubes and Pipes, Tube or Pipe Fittings, of Iron or<br>Steel, Tanks, Casks, Drums, Cans, Boxes, of Iron or Steel, Aluminum | 2503, 2711, 2818, 2909,<br>2914, 3902, 3909, 3911,<br>3912, 7303, 7304, 7305,<br>7306, 7307, 7309, 7310,<br>7311, 7324, 7611, 7613,<br>8402, 8403, 8404, 8405,<br>8406, 8407, 8408, 8409,<br>8410, 8411, 8412, 8413,<br>8414, 8416, 8417, 8419,<br>8420, 8421, 8474, 8477,<br>8481, 8482, 8503, 8504,<br>8505, 8511, 8514, 9015, |

| Category  | 4-Digit HS Codes  |
|---|---|
| containers for compressed or liquefied gas, Vapour Generating Boilers,<br>Including Hybrid Boilers, Parts of Auxiliary Plant for Use With Boilers and<br>Condensers, Hydraulic Turbines and Water Wheels, Turbo-jets and<br>propellers, Hydraulic Power Engines and Motors, Hand and other Pumps for<br>Liquids, Furnace Burners, Industrial or Laboratory Furnaces and Ovens,<br>Apparatus for Treatment of Materials By Temperature, Sorting, Screening,<br>Separating or Washing Machines, for Mineral Substance, Valves and Other<br>Appliances for Pipes, Tanks, Vats or the Like, Ball Bearings, Magnets and<br>Magnetized Articles, of Metal, Parts and accessories: Gas, Liquid or<br>Electricity Supply or Production Meters, etc. | 9024, 9025, 9026, 9028,<br>9031, 9032, 9033   |
| <i>Cleaner or More Efficient Technologies and Products (CT/P)</i><br>Solar stoves, ranges, grates, cookers, Fuel cells, Garbage degraders with electrical heating systems   | 7321, 8506, 8509  |
| <i>Energy Efficiency (EE)</i><br>Energy-efficient air conditioning machines, Energy efficient refrigerators,<br>Portable digital automatic data processing machines (Energy efficient PCs),<br>Energy efficient printers, copiers, scanners and memory drives, Fuel cells,<br>Energy efficient telephones, fax machines, home audios, and recording<br>devices, Lighting fittings using LED lamp,   | 8415, 8418, 8471, 8506,<br>8507, 8517, 8518, 8520,<br>8521, 8522, 8523, 8525,<br>8526, 8528, 9405 |
| <i>Environmental Monitoring, Analysis and Assessment (M/A)</i><br>Hydrological, oceanographic, and meteorological instruments and appliances,<br>Instruments and apparatus for measuring the flow or level of liquid or<br>pressure, Gas or smoke analysis apparatus, Other instruments and apparatus<br>using optical radiations (UV, visible, IR), Instruments and apparatus for<br>measuring or detecting ionizing radiations, Other instruments, and apparatus<br>for measuring or checking electrical quantities, Hydraulic and pneumatic<br>instruments and apparatus, Parts and accessories for machines, appliances,<br>instruments or apparatus  | 9015, 9026, 9027, 9030,<br>9031, 9032, 9033   |
| <i>Heat and Energy Management (H/EM)</i><br>Mats for soundproofing and thermal insulation of buildings, Heat exchange<br>units, gas, liquid, and electrical meters.   | 7019, 8419, 9028  |
| <i>Natural Risk Management (RM)</i><br>Surveying instruments and appliances   | 9015  |
| <i>Noise and Vibration Abatement (N/V)</i><br>Cork underlay in sheets and rolls, Industrial mufflers  | 4504, 8409, 9031  |
| <i>Environmentally Preferable Products (EPP)</i><br>Jute and other textile bast fibers, Sisal other textile fibers of the genus <i>Agave</i> raw, Twine, cordage, ropes and cables, Sacks and bags, of a kind used for the packing of goods: Of jute or other textile bast fibers   | 5303, 5304, 5607, 6305  |
| Natural Resources Protection (NR)<br>Made-up fishing nets of man-made textile materials (that incorporate turtle<br>excluder devices), Fishhooks  | 5608, 9507  |
| <i>Others (OTH)</i><br>Distilling Apparatus, Evaporators; autoclaves  | 8419  |