## **Background**

Under the impact of globalization and various regional and bilateral trade agreements and autonomous economic liberalization, the import tariffs in the countries of South Asia and Southeast Asia have been significantly reduced over the past decades. However, the use of various sorts of non-tariff measures (NTMs) and resulting non-tariff barriers (NTBs) are still found prevailing as barriers. Empirical evidence shows that most of the prevailing NTMs that often turn into trade restricting barriers fall under the categories of sanitary and phytosanitary (SPS) and technical barriers to trade (TBT) related measures.

Despite significant reduction in customs duty in these regions, the dismal and stagnant volume of intra-regional trade has paved way for the popular hypothesis that it is not the high customs duty or tariff, but the Non-Tariff Measures (NTMs) and the resulting trade barriers, i.e., Non-Tariff Barriers (NTBs) are the main reasons behind limited intra-region trade. This view is reflected in many contemporary studies and documents. However, there is a need for close examination of such views by structured analytical approach.

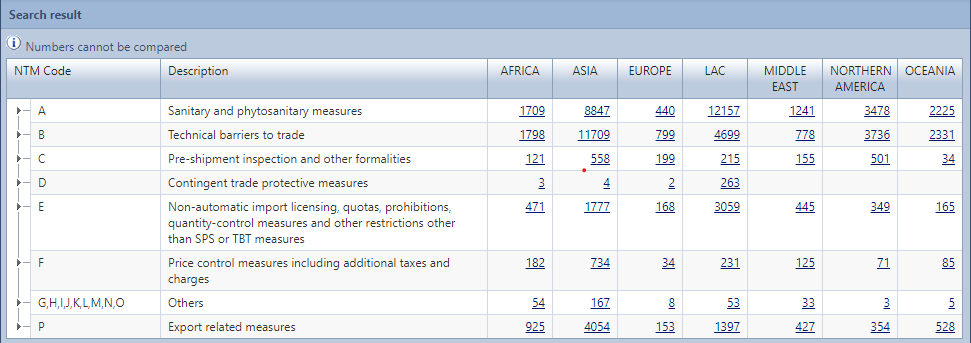
**Introduction**

In recent decades, multilateral and regional trade negotiations and unilateral liberalization have substantially reduced tariff rates. Non-tariff measures (NTMs), however, represent a growing challenge for exporters and policy makers. Non-tariff measures (NTMs) are policy measures other than tariffs that can potentially have an economic effect on international trade in goods. Global trade in food and agricultural products has tripled in value terms since the turn of the millennium and it is expected that this trend will continue. Global trade in food products will continue to expand rapidly, but the structure and pattern of trade will differ significantly by commodity and by region. Greater participation in global trade is an

inevitable part of most countries’ national trade strategies.

Many exporters in Bangladesh find it extremely troublesome to comply with international standard certification requirements that their export products face in foreign markets. The case in South Asia may be viewed as an example. While trade liberalization in South Asia through the South Asian Free Trade Area (SAFTA) has reduced tariff barriers to a great extent, intra-regional trade still remains low due to the existence of numerous NTBs, including NTMs. Of the NTBs, the SPS and TBT barriers comprise the largest share- more than 90 percent of the NTMs in the South Asian region. For example, Bangladesh faces many restrictions to enter into the Indian market. It is found that even the accreditation from the importing countries fails to remove barriers. For example, though the National Accreditation Board for Testing and Calibration Laboratories (NABL) of India accredited the Bangladesh Standard and Testing Institution’s (BSTI) test certificates for chemicals, food, cement, and textile, there was a tendency among Indian local Customs authorities to reject those certification (SCCI, 2016).

**NTMs in general**



**NTMs by other countries**

India and Sri Lanka impose a substantial number of SPS-TBT measures on imports, while Nepal has a moderate number of measures, and Bhutan and Maldives imposeminimal SPS-TBT measures.For example, the study found 72 Bangladeshi products inthe United Nations HarmonizedCommodity Description and Coding System (HS code) 6-digit level that have potential for exports to Bhutan, but which currently have no or limited exports. Out of these 72 potential products, 61 of them face either SPS or TBT measures in Bhutan. Similarly, it was found that 127 Bangladeshi products in HS 6-digit level have potential for exporttoIndia, but in reality are exporting in limited volume, if at all. All of these 127 potential products face multiple measures of either SPS or TBT in India. The major export items from Bangladesh to India – i.e., items of jute and jute goods, textile and clothing, and frozen fish – are subject to extensive SPS and TBT measures in India. Likewise, 142 potential products were identified for Sri Lanka, out of which 54 products face SPS and TBT measures in Sri Lanka (DTS).

**Scenario**

## **The SPS Scenario**

As a signatory of the WTO’s Agreement on Sanitary and Phyto Sanitary (SPS) measures, Bangladesh aims to administer SPS measures with the objective of protecting life and health of human, animals, and plants. Review of secondary sources suggests that as of 2013, Bangladesh imposes SPS measures to over 300 product categories[1]. Out of 92 potential export products identified from Bangladesh only 4 items are facing SPS measures in Nepal (Annex Table 14). At the same time the national diagnostic study of Nepal identifies SPS measures on 23 potential export items from Nepal facing SPS measures in Bangladesh. Similarly, 38 items out of 142 potential export products from Bangladesh face SPS measures in Sri Lanka (Annex Table 15). The report from Sri Lanka identifies only 7 potential export items from Sri Lanka facing SPS measures in Bangladesh. Out of 127 potential export products of Bangladesh, the number of items facing SPS related measures is 14 in India (Annex Table 12). These products are subject to quarantine, certification, and inspection requirements related to SPS measures.

## **The TBT Scenario**

As a signatory of the WTO’s Agreement on Technical Barriers to Trade (TBT) measures, Bangladesh aims to administer TBT measures with the legitimate policy objectives, such as protection of human health and safety, or protection of the environment, without unnecessarily restricting cross-border trade. Preliminary review of secondary sources suggests that as of 2013, Bangladesh imposes TBT measures to 218 product categories[1]. Most of these products belong to packaged food, household and consumer products, and are subject to restrictions and standards related to packaging, labeling, ingredients, and performance parameters.

The official definition of NTMs is broad: NTMs are policy measures other than ordinary customs tariffs that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both

Of late the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is receiving sincere attention from its member countries as an organisation that has the potential to transform the region’s political and economic future. This is because there are several bilateral and sub-regional ongoing projects that are seeking to connect the region and bind them together into one economic whole. BIMSTEC as a regional cooperation mechanism, which can promote regional integration in the eastern South Asian region. BIMSTEC has identified 14 areas where meaningful cooperation is possible [1].

Global trade in food and agricultural products has tripled in value terms since the turn of the millennium and it is expected that this trend will continue. Global trade in food products will continue to expand rapidly, but the structure and pattern of trade will differ significantly by commodity and by region. Greater participation in global trade is an inevitable part of most countries’ national trade strategies.

**Objectives:**

1. To develop a single repository database of consistent, cross country,BIMSTEC NTMs for agricultural products
2. To examine the effects of NTMs on various agricultural products
3. To determine the role played by WTO in the use of NTMs by member states
4. To estimate the effect of NTMs on intra BIMSTEC trade flows
5. To understand the patterns of sub-regional trade vis-à-vis Bangladesh;
6. To identify products which have high potential for export from Bangladesh to the BIMSTEC but which face SPS-TBT measures in the importing countries;
7. To give an analytical overview of SPS-TBT structure in Bangladesh in terms of infrastructure and institutional capacities, legislative and regulatory framework, outreach.

**Research question**:

what is the effect of a particular type of NTM (Sanitary and Phytosanitary Measures and Technical Barriers to Trade) for bilateral trade between Bangladesh and other member countries of BIMSTEC on agricultural trade ?

**SPS, TBT and Agricultural Trade**

Agricultural trade is largely affected by technical barriers, SPS and TBT measures. SPS are important as, by definition, these measures are related to food safety, and animal and plant health, and the environment (WTO, 2010b). Agriculture deals more with these issues, as compared with other sectors of the economy. As a result, it is expected that these measures will be more prevalent in agriculture than in other sectors [3]. NTMs are broadly defined as policy measures, other than tariffs, which may have an impact on international trade in goods and services (UNCTAD, 2013). This is an emerging and important area of focus, not only for researchers, but also for policy makers. ( Beghin, Maertens and Swinnen, 2015 for a

summary). This topic provides significant scope for contributions through proposing new approaches to econometrically estimating the effect of NTMs, and taking novel approaches to modelling these effects in a computable general equilibrium (CGE). There has been a dramatic increase in the number of NTMs notified to the WTO since 2000, both Sanitary and Phytosanitary (SPS) measures and Technical Barriers to Trade (TBT) measures. This has coincided with growing concern for health, quality and environmental attributes and externalities (Beghin, Maertens and Swinnen, 2015). At the same time, there has been a shift in emphasis in trade negotiations from tariff reductions to the removal of NTMs (Berden and Francois, 2015). The focus of this PhD is therefore highly topical.

A growing share of modern trade policy instruments is shaped by non-tariff barriers (NTBs). Based on a structural gravity equation and the recently updated Global Trade Alert database, we empirically investigate the effect of NTBs on imports. Different types of NTBs affect trade to a different extent. Trade, and especially international trade of agricultural commodities, may function as a pathway for the movement and spread of pests, diseases and food safety risks to new areas where they were previously unknown. Countries usually want to protect themselves against such risks by establishing sanitary and phytosanitary (SPS) measures

to regulate the import of agricultural commodities.

**SPS Agreement and its Impact on the International Trade of Agricultural Commodities**

The World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) ensures that SPS measures are solely used to protect against SPS risks, are based on scientific evidence, and not used for protectionist purposes. To realize the potential of international agricultural trade and to prevent it from increasing pathways for the geographical distribution of pests, diseases or food-borne pathogens, it is imperative for countries to establish efficient SPS systems. The “WTO Agreement on the Application of Sanitary and Phytosanitary Measures” (SPS Agreement) sets a number of rules which attempt to prevent the establishment of SPS measures that are discriminatory and unjustified and can act as a protectionist device. The SPS Agreement requires that SPS measures are based on scientific principles and encourages in particular the development of SPS measures based on international standards ("harmonization").[4]

The multilateral framework described in the SPS Agreement is based on a number of principles:

1. International Harmonization
2. Equivalence
3. Risk Assessment (scientific base)
4. Adaptation to Regional Conditions

**International Harmonization**

One of the major aims of the SPS Agreement is that countries use harmonized SPS

measures when trading. Article 3 of the SPS Agreement provides that countries shall base

their SPS measures as much as possible on international standards, guidelines or

recommendations developed by the relevant international standard setting

organizations i.e. Codex, OIE and IPPC, (WTO, 1995). The purpose of promoting

international harmonization is that the application of internationally agreed standards,

guidelines or recommendations will automatically constrain arbitrary or unjustified

discrimination between trading partners. In order to achieve the aim of international

harmonization it is important that the body of international standards, guidelines or

recommendations developed by the OIE, IPPC and Codex is sufficiently large and covers

a wide palette of products and traded commodities.

**Equivalence**

The SPS Agreement allows for an alternative way to mitigate SPS risks that also facilitates

trade. Importing countries may agree to accept that various measures can be used to fulfil

a particular regulatory goal, as long as such measures meet the importing countries’

appropriate level of protection

**Risk Assessment**

The requirement that countries establish SPS measures on the basis of an appropriate

risk assessment is one of the cornerstones of the SPS Agreement. If countries establish

measures, which do not conform to international standards, guidelines or

recommendations, they must scientifically justify their measures if requested. This

justification must be carried out through an appropriate risk assessment.

**Trends**

The trade of agricultural commodities is likely to continue to increase in the near future.

This will be as a result of the development of new trade routes, increased market access

activities and also, increasing volumes of existing trade patterns. There are, however, a

few visible trends, which may have considerable impact on SPS related activities by

countries and international organizations.

**Literature Review**

*(Will be written after determining the main theme….)*

**Methodology**

Primarily, we will see the normal export potential of Bangladeshi goods to BIMSTEC countries and will list the agricultural product. Of them, we will examine the number of potential agricultural products. In next steps, we will see how the NTMs affect that list of potential agricultural products. We will also see whether SPS or TBT effect more.

A 6-stage filtering process will be developed to single out the products with the most reasonable potential for exports. The first filter w related to export frequency during the 5-year period, from 2011 - 2015. If Bangladesh had exported a certain product to another BIMSTEC country only in one year out of these 4 years, then that particular product was not considered (will be regarded as ‘zero trade’). The second filter will be related to price. After applying the second filter I will consider only those export products from Bangladesh which had a lower average export price per unit than the average import price per unit for the same product from the rest of the world in another importing country in BIMSTEC.The third filter will address market share of Bangladeshi exports. If the product from Bangladesh already had a market share of **at least 20%** or more in the importing BIMSTEC country, then the product was not considered, since it already enjoyed a fair portion of market share. The fourth filter was related to supply side capacity of Bangladesh – if the product constituted at least 20% or more of Bangladesh’s export of that product to a partner country in BIMSTEC importing that product, then the product was not considered a potential item, since it already enjoyed a fair share of export capacity. The last two filters were related to market size of the products. The fifth filter was related to the average export value of Bangladesh for that product in the importing country, and the 6th filter was the average import value of that product. For Indian market Bangladesh considered the highest average value of US$ 1,000,000 as the average value filters for export and import, and for Bhutan, considering the small size of its economy, an average value of US$ 100,000 was considered. For other BIMSTEC countries, this value was US$ 500,000. For example, if the annual average export value of a Bangladeshi product was less than US$ 500,000 in Sri Lanka, then the product was not considered, and likewise, if the average annual import value of a product was less than US$ 500,000 in Sri Lanka, then the product was not considered in the list of potential products. It should be noted here, that the filters were applied one after another.

**Estimation Strategy**

We will estimate a structural gravity equation based on Yotov et al. (2016) and extend it to the product level as proposed by Larch and Wanner (2017). Modelling the gravity equation explicitly with tarifs allows the estimates to be interpreted as trade elasticities. This enables a direct comparison of the trade effect caused by NTBs and by tarifs. For each trade policy parameter tariff equivalents can be estimated (Yotov et al. 2016).

**Data Collection**

All data on NTBs will be excerpted from the GTA database. It collects all national policies that are imposed unilaterally and likely to change the treatment of domestic commercial interest relative to foreign commercial interests. Data on NTBs is still relatively scarce. Most often, researchers rely on data from the TRAINS database, which is collectively published by the WTO, UNCTAD, ITC and the World Bank. It contains information about implemented NTBs at detailed HS six-digit product level, classified according to the UN MAST classification of NTBs. Another common source is the I-TIP database provided by the WTO in cooperation with UNCTAD. It also collects trade policies classified according to the UN MAST classification.

The challenges relating to NTMs do not necessarily comprise a new phenomenon. While the policy challenge has remained the same as in the early General Agreements on Tariffs and Trade (GATT), the specific issues, debates and solutions have evolved over time (WTO, 2012). In the past, NTMs were often driven, or influenced in terms of design, by producer interests. The focus was on national measures, and on ensuring that the WTO principles of non-discrimination and transparency are upheld. This was done while avoiding protectionism

**REFERENCES**

[1] Smruti S. Pattanaik (2018) Transforming Eastern South Asia: Relevance of BIMSTEC, Strategic Analysis, 42:4, 422-429, DOI: 10.1080/09700161.2018.1482618

[2] Kinzius, L., Sandkamp, A., & Yalcin, E. (2019). Trade protection and the role of non-tariff barriers. *Review of World Economics*, *155*(4), 603-643.

[3] M. Kalaba, J. Kirsten & T. Sacolo (2016) Non-Tariff Measures Affecting Agricultural Trade in SADC, Agrekon, 55:4, 377-410, DOI: 10.1080/03031853.2016.1243059

[4] Lopian, R. 2018. Climate change, sanitary and phytosanitary measures and agricultural trade. The State of Agricultural Commodity Markets (SOCO) 2018: Background paper. Rome, FAO. 48 pp. Licence: CC BYNC-SA 3.0 IGO.

[5] Webb, M. (2018). *Quantifying the trade impact of non-tariff measures: Econometric and CGE Analysis* (Doctoral dissertation, The University of Waikato).

[6] <https://bfti.org.bd/pdf/Final_NTM%20Study.pdf>

[6] **GUIDELINES FOR THE COLLECTION OF DATA ON OFFICIAL NON-TARIFF MEASURES 2021 VERSION**

[7]

[6] <https://unctad.org/system/files/official-document/ditctab2020d5_en.pdf>

[7] <https://comtrade.un.org/>

[8] <https://www.adb.org/sites/default/files/publication/559296/india-exports-nontariff-barriers-trade-study.pdf>

[9] <https://www.unescap.org/publications/APTIR2019>

[10] <https://www.wto.org/english/tratop_e/sps_e/sps_e.htm>