

Why and How LDCs can Better Participate in WTO's SPS and TBT Committees

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Abstract

Non-tariff measures to trade are not new, but their significance for least-developed countries continues to grow. Although, the World Trade Organisation responsible for rules governing international trade between its member's attempts to ensure that trade flows smoothly, freely and on a fair basis, an increase in non-tariff measures restricts it and least-developed countries are the most affected. WTO Committee on Sanitary and Phytosanitary issues and Committee on Technical Barriers to Trade are two major platforms where specific trade concerns related to standards and regulations are raised and discussed.

The paper is an attempt to understand the specific mandates and activities of WTO TBT and SPS Committees. The paper also looks at the standards and regulations that are affecting trade of least-developed countries and their performance in these committees. The Paper suggests that the participation of least-developed countries is very low in these Committees and they need to increase their participation in standard setting process in general and these Committees in particular so as to increase their trade prospects in the long term.

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Abbreviations

ASEAN	Association of Southeast Asian Nations
CAC	Codex Alimentarius Commission
DFQF	Duty Free Quota Free
EU	European Union
FTA	Free Trade Agreement
FAO	Food and Agriculture Organization of the United Nations
GATT	General Agreement on Tariffs and Trade
GVCs	Global Value Chains
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IPPC	International Plant Protection Convention
ISO	International Organization for Standardization
ISPMs	International Standards for Phytosanitary Measures
LDCs	Least Developed Countries
NGOs	Non-government Organisations
NTMs	Non-Tariff Measures
OECD	Organisation for Economic Co-operation and Development
OIE	World Organisation for Animal Health
RCEP	Regional Comprehensive Economic Partnership
SPS	Sanitary and Phytosanitary
STCs	Specific Trade Concerns
TBT	Technical Barriers to Trade
TPP	Trans-Pacific Partnership

TRIPs	Agreement on Trade-Related Aspects of Intellectual Property Rights
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
WHO	World Health Organization
WTO	World Trade Organization

SECTION 1

Introduction

The transformation of international trade practices in the world economy is now claiming for wider geographical participation (for example, the rise in global supply and value chains and expansion of production networks) (UNCTAD, 2015). The growth of global value chains (GVCs) is augmented by a number of factors which include – trade and investment liberalisation, sharp reduction in transport and communication costs, rise of container shipping, regional trade agreements, diffusion of technology amongst others. The rise of GVCs can be well recognised by the fact that 80 per cent of global trade takes place through value chains shaped by various trans-national firms (UNCTAD, 2017a).

The participation in value chain led trade has become pre-requisite to enhance the productivity and competitiveness for any country. It is essential for poverty reduction and overall development of a country. However, the benefits of trade have not been very favourable for least-developed countries (LDCs).¹ For example, the trade deficit for LDCs as a group reached US\$65.05bn in 2016 from a trade surplus of US\$1.27bn in 2001 (ITC, 2017). At the same time, two major changes have been witnessed in international trade – rapid increase in service trade and increase in non-tariff measures (NTMs). Although, over

the years, the multilateral trading system (World Trade Organization (WTO) and the General Agreement on Tariffs and Trade (GATT)) has reduced tariff barriers to trade under many successive rounds of global trade liberalisation, NTMs have become more prevalent.

At a macro level NTMs may be any policy measure (other than normal custom tariffs) that can affect trade flows, either by changing the quantities traded or price structure of those commodities or sometimes both (Staiger, 2012). Amongst NTMs, sanitary and phytosanitary (SPS) and technical barriers to trade (TBT) are the most challenging to the export basket of LDCs particularly in affecting agricultural trade.²

Although it is difficult to catalogue NTMs, broadly these can be – (a) border NTMs (for example, on import and export, these may include licencing, custom procedures etc.); and (b) behind the border NTMs (for example, domestic legislation covering product, health or technical standards, etc.). A study by (OECD, 2005) attempted to compile all the NTMs, and later United Nations Conference on Trade and Development (UNCTAD) also classified these. UNCTAD's classification comprises 16 chapters based on their degree of dominance. According to their hierarchical order, SPS is the most common and highly applied

¹ In general terms, the world is divided into two categories: (a) developed countries; and (b) developing countries (UNCTAD, 2017b). But some of the developing countries require more attention because they are comparatively more disadvantaged in the economic growth and developmental processes and face greater poverty and representation related challenges. Thus the later were categorised as LDCs in 1971 by the United Nations, which uses criteria of low income, weak human assets and economic vulnerability to denominate a country as LDC. Presently, 47 countries are designated with the status of "least developed countries" or "LDCs" in the year 2017 (UN, 2017).

² SPS measures as defined by the WTO in Annex A of WTO SPS Agreement are – "all relevant laws, decrees, regulations, requirements and procedures including, inter alia, end product criteria; processes and production methods; testing, inspection,

certification and approval procedures; quarantine treatments including relevant requirements associated with the transport of animals or plants, or with the materials necessary for their survival during transport; provisions on relevant statistical methods, sampling procedures and methods of risk assessment; and packaging and labelling requirements directly related to food safety" (WTO, 1995a). While technical regulations as defined by the Annex 1 of the WTO TBT Agreement are – "Documents which lay down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method" (WTO, 1995b).

form of NTM, which is related to food safety and animal and plant health (UNCTAD, 2017c).

Standards are developed by various public and private institutions with different objectives and activities, thus the terminology is varied. In WTO, standards³ are regulated by the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) and the Agreement on Technical Barriers to Trade (TBT Agreement). However, these agreements of WTO do not obligate countries to adopt standards, but they do provide regulations to be adopted when applying standards (Maur & Shepherd, 2011).

To reduce information asymmetries and deleterious externalities standards are used generally. These can be in the form of proper labelling or providing information on labels about environmental problems etc. For Instance, to satisfy demands of quality-conscious consumer behaviour in developed countries) or to promote economic, industrial and regional development as well as to protect specified sectors from imports generally from the dumping of cheaper imports. At the same time, many technical measures may restrict trade but improve welfare through a reduction in negative externalities. For example, through reduced risk of importing pests or diseases.

Although, the growing awareness and concerns of consumers over product quality and consumer health and safety signify the greater importance of standards but in several cases standards also affect trade substantially through additional information, compliance and procedural costs. Around 96 per cent of global trade is affected by at least one regulation that is 'NTM' (UNCTAD, 2017d). This is primarily because member countries have different opinion about standards, their definition or implementing international organisation and their applicability on their society and domestic economy. Some standards

are related to describing a product, for example, size of a fish while some standards are related to the production process, for instance the processing of a fish fillet.

Standards which are set by public agencies are generally mandatory while standards that are set by private authorities are voluntary but in practice these can also become mandatory where compliance is required for entry of products in specific market (Smith, 2009). Another classification of standard can be based on content – products specific (attributes based) or process specific (production method). In short, standards are means of assuring quality, conformity of processes and production techniques. Mandatory standards can induce extra costs in the process of production particularly in the formula of compliance costs.

Variations in standards imposed by different countries pose a challenge to most LDCs capacity to trade in markets of their interest. Such variations also restrict many LDCs from taking advantage of duty-free market access (a facility given by various WTO members since 2005 to promote trade of LDCs⁴) (Elliott, 2015).

International Trade and its Changing Nature

There has been a substantial rise in international trade over the past decade. For example, world merchandise exports have reached to US\$ 15.91tn in 2016 from its 2007 level of US\$13.77tn (WTO, 2017a) (See also Figure 1). Product-wise agricultural and manufactured products have witnessed large growth from the year 2006 to year 2016 (e.g. 67 and 37 percent respectively). But the exports of fuels and mining products have registered a decrease by 10 per cent from 2006 to 2016 due to fall in crude oil prices. Since

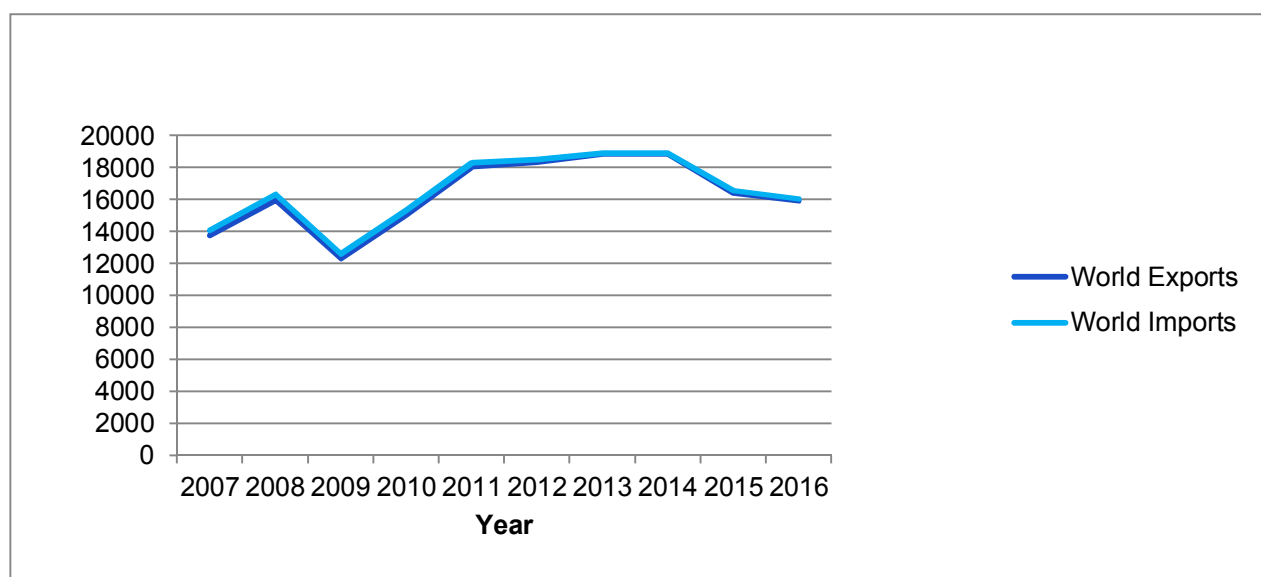
³ A "Standard" according to Annex 1 of the WTO Agreement on TBT is: "Document approved by a recognized body that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method". According to definition given by International Organization for Standardization (ISO) a standard is "A document established by consensus and approved by a recognized body, that provides for common and

repeated use, rules, guidelines, or characteristics for activities or their results, aimed at the achievements of the optimum degree of order in a given context" (ISO, 2018).

⁴ In 2005, WTO members agreed to provide duty-free, quota-free (DFQF) market access to LDCs so that their trade can be promoted. Under these preference programs, compliance with complex rules of origin remains costly and traditional market access alone is often not enough.

2014, the world merchandise trade is declining, for example, it was US\$37.74tn in 2014 but in 2016 it declined to US\$31.95tn.

Figure 1: World Merchandise Trade (in US\$ Billion)



Source: (ITC, 2017)

In a digitalized and much integrated trading world, the business model of countries in general and multinational companies in particular has changed the patterns of international production and supply chains. Now companies are trading more across industries, as well as cross borders. For this data and information is required not only internally but also across various partners of value chain system irrespective of their origin country. For example, a supplier of cotton based in South Asia will require detailed information for the changed regulations of textiles sector in EU although it will send its commodity to Bangladesh where it will be converted into readymade garments. Similarly exports of intermediate goods are linked to the trading performance of trading partners. In this context, reductions in tariff and NTM have multiplier effects on countries, which are mainly primary or intermediate goods exporter.

Status of LDC in International Trade

Trade is one of the important components of the development strategy of LDCs. It acts as a key driver for economic growth, employment generation and poverty reduction. But the integration of LDCs into the global trade depends upon – (a) effective market access international rules and regulations that govern the world trade; and (b) participation in regional and global value chains; c) changes in export basket of LDCs (UNCTAD, 2015). An open multilateral trading system is vital to facilitate LDCs integration with the global economy.

There are presently 47 countries, of which 36 are WTO members (WTO, 2017b). Over the past few decades, the WTO has taken several initiatives to help LDCs to integrate into the world economy through several initiatives such as: a dedicated LDC Unit in the WTO Secretariat; WTO technical assistance and training programmes; and in particular a dedicated Aid for Trade framework (the Enhanced Integrated Framework) to integrate trade within their national development efforts.

The overall trade performance of LDCs as a group has improved in past few years, for example, their total trade reached to US\$361bn in 2016 from its 2001 level of US\$63bn. But from 2011 to 2016 the merchandise exports of the LDCs decreased substantially (US\$22bn); this decline is particularly

noticeable as their imports have risen in this period from US\$207bn to US\$213bn (see Table 1). Not only this, their merchandise trade deficit tripled in past 10 years from US\$22.22bn in 2006 to US\$65.06bn in 2016 showing a major negative trend in international trade for LDCs.

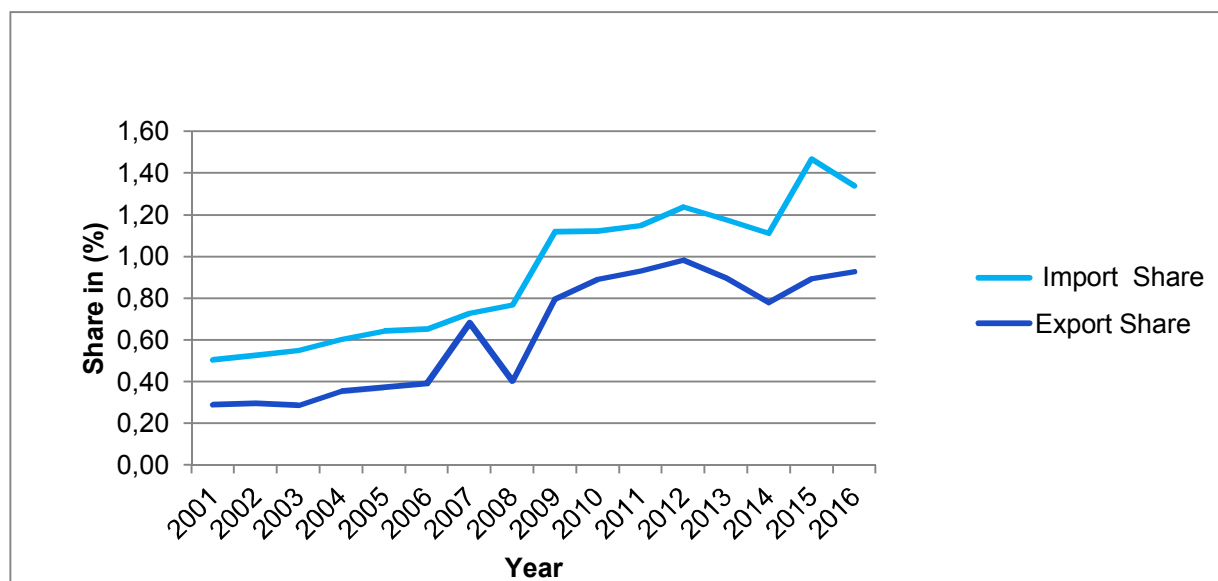
Table 1: LDCs Merchandise Trade with World (in US\$ Billion)

Year	Imports	Exports	Total Trade
2001	30.91	32.18	63.09
2002	33.81	33.79	67.60
2003	41.18	39.13	80.32
2004	54.80	38.90	93.70
2005	66.49	45.18	111.67
2006	77.92	55.70	133.62
2007	100.42	100.12	200.55
2008	122.86	140.48	263.34
2009	137.64	106.63	244.27
2010	169.24	135.63	304.87
2011	207.95	170.41	378.36
2012	227.16	180.92	408.08
2013	222.11	189.95	412.06
2014	209.79	189.57	399.36
2015	240.81	150.25	391.06
2016	213.26	148.21	361.47

Source: (ITC, 2017)

Besides, LDCs import share in total world import increased to 1.34 per cent from 2001 level of 0.50 per cent while on the other hand; their export share only rose to 0.92 per cent in 2016 from 2001 the level of 0.51 per cent (see Figure 2). This clearly indicates that LDCs have failed to increase their export share equivalent to their import share. The growth of their export share in world export is not very positive in

recent years, as illustrated in 2010 when it remained almost stagnate (0.9 per cent). This shows that LDCs are still very far from being integrated in world trade.

Figure 2: LDC's Share in World Trade

Source: (ITC, 2017)

Although there are several domestic and external factors for the negative performance, a major factor is dependence of LDCs on exports of primary commodities, such as fuels and mining products (particularly in Chad, Yemen and Angola for fuels and Zambia, Mali and Guinea in mining products) which were badly hit by low prices and declining demand (WTO, 2017a). Depressed external demand and falling prices of primary commodities were identified by UNCTAD report on LDC as a major reason for LDC's poor export performance (UNCTAD, 2017b).

As indicated in Table 2, the share of European Union (EU), US and China constitutes a large part of LDCs export, 27 per cent, 10 per cent and 33 per cent respectively. Jointly all three have 70 per cent share in total export of LDCs thus a minor change in their rules and regulations related to export and import can make a substantial impact on LDCs export. It is also noticeable that the share of other countries in LDCs export has increased only very minutely, for example, from 36 per cent to 41 per cent from 2001 to 2016. Moreover, EU and the US which used to be major export destination of LDCs have been replaced by China, the share of EU was 34 per cent and share of

the US was 26 per cent in 2001 of LDCs total export which has registered a decline of 7 per cent and 16 per cent respectively.

Significance of Standards for LDCs to Trade

The influence of standards on global trade has increased manifold under WTO led multilateral system, followed by waves of regional trading arrangements. The standards landscape has witnessed significant change due to several developments in the global economy: a) rise of standards in value chain led trade; b) increased consumer awareness and preference; c) greater attention to SPS and TBT issues in 21st century trade agreements like Trans-pacific Partnership (TPP), Regional Comprehensive Economic Partnership (RCEP) and US-Korea Free Trade Agreement, EU-ASEAN Free Trade Agreement etc. among others. These developments have significantly impacted the participation of LDCs in global trade.

Table 2: Major Export Destinations of LDCs (in US\$ Billion)

Year	EU	US	China	Other Countries
2001	10.93	8.33	1.41	11.51
2002	10.70	8.12	1.84	13.13
2003	11.59	9.64	4.24	13.66
2004	13.48	6.56	2.18	16.68
2005	14.39	7.98	3.33	19.48
2006	14.41	9.88	5.15	26.26
2007	21.23	20.44	16.85	41.60
2008	29.18	30.64	28.47	52.19
2009	23.15	17.06	21.68	44.74
2010	24.41	20.88	29.52	60.82
2011	34.93	29.81	36.45	69.21
2012	33.47	18.16	49.45	79.84
2013	37.14	16.67	52.06	84.08
2014	44.92	14.94	48.74	80.97
2015	38.20	13.37	33.33	65.35
2016	40.09	15.11	31.05	61.96

Source: (ITC, 2017)

Standards and GVCs

In GVCs, led trade, goods are produced at different locations and cross multiple borders before reaching final consumers. A range of policies (trade and investment policy, SPS and TBT measures and industrial policy), that interacts at different stages of production have deleterious impact on the functioning of supply chains. GVCs allow firms to source from different locations and concentrate in specific task and activities. Each link in the chain depends on upstream supplier delivering their final output on time and complying with the desired standards. This accentuates the importance of coordination capabilities of upstream and downstream firms. The exchange of information, coordination and traceability among different actors of the value chain become more difficult in a world dominated by GVCs, where the downstream firms have to comply with desired

standards. The complexities and heterogeneity due to diverse range of firms in the value chain act as a major hurdle for smaller firms to integrate in GVCs.

Rise of GVCs has led to increase in non-tariff trade costs (insurance, freight, border fees, etc.) for many LDCs since products pass through various processes and stages of production. Apart from these monetary (tangible) costs, such non-tariff trade costs also have intangible aspects (licencing, regulations, testing, inspection, information costs, etc.).

Differences in standards and technical regulation of different countries lead to increased costs of information, procedures and adjustments related to different requirements of several markets. Different certification methods, testing procedures, labelling and packaging requirements of different sectors and countries lead to multiple costs, unpredictability as well as less transparency which in the end leads to

reduction in exports of LDCs (Dollar, 2017). A report highlighted that compliance with standards and other regulations is one of the three major obstacles LDC firm's face when they try to integrate in global value chains. In the same report, around 32.1 per cent suppliers (of total interviewed firms) expressed their inability to meet different agro-food safety standards (WTO, 2013).

Increased Consumer Awareness

Consumers in developed countries demand extra assurance regarding product handling. Additionally, due to increased income capacity and purchasing power many developing countries have also upgraded their food safety regulations and their production processes. This has become a serious challenge for food product exporters in LDCs to meet the food safety standards of importing countries. A study highlighted that tariff comparable price of increased standards and an additional regulation for frozen fish fillet is 100 per cent in case of Tanzania, Kenya and Uganda when they export frozen fish fillet to EU (Nimenya, Ndimira, & Frahan, 2012). A report highlighted that conformity assessment measures related to food and agricultural products are major trade obstacles for 48 per cent interviewed firms in LDCs (ITC, 2015). Similarly another study through examination of incidence and length of specific trade concerns (STCs) in WTO SPS Committee finds that the highest number of SPS related STC were in vegetables, dairy products, meat and fruits (Arita, 2017).

Emergence of 21st Century Trade Agreements

The rise in negotiations of mega regional trade agreements also have spiral negative impact on LDC trade positions: (a) reduction in tariff and quota will reduce the competitive edge of LDCs agricultural products in these trade blocks where these products are used as inputs for manufacturing sector; (b) stringent regulatory discipline of these trade agreements can institutionalise the TBT and SPS related regulations to restrict the third country imports (Jurenas, 2015); and (Dadush, 2014). It is highly possible that trade negotiators accept some forms of NTMs for various products, so that they can get concessions in other categories from their trade

counterparts. LDC would lose export market if in the case of processed food products, it is mandated that all elements used in that particular product must be imported from countries participating in trade agreements (Palit, 2014). This is particularly important for LDCs (Bangladesh, Sudan, Vanuatu, Solomon Islands, Samoa, Myanmar and Cambodia) that have very high trade (for example, more than 10 per cent) with participating countries of such trade negotiations (for example, both TPP and RCEP).

Asymmetries in Value Chains

There are asymmetries in the relationship of between GVC led firms located in the US and the EU and suppliers from LDCs. Value chains restrict firms of LDCs to integrate into supply chains of developed countries; this is primarily because most of the GVCs in LDCs are buyer driven (GVCs are also producer driver but LDCs are mostly engaged in buyer driver GVCs). Oligopolistic market conditions of many countries create intense competition between suppliers of primary and intermediate products. To meet the standards imposed by various large firms sometimes firms of LDCs end up in making very minor profit or even losses thus losing the market in the long term.

For example, it is found in some studies that although Cote d' Ivoire holds 40 per cent of world production of cocoa, they are still subjected to conformity requirements by the lead four global coffee trading companies which dominate the market with 40-50 per cent share of global sales (Dorin, 2003); (Hussain, 2017). Another study (UNIDO, 2015) found that most LDC producers are part of labour intensive and buyer-driven GVCs. The study found that only 8 per cent of total global value created in GVCs accrues to LDCs. This is because traditional production system of LDCs fail to match with global standards thus their small scale producers are unable to leverage lucrative markets in developed countries.

Building the necessary capacity to conform to standards can facilitate the upgrade of LDCs production and processing industries, production structures and methods to make them compatible with global demands. To some extent standards expand trade as they raise demand for a particular product by providing better information with proper labelled and

standardised packaging, etc. (Maur & Shepherd, 2011).

Impact of Standards on International Trade of LDCs

Standards have a high impact on countries capacity to export; this is illustrated by the case of Sesame discussed below.

Sesame seeds (*Sesamum indicum*; HS code: 120740) are mainly used for their oil content. These are used in various food products, such as snacks, crackers, buns, bagels and bread. These are primarily supplied in Europe from African LDCs. Greece being the second largest market of sesame seeds in Europe (around 20 percent share) alone imported sesame seeds worth

around US\$60mn Euro in 2015-16. Its average annual growth rate for the import of sesame seeds is around 19 per cent in value. All of its (around 98 per cent) sesame seeds import comes from developing countries and LDCs.

Some of the largest exporters are Sudan (34 per cent), India (27 per cent), Nigeria (23 per cent) and Ethiopia (6 per cent). LDCs producers and exporters often face the issue of *salmonella* in sesame seeds, a prominent reason for this is - lack of knowledge, lack of resources, such as pre and post-harvest measures etc. among others. Another major reason is the inadequate supply of water for the production of this seeds. As reflected in Table 3, Greece returned several cargoes from LDCs in past few years because of this issue (CBI Product Factsheet, 2016).

Table 3: Recent Rejection Cases of Sudan from European Countries

Country	Origin	Product	Classification	Notified	Hazard
Greece	Sudan	sesame seeds	border rejection	25.01.18	Salmonella (in 1 out of 5 samples /25g) in sesame seeds from Sudan
Greece	Sudan	sesame seeds	border rejection	19.01.18	Salmonella enterica ser. Reading (presence in 1 out of 5 samples /25g) in sesame seeds from Sudan
Greece	Sudan	sesame seeds	border rejection	17.01.18	Salmonella enterica ser. Hato (in 2 out of 5 samples /25g) in sesame seeds from Sudan
Greece	Sudan	sesame seeds	border rejection	14.12.17	Salmonella (presence /25g) in sesame seeds from Sudan
Greece	Sudan	sesame seeds	border rejection	27.11.17	Salmonella enterica ser. Nottingham (presence /25g) in sesame seeds from Sudan
Netherlands	Sudan	groundnuts	border rejection	16.11.17	aflatoxins (B1 = 360; Tot. = 400 µg/kg - ppb) in groundnuts
Netherlands	Sudan	groundnuts for birds	border rejection	16.11.17	aflatoxins (B1 = 240; Tot. = 260 µg/kg - ppb) in groundnuts for birds
Greece	Sudan	sesame seeds	border rejection	03.11.17	Salmonella enterica ser. Bongori (in 1 out of 5 samples /25g) in sesame seeds from Sudan

Source: Compiled by Authors from RASFF Portal; (RASFF Portal, 2018)

Sudan exported sesame seeds worth US\$19.98mn in 2014 which declined to US\$18mn in 2015 and further dipped to US\$12.91mn in 2016. Sudanese export to Greece in sesame seeds declined by US\$7mn in two years. This decline is mainly because of rejection of export cargo due to salmonella (ITC, 2018). This could have been prevented if standards related to salmonella were known to producers of Sudan and if sesame exports were verified before

dispatch to Greece, which all requires information and infrastructure. Since Greece is one of the major importers of sesame seeds from Sudan it can also assist Sudan in developing capacity and technical know-how.

SECTION 2

Functioning of WTO SPS and TBT Committees and other Related Bodies

WTO Agreement on TBT and Agreement on SPS measures are related to the measures, which are non-discriminatory, consistent and based on the scientific method (particularly in the case of SPS).⁵ These agreements, in conformity with the WTO seek to remove trade barriers and facilitate smooth flow of international trade. It is encouraged by the WTO that members use international standards set by prescribed international organisations for creating new regulations and measures or amending previous provisions. Through these agreements, it is also expected from

members that these do not obstruct the smooth flow of international trade in the form of tariff or NTMs.

The TBT Agreement⁶ is related to technical regulations, standards or sometimes called conformity assessment procedures; while SPS Agreement⁷ is related to specific risks to human, animal, plant or health issues which can accrue from international trade (WTO, 1995b). For a smooth flow of international trade, traders and producers must be updated with the latest development in their field with respect to standards and healthy practices of other

⁵ The Agreement on the Technical Barriers to Trade (the "TBT Agreement") and the Agreement on the Application of Sanitary and Phytosanitary Measures (the "SPS Agreement") came into force with the establishment of WTO on 1st January 1995. These agreements were results of the Uruguay Round of world trade negotiations (1986-1994) which were held under the auspices of the GATT. These agreements along with several other acts contained in the Final ACT that were signed in Marrakesh on April 15, 1994 form the treaty that established the WTO; also See (WTO, 1995b); (WTO, 2017c).

⁶ According to TBT Agreement 1995 - the main objective of the agreement is "to ensure that technical regulations and standards, including packaging, marking and labelling requirements, and procedures for assessment of conformity with technical regulations and standards do not create unnecessary obstacles to international trade". The TBT Agreement makes it compulsory for member countries to establish a central authority (generally known as notification

authority) that gives notices about new or changed technical requirements. Whenever a regulatory authority modifies an existing regulation or proposes a new regulation which is different from international standards than they need to inform WTO Secretariat and then it gives information to other members. The Agreement also require the members to establish an enquiry point or information centre who can respond to requests from other WTO members regarding technical requirements and standards (WTO, 1995b).

⁷ The SPS Agreement is also related to regulatory barriers (in the form of technical regulations, conformity procedures or standards). But it is less broad than TBT agreement because it specifically deals with the SPS issues. It excludes issues that fall under the purview of TBT Agreement. It intends to – "to improve the human health, animal health and phytosanitary situation in all Members" (WTO, 1995a).

countries. This is particularly relevant for LDCs where information networks are weak, thus to keep a tab on these WTO is mandated to establish SPS and TBT Committees and have a coordinated and integrated relations with some other relevant international organisations, so that members can access information and data related to new notifications, regulations and proposed amendments in domestic policies can be transferred and accessed.

In this context, there are two major bodies in the WTO which act as a clearing house as well as information centre from where members not only share information but also discuss their objections, concerns and suggestions related to TBT and SPS regulations, notifications and their implementations: (a) The WTO Committee on Technical Barriers to Trade (TBT Committee); and (b) WTO Committee on Sanitary and Phytosanitary Measures (SPS Committee).

The execution of the SPS Agreement is administered by the SPS Committee, which was officially mandated under Article 12.1 and Article 12.2 as:

“A Committee on Sanitary and Phytosanitary Measures is hereby established to provide a regular forum for consultations. It shall carry out the functions necessary to implement the provisions of this Agreement and the furtherance of its objectives, in particular with respect to harmonization. The Committee shall reach its decisions by consensus. The Committee shall encourage and facilitate ad hoc consultations or negotiations among members on specific sanitary and phytosanitary issues” (WTO, 1995a).

While the text of Article 13.1 of WTO Agreement on TBT sets out the functions and mandate of TBT Committee:

“...for the purpose of affording Members the opportunity of consulting on any matters relating to the

operation of this Agreement or the furtherance of its objectives, and shall carry out such responsibilities as assigned to it under this Agreement or by the Members” (WTO, 1995b).

The WTO TBT and SPS Committees provide a forum for members to discuss issues that are technical in nature, food safety, and animal as well as plant health-related issues that can affect the smooth flow of international trade.⁸ These Committees also manage the STCs raised by members.⁹ WTO's TBT and SPS Committees are also forum to discuss these concerns bilaterally. Although these Committees are not legal dispute settlement bodies, but members can bring notifications, proposals and STCs to seek information related to a particular measure which is under a subject list covered by TBT and SPS Agreements. For example, if a member believes that another country's measures are trade-restrictive and not related to any risk or international standard, then they can raise their objection in these committees.

Over time, both the SPS and TBT Committees have institutionalised the process of reviewing draft as well as previous measures of TBT and SPS nature (Horn, Mavroides, & Wijkstrom, 2013). This is because there has been a significant growth of new regular notifications and STCs in these Committees. Members, particularly developed countries have also started to engage themselves more rigorously thus the Committee also made guidelines and procedures to raise and discuss concerns, such as, time limits (duration for raising and solving STCs), streamlining the process and response sequence – digitalisation, creation of database of STCs and proper communication to all members and concerned parties, etc. among others (WTO, 2017d). Likewise, SPS and TBT Committee have decided that time given to member country for comments, questions and

⁸ The functions of TBT Committees can be divided into two forms: (1) review of specific measures (laws, regulations or conformity procedures); (2) strengthen the implementation; While the function of SPS Committees is also similar but more specific as it aim to improve the use of international standards related to human, food and plant health (Vieira, 2014).

⁹ STCs are raised by a complaining/exporting country at the WTO's TBT and SPS committee against imposing/importing countries generally but not necessarily in case when a NTM

becomes a barrier to trade and negatively affect the flow of trade; also See (Beverelli & Keck, 2014); (Orefice, 2015). According to (WTO, 2014), STCs consists discussions on specific measures such as standards or technical regulations maintained by member countries. These discussions are about measures that are in pipeline or also about implementation of existing measures.

responses on notifications and draft regulations should be at least 60 days.

All the members of the WTO are required to issue notifications to other members on their (draft) new regulations related to TBT and SPS (before enactment) so that other members can also review and respond. Members have to notify only on those subjects which may have an impact on the smooth flow of international trade and which are not accredited by global standards bodies. Although these are intended to increase transparency and reduce the obligations which may accrue at a later stage and take care of other members, particularly LDCs but these are not self-incriminatory in nature.

Thus in short, it can be said that SPS and TBT agreements and SPS and TBT committees intend to make an equilibrium between un-restricted flow of products across border without un-necessary tariff or NTMs on one hand and on the other hand, legal protection to members to protect their markets from any food safety, plant or animal health related issues through justifiable regulations (WTO, 2015).

There are three other organizations which are named in WTO's SPS Agreement to collaborate concerns related to standards¹⁰ - (a) Codex; (b) the World Organization for Animal Health; and (c) the International Plant Protection Convention. These are briefly discussed below:

The Codex Alimentarius Commission (CAC)

The CAC is generally referred to as 'the food code' because it is an initiative by the Food and Agriculture Organization of the United Nations (FAO) and World Health Organization (WHO). Since 1962, it is primarily responsible for making guidelines, codes, standards and other regulations related to food. The main purpose is to promote fair food trade practices and coordination in food standards (Codex Alimentarius, 2017). Codex food standards were named by the SPS

¹⁰ As explained earlier also, this is to be noted that a standard can also be set by other organizations, for example ISO, International Electro technical Commission (IEC), Institute of Electrical and Electronics Engineers (IEEE) etc. among others.

and TBT Agreements not only as a standard benchmark for international trade but also for examining, judging and giving recommendations on prescribed trade issues (Lupien, 2000); (Cosbey, 2000); (Codex Alimentarius, 2017).

The World Organisation for Animal Health (OIE)

The OIE was established in 1924 to control animal diseases and improve transparency in international animal trade through setting animal health and welfare standards. The WTO SPS Agreement accepts various standards and codes prepared by OIE as a benchmark when they do trade in animal products (for example, Aquatic Animal Health Code) (OIE, 2017).

The International Plant Protection Convention (IPPC)

The IPPC is a global treaty which monitors the diseases and pests related issues in trade of plant products (IPPC, 2017). WTO SPS Agreement under Article 3 accepts the guidelines prepared by IPPC to ensure harmonisation process in phytosanitary measures related to the trade of plant products. But a major problem with ISPMs is that they are not mandatory and comprises only guidelines. Thus member countries interpret and apply them differently as per their own domestic procedures. It is observed that many countries often variate from the intent of texts and apply slightly deviating procedures for pest risk assessment (Ontario, 2008).

Importance of Participation in Standard-Setting Process and LDCs' Performance

The WTO has the mandate to empower the LDCs and take care of their specific concerns related to trade, so that they are not left behind, however, multiple gaps

Standard is not regulation in itself but can be seen as a basis for regulation in WTO (Wijkstorm, 2015).

exist in the rhetoric and actual functioning. For example, Article 10.1 of WTO Agreement on the application of SPS measures states:

“In the preparation and application of sanitary or phytosanitary measures, Members shall take account of the special needs of developing country Members, and in particular of the least-developed country Members” (WTO, 1995a).

Apart from it, SPS committee of WTO is also given the power to prepare a mechanism or formal roadmap to

analyse and suggest possible solutions for repercussions of any SPS related issues on LDCs. However, such facility has been used very rarely by LDCs (Stanton, 2015). For example, whether it is issuing new notifications in regular form or raising STCs, LDCs performed very poorly in it. An analysis of this trend will be shown in the following section. Moreover, developed countries are at a very advanced stage as well as prompt in pointing any SPS related trade concerns while LDCs found it very difficult to raise their voices.

Table 4: Select Examples of Agricultural and Allied Products Restricted from LDCs because of Non-Compliance of SPS Regulations

	Countries	Products	Further Description
1	Bangladesh	Shrimps, fish	Due to non-hygiene condition at pre and post processing stages*
2	Madagascar	Shrimps, horticulture products and flowers, fruits (mainly mango), Meat and poultry products	Mangoes because of white flies
3	The Gambia	Fish, Ground nuts, sesame seeds and coffee, Meat and poultry products, Honey	Excessive use of Aflatoxins
4	Tanzania	Fish	--**
5	Guinea	Fish, fruits (mainly mango), Ground nuts, sesame seeds and coffee, Honey	White flies, Aflatoxins, case referred to the trading partner
6	Nepal	Horticulture products and flowers, Honey	--
7	Senegal	Horticulture products and flowers, fruits (mainly mango), Ground nuts, sesame seeds and coffee	White flies, Aflatoxins, case referred to the SPS committee
8	Togo	Horticulture products and flowers	--
9	Zambia	Horticulture products and flowers	--
10	Burkina Faso	Fruits (mainly mango), Ground nuts, sesame seeds and coffee, Meat and poultry products	White flies, Aflatoxins, imidacloprid
11	Mali	Fruits (mainly mango)	White flies
12	Uganda	Fruits (mainly mango), Ground nuts, sesame seeds and coffee, Meat and poultry products	White flies, Aflatoxins
13	Malawi	Ground nuts, sesame seeds and coffee	Aflatoxins

Source: Compiled from various sources including (United Nations Committee for Development Policy, 2016) among others.

Note: * (Rahman, 2005); **-- reason not known

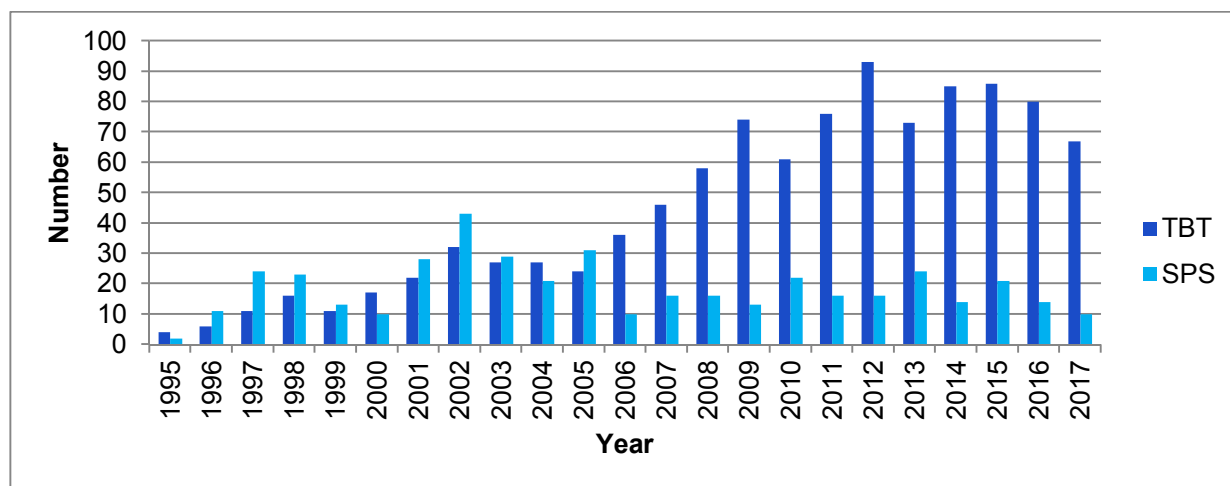
As described in Table 4 that out of 13 developing and least developed countries whose products were stopped due to non-compliance of SPS standards, only Senegal was able to refer its case to the SPS committee of WTO.

A significant case of why it is important for LDCs to take part in the standard-setting process is the case of the sesame seed. Due to lack of an internationally recognised standard for *imidacloprid* (a pesticide) in sesame seed, many countries imposed import restrictions in the form of maximum residual level in it. Burkina Faso's sesame seed exports were intercepted by Japan in October 2015 and it received two notifications. Similarly, Nigeria's olive oil cargos to the US were also returned because of detection of maximum use of pesticides. Several other LDCs, such as Madagascar and Senegal also faced similar problems (FAO and WHO, 2016). Such examples clearly show that there are gaps in standards-setting bodies whether it is Codex or any other within WTO

framework. If regulations related to SPS and TBT are set without wider information sharing, without consultations and participation of LDCs, and without developing their capacities to remove these technical and scientific issues in improving good crop practices, their producers and exporters will remain on the margin.

Another example is EU's revised proposal¹¹ of 2017 on pesticides which categorise substances with endocrine disruptions and based on hazard-based method instead of a risk-based method. Revised regulations contradict several standards prepared by Codex also. Several LDCs including Benin, Burkina Faso, Gambia, Madagascar, Nigeria, Senegal, Togo, Uruguay and Zambia are opposing it as it can disrupt their exports and requesting EU to adopt risk-based approach (WTO, 2017e). Thus it is necessary for LDCs to bring such issues in WTO SPS committees and challenge ambiguous proposals by other members.

Figure 3: Total Specific Trade Concerns Raised in TBT/SPS Committees

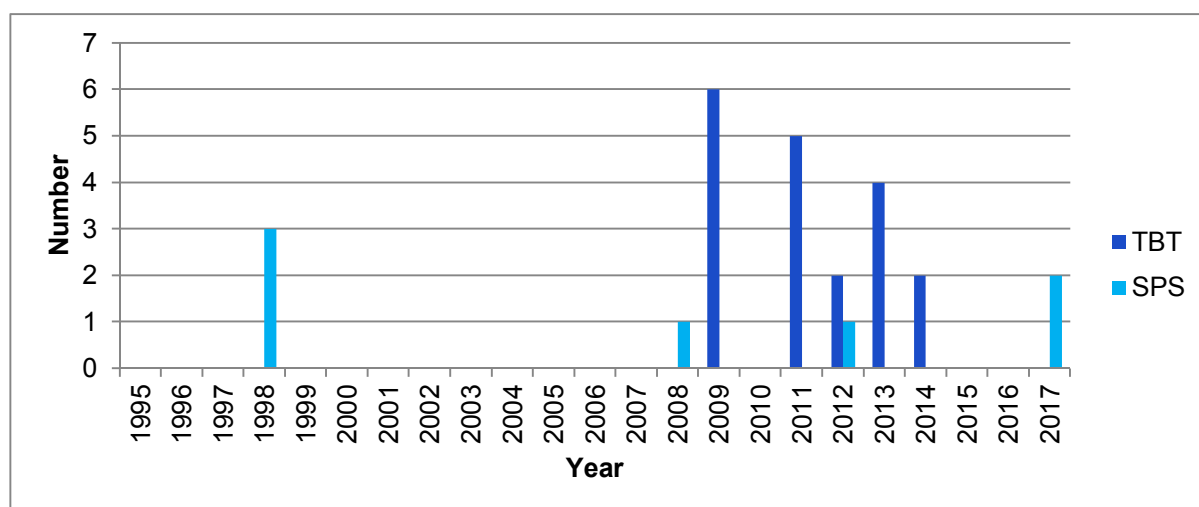


Source: Compiled by Authors from (WTO, 2017f)

¹¹ European Union Standing Committee on Plants, Animal, Food and Feed has given its nod to criteria to identify substances with endocrine disrupting properties in July 2017 which is supposed to be implemented in 2018 after approval from European Parliament. Under this provision, substances tested by European Food Safety Authority's risk assessment can be restricted if there is potential risk of endocrine

disruption. Several countries have requested to the WTO TBT and SPS Committees to look into this matter, so that additional data and information can be received on this issues and further comments can be given; See also (WTO, 2017g).

Figure 4: Specific Trade Concerns Raised by LDCs in TBT/SPS Committees



Source: Compiled by Authors from (WTO, 2017f)

As indicated in Figure 3 and Figure 4 that although there is a substantial increase in STCs by members in WTO TBT and SPS Committees but the participation of LDCs has remained very low. For example, between 1995 and 2017 LDCs raised only seven SPS related STCs and only 19 TBT related STCs while rest of the STCs were raised by developed or developing countries.

Since most of the LDCs faces similar problems and from similar countries, it is beneficial for them act as

one. Such coordination is required in national TBT and SPS enquiry points (which are responsible for providing information, responding to requests from other members and handling comments received on notifications etc.). However, out of 47 LDCs only 32 countries have national enquiry points for TBT and SPS issues. 15 countries do not SPS enquiry points while 15 do not have TBT enquiry points (see Table 5). Lack of national enquiry points not only restricts the access to information by other countries but also to domestic traders.

Table 5: LDCs without National Enquiry Points

On SPS Issues	On TBT Issues
Bhutan, Cambodia, Comoros, Eritrea, Ethiopia, Guinea-Bissau, Kiribati, Sao Tome and Principe, Somalia, South Sudan, Sudan, Timor-Leste, Togo, Tuvalu, Vanuatu	Angola, Bhutan Chad, Comoros, Eritrea Ethiopia, Kiribati, Mauritania, Sao Tome and Principe, Solomon Islands, Somalia, South Sudan, Sudan, Timor-Leste, Tuvalu

Source: Compiled by Authors

Making LDCs' Participation more Effective in WTO SPS and TBT Committees

As explained in the previous section that LDCs are not only comparatively less active but also faces difficult challenges in participating effectively in WTO SPS and TBT Committees; in this regard, there are multiple ways in which they can effectively improve their participation and representation in these Committees. Following are some of the potential methods:

1. First and foremost, LDCs need to identify their priority products and sectors, meaning those that have special/high demand in external markets, and/or have faced severe competition in the past ten years. This could also be sectors/products which have faced regular notifications or STCs in the past ten years. Then, they need to develop/reform national policies based on a careful review of policies/regulation of developed countries like EU, US and other export destinations. Based on it there will be need of necessary infrastructure as well as entrepreneurial and vocational trainings, etc.
2. Since most of the free trade agreements have some policy space and concessions, a careful scrutiny of those concessions from LDCs perspective should be done and utilised while trading, for example, Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement have several health and medal related concessions those can be utilized after close examination.
3. Instead of working in silos, develop frameworks based on LDC or south-south cooperation pattern, to de-institutionalise trade asymmetries in various agreements (UNDP, 2007), for example, if a STC is raised in SPS Committee, instead of one country facing that issue all the countries involved in the production and trade of that particular commodity should come together to address that STC. In the short term, this can be done by making informal *ad hoc* groups of affected countries. But in the long term, this can be done by making formal groupings to combat such issues if countries are involved in production and trade of similar commodity. For example, in 2015-16 when several African countries faced rejection issue in their sesame and olive oil cargoes they opposed it individually but if they had an informal joint group for trade promotion or to deal with such issues they could have raised their voices much effectively.
4. Since WTO SPS and TBT Committees have data and information related to various cases of SPS and TBT and they have expertise in dealing with these issues thus they should themselves encourage LDCs to identify special issues faced by them in the past few years or possible instances where any specific measure related to a standard can restrict trade. The WTO SPS and TBT Committee can encourage the research efforts either by the member countries or by making consortium to conduct research and in technical know-how in standards development process, creating technical expertise, particularly by participation and training to researchers of LDCs. Based on the recommendations of LDCs these Committees should examine these cases and examples with possible solutions and practical ways to address them. International research organisations, think tanks, global Non-government Organisations (NGOs) and donor organisations can help in the study of these issues. This will allow having a better understanding of such issues and approaches to solve them. WTO's STDF is a welcoming step in this direction.
5. Although SPS and TBT issues are discussed at various informal seminars and forums also but an informal sub-grouping of other international organisations such as Organisation for Economic Co-operation and Development (OECD), UNCTAD, World Bank, etc. among others can be done to address the specific needs of LDCs. This could be done by forming a small working group. Since these organisations also have expertise on a number of production and trade-related issues and also regularly provide technical and financial support to LDCs to develop their capacities in various sector, their involvement in the discussion will enable them to understand why and what kind of assistance LDC can need to combat such issue. These organisations also have the expertise to interpret and translate global technical regulations and are equipped with financial resources thus they

can assist the respective ministries of LDCs in formulating and enforcing globally accepted standards.

6. To address the problem of information sharing, there is a need to expand the process of digital and electronic platforms, such as WTO SPS information management system (SPS-IMS), WTO TBT Information management system (TBT-IMS) or 'e-ping', etc. Emphasis should be given to having special sections for LDCs and their products. In this context, widespread awareness generation programme should be implemented to increase the understanding of exporters and producers of LDCs about these and on how to use these. If producers and traders of LDCs will receive timely information on potential SPS/TBT issue than they can change or plan their production technique or practice, according to those new standards or regulations, which will help them in facing any difficulty at a later stage. Apart from it, by using digital platforms LDCs can review the latest trends and categories of STCs and notifications; and most frequently raised STC and notification category can help the LDCs to identify areas where they need further improvement (Ngobi, 2016).

7. There can also be a country-specific reports or reference paper based on pre-defined criteria and where a set of commitments can be given by members on how they will treat standards of other countries, how they will inform and provide the opportunity to provide inputs and further guidelines in details. This can be changed as per situations and changing scenarios but the spirit should not be altered (Wolfe, 2016).

8. It will also be very useful for WTO SPS and TBT Committees to search the methods for implementation of an early warning system about the intention of a member country to impose a regulation or raising STCs. These can be done by being more transparent and through mutual continuous dialogues and meetings at a very initial stage of making regulations. This will also require continuous follow-ups on revised drafts and to check whether revision in notification has been redrafted or not.

Conclusion and Recommendations

Developed countries, WTO and international trade experts should understand that endorsement of TBT and SPS issues without building capacity and providing financial aid and technical skills to exporting LDCs will make a negative impact on the livelihood options of thousands of farmers, producers and traders.

Inadequate infrastructure and capacities, insufficient technical and legal expertise, less awareness about notifications and change in regulations, financial hurdles, and lack of coordination between countries facing similar problems are some of the major barriers that restrict LDCs to take part in WTO SPS and TBT Committees and perform poorly in raising their voices and implement changed standards in their respective countries.

In this context, for improving the situation of LDCs in standards improvement, standard setting process, and their participation in WTO SPS and TBT Committee, following recommendations are proposed:

At National Level

Economic structural reform in a country particularly in LDCs (for example, move to large private firms and foreign invested firms in agri-trade) can better adapt to destination market regulations. Decline in state owned firms or their less involvement in foreign trade in agri-trade can contribute to a more competent market structure (Xie, Grant, & You, 2017).

LDCs need to design national policies to attract foreign investment and latest technologies in agriculture,

aquaculture and other related sectors where they have more export dependence and faces SPS and TBT related issues.

At national level, they need to streamline supply value chains, develop and modernise their infrastructure (including cold storage, testing laboratories, certification agencies etc. among others), enable importer to monitor both the harvesting and processing processes, so that unnecessary SPS issue does not occur at a later stage (UNCTAD, 2017e).

They also need to develop capacity of their producers and exporters (financial, regulatory as well as technical), so that they can match with the global standards. For this they need to establish and revamp their national enquiry points with adequate number of qualified staff.

At a domestic level they need to setup a consultative group or organization equipped with all the latest information and data of their domestic products and situations (scientific, technical, legal and economic), which can provide knowledge support to their trade negotiators based in Geneva or in their respective Trade Ministries.

At WTO Level

The WTO Committees should work as a hub of information, data, statistics on regulatory matters with identification of specific usefulness for potential users and its members particularly LDCs. Previous attempts of protectionist nature, surveillance on trade policy matters must be compiled-based on mutually agreed benchmark and indicators (Manfred, 2016).

WTO Committees can itself take initiative by involving and empowering its staff members and encourage them to work closely or jointly with LDCs and create ad-hoc working groups or brainstorming groups on specific country and/or on specific issue. This will involve consultations, joint paper and report writing and capacity building of LDCs representatives and other stakeholders.

It is also necessary for WTO Committees to build trust and understand the ground realities of different countries, thus Committees should invite experts and stakeholders of these countries to its informal meetings

and seminars along with regular visits to these countries, so that interaction can go beyond formal communications. Specialised groups or sub-committees can also be formed to deal with these countries.

Public support for long term sustainability is necessary not only for governments but also for WTO Committees. For this purpose, written submissions and presentations, ideas etc. from business communities, media and non-governmental sector of LDCs should be welcomed. Innovative tools for stakeholder's consultation and capacity building, such as live streaming of selected important meeting can also be done.

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