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Review on Sanitary and Phytosanitary Measures and Its Impact on Trade: the Ethiopian Perspectives

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Abstract: Sanitary and Phytosanitary (SPS) measure are those laws, decrees, regulations, requirements and procedures that governments apply to protect human, animal or plant life or health from risks arising from plant or animal borne pests or diseases, additives, contaminants, toxins or disease causing organisms in foods, beverages or feed stuffs. There are many factors that influence the ability of developing countries to meet the SPS requirements of developed countries. The most important appear to be level of access to scientific and technical expertise and the incompatibility of developed country SPS requirements with prevailing production and/or marketing methods in developing countries. In many cases developing countries are unable to participate effectively in the SPS Agreement. Key issues are the ability to assess the implications of developed country SPS requirements following notification to participate effectively in the world trade organization's dispute settlement procedures and to demonstrate that domestic SPS measures are equivalent to developed country requirements. Challenges to address SPS issues in developing country in general and Ethiopia in particular are due to poor financial and technical resource. Absence of national strategies to deal with food safety, animal and plant health issues with poor national coordination are common to Ethiopia. Studies point to an emerging governmental awareness about the importance of SPS matters, the need for increased attention and intervention levels remains of utmost importance of public awareness in a country where food security is often the main concern. Inadequate or highly fragmented SPS measures legislation leads to a reduction of export capacity and affects countries' ability to control the safety.

Key words: Ethiopia · Food Safety · Sanitary And Phytosanitary · World Trade Organization

INTRODUCTION

The Sanitary and Phytosanitary (SPS) agreement under the Uruguay Round Agreement on Agriculture (URAA) defined SPS standards as measures taken to protect human, animal or plant life or health from risks associated with imported agricultural commodities [1]. To prevent the use of SPS standards as a trade obstacle, the agreement stipulates that countries should base their SPS standards on international guidelines and recommendations. It also permits for a country to establish its own SPS standards, above the international level, on a non-discriminatory basis, as long as it can provide a "scientifically justifiable" reason to do so, which should be supported by a risk assessment study [2]. In addition, the agreement allows banning of imports as a precautionary step, until an exporting country confirms its product and place are free from any potential risks that may affect the safety and health of consumers, animals and plants [3].

Among technical regulations and standards, SPS regulations occupy a particularly relevant place in the regulators' agenda, because of their primary aim of protecting citizens from everyday food hazards [4]. This becomes virtual for trade policymakers national differences in risk perceptions and tolerance can manipulated to protect domestic industry from international competition. The central role of SPS measures is revealed by the growing concerns associated with imported food products [5].

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In the light of decreasing tariffs, quotas and prohibitions due to multilateral and bilateral agreements over the last decades, non-tariff measures (NTMs), like SPS measures are on the rise. Countries seek alternatives to protect what carried out by classical trade policy instruments [5]. SPS measures pose methods partly regulated under the SPS agreement of the WTO, but their design and use are less restricted and rather flexible. In principle, SPS measures are meant to provide countries with a possibility to protect the health of animals, humans and plants, but major concerns are regularly expressed that SPS regulations are used as protectionist devices. SPS measures are also used as instruments to achieve certain policy objectives, as protecting domestic producers, even though WTO members are required to restrain from applying measures for any protectionist purposes [6].

Economic theory does not provide a clear cut prediction on the impact of standards on trade. Instead, theory suggests that the impact of SPS measures on agriculture and food trade may be diverse and need not always be negative [7]. While increased production costs that may arise in order to meet higher SPS standards reduce trade, information on food safety and product quality may lead to increased consumer confidence and trust in foreign products, reduced transaction costs and thus foster trade. Further, trade may also rise due to increased producer efficiency, as quality signals help to promote the competitiveness of foreign producers who meet stringent standards. This suggests that the implied trade effect of standards depends on the relative costs of domestic to foreign production and the willingness of consumers to pay a higher price for safer products [8]. To achieve a certain health safety objective, policy makers can choose from a range of different SPS measures. These measures entail diverse effects on trade as some affect fixed costs and thus market entry, while others affect post-entry activities, hence, variable trade costs. Assessing the effects of SPS measures on the intensive and extensive margins of trade is thus an empirical issue [9]. Limited knowledge on the particular trade effects of SPS measures exists and not well quantified [10].

The aims of this review is:

- To highlight degree of the SPS agreement assisted developing countries in overcoming the problem.
- To assess the impact of SPS measures on ability of developing countries in general and Ethiopia in particular to access markets in developed countries.
- To review the specific problems that developing countries experience in meeting SPS requirements.

The Wto Agreement on the Application of SPS Measures: The Agreement on the Application of SPS Agreement measures entered into force with the establishment of the WTO on 1 January 1995. The WTO has 164 Members including 36 LDC countries [1, 11]. The SPS Agreement, to which all WTO members are parties, explicitly recognizes that governments have the right to adopt regulations to protect human, animal, or plant life or health, including food safety regulations and measures to protect domestic crops, livestock and poultry and to establish the levels of protection from risk they deem appropriate [1]. Starting from premise, the Agreement establishes a number of general requirements and procedures to ensure that governments adopt and apply SPS measures to protect against real risks rather than to protect local products from import competition. The Agreement also encourages harmonization of SPS measures among WTO members, where appropriate [10].

The Agreement encourages the use of international standards, guidelines and recommendations of the FAO/WHO Codex Alimentarius Commission (Codex), the World Organization for Animal Health (OIE) and the International Plant Protection Convention (IPPC) [12]. The SPS measures which conform to the international standards are presumed to be consistent with the WTO rules. However, members may use more stringent measures when they have a scientific justification, or to meet the level of protection they deem appropriate as justified by a risk assessment. The Agreement supports the recognition of equivalence of SPS measures [13]. The exporting country has the burden of demonstrating that its measures achieve the appropriate level of protection of the importing country. Likewise, members have to ensure that their SPS measures are adapted to regional conditions, including pest or disease free areas and areas of low pest or disease prevalence [10].

Standard Setting Bodies in the SPS Agreement

Codex Alimentarius Commission (Codex): The Codex was established in 1963 by the FAO and WHO and currently accounts for 188 members [14]. Codex was established to develop food standards, codes of practice, guidelines and recommendations. The main purpose of Codex is the protection of consumers' health, ensuring fair practices in food trade, while promoting coordination of work undertaken by international food standard setting governmental and non-governmental organizations [15].

Codex standards usually relate to product characteristics and may deal with all government regulated characteristics appropriate to the commodity, or only one characteristic. Maximum residue limits (MRLs) for residues of pesticides or veterinary drugs in foods are examples of standards dealing with only one characteristic. There are Codex general standards for food additives and contaminants and toxins in foods that contain both general and specific provisions. The Codex general standard for the "Labeling of Prepackaged Foods" for instance covers all foods in this category. Codex methods of analysis and sampling, including those for contaminants and residues of pesticides and veterinary drugs in foods are also considered Codex standards [16].

Codex codes of practice including codes of hygienic practice and define the production, processing, manufacturing, transport and storage practices for individual foods or groups of foods that are considered essential to ensure the safety and suitability of food for consumption. For food hygiene, for example, the basic text is the Codex General Principles of Food Hygiene, which introduces the use of the Hazard Analysis and Critical Control Point (HACCP) food safety management system [17].

World Organization for Animal Health (OIE): The International Office of Epizootics (OIE) was created in 1924, in response to the need to address animal diseases at the global level. In 2003, it became the World Organization for Animal Health, keeping the original acronym. It currently has 180 Members [8]. The OIE's main objectives are to: (i) ensure transparency in the global animal disease and zoonosis situation; (ii) collect, analyze and disseminate scientific veterinary information; (iii) provide expertise and encourage international solidarity in the control of animal diseases; (iv) improve the legal framework and resources of national veterinary services of its Members; (v) safeguard world trade by publishing health standards for international trade in animals and animal products; and (vi) Provide a better guarantee of the safety of food of animal origin and to promote animal welfare, through a science-based approach [17].

The assembly adopts international standards in the field of animal health, especially for international trade and adopts resolutions on the control of the major animal diseases. The council represents the assembly during the interval of the Assembly meetings. Five Regional Commissions (including Africa, covering 51 countries) study specific problems encountered by veterinary services and organize cooperation activities at regional level. At the heart of OIE's standards development system are its Specialist Commissions, which use current scientific information to study problems of epidemiology and the prevention and control of animal diseases, to develop and revise international standards and to address scientific and technical issues raised by members [10]. According to Standards and Trade Development Facility (STDF), (2010) there are four Specialist Commissions: (i) the Terrestrial Animal Health Standards Commission (Terrestrial Code Commission); (ii) the Scientific Commission for Animal Diseases (Scientific Commission); (iii) the Biological Standards Commission (Laboratories Commission); and (iv)the aquatic Animal Health Standards Commission (Aquatic Animals Commission).

International Plant Protection Convention (IPPC): The IPPC is an international plant health agreement, established in 1952, that aims to protect cultivated and wild plants by preventing the introduction and spread of pests. The IPPC currently has 182 signatories and provides an international framework for plant protection that includes the development of International Standards for Phytosanitary Measures (ISPMs) for safeguarding plant resources [20].

The IPPC is governed by the Commission on Phytosanitary Measures (CPM), which meets annually and promotes cooperation and assists countries in implementing the objectives of the IPPC. Among its responsibilities, the CPM reviews the state of plant protection around the world, identifies actions to control the spread of pests into new areas and develops and adopts ISPMs. The CPM Bureau, a seven member elected executive body, is the decision making body between the CPM sessions. It provides guidance on strategic direction, cooperation, financial and operational management. An informal working group, the Strategic Planning and Technical Assistance (SPTA) assists the CPM in planning and prioritizing its work Programme [21].

The IPPC has developed a Phytosanitary Capacity Evaluation Tool (PCE Tool) to assist countries to undertake a needs assessment of their phytosanitary capacity, as the basis for planning capacity building. The primary focus is to examine the capacity of NPPOs in relation to their implementation of ISPMs and their rights and responsibilities in the IPPC [21].

Table 1: Classification of SPS standards

Import Bans		Technical Specifications			Information Requirements	
Total Ban	Partial Ban	Process Standard	Product Standards	Technical Standards	Labeling Requirement	Controls on Voluntary, claims

Source: [3]

The Concept of SPS Measures

Nature of SPS Measures: Sanitary and Phytosanitary measures are a subset of technical measures; defined as standards governing the sale of products in national markets which have as their prima facie objective is the correction of market inefficiencies stemming from externalities associated with the production, distribution and consumption of these products [22]. Technical measures include standards that address animal and plant health, food safety, commercial fraud prevention, food quality and environmental protection. In certain cases these measures may simultaneously address more than one of these issues [23].

The most interventionist measures are import bans that are generally applied where there is a significant and acute risk and/or great uncertainty about a hazard. Technical specifications are the most widely applied measures. These permit imports provided they are in compliance with certain pre-specified standards. Finally, information requirements are the least interventionist, permitting imports provided they are appropriately labeled [3].

Associated with SPS standards, whatever their form, are conformity assessment procedures by which suppliers demonstrate that they are in compliance with regulatory requirements. These might include product testing, certification, information disclosure and others. In certain cases these procedures are themselves prescribed by governments [20].

Sanitary and Phytosanitary Agreement: The international community has addressed the impact of SPS standards on trade in agricultural and food products through the WTO's SPS Agreement [23].

The first time national food safety, animal and plant health measures were the subject of an international agreement was the GATT Agreement 1947. The new Agreement on Sanitary and Phytosanitary (SPS) Measures as part of the GATT Agreement 1994 entered into force with the establishment of the WTO on 1 January 1995. The SPS Agreement prevails over the GATT Agreement 1994. The aim of the Agreement to minimize the negative trade effects of SPS measures and the abuse of these measures as trade barriers [25].

The Agreement thus permits individual nation states to take legitimate measures to protect the life and health of consumers given the level of risk that they deem to be 'acceptable', provided such measures can be justified scientifically and do not unnecessarily impede trade. However, they are required to recognize that measures adopted by other countries, although different, can provide equivalent levels of protection [1, 8]. The key elements of the Agreement are the Scope of the Sanitary and Phytosanitary Agreement, appropriate Level of Protection, Science-Based Measures, Risk Assessment and Unjustifiable discrimination and disguised restrictions on trade, Harmonization, Transparency, Consultation and dispute settlement and Technical Assistance [20, 24, 25].

Impact of Sanitary and Phytosanitary Measures on Developing Countries: Although there is a paucity of broad systematic studies of the impact of SPS standards on trade, it is widely claimed that they can significantly impede exports of agricultural and food products from developing countries [7, 26]. However, there are few examples of studies that have investigated the effects of SPS standards on trade flows in depth and even fewer that presented quantitative estimates [27].

Various studies have addressed the issue of SPS standards and developing country exports directly, although they rarely quantify the impact. SPS issues are claimed to be an important issue for exports of: fish, livestock products and horticultural products. More theoretical work has demonstrated that developing countries find it difficult to trade with developed countries due to differences in quality requirements, which in turn reflect consumer demand or regulation [28].

A broad indication of the impact of SPS requirements on developing country exports of agricultural and food products are provided by data on rejections following border inspection in developed countries (Table 2). Over the period June 1996 to June 1997, there were significant rejections of imports from Africa, Asia and Latin America and the Caribbean due to microbiological contamination, filth and decomposition. This indicates the considerable problems that developing countries have in meeting basic food hygiene requirements [27], let alone requirements for which more sophisticated monitoring and testing and therefore more costly procedures are required, for example limits on pesticide residues and heavy metals. The cost of rejection at the border can be considerable, including loss of product value, transport and other export costs and product re-export or destruction [12].

Table 2: Number of contraventions cited for US Food and Drug Administration import detentions, June 1996 to June 1997

Reasons for contravention	Africa	Latin America and the Caribbean	Europe	Asia	Total
Food additives	2 (0.7%)	57 (1.5%	69 (5.8%)	426 (7.4%)	554 (5 %)
Pesticide residues	0 (0.0%	821 (21.1%)	20 (1.7%	23 (0.4%)	864 (7.7%)
Heavy metals	1 (0.3 %)	426 (10.9%)	26 (2.2%)	84 (1.5%)	537 (94.8 %
Mould	19 (6.3%)	475 (12.2%)	27 (2.3%)	49 (0.8%)	570 (5.1%)
Microbiological contamination	125 (41.3%)	246 (6.3%)	159 (13.4%)	895 (15.5%)	1425 (12.8%)
Decomposition	9 (3%)	206 (5.3%)	7 (0.6%)	668 (11.5%)	890 (8.0%)
Filth	54 (17.8%)	1253 (32.2%)	175 (14.8%)	2037 (35.2%)	3519 (31.5%)
Low acid canned foods	4 (1.3%)	142 (3.6%)	425 (35.9%)	829 (14.3%)	1400 (12.5%)
Labeling	38 (12.5%)	201 (5.2%)	237 (20%)	622 (10.8%)	1098 (9.8%)
Other	51 (16.8%)	68 (1.7%)	39 (3.3%)	151 (2.6%)	309 (2.8%)
Total	303 (100%)	3895 (100%)	1184 (100%)	5784 (100%)	11166(100%)

Source: [27]

Table 3: Main difficulties faced by African developing countries in exporting food products

Factor	Score
Insufficient financial resources for food control	22
Inadequate testing and inspection facilities	36
Inadequate trained manpower in the food industry	41
Inadequate standards and/or regulations	50
Inefficient food processing technologies	51

Note: Each factor was scored on a five-point scale from 'highest priority' (1) to 'lowest priority' Source: [29]

Gebrehiwet *et al*. [29] assess the degree to which SPS standards impede exports from developing countries in Africa through a survey of Codex Alimentarius contact points. The key findings were (i) (57%) had products rejected in the past two years following border inspections. The main reasons were microbiological/ spoilage (35%) and contamination (20%), (ii) all countries had standards covering traded foods. The majority of these standards (57%) were based on Codex standards, (iii) all countries inspected food products prior to export. The most important agencies that undertook this process were government (50%) and private organizations (32%); (IV) respondent was asked to indicate the most important impediments to food exports associated with SPS standards. The most important was judged to be insufficient financial resources for food controls (Table 3).

Many developing countries have, as a result, experienced adverse repercussions on their economies as a result of failure to comply with the SPS standards. This resulted in a considerable loss of export revenue, employment and income [20]. As many studies suggest, compliance to SPS requirement is the major prerequisite and challenge for developing countries in the 21st century to access the market of developed countries [12, 25].

A recent Citrus Black Spot (CBS) standard established by EU and USA resulted in the banning of exports of citrus form some parts of South Africa. This entailed a loss of export revenue and increased the cost of compliance. Citrus fruit exporters in South Africa have to comply with either the requirements of HACCP or its similar component, the Integrated Crop Management (ICM). The main focus of ICM, among others, lies in environmental management, responsible agricultural practices and socio aspects [30].

Exporters are also confronted with conforming to European Retailers Produce on Good Agricultural Practice (EUREPGAP) protocol, which is perceived as a major challenge for citrus exporters as it include issues that are not related to maintaining the quality of the citrus. Among others, EUREPGAP require farms to prepare washing facilities and portable toilets for every 600 meters in the orchard [30].

Jooste *et al.* [30] estimated the cost of compliance with the new CBS under the EUREPGAP regulations based on feedback received from three different citrus companies in Eastern Cape, South Africa. As shown in Table 4, the average revenue lost due to cost incurred in compliance with the new CBS and EUREPGAP regulations is 4% of total revenue. The estimated forgone earnings per year owing to the cost of US CBS regulations for Patensie Citrus Company were found as high as 10 million Rand (10% of the total revenue). The cost of complying with the two-certification system (EUREPGAP and HACCP) is also estimated at 1.29 million Rand [30].

Generally, the existing literature suggests that SPS standards are potentially a problem for developing country exports to developed countries. However, there has been little or no analysis of the nature of the problems developing countries have in complying with SPS standards in developed countries and/or attempts to quantify these costs [30].

Table 4: Estimated cost of compliance on selected farms in South Africa with selected standards currently being applied externally to citrus exports

Costs and Other Details	Whyte Citrus	Riverside Enterprises	Patensie Citrus	Average
Tons of citrus grown (2001)	2700	11000	15000	9567
Hectares used	40	150	200	130
Revenue received per ton (2001) Rand	2520	1675	1525	1907
Per year costs of compliance per ton (2001-2002) with CBS-rand	19	68	27	38
Per year costs of compliance per ton (2001-2002) with EUREP GAP regulations-rand	37	9	47	31
Percentage of Revenue lost due to costs incurred in compliance with CBNS and EUREP GAP regulation	2.2 %	4.6 %	4.9 %	3.9 %
A foregone earnings per year estimate of the cost of US CBS regulations (Percentage of total revenue)	-	-	R 10 million (10 %)	-

Source: [30]

Problems Faced by Developing Countries to Apply SPS Measures: Access to compliance resources: A major problem faced by developing countries is access to the resources required to comply with SPS standards in developed countries. These include information on SPS standards themselves, scientific and technical expertise, appropriate technologies, skilled labor, general finance etc. If these resources are not available locally, they may need to be obtained overseas, significantly increasing the costs of compliance. For small and medium-sized companies these costs are likely to be prohibitive [31].

Compliance Period: The period allowed for compliance with developed country SPS standards is an important factor influencing compliance costs. In many cases developing countries require longer to comply due, in part, to limited access to compliance resources. If suppliers do not comply within the specified period they may be prevented from exporting. In the short term, the costs in terms of lost revenue can be significant. They may also lose customers and/or market share that can affect their long term export performance [20, 32].

Response by Developing Country Governments: Some of the exporters interviewed as part of the case studies suggested that their governments had been slow to react to changes in SPS standards in major export markets. As a result, the period within which they had been required to comply had been significantly reduced, increasing costs and, in extreme cases, limiting their ability to export [31].

Nature of Marketing Chain: In certain cases the conformity assessment procedures associated with SPS standards can be difficult and costly to put into practice within supply chains in developing countries. Supply chains tend to be longer and more fragmented than in developed countries and, as a result, the cost of establishing systems of traceability and supplier quality assurance can be prohibitive, in particular for small producers [33].

Production Methods: In certain cases the SPS standards of developed countries are not compatible with the production systems employed in developing countries. In certain cases, these systems need to be radically changed in order to comply. In others, significant levels of new investment are required to overcome indigenous problems, for example due to the climate, poor local infrastructure and others [20, 34].

Logistical Problems: Logistics, in particular airfreight for perishable products, can represent a major barrier to products which otherwise might have met all necessary SPS measures. Such problems effectively represent a lack of access to the facilities or resources that are required to ensure the product still complies with required measures at all levels of the marketing chain [31].

Access to Information: Although participation and the effectiveness of such participation were cited frequently, access to the actual information on SPS requirements in foreign markets can be a problem, or can cause significant delays and confusion. In certain cases, for example ACP states, there may be relatively good access to information on the EU's SPS measures. In other cases, access may be difficult; in extreme cases the only source of information is the notification procedures of the SPS Agreement [35].

Although national and international standards are seen as important issues, the requirements of customers are frequently as, if not more, important in the case of nontraditional non-commodity products. The customer can also be an important source of information and expertise on regulatory requirements in developed countries [31].

Awareness: A major problem in many developed countries is the level of awareness and/or understanding of SPS measures in general and the SPS Agreement in particular. This is clearly related to access to information. Considerable efforts have been made by organizations such as WTO, FAO and UNCTAD to raise awareness of SPS standards and the SPS Agreement amongst government official. Furthermore, many developing countries governments have organized seminars and workshops in an attempt to enhance awareness and personnel that are responsible for SPS matters on a day to day basis, for example port inspectors and within the food supply chain. However, in many instances recognition of the importance of SPS standards and their impact on export performance remains poor. As a result, initial reaction to new SPS measures is often delayed and/or inappropriate [8].

Internal Regulatory Structures: The extent and nature of existing regulatory structures for SPS matters in developing countries affects their ability to comply with standards in developed countries. If SPS standards are in place domestically, the food supply chain will be accustomed to operating in a regulated environment and will better appreciate the need to comply [31]. Furthermore, public authorities may find it relatively easy to implement conformity assessment procedures required by developed countries given that they have an existing enforcement structure and little existing domestic SPS legislation and/or weak systems of control [20, 34].

In general, the problems most frequently identified through the case studies were the nature of the marketing chain and production methods in developing countries. It was suggested that the SPS measures adopted by developed countries are incompatible with the (traditional) systems of production and marketing in developing countries and, as a result, costs of compliance tend to be high, sometimes prohibitively so. The nature of internal regulatory structures was also frequently cited. The problems experienced by developing countries are closely related to internal factors such as the nature of supply chains and public authorities charged with SPS matters [35].

Management of SPS Measures in Ethiopia: Ethiopia is the largest livestock producer in Africa and one of the largest in the world, maintaining 59.5 million head of cattle, 27.35 million sheep and 28.16 million goats [36]. Despite increasing growth in livestock product exports, most exports from this sector remain concentrated in informal sales of live animals, with limited benefits in terms of foreign exchange and value-adding opportunities (Fig. 1). One reason in particular is low productivity, the prevalence of livestock diseases (such as FMD, Contagious Bovine Pleuro-Pneumonia (CBPP), Peste des Petits Ruminants (PPR) and lumpy skin disease (LSD), low development of market mechanisms and the high incidence of informal cross border trade, have meant that the contribution of livestock to foreign exchange earnings has traditionally been modest compared to apparent potential [37].

Livestock serve a variety of livelihood, risk management and income-generating functions in Ethiopia. Where market access is possible, livestock can act as a potential pathway out of poverty for rural producers and other actors throughout the marketing chain, as such access increases the potential scope for sales and makes livestock activities more remunerative [38]. However, market access from Ethiopia often hindered by a variety of constraints, including the prevalence of highly contagious trans-boundary diseases and less participation in international trade [39]. These diseases mostly eradicated in the developed world, but the fear of their entry from endemic reservoirs in the developing world precludes large-scale livestock product exports into lucrative markets in the European Union, United States and Japan [40].

While Ethiopia is Africa's largest livestock producer, sanitary and phytosanitary (SPS) barriers and animal diseases have traditionally constrained market access [38]. A system dynamics model examined the feasibility of a proposed SPS certification system under a number of scenarios. Model results indicate that the system may not be viable for beef exports to Middle Eastern markets [41]. However, the binding constraint is high domestic input costs rather than the costs of SPS compliance. Sensitivity analyses reveal that while investments in feed efficiency and animal productivity would enhance Ethiopia's export competitiveness, the competitive nature of international beef markets may still prevent market access [24].

Highlights of the Ethiopian Legal System: Law is only a tool for the implementation of policies. The content of laws is determined by the policy objectives and implementation strategies, rather than vice versa. There are a number of well-intentioned and well-thought policy ideas readily available to Ethiopia. It is here that an understanding of law and legal institutions as means of policy implementation becomes vital. The regulatory framework within which trade in Ethiopia livestock products takes place has got problems at every level international, regional, national as well as local [43].

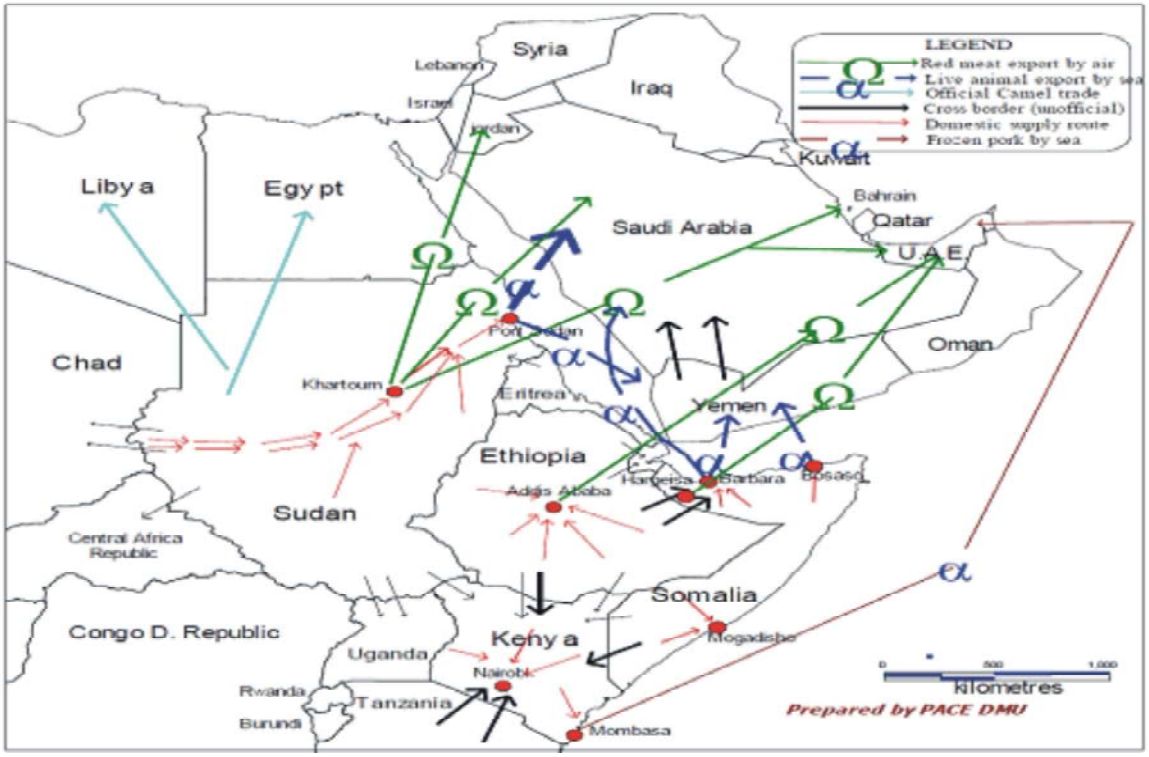

Fig. 1: East African livestock Trade Route –Formal and Informal:
Source: [42]

At the international level, the regulatory framework is designed and operated with little participation or influence from Ethiopia; animal diseases of particular economic significance to the region, such as FMD and RVF, are a low priority in the international standard setting institutions [44].

Livestock Related Laws and Institutions: Ethiopia has a good number of laws providing for the prevention and control of animal diseases, sanitary standards for animals and animal products, specifications for slaughterhouses and other processing facilities, food safety standards and the like. The 1964 proclamation that set up the Livestock and Meat Board, the establishment of a National Veterinary Institute in the same year, the 1970 Meat Inspection Proclamation (followed by the 1972 meat inspection regulations), the 1975 Livestock Market and Stock route regulation, the 1998 law establishing the Livestock Marketing Authority (amended in 2000 but repealed in 2004) and the 2002 law on animal disease prevention and control are only some of them. Many of these laws, such as the 2002 animal disease law, are designed to implement the country's obligations under the OIE [43]. The principal executive organ responsible for the livestock sector today is the Ministry Agriculture and Livestock Resource (MoAL). At least since the 1970 Meat Inspection Proclamation, the Ministry of Agriculture (as it was) has had the power to establish standards and inspect meat to ensure that livestock products exported from, or imported into, Ethiopia are 'wholesome' and fit for human consumption [43, 45].

After several institutional experiments during the Derg period (1974-91), a Livestock Marketing Authority (LMA) was established in 1998 with the principal mission of promoting the domestic and export marketing of livestock products "through increasing their supply and improved quality" FDRE [46].

The LMA was put under the Ministry of Agriculture and Rural Development in, 2004 and barely later, it was abolished altogether and its powers transferred to the newly restructured Ministry of Livestock and Fisheries [43, 45]. This is a ministry with extensive powers and responsibilities to, inter alia: (i) promote the expansion of extension and training services provided to farmers, pastoralists, private investors and urban communities engaged in livestock and fish farming to improve the productivity of the sector; (ii) establish a system that ensures quality standard of any livestock or livestock

product supplied to the market; and follow up implementation of same; (iii) build capacity for supplying, distributing and marketing of inputs for livestock and fisheries to ensure the reliability of their supply; establish and follow up the implementation of a system for quality control; (iv) establish a system that ensures access to quality veterinary services to improve the prevention and timely control of animal diseases; (v) conduct quarantine on import and export of livestock, fish and their byproducts; prevent communicable livestock diseases and the outbreak of migratory parasites; (vi) establish and follow up the implementation of marketing system for livestock and fish and products of same; (vii) ensure the proper administration and quality control of veterinary drugs and feeds as well as veterinary services; and (viii) provide technical support for the development of modern fish production system and creation of market linkage FDRE [45].

The other important player in the livestock sector, particularly as related to food products containing livestock products, is the Ministry of Health. Article 22 of the proclamation that defines the powers and responsibilities of the executive gives this ministry powers to, inter alia, devise and follow up the implementation of ways and means of preventing and eradicating communicable diseases, undertake the necessary quarantine controls to protect public health and conduct studies with a view to determining the nutritional value of foods [43].

There is also the Drug Administration and Control Authority that was established in 1999 now named as the "Veterinary Drug and Animal Feed Administration and Control Authority"; with wide-ranging powers to set and enforce drug-related standards relating to their quality, safety and efficacy as well as setting the standards of competence for organizations to be involved in drug trade [45].

Ethiopia and Regional Economic Communities on Management of SPS Agreement

Common Market for Eastern and Southern Africa (COMESA): Common Market for Eastern and Southern Africa (COMESA) (Draft Regulations on the Application of SPS Measures, May 2009) was planned SPS policy frameworks at the level of the RECs, notably in light of the WTO SPS agreement were identified in which Ethiopia is the member [47].

SPS policy framework reportedly, the COMESA Council of Ministers would have adopted a final version of the SPS Regulations on 7 December 2009. The similarities of COMESA's draft SPS Regulations' (COMESA Regulations) with the SPS Agreement are evident, both in format and content. However, the COMESA Regulations go beyond the SPS Agreement including practical and "hands on" provisions for instance regarding the establishment of a certification scheme (the aforementioned "Green Pass"), regional accreditation bodies and reference laboratories. The COMESA Regulations recognize the right of member states to take SPS measures to protect life and health, while avoiding arbitrary or unjustified barriers to trade (as in the SPS Agreement). They require that SPS measures are based on science, not maintained without sufficient scientific evidence and do not result in disguised restrictions on regional or international trade [21].

COMESA SPS Strategy And/or Plan of Action: Part of COMESA's strategy is implementation of the COMESA Regulations through the Green Pass Certification system (CGP). According to COMESA, the CGP "will be a retainer and commodity based system, based on regionally agreed standards and requirements for the commodity in question. In compliance with this certification system, member states will then be obliged to satisfy the requirements of the SPS Agreement and COMESA Regulations" [48].

Reportedly, COMESA has carried out a series of training sessions for senior SPS experts, laboratory specialists and middle level technicians from member states on various topics including WTO, SPS, quality management and quality assurance, surveillance, emergency preparedness, traceability and certification. It has also developed training material and provides support to member states' participation in ISSOs through training and the formulation of common positions [49].

The "Agricultural Marketing Promotion and Regional Integration Project" (AMPRIP) is a COMESA project implemented in collaboration with the New Partnership for Africa's Development (NEPAD) and the African Union (AU). It covers agricultural marketing and the improvement of SPS measures, the advancement of food safety harmonization and strengthening of SPS institutions. Under this project, three regional SPS laboratories were identified and equipped (in Zambia for animal health, in Mauritius for food security and in Kenya for plant protection) [50].

Intergovernmental Authority on Development (IGAD): With regard to the other RECs, the Intergovernmental Authority on Development (IGAD) indicated in the questionnaire that it intends to develop an SPS framework

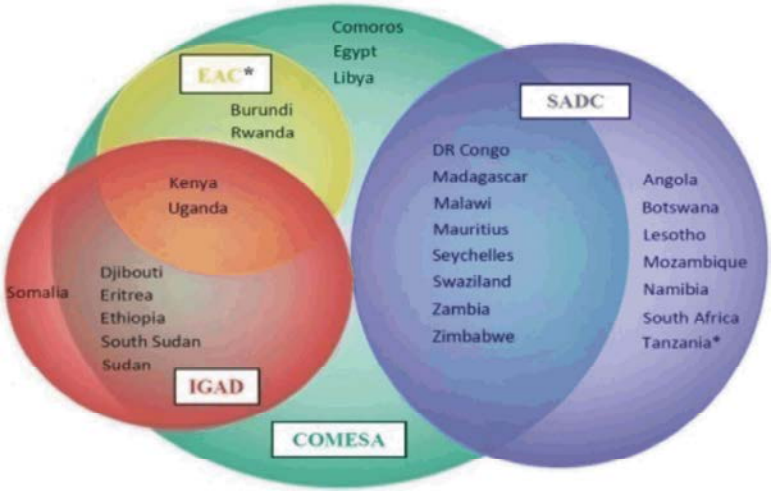

Fig. 2: Overlapping Membership of East and Southern Africa Regional economic Communities: Source: [53]

within five years (2010-2015). However, it is observed that on 10 December 2009 a Regional Policy Framework on Animal Health in the Context of Trade and Vulnerability of the member states of IGAD was signed in Djibouti [21].

IGAD member states have signed a regional policy framework on animal health in the context of trade and vulnerability in December 2009. This framework is based on the following premises: (i) member states face common challenges that require a coordinated response at different levels; (ii) member states operate within a network of global institutions that set international standards for animal health, food safety and international trade; and (iii) the influence of member states on the development of international rules and standards would be enhanced by a regional coordinated approach. The framework recognizes that the IGAD secretariat can play this coordinating role and assist in the development of regional capacity to address animal health challenges at the national level [51].

The IGAD framework recognizes the importance of the private sector. "Private sector actors have an important role to play in the delivery of: (i) private goods; and (ii) public goods through sanitary mandates and public-private partnerships which permit government to perform its functions of regulation and quality control". Member states agree to develop a “regional framework to define, enhance and enable the respective roles of private and public sector actors in the supply of animal health and related services, encouraging collaboration where appropriate" [52]. Finally, the IGAD framework provides a number of institutional provisions which specifically address the responsibilities of IGAD’s secretariat. These include the establishment of a livestock unit which duties and responsibilities should include the coordination of the relations with relevant technical institutions in the field of livestock, including AU/IBAR, FAO, OIE and Codex [53].

IGAD SPS Strategy And/or Plan of Action: IGAD views its role with regard to SPS issues in four main areas: (i) harmonization of SPS standards and measures/policies of member states; (ii) facilitation of information exchange among member states; (iii) provision of capacity building; and (iv) conducting studies and research on relevant SPS issues (STDF, 2010). The capacity of IGAD’s secretariat, however, to implement this role is limited. Only a small number of staff Member works on SPS issues on an ad-hoc basis. As a consequence, IGAD develops its actions in cooperation with other RECs, especially EAC and COMESA, as well as AU/IBAR. Instrumental to its functioning, including in the SPS area, is the IGAD Partners Forum (IPF), with a large membership of developed countries and international organizations. The IPF has three levels of partnership, at ministerial, ambassadorial and technical level IGAD [53].

IGAD's adoption of the regional policy framework on animal health in December 2009 reflects the recognition that the livestock economy in the region has been repeatedly affected by trans-boundary animal diseases causing high mortality, production losses and export trade restrictions [50]. The framework recognizes that "harmonization of national livestock policies at the IGAD level is indispensable in order to establish effective and sustainable mechanisms of dealing with these challenges" IGAD [54]. In signing the regional policy framework, member states agreed to launch a process of

harmonization of livestock policies and regulations at IGAD level, with a view to addressing common challenges in a coordinated manner with the assistance of the IGAD Secretariat [52].

CONCLUSIONS AND RECOMMENDATIONS

The impact of SPS measures on trade flows differs between product types, the forms of SPS measures applied and between developing countries themselves. For example, countries with effective SPS control systems in place will tend to face fewer problems than countries in which these systems are not fully developed. Likewise, SPS measures are clearly more of an issue for products which are associated with higher sanitary or phytosanitary risks, like meat and fruit.

A number of factors influence the ability of developing countries to meet the SPS requirements of developed countries. The most important appear to be the level of access to scientific and technical expertise and the incompatibility of developed country SPS requirements with prevailing production and/or marketing methods in developing countries. This suggests that whilst the problems experienced by developing countries relate, in part, to the inherent resource limitations associated with lower levels of economic development, they are also influenced by the nature of the SPS measures applied by developed countries. There are many factors which would reduce the impact of SPS requirements on exports of agricultural and food products from developing countries. The survey highlighted three in particular. Firstly, longer periods for developing countries to comply with developed country SPS requirements. Secondly, greeter willingness on the part of developed countries to consider the impact on developing countries when promulgating SPS requirements. Thirdly, more wide Spread International harmonization of SPS requirements, encompassing the measures applied by both developed and developing countries. This clearly puts much of the onus on developed countries to take appropriate action to minimize the impact that their SPS requirements have on developing countries. In light of the above mentioned conclusions, the following recommendations to the developed world in general and the RECs and developing country in particular were forwarded:

Recommendation for Developed Nation:

- Developed country should explore ways through which developing country interests can be incorporated into decision making processes regarding SPS agreement.
- The notification procedures of the developed country particular should be monitored and recommendations made for reforms to better meet the needs of developing countries.
- Developed country should explore ways to the participation of developing countries in meetings of SPS Committee and international standards organizations can be facilitated.
- Continued support should be given to initiatives for the provision of legal advice to developing countries relating to WTO matters as means to provide scientific advice.

Recommendations for Regional Economic Communities RECs Should:

- Ensure regional policy frameworks focus on the most effective use of resources to enhance member states benefits.
- Participate actively in the ISSOs and WTO SPS Committee and develop the capacity for member countries to effectively participate.
- Increase awareness of SPS matters at the political and general public levels.
- Focus capacity-building efforts on demand driven activities, identified through capacity evaluations and involve all relevant stakeholders.

Recommendations for the Developing World:

- Develop national strategies to deal with food safety, animal and plant health issues.
- Strengthen their national coordination.
- Create governmental awareness about the importance of SPS matters, the need for increased attention and intervention at the highest decision levels.
- Create public awareness and need for sensitization, in a continent where food security is often the main concern.

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