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The SPS Agreement: Barrier or Catalyst?

Shalini A. Neeliah
PhD student, Department of Agriculture and Food Science Faculty of Agriculture, University of Mauritius

Daya Goburdhun
Associate Professor, Department of Agriculture and Food Science, Faculty of Agriculture, University of Mauritius

Harris Neeliah
Researcher, Sustainable Agrifood Systems, Mauritius

This article aims at assessing whether the World Trade Organisation Sanitary and Phytosanitary (SPS) Agreement is acting as a barrier or a catalyst to agro-food exports from developing counties. It is based on a literature review. The findings indicate that there is evidence of mostly negative effects of the SPS Agreement on developing countries. Areas where difficulties have been met include the development capacity of developing countries, access to dispute settlement, and the risk assessment and equivalency provisions. In many cases, the costs for developing countries of implementing the SPS Agreement are very high compared to their development budgets, and this acts as a barrier and affects their ability to export. Clauses that have been useful to developing countries, thus indirectly facilitating trade, are the regionalisation and transparency principles. Thus, the requirement for more transparency has allowed the establishment of WTO enquiry points and notifications of new measures. Some developing countries have also benefited from technical assistance, and this has enhanced their trade opportunities.

Keywords: agro-food exports, developing country, SPS Agreement

Introduction

The value of international food trade has exceeded US$980 billion (WTO, 2011). With globalisation, trade is likely to continue playing an increasingly prominent role in the provision of fresh and processed agricultural and food products for consumers. Food trade has subsequently spurred economic growth in many countries (Hufbauer, Kotschwar and Wilson, 2001; Jaffee, 2003). However, conventional, demand-led factors and the proliferation and strengthening of food safety and agriculture-related health measures at both the national and international levels could undermine the further expansion of agro-food trade. Indeed, the establishment of the WTO and the implementation of the Agreement on Agriculture have resulted in the erosion of tariffs for agricultural goods, with the concomitant rise of non-tariff barriers (WHO, 1998; Henson and Caswell, 1999). Thus, trade in agricultural and food products is increasingly being governed by many non-tariff measures, including food safety regulations. These have been spurred by a combination of factors such as food safety concerns, scientific advances, consumer preferences and strategic commercial interests (Jaffee and Henson, 2004). There are costs associated with meeting such requirements, making it difficult for developing countries to integrate with the global food trade.

According to Hobbs (2010), such measures are dealt with in the Agreement on Technical Barriers to Trade (TBT Agreement) and the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement). The SPS Agreement is composed of 14 articles stipulating procedural and substantive requirements and three annexes with definitions and additional details on the procedural requirements. The disciplines apply to SPS measures, defined by the agreement as measures to protect human, animal or plant life and health within the territory of the member from risks of diseases, pests and disease-carrying organisms (Roberts, 2000). Thus, the SPS Agreement covers all relevant laws, decrees, regulations, requirements and procedures, including *inter alia*, end-product criteria, processes and production methods, testing, inspection, certification and approval procedures, animal and plant quarantine measures, provisions on relevant statistical methods, sampling procedures and methods of risk assessment, and packaging and labelling requirements directly related to food safety.

The SPS Agreement was drafted to prevent the use of SPS measures as trade barriers (WHO, 1998). It allows countries to take legitimate measures for the protection of human, plant and animal life and health, but these measures must be scientifically justified. Research on the impact of the SPS Agreement and SPS measures on agricultural and food exports has emerged in the last decade. The

literature presents divergent views on the impact of the SPS Agreement. The WTO agreements have mostly benefited developed countries, with the developing countries lagging behind (Das, 2008; Jaffee and Henson, 2004; Disdier, Fontagne and Mimouni, 2008; Wilson, 2002; Josling, Roberts and Orden, 2004). For some, implementation has produced mixed results (Thornsbury, 2000) and has been a slow process, for instance in Central America (Hufbauer, Kotschwar and Wilson, 2001). The World Bank (2005) and Jaffee and Henson (2005) reported that some developing countries have benefited from the SPS Agreement and have integrated with the global food trade. In this article we analyse whether the SPS Agreement has acted as a barrier or a catalyst to agricultural and food exports from developing countries. The methodology adopted for this article hinges on a thorough literature review of related studies. In assessing the effect of the SPS Agreement, considerations were based on OECD (2003).

This article is structured as follows: section 2.0 analyses the effects of the SPS Agreement on developing-country exporters with respect to the provisions of the agreement, to determine whether the agreement has acted as catalyst or barrier to trade. General discussion and conclusions follow in section 3.0.

2.0 The SPS Agreement: Barrier or Catalyst?

There is evidence in the literature of the effect the SPS Agreement has had on the application of SPS measures by WTO members (Josling, Roberts and Orden, 2004; Roberts, 1998; Wilson, 2002). In the following sections, we further assess the effect of the agreement with respect to specific clauses.

2.1 Harmonisation

Article 3 of the agreement urges WTO members to implement international standards. The WTO has assigned rule-making responsibility in food safety to the Codex Alimentarius Commission (CAC). By promoting the use of international standards, the agreement automatically creates an advantage for trade. Indeed, standards are the least–trade restrictive measures available, and their advantages for trade have been reviewed extensively in the literature (Stephenson, 1997; Maskus and Wilson, 2000; Maskus, Wilson and Otsuki, 2001a; Maskus, Wilson and Otsuki, 2001b; Wilson, 2002). But in practice, countries can use standards and regulations for protectionist purposes when the standards are more restrictive than required. Meeting restrictive standards and regulations imposes excessive costs on consumers and reduces net national welfare (Maskus and Wilson, 2000; Maskus, Wilson and Otsuki, 2001a). As pointed out by Maskus and Wilson (2000), standards and regulations may impose

excess costs on consumers and firms by being too rigid; the OECD (1999) points out that up to 80 percent of all world trade is affected by standards.

According to Josling, Roberts and Orden (2004), the impact of harmonisation on trade appears to be constrained by the lack of specific international standards and by the normative considerations under the agreement. Of the SPS measures notified to the WTO by members during 1995 to 2002, most stated that no international standard existed for the measures. The authors are also of the opinion that adherence to general guidelines leaves scope for countries to develop different regulatory regimes to manage risks, so that in recent years, international standards organisations have contributed more to the trade system by setting out scientific approaches to regulations than by establishing standards that are identical across countries. This implies that the benefits from international standards have accrued more to consumers than to exporters.

Furthermore, while many countries use international standards as a basis for drafting SPS measures, this does not preclude the use of other, similar standards. This may be because the CAC only recommends that members "base" their standards on Codex standards. The fact that countries are basing their regulations on Codex standards does not necessarily mean that they transpose the standards directly into their legislation. There is thus still room for divergence and differences in interpretation from country to country. Indeed, each country has its own interpretation, especially with respect to the level of consumer protection and the use of international standards relative to the domestic ones (Bureau and Doussin, 1999). Moreover, Article 5 permits any country to set stricter measures if they are based on risk assessment (Victor, 2000).

The international standards-setting bodies were created prior to the negotiation of the SPS Agreement and are still adjusting to their new role. Moreover, developing countries have reported that they face difficulties participating in the harmonisation effort, so that often their requirements are not taken into consideration (Thornsbury, 2000; Nyangito, 2002; Foster, 2009; WTO, 2008[1]; Neeliah and Goburdhun, 2010). The poor participation rate of low-income countries in these organisations implies that the SPS Agreement is largely governed by the interests of developed countries (Zarrilli, 1999).

A number of initiatives have been taken to improve the situation. The World Organisation for Animal Health (OIE) provides financial support for the participation of chief veterinary officers of its member countries in OIE standard-setting activities (WTO, 2010). Establishment of strategic Trust Funds is another important step forward in this area (Scott, 2007). The setting up of the Codex Trust Fund has

improved the situation: at the end of 2008, 230 participants from 85 developing countries had been supported by the fund to attend 20 Codex meetings (WHO, 2009).

Although mechanisms such as the Codex Trust Fund have boosted participation from developing countries since 2003 (Neeliah and Goburdhun, 2010), much remains to be done if the harmonisation process is to be beneficial for trade and equally accessible to all WTO members, whether financially or scientifically. It has been mentioned that despite CAC's efforts to provide assistance through the trust fund, regular participation by developing countries is still limited to a relatively small number of larger, middle-income countries (Henson and Humphrey, 2009). This is because the process by which international standards are made is lengthy: it is very costly to participate in all these meetings, and technical competence and backup have not always been adequate (Henson et al., 2000; Thornsbury, 2000; Nyangito, 2002; Scott, 2007; WTO, 2010[2]). Often developing countries were unable to participate in plenary sessions where proposed standards were being adopted (Prevost and Mathee, 2002).

2.2 Risk Assessment and Scientific Justification

"Members must ensure that their sanitary or phytosanitary measures are based on an assessment of the risks to human, animal or plant life or health, taking into account risk assessment techniques developed by the relevant international organisations" and the objective of minimising negative trade effects (WTO, 1995). Thus, the SPS Agreement echoes the quest for "science-based, rational decision-making" on questions of health risk (Peel, 2004) and places new emphasis on risk assessment (RA) related to the trade of safe food (Epps, 2008). Some progress has been achieved in the development of guidelines for RA (FAO, 2002); for example, Codex guidelines on RA have been developed. This clause has proved to be effective in a number of dispute cases involving developed countries, as reaffirmed by WTO panels and Appellate Body rulings (Bureau and Doussin, 1999).

But the requirement for risk assessment and scientific justification is still questioned (Epps, 2008), as not all countries can afford to meet it. Even developed countries have difficulty providing a risk assessment robust enough to be judged in conformity with the agreement's provisions (CTA, 2003). Moreover, the application of formal RA is a relatively new and controversial science (Hathaway, 1999; Boutrif, 2003; Prevost and Mathee, 2002; Peel, 2004), and the CAC has only recently developed guidelines. Both qualitative and quantitative RA are very costly, requiring expertise and appropriate sanitary infrastructure. This makes the RA clause a barrier for developing countries *de facto*. Therefore, those with limited budgets benefit from adopting international standards (WTO, 2003). Certain WTO members lack know-

how and laboratory equipment [G/SPS/R32 (WTO, 2010)] to carry out RA so as to present a well documented and supported case in order to challenge a developed country's SPS measure (Henson et al., 2000; Nyangito, 2002). Thus, it is clear that risk assessment and scientific justification are two areas where the problems outweigh the benefits. According to Roberts (1998) and Boutrif (2003), the RA methodology and practice could be a major cause for concern and a major challenge to effective enforcement of the SPS Agreement.

2.3 Dispute Settlement

Before the SPS Agreement came into force, settlement of disputes related to sanitary and phytosanitary regulation was essentially voluntary. With the introduction of the agreement the situation has changed from consensus-based dispute settlement to a "hard law", quasi-judicial system (Thornsbury, 2000; Athukorala and Jayasuriya, 2003). The new system is more elaborate and less prone to dissent. It is also stronger and has stringent time schedules that restrict the number of years over which a dispute can span (Victor, 2000). There has been a marked increase in the number of trade disputes brought to the DSB, the majority of which come from developed countries. Over 400 disputes have formally been raised under the WTO's dispute settlement system, of which 40 alleged violation of the SPS Agreement (G/SPS/53 in WTO, 2010). Fifteen dispute resolution panels have been established to examine complaints relating to the SPS Agreement, and in six of these cases the Appellate Body has also given a ruling (WTO, 2010). The relatively small number of SPS disputes may indicate that the institutional framework provided by the WTO through the SPS Committee has facilitated the reaching of mutually agreeable solutions to trade concerns (OECD, 2003), especially for developed countries.

Dispute cases illustrate legal interpretations of the SPS Agreement, albeit diverging (Gruszczynski, 2006; Das, 2008), and therefore are a very instructive mechanism for the assessment of the agreement (Victor, 2000). Roberts (1998) rightly argues that dispute settlement has been a catalyst in the removal of illegitimate SPS measures by certain nations, at least in the G-8[3] nations involved at its negotiation stage: countries have either unilaterally modified regulations to comply with the agreement or have undertaken voluntary modification after bilateral technical exchange. The dispute settlement mechanism will certainly prompt countries to revise their SPS measures. An example of its success is the recognition of disease-free zones for Argentinean beef by the United States (Unnevehr and Hirschhorn, 1999). Dispute settlement under the SPS Agreement has been especially relevant in the case of clear violations (Thornsbury and Carlson, 2000), as was the case in the dispute between Canada and Australia on salmon exports.

On a more pessimistic note, the SPS Agreement has been less successful in resolving disagreements in the context of food safety, for example, the EU-US beef hormones case, because of the tension that exists between consumers' preferences and consumer protection on the one hand and consumers' gains from trade on the other (MacLaren, 2002). Moreover, Das (2008) reports that the mode of interpretation of the Dispute Settlement Body has left leeway for developed countries to use SPS measures for protectionism. Further, the cases that have been brought under the SPS Agreement have been the subject of considerable controversy. Current interpretations of dispute resolution cases see the dispute resolution bodies as constraining the freedom of member states to respond to the concerns of their citizens (Philbrick, 2008). Gruszczynski (2008) highlighted certain deficiencies in the DSB panel's analysis of EC-Bio Products. These include lack of consistency in the use of interpretive tools.

Developing countries are rarely able to bring disputes before the WTO Dispute Settlement Body because of the cost and the legal and technical expertise required for engaging in disputes. According to Boodhoo and Dabee (1998), the technicalities involved in the dispute settlement procedure may be difficult for Mauritius if it is to file a case or answer to a dispute filed by another member. It seems that the complexity of dispute settlement procedures represents a barrier to trade, as few developing countries are able to make judicious use of it. In fact, studies have shown that poor countries are still less likely than rich ones to participate in WTO disputes (Bown, 2005; Busch and Reinhardt, 2003), possibly because they lack legal resources and expertise or because, due to their small markets, they have limited ability to enforce panel rulings via trade sanctions and logically refrain from filing claims they cannot enforce.

2.4 Equivalence

The SPS Agreement introduces the concept of equivalence, which, in principle, is an advantage for trade. But it seems to be causing a problem. It has been reported that developed countries have been reluctant to accept the equivalence of measures set by developing countries because of lack of data on the developing countries' SPS systems or because they lacked trust in the SPS management capacities of developing countries (Henson and Loader, 2001). This lack of trust often has been based on real deficiencies in developing countries' food control systems (Jensen, 2002). Writing in 1999, Hathaway pointed out that demonstration of equivalence was a new area where much work remained to be done (Hathaway, 1999). This need for groundwork has been recognised at the level of the CAC, and guidelines have been prepared. However, few examples of equivalency have yet been achieved.

2.5 Special and Differential Treatment and Technical Assistance

Special and differential treatment is granted to allow developing-country members to build their SPS regulatory frameworks on scientific foundations. Assistance in the form of technical advice, expertise, financial assistance or procurement of equipment can be requested during SPS Committee meetings.

The WTO has set up technical assistance activities in the SPS area to contribute to strengthening the capacities of developing-country members in meeting regulations for market access of agro-food products (WTO, 2010). The activities increase participants' awareness about rights and obligations under the SPS Agreement and its implications at the national level. The programmes of national and regional activities cover presentations on transparency obligations, dispute settlement, implementation problems, specific trade concerns and technical/scientific issues such as risk analysis and equivalence and include the work undertaken by the three standard-setting organisations referenced in the SPS Agreement (Codex, IPPC and OIE). During the period 1994-2009, the WTO Secretariat undertook a total of 198 technical assistance activities on the SPS Agreement, including 70 regional (or subregional) and 85 national workshops (G/SPS/53 in WTO, 2010). Around $65 to $75 million have been spent yearly by bilateral and multilateral agencies on various programmes to strengthen trade-related capacities in developing countries, in addition to a large number of private sector initiatives (Jaffee and Henson, 2004). Such assistance has boosted trade for certain developing countries (Henson ad Jaffee, 2008).

While it is clear that the SPS Agreement supports the provision of special and differential treatment, this obligation is not binding (Prevost and Mathee, 2002). According to Henson et al. (2000), developing countries considered that developed countries did not take sufficient account of the situation of developing countries before setting SPS measures. Because of concerns of developing-country members regarding the special and differential treatment provision under the agreement, a number of tools have been developed to help members understand and implement of the agreement. As well, in October 2006 the Secretariat prepared a preliminary analysis of SPS-related technical assistance with the objective of addressing issues regarding the effectiveness of assistance provided (G/SPS/53 in WTO, 2010).

Effective implementation of SPS measures in developing countries depends on the provision of adequate financial and technical assistance (Athukorala and Jayasuriya, 2003; Disdier, Fontagne and Mimouni, 2008). According to the SPS Agreement, WTO members must facilitate the provision of technical assistance to other members, especially to developing-country members. The WTO has also enlisted the support of

other international organisations like the World Bank and the Food and Agriculture Organisation in its assistance programme.

Since 1995, many WTO members have benefited from technical assistance programmes based on the Trade Capacity Building Database (TCBDB) (WTO, 2008). Grants or loans are provided to ensure that members are not prevented from adopting or enforcing measures necessary to protect human, animal or plant life or health, as per the SPS Agreement. A Standards and Trade Development Facility (STDF) has been established to promote coordination of technical assistance to developing and least-developed WTO members. The STDF defines four categories in which technical assistance is available, specifically, general, food safety, animal health and plant health. For instance, 93 technical assistance activities related to food safety have been carried out since 2001; examples are capacity building in China and Guyana and strengthening fishery health products in ACP countries (WTO, 2008).

The main problem related to special and differential treatment has to do with transparency regarding the measurement of the direction and the extent of assistance (WTO, 2010). A review by Wiig and Kolstad (2005) pointed out that assistance was given in a haphazard manner and was often based on political considerations. It is even conceded that technical assistance is limited (AITIC, 2009; Scott, 2007). Thus, securing technical assistance is still a problem. In fact, questionnaires on technical assistance sent by the WTO to its members (G/SPS/W/113 in WTO, 2010) indicate that there is still a need for assistance in areas such as risk assessment, plant health, quarantine procedures, etc.

2.6 Transparency

The concept of transparency (articles 5.8 and 7 and Annex B) obliges members to exchange information on their respective sanitary measures through the establishment of national enquiry points, national notification authorities and the SPS Committee. The requirement for more transparency has proven to be the most successful aspect of the agreement (Roberts, 1997; Roberts, 1998). The establishment of WTO enquiry points and notifications of new measures to the SPS Committee have increased transparency. This system facilitates information exchange and helps to enhance compliance of the exporter with importer's regulations. The fact that regulatory measures can be discussed and adjusted to reflect others' trade concerns is a very important advantage (Scott, 2007) and can be put to good use by developing countries.

Notifications have been increasing, especially after 2000 (see figure 1). A total of 9,426 notifications were submitted to the WTO as of 31 August 2008, excluding corrigenda, addenda and revisions (WTO, 2010). The notifications requirement has increased transparency, thus facilitating both compliance and complaints by trading

partners. Indeed, advance notice of new or modified measures allows firms to change production methods to meet new import requirements, thereby minimising transaction cost disruptions that such changes can cause to trade flows (Josling, Roberts and Orden, 2004).

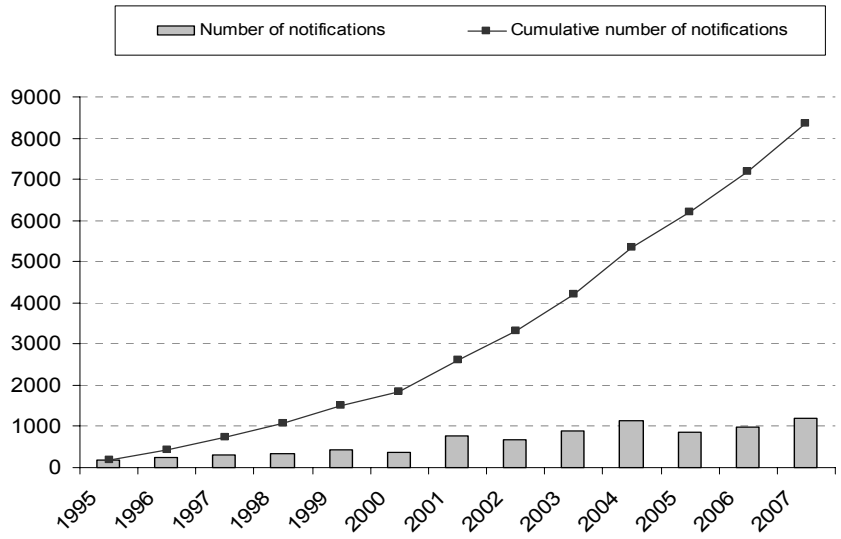

Figure 1 Number of SPS notifications circulated from 1995 to 2007.

Data Source: WTO (2010)

The increase in notifications may be credited to an increasing application of the principles of the SPS Agreement or to the changes in agro-food trade and the growing complexities of SPS policies (OECD, 2003). However, statistics on notifications do not necessarily give an accurate indication of the extent to which new or changed SPS measures are being *adopted* by WTO members. The specific trade concerns raised at meetings of the SPS Committee include failures to notify measures (WTO, 2010). Out of the 153 WTO members, 98 (64 percent) have to date submitted at least one notification to the WTO. As of October 2008, 133 out of 153 (87 percent) WTO members had identified a national notification authority (NNA). Those which had not done so included 13 least-developed countries (LDCs) and 7 developing countries (G/SPS/NNA/14 in WTO, 2010). One hundred and forty-two members (93 percent) had established an SPS enquiry point.

As of the end of December 2009, the share of notifications submitted by developed-country members had reached 53 percent, while submission by developing-country members was 46.6 percent, with the rest from LDCs. The number of

notifications from developing-country members has steadily increased over the years (WTO, 2010). The majority of notifications are still from developed countries like the United States, though countries like Mexico are associated with increased regulatory activity due to regional agreements like the NAFTA. Countries like the United States, China and Japan have in fact taken the opportunity under the SPS Agreement to bring about significant administrative and regulatory reform (Livshiz, 2007; Biukovic, 2008), which could explain this notification pattern.

The transparency provision has already improved information exchange among members, including developing countries. Countries like the Gambia and India have been able to comment on the EU's notification relating to new standards for aflatoxins. Unnevehr (2001) pointed out this was clear evidence of the agreement's usefulness to developing countries, as it prompted a revision of the said standards by the EU.

The quality of and access to information on notifications remains problematic. To improve the implementation of transparency provisions, the WTO produced a handbook, "How to Apply the Transparency Provisions of the SPS Agreement" in 2000 and updated it in 2003 (WTO, 2010). Moreover, an SPS Information Management System was launched in 2007 to facilitate searching of notifications. In 2008, the SPS Committee also adopted revised procedures for transparency which provide additional information on the comment period and encourage the notification of measures even if they conform to international standards. Additional mechanisms have been put in place to improve the management of the large volume of SPS-related information and the translation facilities (G/SPS/53 in WTO, 2010).

Some developing countries nevertheless face difficulties in complying with their transparency obligations (Henson et al., 2000; Nyangito, 2002; WTO, 2006; WTO, 2010[4]), although guidelines have been prepared (WTO, 2000). For instance, not all developing countries that are WTO members had established enquiry points as of February 2007 (WTO, 2007). Indeed, implementation of transparency obligations implies a basic investment and a minimum staff [G/SPS/GEN/497 (WTO, 2010)], and this is not always within the budgets of developing countries (Neeliah and Goburdhun, 2010).

2.7 Adaptation to Regional Conditions, Including Pest- or Disease-free Areas and Areas of Low Pest or Disease Prevalence

Article 6 specifies that disease-free areas and areas of low pest or disease prevalence should be treated differently from areas where disease is prevalent. In the past, importing countries often required the whole exporting country to be free from a

particular disease before it would be granted access to trade. Now, products coming from disease-free areas that may not correspond to political boundaries are to be considered on the basis of their disease status. This is a big advantage to many developing countries which export, for example, meat or papaya produced in several regions. It remains the exporting country's responsibility to demonstrate that a particular area is disease free, and the exporting country must allow inspectors from the importing country to verify the controls in place (WTO, 2003).

2.8 The SPS Committee and Specific Trade Concerns

Mehta and George (2003) consider that an indicator of developing countries' low participation in the SPS Agreement is the attendance rate at the meetings of the SPS Committee. Developing countries have a poor attendance rate (Mehta and George, 2003; OECD, 2003), which prevents them from effectively addressing their concerns to the committee. For instance, India does not make sufficient use of the SPS Committee to challenge specific SPS measures and discuss SPS-related issues (Das, 2008).

Time has been devoted to the consideration of specific trade concerns raised by members at the SPS Committee meetings since 1995, thus helping to avoid potential trade conflicts (OECD, 2003). According to Jaffee and Henson (2004), the number and nature of complaints and counter-notifications (specific trade concerns) made through the SPS Committee can be used as an indicator to depict the nature and breadth of the challenges to standards and regulations by developing countries. Two hundred and ninety specific trade concerns were raised between 1995 and 2009. Figure 2 shows the number of new concerns raised each year; 13 new concerns were raised in 2009.

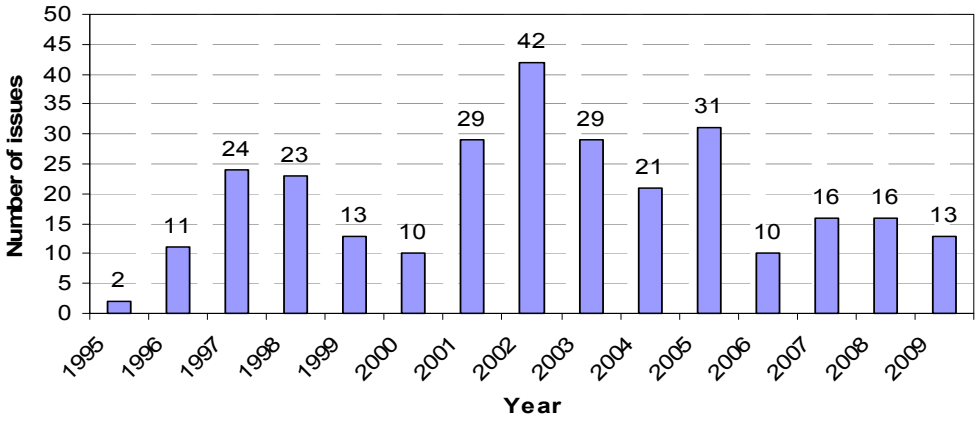

Figure 2 Number of new issues raised.

Source: G/SPS/53 in WTO, 2010

Seventy-nine trade concerns have been reported resolved out of the 290 trade concerns raised since 1995, while no solutions have been reported for the remaining 193 trade concerns (WTO, 2010). Overall, 28 percent of trade concerns related to food safety concerns, 26 percent related to plant health, and 6 percent concerned other issues such as certification requirements or translation. Forty percent of concerns raised related to animal health and zoonoses (WTO, 2010).

Developing-country members are particularly active regarding this agenda item in the SPS Committee meetings, showing their preference for softer structures than the formal dispute settlement mechanism to resolve trade issues. Since 1995, developing-country members have raised 146 trade concerns (figure 3) compared to 190 raised by developed-country members and 3 raised by least–developed country members. The fact that developed countries outnumbered developing countries suggests that access to the same scientific information and technologies still leaves room for disagreement over food safety measures (Josling, Roberts and Orden, 2004).

This growing number of concerns provides only a very crude indicator (Jaffee and Henson, 2004) of the impact of the SPS Agreement. According to an analysis by Josling, Roberts and Orden (2004), developed countries were most often the source as well as the target of specific trade concerns that identified food and feed regulations as unjustified trade impediments, indicating that some gaps remained in convergence around SPS regulatory principles and that developed countries failed to agree on an acceptable level of protection. Both developed and developing countries cited the measures of developed countries in the majority of trade concerns related to human health.

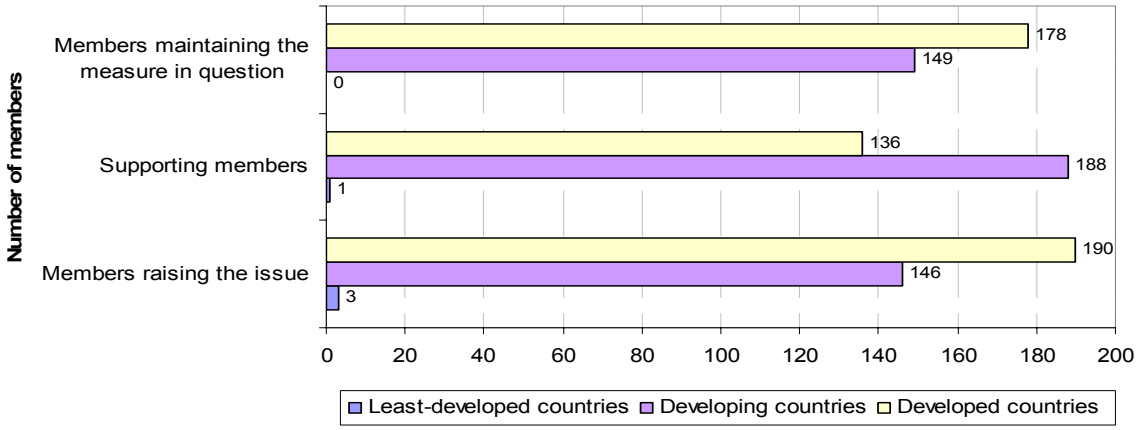

Figure 3 Participation by WTO members (1995-2009).

Source: G/SPS/53 in WTO, 2010

According to Jaffee and Henson (2004), this suggests that developing countries used the formal review and complaint process of the SPS Committee to register their concerns with respect to a significant number of notified measures. But the level of developing-country trade that has been affected cannot be quantified. Moreover, complaints from developing countries emanated mostly from a few developing countries such as Argentina, Brazil, Chile and Thailand. Yet the SPS Committee remains an effective platform for resolution of trade conflicts, and one that seems to be more accessible than the dispute settlement mechanism.

2.9 Changing Influence of SPS Measures

Although the text of the SPS Agreement is in itself very short, it leaves room for interpretation, especially with respect to provisions relating to the ability of a country to choose its particular level of consumer protection (Bureau and Doussin, 1999). This creates the possibility for conflict among countries, as seen through the disputes that have arisen due to the SPS Agreement (Gruszczynski, 2006). The divergent food safety, plant and animal health regulatory requirements (SPS measures) can be important trade determinants. All these factors combined pose a major challenge for developing countries by acting as a deterrent to trade.

2.9.1 Negative effect of SPS measures on agro-food trade

There is general agreement in the literature over the negative effect of SPS measures on trade both before and after the implementation of the SPS Agreement (Petrey and Johnson, 1993; Ndayisenga and Kinsey, 1994; Thilmany and Barrett, 1997). SPS measures can especially be detrimental to exports from developing countries (Henson et al., 2000), because the latter lack the necessary food safety infrastructure to participate in the development of standards and to comply with emerging requirements, for instance, testing and certification facilities (OECD, 1996; Wang and Winters, 1997; Oyejide, Ogunkola and Bankole, 2000; Maskus and Wilson, 2001; Hufbauer, Kotschwar and Wilson, 2001; Caswell and Wang, 2001; Nyangito, 2002). As a result, such countries can only exercise their rights and meet their obligations as members of the WTO to a limited extent (Wilson, 2000). Mutusa and Nyamandi (1998) studied data on border inspection and detention of food exports from Africa and found that the most important difficulty faced by developing countries from Africa related to the lack of financial resources for implementation of the control requirements of developed countries. Henson et al. (2000) associated the problems faced by developing countries with:

- their incompatible systems of production and marketing;

- their limited resources and infrastructure, which constrain their ability to comply their poor access to appropriate scientific and technical expertise.
- with SPS requirements and even to demonstrate compliance;

SPS measures are seen as a major obstacle to exports when compared to other obstacles such as transportation costs, quotas and tariffs. Particular markets for which SPS requirements have been considered to present the most serious impediment to trade include the EU, the United States and Canada (Henson and Loader, 2001).

A number of quantitative studies have also been carried out to estimate the impact of standards and food safety regulations on trade, as highlighted recently by Karov et al. (2009). In 1996, it was estimated that the impact of SPS measures on U.S. exports of agricultural products was about $4,416 million and that the impact of food safety standards themselves amounted to about $2,288 million (Roberts and De Remer, 1997; Thornsbury et al., 1999). The authors concluded that SPS measures were the most common factor that threatened, constrained or blocked the exports.

Otsuki, Wilson and Sewadeh (2001) estimated the financial implications of the strengthening of the EU regulation on aflatoxin levels in food on African exports of cereals, dried fruits and nuts to Europe. The EU measure could potentially decrease exports by about 60 percent, representing US$670 million, when compared to the effect of internationally based regulations, while reducing health risk by about 1.4 deaths per billion a year. Wilson and Otsuki (2001), in an extension of the former study to a larger number of countries, argued that the use of the international standard could increase world exports by US$38.8 million when compared to the situation where national standards are used. Another study by Wilson and Otsuki (2004) suggested that a tightening of pesticide regulations by 1 percent could lead to a 1.63 percent decrease in banana imports, representing a significant impact for countries relying on the export of bananas. They also inferred that a lack of consensus on international standards and divergent national pesticide regulations were costly.

More recently, using a gravity model, Gebrehiwet, Ngqangweni and Kirsten (2007) estimated the trade effect of total aflatoxin levels set by five OECD countries on South African food exports and concluded that stringent SPS measures are limiting trade markedly. Using an econometric approach, Disdier et al. (2008) demonstrated that SPS measures negatively influenced imports from Organisation for Economic Cooperation and Development (OECD) countries, especially exports from developing countries and least-developed countries to OECD countries. Exports to the EU seemed to be more negatively affected by SPS measures than were exports to the other OECD countries. However, trade in some sectors could be improved with SPS measures.

2.9.2 Positive influence of SPS measures on agro-food trade

The introduction of the disciplines and requirements under the SPS Agreement has, however, also spurred growth in agro-food exports from certain developing countries. Indeed, the disciplines have reduced the opportunity for members to use trade-restrictive measures.

Compliance with the requirements of the SPS Agreement demands the infrastructure necessary for countries to establish the confidence of their trading partners in their agro-food exports. The SPS infrastructure is the institutional set-up required to comply with SPS requirements of trading partners and to demonstrate compliance (Henson et al., 2002) and includes the relevant mix of inspection, testing, certification, metrology and accreditation activities (ITC, 2005). One direct spillover of the WTO SPS Agreement has therefore been the revamping of the SPS infrastructure in many countries. Following accession to the WTO, many countries revised their food control strategies and modernised their food legislation, for instance, countries in Eastern and Central Europe (FAO, 2002).

A new school of thought supports the theory of *standards as catalyst*, or the *competitiveness* view. Certain developing countries can use, and are using, compliance with SPS measures to gain a competitive edge, for instance as demonstrated by Thai and Kenyan horticulture, Thai and Nicaraguan shrimp and Indian spices (World Bank, 2005; Jaffee and Henson, 2004; Henson and Jaffee, 2008). The standards, in this case, act as a bridge between the consumer requirements and the distant supplier and promote consumer confidence, contribute to the modernisation of the developing country's export supply chains and the management of SPS measures by government, and have other spillover effects on the domestic food control systems, including long-term sustainability and profitability in trade.

Jaffee and Henson (2004) and Diaz Rios and Jaffee (2008) also argue that standards are not always barriers to trade. They take issue with the Otsuki, Wilson and Sewadeh (2001) study, considering it to exaggerate the predicted effect of the new EU aflatoxin standard. According to Jaffee and Henson's (2004) simulation, only a small number of consignments of groundnuts were rejected by EU member states because of aflatoxin. They suggest that the near-term "loss" of African trade due to the more stringent EU measures has actually been less than expected. While African exporters have been "losers", China and Latin American countries have upgraded their production and supply chains to meet the stricter aflatoxin requirements imposed by the EU (Diaz Rios and Jaffee, 2008).

3.0 General Discussion and Conclusions

The SPS Agreement established rules for the legitimate application of food safety and agricultural health measures. But it was not expected to remove all barriers to agricultural and food products trade. Its potential to affect trade lies mainly in the areas where there are no agreed international standards and where there is limited scientific knowledge.

From the literature, there is evidence of both the positive and negative effects of the SPS Agreement on WTO members. Reviews of the implementation of the SPS Agreement were carried out in 1999, 2005 and 2009 (G/SPS/36 in WTO, 2010; G/SPS/53 in WTO, 2010), and in the course of these reviews developing-country members pointed out that they faced various problems. There was a lack of infrastructure in developing countries, and the capacity to engage in international standards development activities was also limited. They were also constrained by their relative inability to access information on standards or develop standards. The lack of tools to implement commitments and exercise rights, for example, equivalence, the insufficient time to comment on notifications (Zarrilli, 1999; WTO, 2001) and the lack of international consensus standards for food safety were additional problems.

In the early years of the implementation of the SPS Agreement, it was recognised that the benefits reaped from it would be dependent on the country in which it was being applied (Whitehead, 1996). However, in many cases, if not in most, developing countries find it difficult to meet the target levels established by importing countries. Very often, they lack the food control infrastructure needed to meet the requirements of the SPS Agreement (Zarrilli, 1999; Wilson, 2002; Nyangito, 2002), to implement commitments such as transparency obligations and risk assessment, to exercise rights, and to fully engage in international standards development activities. Finger and Schuler (1999) and Maskus, Wilson and Otsuki (2001a) have argued that the costs of implementing the SPS Agreement for developing countries are very high compared to their development budgets, and thus they do not participate in the implementation of the agreement as equal partners compared to developed countries. Indeed, considerable investment is required to improve food safety capacity in developing countries so as to comply with the SPS Agreement and regulatory requirements in export markets (Henson, 2003).

The achievements of the WTO SPS mechanism for enforcing effective discipline over the use of SPS measures have lagged behind initial expectations (Athukorala and Jayasuriya, 2003; Roberts, 1998). According to Thornsbury (2000), the implementation process of the SPS Agreement has slowly progressed, while the setbacks have been widely publicised. Less successful areas include the role of

politics, the development capacity of developing countries, access to dispute settlement, the risk assessment and equivalency provisions and national sovereignty debates. For instance, Das (2008) argues that the SPS Agreement has not prevented SPS measures from becoming non-tariff barriers, taking the case of India. She attributes this to the fact that the agreement provides members with "space" to use SPS measures for protectionist purposes. Jinji (2009) is of the same opinion.

Moreover, the fact that scientific, technical and financial resources are inadequate implies that activities such as the preparation of technical regulations, the effective functioning of national standardising bodies and bodies responsible for conformity assessment, and participation in international standard-setting organisations are constrained. This is especially relevant for developing countries. Indeed, most developing countries find it difficult to meet the target levels established by importing countries, especially because of the implementation costs, considered to be very high compared to their development budgets (Finger and Schuler, 1999; Murray, 2009).

Different WTO members vary in their understanding of the SPS Agreement and their propensity to make the most of it. The agreement also constrains the ability of governments to promulgate measures in instances where scientific knowledge is still poor and fails to provide for imperfectly understood risks that are based on the precautionary principle. Roberts (1998) and Boutrif (2003) opine that the risk assessment methodology and practice will be a major cause for concern and a major challenge to effective enforcement of the SPS Agreement.

In the implementation of clauses such as the minimisation of the protectionist and unjustified discriminatory use of standards and the enhancement of transparency and harmonisation, experience has been mixed, possibly because of the complexities in managing food safety and animal health and the specific shortcomings of the SPS Agreement (Jaffee and Henson, 2004). Das (2008), for instance, provided examples of Indian experience in a recent article using various indicators such as notifications submitted to the Negotiating Group on Market Access (NGMA) as a part of the Non-agricultural Market Access (NAMA) negotiations of the ongoing Doha Round of trade talks.

On the other hand, Josling (2006) considers that the "multilateralisation of food rules has worked because no nation wants to revert to the ancient regime". There are cases of accelerated schedules for making long-standing measures consistent with the obligations under the SPS Agreement; for example, Japan ended a 46-year-old ban on several tomato varieties grown in the United States based on the scientific evidence that they were not afflicted with tobacco mould disease (Josling, Roberts and Orden, 2004).

Clauses that have been relatively more successful are the regionalisation and transparency clauses. The SPS Agreement has also contributed to freer trade. The obligation to base regulations on scientific risk assessment has reduced the freedom of governments to use arbitrary regulatory interventions and therefore promoted convergence among countries. This obligation has also led to the resolution of many trade issues through the WTO without resort to dispute settlement and regulatory review (Josling, Roberts and Orden, 2004; OECD, 2003). Likewise, the requirement to use the least–trade restrictive measure to achieve the appropriate level of protection contributed to the resolution of many of the complaints related to the EU's proposed aflatoxin regime.

The use of international standards has settled some trade disputes; for example, based on OIE's assessments, bans on the imports of dairy products in the wake of the Bovine Spongiform Encephalopathy crisis were lifted by some countries (Josling, Roberts and Orden, 2004). Moreover, the Agreement has had a positive effect for developing countries in that it has forced developed countries to provide more technical assistance to develop their infrastructure, leading to the development of recipient countries in terms of GDP, employment creation, social and environmental improvement (CTA, 2003).

Some developing countries have been able to derive benefits from the implementation of the SPS Agreement. For instance, Mauritius has availed itself of its rights under the Agreement both to prevent its trading partners from using unjust measures without scientific justification and to secure technical assistance (Neeliah and Goburdhun, 2010).

This review has highlighted the negative effects of the SPS Agreement on developing countries as they appear in the literature. It has, however, also pointed out a number of areas in which the Agreement has been useful in facilitating trade. It is concluded that reviews of the Agreement, punctually conducted, should take greater account of the needs of developing countries so that they can successfully export agro-food products to developed countries.

References

AITIC. 2009. *The implementation record of the SPS Agreement: The third review*. May 2009, SPS 2/3, Trade and development briefs. Agency for International Trade Information and Cooperation.

Athukorala, P., and S. Jayasuriya. 2003. Food safety issues, trade and WTO rules: A developing country perspective. *World Economy* 26(9): 1395-1416.

Biukovic, L. 2008. Selective adaptation of WTO transparency norms and local practices in China and Japan. *Journal of International Economic Law* 11(4): 803-825.

Boodhoo, N., and B. Dabee. 1998. Africa and the world trading system: The case of Mauritius. In A. Oyejide and W. Lyakurwa, eds., *Africa and the World Trading System*.

Boutrif, E. 2003. The new role of Codex Alimentarius in the context of the WTO/SPS Agreement. *Food Control* 14(2): 81-88.

Bown, C. P. 2005. Participation in WTO dispute settlement: Complainants, interested parties, and free riders. *World Bank Economic Review* 19(2): 287-310.

Bureau, J. C., and J. P. Doussin. 1999. Sanitary and technical regulations: Issues for trade liberalization in the dairy sector. *Canadian Journal of Agricultural Economics* 47(2): 149-156.

Busch, M., and E. Reinhardt. 2003. Developing countries and GATT/WTO dispute settlement. *Journal of World Trade* 37.

Caswell, J. A., and J. Wang. 2001. Quantifying regulatory barriers to Asian–U.S. food trade. *Journal of Agribusiness* 19(2): 121-128.

CTA. 2003. *Study of the Consequences of the Application of Sanitary and Phytosanitary Measures on ACP Countries*. Wageningen, Holland: Centre Technique Agricole.

Das, K. 2008. Coping with SPS challenges in India: WTO and beyond. *Journal of International Economic Law* 11(4): 971-1019.

Diaz Rios, L. B., and S. Jaffee. 2008. Barrier, catalyst, or distraction? Standards, competitiveness, and Africa's groundnut exports to Europe. Agriculture and Rural Development Discussion Paper 39. Washington DC: World Bank.

Disdier, A. C., B. Fekadu, C. Murillo, and S. Wong. 2008. Trade effects of SPS and TBT measures on tropical and diversification products [online]. Issue Paper No. 12. Geneva: International Centre for Trade and Sustainable Development. Available from: http://www.ictsd.org [Accessed 25 September 2008].

Disdier, A. C. E., L. Fontagne, and M. Mimouni. 2008. The impact of regulations on agricultural trade: Evidence from the SPS and TBT Agreements. *American Journal of Agricultural Economics* 90(2): 336-350.

Epps, T. 2008. Reconciling public opinion and WTO rules under the SPS Agreement. *World Trade Review* 7(2): 359-392.

FAO. 2002. National food control systems: Components and operations. Multilateral trade negotiations on agriculture: a resource manual III. Agreement on the Application of Sanitary and Phytosanitary Measures and Agreement on Technical Barriers to Trade [online]. Geneva: World Trade Organisation. Available from: http://www.fao.org/docrep/003/x7354e/X7354e07.htm [Accessed 15 April 2005].

Finger, J. M., and P. Schuler. 1999. *Implementation of the Uruguay Round commitments: The development challenge*. Port-Louis: World Bank.

Foster, C. E. 2009. The WTO Agreement on Sanitary and Phytosanitary Measures: A commentary by Joanne Scott. *World Trade Review* 8: 462-465, doi:10.1017/S147474560900442X

Gebrehiwet, Y., S. Ngqangweni, and J. F. Kirsten. 2007. Quantifying the trade effect of sanitary and phytosanitary regulations of OECD countries on South African food exports. *Agrekon* 46(1): 23-29.

Gruszczynski, L. 2006. The role of science in risk regulation under the SPS Agreement [online]. EUI Working Paper LAW No. 2006/03, European University Institute, Department of Law. Available from: http://cadmus.iue.it/dspace/index.jsp [Accessed 18 August 2007].

Gruszczynski, L. A. 2008. The SPS Agreement within the framework of WTO Law: The rough guide to the Agreement's applicability. *The University Journal of International Business Law* 7(4): 9-32. Available from: http://ssrn.com/abstract=1284144 [Accessed 22 September 2010].

Hathaway, S. 1999. Management of food safety in international trade. *Food Control* 10(4&5): 247-253.

Henson, S. 2003. Food safety in food security and food trade. Food safety issues in international trade. *Focus* 10(8).

Henson, S., and J. Caswell. 1999. Food safety regulation: An overview of contemporary issues. *Food Policy* 24(6): 589-604.

Henson, S., and J. Humphrey. 2009. The impacts of private food safety standards on the food chain and on public standard-setting processes. Paper prepared for FAO/WHO. Rome: Food and Agriculture Organisation.

Henson, S., and R. Loader. 2001. Barriers to agricultural exports from developing countries: The role of sanitary and phytosanitary requirements. *World Development* 29(1): 85-102.

Henson, S., R. Loader, A. Swinbank, M. Bredahl, and N. Lux. 2000. *Impact of sanitary and phytosanitary measures on developing countries*. Reading: Centre for Food Economics Research.

Henson, S., and S. Jaffee. 2008. Understanding developing country strategic responses to the enhancement of food safety standards. *World Economy* 31(1): 1-15.

Henson, S., S. Jaffee, C. De Haan, and K. Van der Meer. 2002. *Sanitary and phytosanitary requirements and developing country agri-food exports:*

Methodological guidelines for country and product assessments. Washington: World Bank.

Hobbs, J. E. 2010. Public and private standards for food safety and quality: International trade implications. *The Estey Centre Journal of International Law and Trade policy* 11(1): 136-152. http://www.esteyjournal.com

Hufbauer, G., B. Kotschwar, and J. Wilson. 2001. Trade policy, standards and development in Central America. World Bank Policy Research Paper Series, 2576. Washington: World Bank.

ITC. 2005. *Innovations in export strategy: A strategic approach to the quality assurance challenge*. Geneva: International Trade Centre.

Jaffee, S. 2003. From challenge to opportunity: Transforming Kenya's fresh vegetable trade in the context of emerging food safety and other standards in Europe. Agriculture & Rural Development Discussion Paper 1. Washington: World Bank.

Jaffee, S., and S. Henson. 2004. Standards and agro-food exports from developing countries: Rebalancing the debate. World Bank Policy Research Working Paper No. 3348. Washington: World Bank.

Jaffee, S., and S. Henson. 2005. Agro-food exports from developing countries: The challenges posed by standards. Washington: World Bank.

Jensen, M. J. 2002. *Reviewing the SPS Agreement: A developing country perspective*. Denmark: Royal Veterinary and Agricultural University.

Jinji, N. 2009. An economic theory of the SPS Agreement. RIETI Discussion Paper Series 09-E -033, Kyoto University.

Josling, T. 2006. The institutional framework for food regulation and trade. IATRC Summer Symposium, Bonn, May 28-30, 2006.

Josling, T., D. Roberts, and D. Orden. 2004. *Food regulation and trade: Toward a safe and open global system*. Washington: Institute for International Economics.

Karov, V., J. Grant, E. Peterson, and D. Roberts. 2009. *An empirical assessment of SPS regulations on US fresh fruit and vegetable imports*. USDA, ERS, US.

Livshiz, D. 2007. Updating American administrative law: WTO, international standards, domestic implementation and public participation. *Wisconsin International Law Journal* 24(4): 961-1016.

Maclaren, D. 2002. Trade barriers and food safety standards. Conference on International Food Safety Standards and Processed Food Exports.

Maskus, K. E., and J. S. Wilson. 2000. Quantifying the impact of technical barriers to trade: A review of past attempts and the new policy context. Workshop, Quantifying the trade effect of standards and regulatory barriers: Is it possible? Washington DC: World Bank.

Maskus, K. E., and J. S. Wilson. 2001. *Quantifying the impact of technical barriers to trade: A review of past attempts and the new policy context*. Washington DC: World Bank.

Maskus, K. E., J. S. Wilson, and T. Otsuki. 2001a. An empirical framework for analyzing technical regulations and trade. In K. E. Maskus and J. S. Wilson, eds., *Quantifying the Trade Effect of Technical Barriers: Can It Be Done?* Ann Arbor, MI: University of Michigan Press.

Maskus, K. E., J. S. Wilson, and T. Otsuki. 2001b. *Quantifying the Trade Effect of Technical Barriers: Can It Be Done*? Ann Arbor, MI: University of Michigan Press.

Mehta, R., and J. George. 2003. Processed food products exports from India: An exploration with SPS regime. Technical Report Project Output, Economics, ACIAR Project, RSPAS, ANUFood Safety Issues, Trade and WTO Rules.

Murray, C. 2009. Implementing the new international health regulations: The role of the WTO's Sanitary and Phytosanitary Agreement. *Georgetown Journal of International Law* Georgetown University Law Center.

Mutusa, M. P., and T. Nyamandi. 1998. Report on the survey on the identification of food regulations and standards within the African region Codex member countries that impede food trade. In Codex Alimentarius Commission, ed., Proceedings of the workshop on Codex and harmonisation of food regulations, August 1998, Harare. Rome: Codex Alimentarius Commission.

Ndayisenga, F., and J. Kinsey. 1994. The structure of non-tariff trade measures as agricultural products in high-income countries. *Agribusiness: an International Journal* 10(4): 275-292.

Neeliah, S. A., and D. Goburdhun. 2010. Complying with the clauses of the SPS Agreement: The case of a developing country. *Journal of Food Control* 21(6): 902-911, 10.1016/j.foodcont.2009.12.008.

Nyangito, H. O. 2002. *Post-Doha African challenges in the sanitary and phytosanitary and trade-related intellectual property rights*. Nairobi: Kenya Institute for Public Policy Analysis and Research.

OECD. 1996. *Standardisation and conformity assessment: Issues in the global marketplace*. (DAFFE/ CP (96)1) Paris: Organisation for Economic Cooperation and Development.

OECD. 1999. *Food safety and quality: Trade considerations*. Paris: Organisation for Economic Cooperation and Development.

OECD. 2003. *The impact of regulations on agro-food trade.* Paris: Organisation for Economic Cooperation and Development.

Otsuki, T., J. S. WILSON, and M. Sewadeh. 2001. Saving two in a billion: Quantifying the trade effect of European food safety standards on African exports. *Food Policy* 26(5): 495-514.

Oyejide, T. A., E. O. Ogunkola, and S. A. Bankole. 2000. *Quantifying the trade impact of sanitary and phytosanitary standards: What is known and issues of importance for Sub-Saharan Africa*. Washington: World Bank.

Peel, J. 2004. Risk regulation under the WTO SPS Agreement: Science as an international normative yardstick? Jean Monnet Working Paper 02/04. New York: New York University School of Law.

Petrey, L. A., and R. W. M. JOHNSON. 1993. Agriculture in the Uruguay Round: Sanitary and phytosanitary measures. *Review of Marketing and Agricultural Economics* 61(3): 433-442.

Philbrick, M. 2008. Risk assessment and the SPS Agreement: A case for bounded objectivity, risk/benefit analysis, and normative subsidiarity. In Proceedings of the Annual meeting of the International Studies Association's 49th annual convention: Bridging multiple divides, 26 March, 2008, San Francisco, USA.

Prevost, D., and M. Matthee. 2002. The SPS Agreement as a bottleneck in agricultural trade between the European Union and developing countries: How to solve the conflict. *Legal Issues of Economic Integration* 29(1): 43-59.

Roberts, D. 1997. Implementation of the WTO Agreement on the application of sanitary and phytosanitary measures: The first two years. Paper no. 98-4. Geneva: International Agricultural Trade Research Consortium.

Roberts, D. 1998. Preliminary assessment of the effects of the WTO Agreement on Sanitary and Phytosanitary trade regulations. *Journal of International Economic Law* 1(3): 377-405.

Roberts, D. 2000. Sanitary and phytosanitary risk management in the post–Uruguay Round era: An economic perspective. In Conference Proceedings, Incorporating Science, Economics and Sociology in Developing Sanitary and Phytosanitary Standards in International Trade, 25-27 January 1999, National Academy of Sciences, Washington, 33-49.

Roberts, D., and K. De Remer. 1997. *Technical barriers to US agricultural exports*. Washington: Economic Research Service, United States Department of Agriculture.

Scott, J. 2007. *The WTO Agreement on Sanitary and Phytosanitary Measures: A Commentary*. Oxford University Press.

Stephenson, S. M. 1997. *Standards, conformity assessment and developing countries*. United States: Organisation of American States.

Thilmany, D. D., and C. B. Barrett. 1997. Regulatory barriers in an integrating world food market. *Review of Agricultural Economics* 19(1): 91-107.

Thornsbury, S. 2000. *Sanitary and phytosanitary issues: Where does the WTO go from here*? University of Florida.

Thornsbury, S., D. Roberts, K. Deremer, and D. Orden. 1999. A first step in understanding technical barriers to agricultural trade. In G. H. Peters and J. von Braun, eds*., Food Security, Diversification and Resource Management: Refocusing the Role of Agriculture?*, 453-63. Brookfield, VT: Ashgate.

Thornsbury, S., and M. Carlson. 2000. The Agreement on the Application of Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade. *Law Centre Journal* 31(3): 841-854. Georgetown University Law Centre.

Unnevehr, L. J. 2001. Shaping globalisation for poverty alleviation and food security. *Focus* 8(7 of 13).

Unnevehr, L. J., and N. Hirschhorn. 1999. Food safety issues in the developing world. Technical paper no 469. Washington DC: World Bank.

Victor, D. G. 2000. Risk management and the world trading system: Regulating internal trade distortions caused by national sanitary and phytosanitary policies. In Conference Proceedings, Incorporating Science, Economics and Sociology in Developing Sanitary and Phytosanitary Standards in International Trade, 25-27 January 1999, National Academy of Sciences, Washington, 118-168.

Wang, Z. K., and A. L. Winters. 1991. *Africa's role in multilateral trade negotiations: Past and future*. Washington DC: World Bank.

Whitehead, A. J. 1996. Impact of GATT agreements on food control and trade. Food safety and quality control systems – Scientific background and their application for public health. In Proceedings of Joint FAO/ILSI-EUROPE Workshop, 18-22 November 1996, Warsaw. Rome: Food and Agriculture Organisation.

WHO. 1998. Food safety and globalisation of trade in food. A challenge to the public health sector. WHO/FSF/FOS/97.8 Rev.1 [online]. Washington, DC: World Bank. Available from: http://www.who.int/fsf/wtoen.pdf [Accessed 15 April 2005].

WHO. 2009. FAO/WHO Project and Trust Fund for enhanced participation in Codex, Joint FAO/WHO food standards programme, Codex Alimentarius Commission, Thirty-second Session, FAO Headquarters, Rome, Italy, 29 June - 4 July 2009.

Wiig, A., and I. Kolstad. 2005. Lowering barriers to agricultural exports through technical assistance. *Food Policy* 30(2): 185-204.

Wilson, J. S. 2000. The development challenge in trade: Sanitary and phytosanitary standards. Statement prepared for the WTO. Geneva: World Trade Organisation.

Wilson, J. S. 2002. *Standards, Trade and Development: What is Known and What Do We Need To Know.* Washington, DC: World Bank.

Wilson, J. S., and T. Otsuki. 2001. *Global Trade and Food Safety: Winners and Losers in a Fragmented System*. Washington, DC: World Bank.

Wilson, J. S., and T. Otsuki. 2004. To spray or not to spray: Pesticides, banana exports, and food safety. *Food Policy* 29(2): 131-146.

World Bank. 2005. *Food Safety and Agricultural Health Standards: Challenges and Opportunities for Developing Country Exports*. Washington, DC: World Bank.

WTO. 1995. *Agreement on Sanitary and Phytosanitary Measures*. Geneva: World Trade Organisation.

WTO. 2000. *How to Apply the Transparency Provisions of the SPS Agreement*. Geneva: World Trade Organisation.

WTO. 2001. *The Doha Implementation Decision Explained*. Geneva: World Trade Organisation.

WTO. 2003. *The SPS Agreement* [online]. Geneva: World Trade Organisation. Available from: http://www.wto.org/english/thewto_e/whatis_e/whatis_e.htm [Accessed 16 April 2005].

WTO. 2006. Questionnaire on the operation of SPS enquiry points and National Notification Authorities, World Trade Organisation, Committee on Sanitary and Phytosanitary Measures. (G/SPS/W/103/Rev.28) Geneva: World Trade Organisation.

WTO. 2007. Committee on sanitary and phytosanitary measures reference documents. Geneva: World Trade Organisation.

WTO. 2008. Standards and trade development facility database [online]. Geneva: World Trade Organisation. Available from: http://stdfdb.wto.org/category_project.asp?cat=270&subcat [Accessed 12 March 2008].

WTO. 2010. Document online search facility [online]. Geneva: World Trade Organisation. Available from: http://docsonline.wto.org/imrd/gen [Accessed 17 September 2008].

WTO. 2011. International trade by sector [online]. Geneva, World Trade Organisation. Available from: http://www.wto.org/english/res_e/statis_e/its2004_e/its04_toc_e.htm [Accessed 15 April 2005].

Zarrilli, S. 1999. WTO Sanitary and Phytosanitary Agreement: Issues for developing countries [online]. Geneva: South Centre. Available from: http://www.southcentre.org [Accessed 17 July 2003].

Endnotes

1. G/SPS/441-2003
2. G/SPS/441-2003
3. G-8: Argentina, Australia, Canada, EU, Japan, New Zealand, Thailand and United States.
4. G/SPS/510; G/SPS/GEN/441

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The SPS Agreement as a Bottleneck in Agricultural Trade between the European Union and Developing Countries: How to Solve the Conflict

*Denise Prévost and Mariëlle Matthee**

1. Introduction

It is crucial that developing country concerns regarding the Agreement on the Application of Sanitary and Phytosanitary Measures (hereinafter the SPS Agreement) urgently be addressed in the WTO in order to ensure that these countries experience the full benefits of trade. There has been much talk that the new negotiating round in the WTO, which was launched in Doha, will be a Development Round.[1] To ensure the success of the new round, reforms are necessary in sectors of importance for developing countries in order for these Members to perceive the advances in trade liberalisation as, on balance, advantageous to them. On the other hand, for reforms to be agreed upon they have to take account of the interests of developed country Members, such as the European Community, which are often in conflict with those of developing countries, particularly in sensitive sectors.

The agricultural sector is pivotal in this regard as many developing countries' economies rely on agricultural trade as a primary source of foreign revenue. However, this sector is subject to a great deal of protectionist measures in the EC and elsewhere. Clearly, progress towards removal of these traditional trade barriers (such as subsidies and tariffs) can be undermined by the use of health regulations to block entry of imports. Thus, in order to ensure real market access for agricultural products, the ongoing reform process for agricultural liberalisation in the WTO, as mandated by Article 20 of the Agreement on Agriculture (hereinafter the AoA), must go hand in hand with reforms to the SPS Agreement. This fact is not only evinced by the close

* Denise Prévost is a researcher and PhD candidate at the Department of International and European Law, University of Maastricht. Mariëlle Matthee is research fellow at the T.M.C. Asser Institute in The Hague and PhD candidate at the University Paris I: Panthéon–Sorbonne.

1. This new terminology was stated to be intended to signal a different set of priorities in the negotiations. The Doha Ministerial Declaration specifically states that Members seek to place the needs of developing countries at the heart of the Work Programme adopted therein (*see Ministerial Declaration*, Ministerial Conference, Fourth Session, hereinafter the *Ministerial Declaration*, WT/MIN(01)/DEC/W/1 at para. 2).

link between these two agreements during their original negotiation in the Uruguay Round, but also by the fact that most negotiating proposals in the context of the mandated agriculture negotiations contain some reference to SPS concerns. A recent study by the FAO[2] points to the fact that trade in agricultural products is still hampered by non-tariff barriers, including health regulations. Thus, despite the existence of disciplines contained in the SPS Agreement, countries continue to block access to their agricultural markets by means of SPS measures.[3] This has particularly harsh consequences for developing countries, many of which rely on a small number of agricultural exports. They view SPS measures as often creating unjustified non-tariff barriers to their agricultural and food exports.

The EC constitutes the main export market for developing country agricultural products and liberalisation of its agricultural industry is therefore crucial for developing countries. Influenced by a series of events directly or indirectly related to the protection of public health, such as the outbreak of mad cow disease, the Belgian dioxin scandal and the French blood-transfer case, European consumers lost trust in the governors of the European Communities. Therefore re-establishing consumer confidence is one of its major concerns at this moment. Consequently, its trade policy is greatly influenced by public opinion and the 'non-trade concerns' under the mandated negotiations on the AoA are high on the agenda.[4]

While it is clear that most Members see a need to review certain aspects of the SPS Agreement it is not yet established in what context such review would occur. If the SPS Agreement itself is not reopened for negotiation in the context of the new round,[5] it is possible that these concerns will continue to be addressed in the context of the ongoing agriculture negotiations, as has been the case to date.[6] The reference in Article 14 of the AoA to the SPS Agreement opens the door for this possibility, as does the identification of market access (thus including non-tariff barriers such as SPS measures)

2. FAO, 1999, *Symposium on Agriculture, Trade and Food Security: Issues and Options in the Forthcoming WTO Negotiations from the Perspective of Developing Countries*, 23–24 September 1999, FAO: Geneva at 3.
3. In a communication during the Seattle preparatory process, India noted that 'as standards are emerging as one of the major non-tariff barriers to the market access of developing countries, it is imperative that they be speedily rationalised . . .' (*see* WT/GC/W/108 at para. 19).
4. These non-trade concerns focus mainly on food safety issues such as GMO labelling, the application of the precautionary principle and consumer concerns and animal welfare. *See* G/AG/NG/W/90.
5. It should be noted that no Member has formally asked that the SPS Agreement be reopened for negotiation during the new round. In fact the US has indicated that it will not support such reopening (*see* G/AG/NG/W/15 at 2). However, the possibility that this may change at a later stage in the negotiations cannot be excluded.
6. For example, *see* G/AG/NG/W/136 at 4; G/AG/NG/W/97 and Corr. 1 at 2 and G/AG/NG/W/94 at 2.

as one of the 'three pillars'[7] of the ongoing agriculture negotiations and the already mentioned explicit reference in Article 20 to 'non-trade concerns' as one of the elements to be taken into account in the mandated negotiations. Developed Members, such as the European Communities, have little to gain from increased disciplines on their ability to enact SPS measures unless they can use such concessions to exact trade benefits in other sectors of interest in the context of a comprehensive round. On the other hand, concerns have been expressed that these trade-offs would allow powerful Members, on whose agricultural product markets developing countries depend, to exact a price for the tightening of SPS disciplines from developing countries in unrelated sectors.[8] Another possibility is to make use of the mechanism that exists in Article 12.7 SPS of the SPS Agreement, which allows for review of the operation and implementation of the Agreement to take place in the SPS Committee, which can then make proposals for amendments to the Council for Trade in Goods.[9] Certain aspects of the SPS Agreement have already been addressed in the Implementation Decision adopted in the Doha Ministerial, which was seen as a down-payment for developing countries at the start of the new Round.[10]

To establish what are the conflicting concerns with regard to the SPS Agreement, one must thus turn to the proposals made in the context of the agriculture negotiations. In addition, a few proposals made in the context of the Seattle preparatory process and the implementation discussions in the General Council are relevant here. This paper will not attempt to provide a comprehensive discussion of all problems raised by developing countries and the EC regarding the SPS Agreement, but focus on a few central concerns.

7. The other two pillars are export competition and domestic support.
8. UNCTAD, Trade and Development Board, 1999, TD/B/COM.1/EM.8/2 at para. 29.
9. The first review of the SPS Agreement under Article 12.7 (1998–1999) did not result in any recommendations for amendment of the text and it was agreed in the SPS Committee that any Member could propose amendments at any time for consideration in the Committee. (While concerns regarding the implementation and operation of the Agreement have been raised in SPS Committee meetings, there have been no specific proposals for amendments. On the other hand, the SPS Committee has adopted a decision on equivalence under its powers in terms of Article 12.1 SPS to facilitate the implementation of Article 4 SPS (*see* WTO SPS Committee 2001 *Decision on Equivalence*, G/SPS/19).)
10. *See* WTO Ministerial Conference, Fourth Session, 2001, *Decision on Implementation-Related Issues and Concerns*, WT/MIN(01)/W/10 (hereinafter the *Implementation Decision*) at para. 3. The question of the status of this decision is interesting as it cannot be regarded as an authoritative interpretation of the relevant articles of the SPS Agreement as the procedure in Article IX.2 WTO was not followed. Panels and the Appellate Body are likely to take it into account in interpreting the relevant articles of the SPS Agreement as a "subsequent agreement" under Article 31.3(a) of the Vienna Convention but in doing so they may not add to the obligations contained in the SPS Agreement.

2. Differing focus: market access vs. non-trade concerns

In the first phase of the mandated agriculture negotiations, many formal negotiation proposals contained references to SPS concerns.[11] Those of developing countries mainly addressed SPS issues in the context of their market access concerns, although there were a few proposals which also looked at the impact of the Agreement on non-trade concerns, such as food safety and consumer concerns.[12] From an examination of these proposals it thus appears that the primary focus of developing countries with regard to the SPS Agreement is on the extent to which it can assist them in obtaining real market access for their agricultural and food exports. Issues of food safety take secondary place and are most prominent in those developing countries that are net importers of agricultural products.[13] On the other hand, the primary focus in the EC proposals is on non-trade concerns, such as food quality and animal welfare.[14]

The reason for the developing country focus on market access is obvious. As was the case during the Uruguay Round negotiations, in the current negotiations Members realise that the hard-won progress made towards liberalisation of the agricultural sector by increasing disciplines in the areas of export competition, market access and domestic support is meaningless without disciplines to prevent Members replacing their traditional protectionist measures with non-tariff barriers such as the imposition of standards or regulations for the protection of human, plant or animal life or health. The disciplines of the SPS Agreement aim to address this problem.

The proposals indicate that there are two main areas of concern that developing countries have with regard to the effectiveness of the SPS Agreement in preventing SPS measures from becoming unjustified barriers to trade (and thus in guaranteeing market access). The first area of concern relates to the flexibility inherent in the SPS disciplines themselves, particularly with regard to the possibility of taking precautionary measures under Article 5.7 SPS and of deviating from internationally harmonised standards

11. A summary of the proposals in the second phase of the agriculture negotiations can be found in a Secretariat briefing document which refers to only two proposals relating to SPS issues, those of Japan and the ECs (*see* WTO Information and Media Relations Division, 2001, *WTO agriculture negotiations: The issues, and where we are now* at 26–27).
12. *See* for example the proposal of Korea in G/AG/NG/W/98 at 5.
13. The proposal from Mauritius indicates that Small Island Developing States (SIDs) are mostly food deficit countries and suggests that SIDs' inability to carry out detailed risk assessments (as required by the SPS Agreement) should not prevent them from denying entry of certain products into their territories (*see* G/AG/NG/W/96 at 5).
14. *See* G/AG/NG/W/90.

as provided for in Article 3.3 SPS.[15] This first category of concerns stands in contrast with the non-trade concerns of the EC, which would require flexibility in the existing SPS provisions. Secondly, developing countries widely express the concern that the lack of implementation by developed Members of provisions in the SPS Agreement enacted to take account of the special constraints faced by developing countries means that they continue to be confronted with insurmountable hurdles in the form of stringent SPS standards on their export markets, without being given assistance to comply with them. Although until recently the EC granted technical assistance related to SPS capacity building to several developing countries on a rather *ad hoc* basis, it is about to launch important technical assistance to all ACP (African, Caribbean and Pacific) countries to comply with the EU sanitary and phytosanitary rules.[16] This might indicate a turning point in the EC policy on special and differential treatment of developing countries.

These two areas of concern will now be discussed in more detail and explained in the context of the existing SPS Agreement.

2.1. Flexibility inherent in SPS disciplines

The disciplines contained in the SPS Agreement aim at achieving a balance between the sovereign right of Members to impose measures for the protection of health in their territories and the need to liberalise trade in agriculture and food products. For this reason, they allow some flexibility for national governments in their regulation of health in their countries. It is the degree of this flexibility that gives developing countries cause for concern. They see this flexibility as eroding the strength of the disciplines and creating the possibility of abuse for protectionist purposes. On the other hand, the EC expresses its need for such flexibility in order to satisfy its consumer's concerns.

One of the disciplines contained in the SPS Agreement is the obligation

15. Additionally, the flexibility in the provisions on equivalence (Article 4 SPS) and the recognition of disease-free areas (Article 6 SPS) was raised as a problem. Although these provisions are mandatory, the lack of clear guidelines for implementation made these obligations difficult to enforce and little had been done by way of implementing these provisions. Developing countries accused developed Members of refusing to recognise disease-free areas even when officially recognised as such by the relevant international organisations and of requiring 'sameness' instead of equivalence (*see* G/SPS/GEN/128 at 1). On 24 October 2001, the SPS Committee (using its competence under Article 12.1 SPS) approved a decision on equivalence, aimed at facilitating the use of Article 4 SPS (*see* WTO SPS Committee 2001 *Decision on Equivalence*, G/SPS/19). The status of this decision is worth examining. Like the Implementation Decision, it does not comply with the requirements for an authoritative interpretation or an amendment of the SPS Agreement (Articles IX.2 and X WTO). Due to constraints of space, this issue will not be discussed further here, but its importance should not be underestimated.
16. *See* G/SPS/GEN/244, pp. 4 and 5, *Indicative list of projects*.

to base SPS measures on internationally harmonised standards[17] unless the stricter measures can be scientifically justified by means of a risk assessment.[18] The promotion of harmonised standards by the SPS Agreement has the potential of going a long way towards reducing the non-tariff barriers faced by developing country products by ensuring that the SPS measures imposed reflect internationally accepted standards (rather than arbitrary and unreasonably stringent standards) and that products face the same requirements on all export markets.

The loopholes created in the harmonisation provision by the possibility for (scientifically justified) deviating measures are seen by developing countries as undermining these potential benefits. Developing countries do not have the technical capacity and expertise to challenge SPS measures that deviate from international standards on grounds of lack of scientific justification. Further, since scientists often disagree on issues of risk and a risk assessment does not have to embody a majority view,[19] much scope is left for Members to impose more stringent SPS measures than those embodied in international standards. This diminishes the harmonising effect of Article 3 SPS and thus the benefits thereof for increasing market access for agricultural and food products.

This room to manoeuvre is, however, necessary in the view of the EC. If all countries are obliged to stick to international standards, there is fear that a downward movement of standards will result. Often the EC already has high standards in place at the time international standards are negotiated. Thus the obligation to accept international standards would most probably paralyse the standard-setting process, as the EC would in that case have every interest in obstructing the development of a new international standard, which contains a lower level of protection than its own. As regards the minority opinion of scientists, this is seen by the EC as one of the main ways to ensure the application of the precautionary principle during the risk assessment procedure. In their opinion, the inclusion of minority views in the risk assessment reports must be assured, especially in the case that the minority opinion draws attention to scientific uncertainty.[20]

The SPS Agreement further disciplines Members' use of SPS measures by requiring that such measures be based on scientific principles (in the form of a risk assessment).[21] This obligation ensures that SPS measures address a real, objectively established, health risk and are not protectionist measures

17. Article 3.1 SPS.
18. Article 3.3 SPS as interpreted by the Appellate Body in *EC-Hormones* (*see* WT/DS26/B/R at para. 175).
19. *See* the Appellate Body report in *EC-Hormones* (WT/DS26/B/R at para. 175). This finding has been criticised for opening the door for the use of 'hired scientists' by governments to justify their measures (*see* D.E. McNiel, 1998 *Virginia J of Int'l L* 39: 89–134 at 134.)
20. *See* G/SPS/GEN/225, G/TBT/W/154, G/CTE/W/181, at 3.
21. Article 2.2 SPS read together with Article 5.1 SPS.

disguised as health regulations. However, an exception to this obligation is provided for in Article 5.7. Article 5.7 allows for provisional SPS measures, based on available pertinent information, in cases where scientific evidence is insufficient, provided that a Member seeks to obtain additional information for a more objective risk assessment and reviews the measure within a reasonable period of time.

The allowance made in Article 5.7 for precautionary measures gives developing countries cause for concern. The terms used in Article 5.7 are rather vague and undefined. It is not clear what would constitute 'pertinent information' sufficient to justify a provisional measure, how long such a measure may be maintained while keeping its character as 'provisional' or what the obligation to 'seek to obtain . . . additional information' entails.[22] This creates the possibility that insufficiently justified measures could be maintained for long periods of time.

In order to respond to European consumer concerns and to regain their confidence, the EC pays special attention to the use of the precautionary principle. There is public concern that the WTO can be used to force onto the market products for which there is a reasonable suspicion that they might be unsafe. Under the precautionary principle, the EC can provisionally adopt measures to protect human health, when there is a legitimate reason to believe that the product in question may contain risks but insufficient information exists to identify them. It is therefore a useful instrument for the EC to respond to public concerns. In its communication on the precautionary principle, the European Commission has indicated that in its opinion the provisional nature of a measure should not be determined by time restrictions, but rather be delineated by the development of scientific knowledge.[23]

Due to the flexibility inherent in the language of these provisions, developing countries have proposed that the disciplines in the SPS Agreement be tightened. In particular, some proposals have suggested that all Members should be obliged to apply internationally harmonised SPS standards that reflect the constraints faced by developing countries. A clarification of the requirements of Article 5.7 by means of concrete guidelines indicating under which conditions a provisional measure may be applied has also been suggested. Aware that the precautionary principle is to a certain extent reflected in Article 5.7, and that misuse and legal uncertainty should be avoided, there is a need for clarification on the use of the precautionary principle, the EC has developed several documents in which they explain their approach towards its use. In addition, they have repeatedly called for further clarification on this issue.[24]

22. The Appellate Body took some steps towards the clarification of two of the requirements of Article 5.7 in Japan – Agricultural Products, WT/DS76/AB/R, paras. 92–93.
23. *See* G/SPS/GEN/168.
24. *See* G/AG/NG/W/90, at 4.

2.2. Lack of consideration for developing country constraints

The SPS Agreement provides for special and differential treatment (S&D treatment) of developing country Members and for the provision of technical and financial assistance, in order to take into account the special constraints that these Members face due to their economic and developmental situations.[25] In particular, in Article 9 SPS, Members agree to 'facilitate the provision of technical assistance to other Members, especially developing country Members' in order to allow them to adjust to and comply with SPS standards in their export markets.[26] This assistance can take the form of 'advice, credits, donations or grants'. Where compliance with the SPS measure would entail 'substantial investments' by a developing country, the importing Member 'shall consider' providing the technical assistance necessary for the developing country Member to maintain or expand its market access opportunities for the relevant product.[27] Article 10 SPS obliges Members to take developing country Members' special needs into account in the preparation and application of SPS measures.[28] Further, it provides that Members 'should' accord longer time-frames for compliance with new SPS measures on products of interest to developing country Members, where the appropriate level of SPS protection allows,[29] and that they 'should' encourage and facilitate active developing country participation in the international standard-setting bodies.[30] Paragraph 2 of Annex B SPS obliges Members to allow a 'reasonable interval' between the publication of an SPS measure and its entry into force to allow producers 'particularly in developing country Members' to adapt to the new measure '(e)xcept in urgent circumstances'. The examination of these provisions shows that many of the S&D treatment provisions contain no binding obligations beyond a 'best endeavour' commitment, or are qualified in a way that makes evasion easy.

Developing countries argue that the flexible language of these provisions creates no enforceable obligations and thus allows developed countries to

25. There are two types of S&D treatment provisions in the WTO Agreements, namely (1) time limited derogations (such as longer transition periods) and (2) clauses providing for specific, though undefined, action by developed countries when dealing with developing countries. As the second category is most problematic, this paper will limit itself to this type of provision (*see* WT/GC/W/108 at paras. 5–7).
26. Article 9.1 SPS.
27. Article 9.2 SPS.
28. Article 10.1 SPS.
29. Article 10.2 SPS.
30. Article 10.4 SPS.

disregard them. The inadequacy of the implementation[31] of these provisions is a common complaint of developing countries and has been raised in the framework of the implementation discussions in the General Council[32] and in the Seattle preparatory process as well.[33] There is a clear need for the operationalisation of S&D treatment and there have been many calls for the strengthening of these rules.[34]

While many developing country proposals in this regard merely refer, in general terms, to the need for consideration of their special situation, technical and financial assistance to meet SPS standards and assistance for their participation in international standard-setting (thus implying that the current rules do not effectively provide for these needs),[35] other proposals are more specific and expressly state that Articles 9 and 10 must be made mandatory for developed country Members.[36] In addition, some proposals suggest the laying down of specific time frames for the imposition of new measures[37]

31. That is not to say that no technical assistance relating to SPS concerns has been delivered at all. In fact several Members have submitted papers to the SPS Committee documenting the technical assistance they have provided to developing countries (*see* G/SPS/GEN/181; G/SPS/GEN/143; G/SPS/GEN/143/Rev.1/Add.1; G/SPS/GEN/78; G/SPS/GEN/124; G/SPS/GEN/244). What remains a concern is the inadequacy of the technical assistance given thus far to overcome the barriers to developing country products created by stringent SPS standards (*see* G/SPS/GEN/85 at 4).
32. The Decision on Implementation adopted at the Doha Ministerial Declaration on the basis of these discussions refers to implementation concerns regarding S&D treatment and mandates the Committee on Trade and Development to examine the possibility of making non-mandatory S&D provisions binding as well as other ways of improving the effectiveness of these provisions, and to report to the General Council with recommendations in this regard by July 2002 (*see* the *Implementation Decision* at para. 12). This work programme is endorsed in the Ministerial Declaration (*see* the *Ministerial Declaration* at para. 44).
33. *See*, for example, WT/GC/W/108 at para. 16.
34. In an earlier response of the LDC Coordinator to the Draft Ministerial Declaration, it is pointed out that it is not sufficient to provide technical assistance to help developing countries understand WTO rules and implement their obligations. Instead, technical assistance must go further and address supply side constraints (*see* the *Statement of the Coordinator of LDCs on the Draft Ministerial Declaration*, 2 October 2001 at 6). An example of such a constraint would be the inability to comply with SPS standards due to lack of technical capacity, expertise and infrastructure. The informal paper on implementation of a group of seven Members suggests that all S&D treatment provisions be converted into concrete commitments, 'especially to address the constraints on the supply side of developing countries' (*see* the *Group of Seven Implementation Paper* 2001 at 8–9).
35. *See* for example G/AG/NG/W/136 at 4 and G/AG/NG/W/37 at 6 & 7.
36. *See* for example G/AG/NG/W/142 at 3 and *Group of Seven Implementation Paper* 2001 at 3. It should be noted, however, that some or parts of the provisions which these proposals suggest be made mandatory (e.g. Article 10.1 and Annex B para. 2) are already mandatory, but difficult to enforce due to loopholes and flexible language.
37. *See* Group of Seven Implementation Paper 2001 at 3.

and the creation of specific procedures[38] to be followed to ensure that developing country constraints are taken into account.[39]

The Implementation Decision[40] adopted in Doha addresses SPS-related concerns with regard to S&D treatment. The Decision is a compilation of proposals from developing countries, the 'Group of Seven'[41] and the 'Quad' Members. In particular, the Decision stipulates time frames that were previously left open and sets some procedural rules for Articles 10 and 12.7.[42]

3. Evaluation of developing country proposals and suggested amendments of the SPS Agreement

The developing country proposals discussed above address significant problems faced by these countries regarding the effectiveness of the SPS Agreement in ensuring market access for their agricultural and food exports. Reforms are clearly needed to prevent evasion of the SPS disciplines by misuse of the flexibility inherent in the Agreement to impose unjustified measures. At the same time, it is necessary to ensure that developing countries receive the technical and financial assistance as well as special treatment they need in order to prevent legitimate SPS measures from constituting barriers to their export markets.

On the other hand, it is important to ensure that these two goals are met

38. *See* G/AG/NG/W/97 at 2; G/AG/NG/W/100 at 5 and WT/GC/W/108 at para. 16.
39. A couple of interesting and very concrete proposals were made in this regard in the context of the Seattle preparatory process (*see* WT/GC/W/374 at para. 16 and WT/GC/W/108 at paras. 16 & 18).
40. *See* the *Implementation Decision* WT/MIN(01)/W/10 at para. 3. This decision was drawn up and adopted separately from the Ministerial Declaration, which decision was criticised by some developing countries as potentially leading to the downplay of the importance of implementation issues (see the *Statement of the Coordinator of LDCs on the Draft Ministerial Declaration*, 2 October 2001 at 1).
41. *See Group of Seven Implementation Paper*, 2001.
42. According to the Implementation Decision, the 'longer time-frame for compliance' under Article 10.2 SPS must be understood to mean normally at least 6 months. Where no phased in introduction of a new SPS measure is possible and specific problems with the measure are identified by a Member, the Member imposing the measure must enter into consultations to find a mutually satisfactory solution while continuing to achieve the Member's appropriate level of protection. Further, it provides that the 'reasonable interval' under Annex B para. 2 must be understood to mean normally at least 6 months, taking into account that the timeframes for specific measures must be considered in the context of the particular circumstances of the measure and actions necessary to implement the measure. Further, that the entry into force of SPS measures that contribute to trade liberalisation should not be unnecessarily delayed. The Decision also proposes that review of the Agreement under Article 12.7 take place at least once every 4 years and that the Director-General continue his cooperative efforts with international standard-setting organisations to facilitate participation of Members at different levels of development (*see* the *Implementation Decision*, WT/MIN(01)/W/10 at para. 3).

without disturbing the delicate balance aimed at by the SPS Agreement between the objective of ensuring market access for food and agricultural products and the sovereign right of governments to protect the life and health of humans, plants and animals in their territories. It goes without saying that both developed and developing countries have an interest in being able to act to address health risks in their territories, in a manner that reflects their national health priorities.

It seems that any workable solution to achieve an appropriate balance between the two aims of the SPS Agreement would involve guidelines further specifying the flexible provisions, which are largely concentrated in Article 5.7 and Article 3.3 SPS, coupled with a framework for effective technical and financial assistance and stricter rules on special treatment. Some tentative suggestions will be made along these lines, as a basis for further discussion.

Firstly, the loophole created in the scientific disciplines by Article 5.7 should be clarified. It is clear that scope for the application of provisional measures is necessary to deal with the realities of scientific uncertainty in risk regulation. This is not a new phenomenon and it is common practice for countries to act quickly in the face of a threat to health, without waiting for the results of risk analyses. However, this should not be allowed to become a catch-all provision for all measures lacking a scientific basis. It is therefore important that binding guidelines be drawn up that further define the conditions under which precautionary measures may be taken. In addition, the use of Article 5.7 should be limited to safety concerns and should not cover the ethical concerns of the consumers. Often these concerns are interrelated. Since ethical concerns can be considered legitimate, more attention should be paid to the clarification of other provisions under the WTO Agreements (mainly GATT Article XX, the TBT Agreement or under the negotiation process of Article 20 AoA) that could cover trade measures aiming to respond to these concerns.

It is suggested that the proposed guidelines make clear that the application of Article 5.7 is only triggered where 'scientific evidence is insufficient' due to the urgency of the measure, which made waiting for the results of a risk analysis unfeasible or due to gaps in existing scientific knowledge (for example regarding the long-term effects of GMO release into the environment). This would not be the case where scientific evidence exists, but does not support the measure.[43] The 'reasonable period of time' before such a measure must be reviewed should be specified[44] (for example at 6 months) with the provision that a Member maintaining the measure for a longer period without having obtained additional evidence to support a proper risk assess-

43. For example as was the case with the EC's ban on hormone-treated beef in the face of risk analyses showing the hormones to be safe if administered according to good veterinary practice (at issue in *EC-Hormones* WT/DS26/AB/R).
44. *See* the report of the Appellate Body in *Japan-Agricultural Products*, WT/DS76/AB/R at para. 93.

ment bears the burden of proving why such additional time is necessary and why a risk assessment could not be performed in this period. These amendments would tighten the provisions of Article 5.7 and ensure that they are only used for legitimate purposes. While tightening the provisions, attention should be paid to preventing developing countries from becoming victims of these restrictions in future. The lack of scientific, technical and financial resources make it difficult, if not impossible, for them to apply the precautionary principle themselves. Defining a time limit that is too restricted, while allowing no budgetary or political justifications for longer periods, might eventually do more harm than good to developing countries.[45]

Secondly, it would be useful to tighten the flexibility resulting from the wording of Article 3.3. Tightening it as far as obliging all Members to adopt international standards is to be rejected, as these standards represent a compromise agreement on a minimum level of protection and such an obligation would be contrary to the acknowledged sovereign right of governments to decide on the appropriate level of protection to be applied in their territories. In addition, the paralysis of the standard-setting procedure that would result in the postponement of the adoption of standard, or even no adoption at all, would have negative consequences for developing countries in particular. As developing countries often do not have standards in place, international standards provide them with a certain degree of protection. They also set a benchmark against which other countries' standards can be challenged.

However, a reformulation of this provision to indicate that deviation must always be based on a risk assessment would be useful to avoid the confusing impression created by its wording that there are two possibilities for the justification of deviating measures.[46] Further, the provision could be amended to oblige developed country Members that impose stricter measures than those reflected in international standards to promptly notify their intention to impose such measures,[47] respond to all comments received regarding the measure and, to the extent that the measure has a negative impact on exports from developing countries, provide technical and financial assistance to enable

45. It is interesting to note that in the framework of the Biosafety Protocol, the majority of developing countries and the European Union were in favour of the inclusion of the precautionary principle. In their opinion, however, the precautionary principle needed to be backed-up by the adoption of a liability regime. Some developing countries expressed that such a regime could give a certain guarantee which is in their opinion necessary as the WTO rules restrict in particular the countries with limited scientific and technical expertise to justify their import restrictions based on the precautionary principle (Summary of the Fifth Meeting of the Open-ended *ad hoc* Working Group on Biosafety: 17–28 August 1998, *Earth Negotiations Bulletin*, IISD, Vol. 9, no. 108, 31 August 1998, p. 12).
46. The Appellate Body stated in *EC-Hormones* that 'Article 3.3 is evidently not a model of clarity in drafting' (*see* WT/DS26/AB/R at para. 173).
47. *See* the arguments of India (WT/GC/W/108 at para. 18).

these countries' producers to meet the new standard.[48] In this way, technical and financial assistance will be directly linked to the measures encompassing a higher level of protection and the need of developing countries resulting therefrom. Such an obligation will ensure that Members do not lightly deviate from an international standard and, in cases where they are convinced that such deviation is necessary, that they take responsibility for the effects of the deviation on developing country exports.

Even though it does not go as far as obliging all Members to adopt international standards, the suggested amendment would, of course, increase once again the importance of the standards set on international level. With this shift, the concerns related to the democratic and effective functioning of standard-setting bodies become more important and need to be evaluated. At present, despite initiatives of the standard-setting organisations in this regard, developing country participation in the international standard-setting process leaves much to be desired. They do not have the resources to attend the plethora of committees (often hosted by developed countries) that prepare the standards and they thus often limit their participation to the plenary session where the proposed standards are adopted. Although developing country participation in plenary sessions is increasingly active, at this late stage, the concerns they raise cannot be adequately addressed nor compromises reached and the resulting absence of consensus prevents the adoption of any standard. Clearly this result is contrary to the interests of developing countries in extending the harmonisation for standards as much as possible. The last meeting of the Codex Alimentarius Commission[49] clearly illustrated this problem. The possibility that this untenable situation may lead to a movement away from consensus decision-making in standard-setting organisations is also worrying as the standards adopted would lose their legitimacy as internationally accepted norms. It is thus of the utmost importance to ensure effective participation of developing countries in all stages of the standard-setting process.

The provision in Article 9 SPS stating that Members 'should' encourage and facilitate the active participation of developing countries in these organisations has not been effective. What is needed are not meetings with developing countries during which they are encouraged to support the position of the developed country involved, but rather effective technical and financial assistance to developing countries to enable them to identify and promote

48. This follows the proposal by the group of eight developing countries during the Seattle preparatory process mentioned above, but limits its application to SPS measures that deviate from international standards (*see* WT/GC/W/374 at para. 16). It also corresponds to the suggestion by the Coordinator for LDCs in the response written on the Draft Ministerial Declaration, for the inclusion of an agreement to provide technical and financial support to LDCs *before* the introduction of new SPS measures which adversely affect LDC exports (*see Statement of the Coordinator of LDCs on the Draft Ministerial Declaration* 2001 at 8).
49. The 24th Session of the Codex Alimentarius Commission was held in Geneva on 2–7 July 2001.

their own interests. To ensure that no strings are attached to such assistance and that it is supplied in a secure and predictable manner, it would be best if it were administered by the WTO itself on the basis of funding from the regular (but increased) WTO budget, which is contributed to by all Members according to their share in world trade.[50] In this way, financial support could be given for developing country delegates to attend all meetings,[51] for training programs for such delegates and for coordination with their national ministries.[52]

Additionally, while the WTO cannot prescribe to other international organisations how they should conduct their activities, it may decide for itself which of the standards adopted by such organisations it will regard as relevant for its purposes. In this context, the definition of 'international standards, recommendations and guidelines' in Annex A SPS needs to be looked at closely, in order to differentiate between the various types of instruments used by international standard-setting organisations, and reconsider whether they should have the same status under the SPS Agreement. For instance, at this moment food safety standards developed by the Codex Alimentarius would have the same status as its general principles once they are adopted,[53] whereas the function of the instruments is quite different.

Lastly, it is necessary to address the issue of time frames for imposition of and compliance with new or stricter SPS measures. As stated above, fixed time frames under Article 10.2 and Annex B paragraph 2 would lead to the untenable situation that Members could not prevent the inflow of even dangerous products and proposals to set fixed time frames should therefore be

50. It would seem logical for this fund to be set up and administered by the international standard-setting organisation itself. However, the WTO has no say over the activities of these organisations and cannot oblige them to take such a step. Nor do their members have any obligation to contribute to a fund on the basis of a WTO decision. The added relevance of the standards set by these organisations is due to the reliance thereon by the SPS Agreement and the problems caused thereby are therefore an issue that the WTO should deal with. It is, however, possible that an agreement could be reached between the WTO and each standard-setting organisation in which the standard-setting organisation agrees to take over these duties.
51. This is already done by the OIE, which has a fund from which developing country delegates' costs for attending the plenary sessions are met.
52. The need for technical assistance to be secure and predictable was recognised in the Doha Ministerial Declaration and the Budget Committee was instructed to develop a plan ensuring long term funding for WTO technical assistance for adoption by the General Council in December 2001 (*see Ministerial Declaration* WT/MIN(01)/DEC/W/1at para. 40). In its first meeting on this issue the Committee considered a proposal by the Director-General to create a Doha Development Agenda Global Trust Fund, financed by voluntary contributions coupled with a monitoring mechanism to ensure timely and predictable funding. Some Members raised concerns regarding the voluntary nature of the funding, arguing for financing from the WTO's regular budget (*see Bridges*, 40(5), 28 November 2001 at 4).
53. The SPS Committee responded to the question from the Codex Alimentarius Commission on the status of Codex texts by saying that the SPS Agreement did not establish any distinction between different types of Codex texts directed to governments, ALINORM 99/33, paras. 50–52.

rejected. The Implementation Decision contains a more flexible specification of the time frame for phased introduction of a measure under Article 10.2 SPS as 'normally a period of not less than 6 months', coupled only with a consultation obligation 'with a view to finding a mutually acceptable solution' that maintains the importing Members appropriate level of protection, where phased introduction is not feasible.[54] This may lead to a continuation of the situation as it now stands, where no effort is being made to identify situations where such delayed compliance would be feasible. It is thus proposed that the recommended period for compliance by developing countries (which could be left at 6 months) be coupled with a shift of the burden of proof to the Member applying the new measure without allowing for delayed compliance to indicate reasons why this additional period could not be allowed. In this way, the starting point would be the granting of a longer compliance period to developing countries which could not be avoided by mere consultations, but the additional period would not be required where an unacceptable health risk would result. An analogous solution could be applied to the time frame for the coming into force of new measures under Annex B paragraph 2 to replace the 'normally a period of not less than 6 months' interpretation laid down in the Implementation Decision.[55]

4. Conclusion

It is not the purpose of this article to cover all aspects of the SPS Agreement that need to be addressed in order to accommodate developing country concerns, but merely to make a few suggestions that could form a starting point for further discussion and more concrete proposals for reform. It is hoped that by contributing to the discussion on possibilities for reform of the SPS Agreement, further steps can be taken towards reaching a solution that both addresses the legitimate concern of developing countries to ensure that the SPS Agreement's disciplines result in tangible benefits in terms of market access for their agricultural and food products, and the equally important goal of ensuring that Members' ability to protect health within their territories is not compromised. It is clear that reforming the SPS Agreement cannot stand by itself, but comes with amending in conjunction the relevant provisions of other WTO Agreements and the functioning of the relevant international standard-setting bodies.

54. *Implementation Decision* WT/MIN(01)/W/10 at para. 3.1.
55. *Implementation Decision* WT/MIN(01)/W/10 at para. 3.2. Here the 6-month time frame is qualified by a requirement that the circumstances of the measure and the actions necessary for its implementation be taken into account. These considerations, as well as the further provision that trade liberalising SPS measures should not be unnecessarily delayed, should be maintained.

Bibliography

Group of Seven. 2001, *Group of Seven Implementation Paper: Proposals on Implementation*, informal paper presented in the implementation consultations in the WTO General Council, available at: www.ictsd.org/ministerial/doha/implementation.pdf

FAO. 1999, *Symposium on Agriculture, Trade and Food Security: Issues and Options in the Forthcoming WTO Negotiations From the Perspective of Developing Countries*, 23–24 September 1999, Food and Agriculture Organization: Geneva

McNiel, D.E. 1998, 'The first case under the WTO's Sanitary and Phytosanitary Agreement: the European Union's hormone ban.' *Virginia Journal of International Law* 39

Statement of the Coordinator of LDCs on the Draft Ministerial Declaration, 2 October 2001, available at: www.wtowatch.org/library/admin/uploadedfiles/Statement_of_the_coordinator_of_the_LDCs_on_th.htm

Trade and Development Board, UNCTAD. 1999, *Examining trade in the agricultural sector, with a view to expanding the agricultural exports of the developing countries, and to assisting them in better understanding the issues at stake in the upcoming agricultural negotiations* TD/B/COM.1/EM.8/2, 23 February, United Nations Conference on Trade and Development: Geneva

WTO Appellate Body Report. *European Communities – Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26/B/R, 16 January 1998

WTO Appellate Body Report. *Japan – Measures Affecting Agricultural Products* WT/DS76/AB/R, 22 February 1999

WTO Committee on Agriculture. 2000, *Market Access: Submission by Cuba, Dominican Republic, El Salvador, Honduras, Kenya, India, Nigeria, Pakistan, Sri Lanka, Uganda, Zimbabwe* G/AG/NG/W/37, 28 September, World Trade Organization: Geneva

WTO Committee on Agriculture. 2000, *Proposal for Comprehensive Long-Term Agricultural Trade Reform: Submission by the United States* G/AG/NG/W/15, 23 June, World Trade Organization: Geneva

WTO Committee on Agriculture. 2000, *WTO Negotiations on Agriculture: Proposal by the EC* G/AG/NG/W/19, 28 June 2000

WTO Committee on Agriculture. 2000, *WTO Negotiations on Agriculture: Proposals by Small Island Developing States (SIDS): Communication from Barbados, Cuba, Dominica, Jamaica, Mauritius, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago* G/AG/NG/W/97 and Corr. 1, 29 December, World Trade Organization: Geneva

WTO Committee on Agriculture. 2000, *WTO: Negotiations on Agriculture: Proposal by Switzerland* G/AG/NG/W/94, 21 December, World Trade Organization: Geneva

WTO Committee on Agriculture. 2000, *WTO: Negotiations on Agriculture: Proposal by the EC* G/AG/NG/W/90, 14 December 2000

WTO Committee on Agriculture. 2001, *Proposal for WTO Negotiations on Agriculture: Submitted by the Republic of Korea* G/AG/NG/W/98, 9 January, World Trade Organization: Geneva

WTO Committee on Agriculture. 2001, *WTO Negotiations on Agriculture – Market Access: Negotiating Proposal on Behalf of the Members of the Caribbean Community (Caricom)* G/AG/NG/W/100, 15 January, World Trade Organization: Geneva

WTO Committee on Agriculture. *WTO negotiations on agriculture: Proposal by Nigeria* G/AG/NG/W/130, 14 February, World Trade Organization: Geneva

WTO Committee on Agriculture. 2001, *WTO African Group: Joint Proposal on the Negotiations on Agriculture* G/AG/NG/W/142, 23 March, World Trade Organization: Geneva

WTO Committee on Agriculture. 2001, *WTO Negotiations on Agriculture: Proposal by Kenya* G/AG/NG/W/136, 12 March, World Trade Organization: Geneva

WTO Committee on Agriculture. 2001, *WTO Negotiations on Agriculture: Proposal by Namibia in the areas of: (i) Market access, (ii) Domestic support, (iii) Export competition, and (iv) Non-trade concerns* G/AG/NG/W/143, 23 March, World Trade Organization: Geneva

WTO Committee on Sanitary and Phytosanitary Measures. 1998, *Special and differential treatment*

and technical assistance: Submission made by India at the meeting of 10–11 June 1998 G/SPS/GEN/85, 23 July, World Trade Organization: Geneva

WTO Committee on Sanitary and Phytosanitary Measures. 1998, *Technical cooperation and assistance: Submission by the United States* G/SPS/GEN/78, 9 June, World Trade Organization: Geneva

WTO Committee on Sanitary and Phytosanitary Measures. 1999, *Quarantine and other sanitary and phytosanitary capacity building and training activities undertaken by Australia: Submission by Australia* G/SPS/GEN/124, 15 June 1999, World Trade Organization: Geneva

WTO Committee on Sanitary and Phytosanitary Measures. 1999, *SPS Agreement and developing countries: Statement by Egypt at the meeting of 7–8 July 1999* G/SPS/GEN/128, 16 July 1999, World Trade Organization: Geneva

WTO Committee on Sanitary and Phytosanitary Measures. 1999, *Summary of the replies to the questionnaire on technical assistance: Note by the Secretariat* G/SPS/GEN/143, 8 November, World Trade Organization: Geneva

WTO Committee on Sanitary and Phytosanitary Measures. 2000, *Summary of the replies to the questionnaire on technical assistance: Note by the Secretariat. Addendum* G/SPS/GEN/143/Rev.1/Add.1, 16 June, World Trade Organization: Geneva

WTO Committee on Sanitary and Phytosanitary Measures. 2000, *Technical assistance to developing countries provided by the United States: Submission by the United States* G/SPS/GEN/181, 15 June, World Trade Organization: Geneva

WTO Committee on Sanitary and Phytosanitary Measures. 2000, *Communication from the Commission on the Precautionary Principle*, G/SPS/GEN/168, World Trade Organization

WTO Committee on Sanitary and Phytosanitary Measures. 2001, E*uropean Council Resolution on the Precautionary Principle*, G/SPS/GEN/225, World Trade Organization: Geneva.

WTO Committee on Sanitary and Phytosanitary Measures. 2001 *Decision on Equivalence*, G/SPS/19, 24 October, World Trade Organization: Geneva

WTO Committee on Sanitary and Phytosanitary Measures. 2001, *Technical assistance to developing countries: Statement by the European Communities at the meeting of 14–15 March 2001* G/SPS/GEN/244, 27 April, World Trade Organization: Geneva

WTO General Council. 1998, *Concerns regarding implementation of provisions relating to differential and more favourable treatment of developing and least-developed countries in various WTO Agreements: Communication from India* WT/GC/W/108, 13 November, World Trade Organization: Geneva

WTO General Council. 1999, *Communication from Cuba, Dominican Republic, Egypt, El Salvador, Honduras, Sri Lanka, Uganda and Zimbabwe* WT/GC/W/374, 15 October, World Trade Organization: Geneva

WTO Information and Media Relations Division 2001, *WTO agriculture negotiations: The issues, and where we are now.* 2 October, World Trade Organization: Geneva, available at: www.wto.org/english/tratop_e/agric_e/agnegs_bkgrnd_e.pdf

WTO Ministerial Conference, Fourth Session. 2001, *Implementation-Related Issues and Concerns: Decision* WT/MIN(01)/W/10, 14 November, World Trade Organization: Doha

WTO Ministerial Conference, Fourth Session. 2001, *Ministerial Declaration* WT/MIN(01)/DEC/W/1, 14 November, World Trade Organization: Doha

SPS Agreement under the WTO: The Indian Experience

Kajli Bakhshi[1]

Introduction

A largely agrarian economy like India can gain substantially from its high value food exports. A recent study of the industry shows that the total turnover of this sector is approximately INR 250,000 crores (USD 69.4 billion). Out of this INR 80,000 crores (USD 22.2 billion) was on account of value-added exports[2]. Efforts at increasing the export potential of these sectors would not only increase the exports from the country, but would also have multiplier effects on the overall growth of the economy.

Unlike most manufactured products, agricultural output requires additional care. In the case of agricultural output, apart from the productivity and quality considerations at the production level, there are some necessary precautions that need to be taken when the product is stored and transported. Absence of such cautious measures would have adverse effects on the quality of the product, resulting in increased wastages and decreasing the market value. Further, this holds true for both raw and processed food products. Thus it is in the self interest of the producers as well as the exporters to ensure that certain hygienic and other safety conditions are met. With an increase in the levels of health-safety awareness among the citizens of both developing and developed countries, this practice becomes imperative for the suppliers of these products.

Recognizing the importance of the issue, each country has specified certain norms of processing, packaging and testing, and certain standards of quality that must be maintained. At the international level, WTO has specified some Sanitary and Phyto-Sanitary measures that need to be followed for international trade of food products. The SPS Agreement under the WTO seeks to lay down the minimum sanitary and phyto-sanitary standards that the member countries must achieve. This is to ensure the safety of life and health of humans, animals and plants.

Specification of certain minimum standard in the agreement implies that the countries have the freedom to set a higher standard if they can justify it. The only requirement is that the set standard should not be trade distortionary and should be scientifically achievable. The agreement also defines the process of imposition and the factors that must be taken into account before imposing any standard.[3]

Though it may be difficult to deny the need of such standards, yet complaints are made regularly against the imposition of high standards. Sometimes the compliance requirements are perceived as a trade barrier by the exporting countries, especially if they

[1] Kajli Bakhshi works with the India Development Foundation and is presently working on a British High Commission funded project on capacity building of Indian exporters for handling SPS concerns.
[2] Source: Website of the Ministry of Food Processing Industry.
[3] As given in Article 2 of the SPS Agreement.

belong to the developing world. Attention is also drawn to the fact that many of the developing countries may not have the institutional capacity to meet the set standards. Another issue of conflict arises due to the multiplicity of standards, and the fact that different countries may impose different standards. This would require generating information and awareness about these issues so that both the suppliers and the buyers can comply with these.

Historical Perspective

The issue of Technical Barriers to Trade (TBT) came to forefront during the Tokyo Round (1973 to 1979) of multilateral negotiations; during which time the WTO members signed the TBT Agreement. The SPS Agreement came as the following step to the TBT agreement, with a more focused attention on food trade. This was signed during the Uruguay Round of WTO. The primary objective of the agreement was to safeguard plant and animal health via ensuring food safety. The methodology adopted for this was to regulate the technical requirements of production, inspection mechanisms and labeling of the food products. 'Harmonization' and 'Transparency' were to be the guiding principle of the agreement.

Some incidents in the following years caused a concern among the nations of the developed world, regarding the health of its residents. The sudden outburst of diseases like mad cow, plague etc. in certain parts of world, and accidents like the Bhopal gas tragedy in India, created an impression that the food imports coming from these countries may be infected by certain disease-causing agents. All these resulted in signing of the SPS Agreement by the member countries.

At the Mid-term review of the Uruguay Round, in December 1988, the priority areas of SPS were recognized as:

- International harmonization on the basis of the standards developed by the international organizations.
- Development of an effective notification process for national regulations.
- Setting up of a system for the bilateral resolution of disputes.
- Improvement of the dispute settlement process.
- Provision of the necessary input of scientific expertise and judgment, relying on relevant international organizations.

The agreement recognizes the need of member nations to impose sanitary and phytosanitary measures. At the same time it aims at ensuring "that these are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between members where the same conditions prevail, or a disguised restriction on international trade"[4].

[4] Quote from the Introduction to SPS Agreement, Provisions in general.

SPS as a Trade Barrier

Developing countries have for long maintained that these standards can be and are being used as trade barriers against them. This practice has an adverse impact on their exports. The most common complaint is that the standards are set very high, and often unreasonably so. It is in fact contended that the standards are strategically kept at high levels so that exports from the developing countries can be banned. For example many countries have very strict restrictions for presence of Alfatoxins[5] in spices. In Belgium tolerance level is as low as zero. In Switzerland it is 1ppb[6] and in Germany and Denmark it is 4ppb. The problem arises due to the fact that the climatic conditions in most spice growing countries are such that make spices vulnerable to the attack of fungus. These are mostly tropical countries where high temperature and humidity make it difficult for the producers to meet the specified conditions.

The fact that these countries lack the resources for implementing the set standards is another cause for concern. Setting up new technology for meeting the standards may require large investment and recurrent costs. In most cases the better technology required is not available domestically, and have to be imported from other countries. This is likely to have twin impact on the profitability of the firms. Firstly, their production costs may go up as process and product standards are compiled with, reducing the profitability of the firms. In addition, increased costs would have a detrimental effect on their competitiveness in the foreign markets. In fact, the latter impact could be larger as the increase in production costs would be common for all markets, even for those that don't require the specified high standards. Thus a firm trying to achieve higher standards set by one country may loose its markets in other countries due to reduced cost competitiveness.

On the other hand the countries imposing these standards maintain that they are necessary for the health of the residents and are technologically feasible. The spread of education and greater awareness level about health and hygiene in these countries has also resulted in public demand of better quality products. Even the governments in these countries contribute towards this awareness by making available the information on food-borne diseases and people infected by them. This in turn builds a pressure on the governments to implement stricter laws and tighter regulatory regimes. In fact, with an increase in the awareness and purchasing power, such demand for better quality products is on an increase even in the markets of the developing countries.

Some of the apprehensions of the developed world regarding the quality of food exports from the developing countries are not entirely ill founded. The fact remains that the supply chain is indeed longer in the case of latter countries. This makes supervision of hygiene and other safety measures difficult. It implies that food may get adulterated or infected by pathogens at any level of the supply chain. Further, many of the units engaged in this sector are small and unorganized. Thus it is more likely that they lack the

[5] Alfatoxins are naturally occurring toxins that are metabolic byproducts of fungi, *Aspergillus flavus*, and *Aspergillus parasiticus*, which grow on many food crops under favorable conditions. It may have adverse impact on animal and human health with acute toxicological effects on such as liver damage and cancer.
[6] Parts per billion.

facilities and other resources to maintain proper food safety conditions. Add to this the poor infrastructure of the country, which increases the risk factor. Wastage of food due to lack of proper storage and transportation facilities is a common problem in many of these countries.

Thus there are some conflicts between the developing and the developed countries regarding the authenticity of standards that have been set. One argument that has been constantly made is that the developing countries should make efforts to upgrade their technology and enhance their capacities in order to comply with these standards. A greater capacity to export would result in sustainable and profitable trade opportunities. This would not only increase their competitiveness and trade, but would also enhance the overall growth potential of the economy. The counter argument forwarded has been that there is nothing stopping the importing counties from imposing even stricter conditions as no upper limit can be specified. Since these standards are being used as trade barriers, a higher standard would serve the same purpose. Thus the exporting country may not gain even if they implement new and better technology.

An example of this is the loss shrimp industry of Bangladesh had to bear because of the ban imposed by EU. A comprehensive study by Cato and Lima (1998)[7] showed that the economic loss due to the ban was about USD 65.1 million. The entrepreneurs along with the government had invested about USD 18 million for operation of HACCP[8] system. An additional maintenance cost of USD 2.4 million was being spent. Under these circumstances, the ban on the shrimp imports from Bangladesh was a big blow on these efforts.

The two kinds of arguments have time and again resulted in conflicts between the two sides. In this section we take a look at different categories of standards imposed and the possibilities of conflicts arising in each case:

Product Related Standards: These are the restrictions imposed on the quality of a product. It includes the specific limits upto that the presence of microbes of other pathogens is allowed. The EU Commission in Brussels has specified the tolerance level and the testing procedures for Alfatoxin in Peanuts. The new procedures are more rigorous than the previous ones and have resulted in large-scale rejection of the peanut export to EU. These new standards have been termed unjustified. An expert committee of FAO and WHO found that the health risks to consumers due to Alfatoxins are extremely low or negligible.

Production Process Standards: EU countries lay a lot of emphasis on the production of the goods and not only on the end product. Thus many times they demand that proper conditions are maintained even when the goods are produced and not just during processing. These requirements have adverse impact on the exports of goods like mango pulp, milk products etc. An example of process standard is the restriction imposed by EU,

[7] Cato, J. C. and C.A. Lima dos Santos. 1998. European Union 1997 Seafood Safety Ban: The Economic Impact of Bangladesh Shrimp Processing. Marine Resource Economics. 13(3):215-227.
[8] Hazard Analysis and Critical Control Point.

under which only that milk can be imported that has been mechanically milked from cows. For such goods, unorganized small units undertake production. Thus it is very difficult to regulate them and to maintain the standards at their level. Instead care is taken at the 'entry-level' to ensure that contaminants are not present.

Testing Procedure Standards: Detailed and extensive tests are conducted on the food products before they are exported to other countries. The testing procedures as well as the kind of adulteration being tested for, vary from one agency to other. Problems arise when the domestic testing agencies declare the products fit for consumption, but those in other countries deny this claim. The fact that one of two reports is biased is a possibility, which can't be denied.

Certification: The developed countries often demand that certain international standards are complied with. For this they demand certification from an independent agency. Conflicts in this case arise when one country refuses to identify a certifying agency of the other country. For example, EU identified problems with the inspection and approval system followed by EIC in India. This resulted a ban on the goods being exported by India to EU. The conflict arose as certain production units satisfying the necessary condition were not able to export their products because the public institution was not considered competitive by the importing country.

Problem also arises due the vast differences in culture, food habits, products available, and access to technology and financial resources. All these along with climate of the area have effects on the quality of food products. In fact, even to specify some minimum standards for all products, in itself is a Herculean task. These minimum standards reflect the feasibility of implementation, which in turn is influenced by the above-mentioned factors. Further, this multiplicity of standards often results in differences in perception and thus in conflicts. The table below gives the number of complaints raised in an international dispute settlement agency, against some of the major countries in the world[9].

Country Name	**Number of Complaints**
European Communities	38
United States of America	26
Mexico	6
Korea	6
Australia	6
Japan	5
Chile	5

The role played by SPS Agreement in resolving these conflicts has been important, yet only partially successful. The Agreement aims at "minimizing the adverse effects that sanitary and phytosanitary regulations and barriers can have on trade in agriculture".

[9] The number of complaints have be computed from the list of disputes given on the WTO website.

There has been an emphasis on greater harmonization and transparency. Harmonization here "refers to the establishment, recognition and application of common sanitary and phytosanitary measures by Members". At the same time greater transparency required that all the members be aware of the standards imposed by the other members. Thus it was obligatory for the members to declare their SPS measures.

The partial success of the Agreement has largely been due the complexity of issues involved. The market for agricultural commodities is in a state of flux. Rapidly evolving technology and the large variety of products available, make harmonization a difficult task. Also there are differences in the interpretation of the Agreement by the Member countries, and in their ability to take advantage of the rights and responsibilities defined. Since the issues involved are related to health and safety of the residents, countries have a right to impose strict standards. Yet the fact remains that they 'misuse' this right.

Situation in India

India has managed to create a niche for itself in the global food market and is currently amongst the largest producers for some food products in world. These include production of grains like wheat and paddy, dairy, fruits and vegetables, marine products etc. The size of the Indian food market is well above INR 250 billion and it exports goods worth INR 1450 million, contributing around 10 percent of the country's total exports. A large domestic demand ensured that there was a ready market and thus an incentive for the producers to employ efficient means of production resulting in a larger quantity and better quality of output. As a result the processing industry has a growth rate of around 15 percent per annum. Agricultural growth though has been much less. Yet there remains a large untapped potential of growth which if exploited can help us emerge as the largest producer of major food items.

Even though the food producing and processing sector has shown some growth during the past few years, there exists a plethora of problems that need to be addressed before it embarks on a high growth path. On the domestic front, better technology in all spheres of production and processing can result in greater efficiency. Better transportation and storage facilities are also required to mitigate the losses arising from spoilage and wastage of food. Some estimates suggest that currently around 20 percent of all foods produced in India are wasted. Further, easy credit availability is necessary, absence of which creates a bottleneck in addressing other issues.

On the international scene, focus has shifted to two themes. Firstly, the country would be better off if it exports processed food items, instead of primary output. India is the second largest producer of fruits and vegetables in the world, but only about 2 percent of it is processed. Similarly, even though we are the largest producer of milk, only about 15 percent of it is processed by the organized sector. On an average, value addition to the raw produce in India is only 7 percent. This is much less as compared to 23 percent in China, 45 percent in Philippines, and 88 percent in United Kingdom. Secondly, there is a need to prevent the import of sub-standard products from other countries. There have been incidents in past when developed countries exported low quality food products to

India, which were considered unfit even for their domestic market. Now with a greater awareness and better bargaining power, India can hope to prevent its domestic markets being used as dumping grounds by the developed countries.

As mentioned earlier, one big challenge before the country is to encourage the exports of processed food products. Thus in the following section, we take a look at the issues involved with the compliance of SPS Agreement in India, the measures taken and the agencies responsible for it.

In the recent past awareness regarding importance of health measures and fear of health hazard has shown a definite upward trend even in not-so developed countries like India. As a result an elaborate system of inspection and certification has evolved over the years. This system becomes more rigorous if the goods in question are to be sent to foreign markets. Yet imposition of more stringent SPS standards by the developed world would definitely have some repercussions on the trade of developing countries, including India. Some promising export-commodities for India like coffee, pulses, spices etc. may have to comply with certain stricter rules and regulations. This is evident from the fact that rejections of Indian shipment by US have increased from 860 during May 1999- April 2000, to 997 during December 2001- November 2002. The USFDA gave varied reasons for this rejection. The Table below gives the some of the reasons attributed to the rejection of shipment along with the number of rejections.

CAUSES OF DETENTIONS[10]	NUMBER OF SHIPMENTS
FILTHY	256
UNAPPROVED: NET DRUG WITHOUT APPROVAL	174
SALMONELLA	161
NOT LISTED	107
MFRHACCP	88
NO PMA / PDP	87
LIST INGRE	78
NUTRITION LABEL	72
LACK N/C	51
PESTICIDES	43
UNSAFE ADD	37
UNSAFE COL	35
DIRECTION: HOW TO USE ETC.	28
AGR RX	24
COLOR LBLG	17
DR QUALITIC	16
DRUG NAME	16
REGISTERED	16
INSANITARY	15
LACK FIRM: NAMES ETC.	13
NO 510(K)	12
SACCHARIN	12
COSMET LBLG	11
FALSE	11
USUAL NAME	11
LABELING	10
CSTIC LBLG	8
FLAVR LBLG	8
COSM COLOR	7
NEWVET DR	7
INCONSPICU	6
RX LEGENT	6
DIETRYLBL	5
FOREIGN OB	5
NEED FCE	4
CONTAINER	3
DE IMPGMP	3
HOLES	3

[10] (Source: Paper by Rajesh Mehta and J George, Processed Food Product Exports from India: An Exploration with the SPS Regime (2003), Joint research Project of Australian National University, University of Melbourne, Research and Information System (India), Thammasat University (Thailand)

POISONOUS	3
PRESERVE LBL	3
RX COMPOUND	3
COL ADDED	2
JUICE %	2
PERSONALRX	2
UNDER PRC	2
ANTIBIOTIC	1
BACTERIA	1
HEALTH C	1
IMPTHACCP	1
NO ENGLISH	1
NO PROCESS	1
NO REGISTER	1
SOAKED WET	1
WARNINGS	1
YELLOW H5	1

These increased detentions and bans on Indian products by developed countries indicate that there is a need to upgrade system of compliance with the specified sanitary and phytosanitary norms. Though most of the exporting firms in India are following Codex standards, yet they have to face losses due to detained or rejected shipments. One major cause of this is the lack of availability of correct and timely information. There have been incidents where producers didn't have the time to comply with some standard, which was announced suddenly. For example, a consignment of 'egg powder' from India was rejected in EU. The reason given for this rejection by authorities in the destination country was the non-compliance with rule of 'Minimum Required Performance limit (MRPL)'. The ground reality was that the rule had been announced just before the date of the consignment reaching the importing country. No concession was made for the fact that the producer of the good in question did not have time margin so that the newly announced rule could be complied with.

The legal framework for enforcing a hygienic and healthy availability of food exists in India for a very long time. *Food products Orders, Essential Commodities and the Prevention of Food Adulteration Acts* specify the bindings for the producers and sellers of foodstuff. These aim at regulating sanitary and hygienic conditions at all levels of supply chain, and lay down the minimum requirements for:

- Sanitary and hygienic conditions of premises, surrounding environment and personnel
- Water to be used for processing
- Machinery and equipment
- Product standards

Besides this, maximum limits of preservatives, additives and contaminants have also been specified for various products. Ministry of Food Processing Industries, Ministry of Agriculture and some other agencies are responsible for implementing these legislations. In fact this multiplicity of regulating agencies is one of the problems of implementation. The producers are not sure which institute to approach for guidelines, and which institute has the authority to conduct inspection. A repetition of the process by more than one agency would result in waste of time and resources. The following table gives the various legislations enacted, and the institutions responsible for their implementation.

Legislation and Institutional Setup[11]

Ministry of Agriculture

- Insecticide Act
- Milk and Milk Product Control Order
- Meat Food Product Order 1973

Ministry of Rural Development: Directorate of Marketing and Inspection (DMI)

- Agriculture Produce (Grading and Marking Act)

Ministry of Health and Family Welfare

- Prevention of Food Adulteration Act 1954

Ministry of Food Processing Industries

- Fruit and Vegetables Product (Control) Order – FPO 1955

Ministry of Commerce

- Export (Quality Control and Inspection) Act 1963

Ministry of Civil Supplies, Consumer Affairs and Public Distribution

- Standards of Weights and Measures Act
- Standards of Weights and Measures (Enforcement) Act
- Solvent Extracted Oils, De-oiled Meal and Edible Flour Control Order 1967
- Vegetables Product Control Order 1976
- Bureau of Indian Standards Act 1986

Ministry of Environment and Forests

- Aquaculture Authority Notification 1997 and 2002
- Environment Protection Act 1986, Environment Protection (Third) Amendment Rule 2002
- Coastal Regulation Zone – Notification 2002

[11] Presented by Rajesh Mehta and J George in a workshop on International Food Safety Regulations and Processed Food Exports.

In addition to the above-mentioned institutes, there are others concentrating their efforts towards formulation and implementation of SPS standards. A few of these have been discussed below along with the activities they carry out.

Bureau of Indian Standards (BIS): This is a premier organization for setting standards. So far it has set more than 17,000 standards, out of which 150 are mandatory, while others are voluntary. The procedure adopted by BIS is same as everywhere in the world. A suggestion coming from a consumer or an organization is considered by a committee for its viability, before formulation of a final draft. All BIS standards are voluntary, unless specified otherwise by the government.

Food and Agriculture Department (FAD): It deals with the standardization in the field of food and agriculture, including processed food, agricultural inputs, agricultural machinery and livestock husbandry. FAD undertakes the following activities:

- Review of an existing standard.
- Finalization of a standard when the procedure is completed.
- Recognizing of the area where a new standard needs to be set up, as no old standard exists.

Ministry of Food Processing Industry (MFP): As the name suggests, this ministry formulates the procedures and standards for the food processing industries. Thus rules are put together regarding the following thrust areas:

- Material to be used for the machine and equipment that touch the food.
- Quality of water used for production and for other purposes like washing and cleaning.
- Requirements of in-house laboratories.
- Assessment of the quality by food technologists.
- Standards pertaining to chemical content, physical characteristics, contaminant levels, and additive levels allowed in food.

Codex Alimentarius: This is an international organization that brings together all the interested parties, scientists, technical experts, governments, consumers and industry representatives. The standards set by codex are becoming increasingly acceptable world over, and thus are used as a benchmark by the domestic organizations. They even play a vital role in trade negotiations and settling of disputes.

Export Inspection Council (EIC): This is an apex agency that facilitates exports of SPS compliant commodities. It also gives advice to the government regarding measures to be taken for enforcement of quality control an inspection. Further, it also makes arrangement for pre-shipment inspection of commodities to ensure compliance of all specified standards. EIC provides three kinds of inspection and certification:

- Consignment-wise inspection.
- In-process quality control.
- Food safety management system based certification.

Efforts of these organizations clearly don't suffice to address all issues concerning the food producing industry in India. The importance of role played by these agencies in enabling the producers to meet the health-safety standards, cant be undermined. Yet there is a need to take some measures at administrative and diplomatic level. The role of the Central Government assumes importance at this point. Such a requirement arises when some of the countries impose trade barriers under the disguise of technical barriers (SPS Measures). Under these conditions government raises the issue at WTO, Dispute Settlement Bodies or at other international tribunals. The box below gives the main points of the complaints made by Indian Government in WTO regarding the issues of Harmonization and Transparency in the SPS Agreement.

Main Points of Papers Submitted by India in the WTO committee on Issue of Harmonization and Transparency in the SPS Agreement[12]

Harmonization:
The SPS agreement doesn't define in precise terms when a standard should be considered as an international standard. In the absence of a precise definition, a standard adopted by the standardizing bodies is deemed to be an "international standard', even if only a limited number of countries may have participated in the technical work on developing the standard, and even if it may have been adopted, not by consensus, but by a slender majority vote.

Only a few developing countries are able to participate actively in the meetings of the technical committees. The majority of developing countries, even if present, are unable to participate effectively, since they are not backed by background research that is needed for the submission of the technical papers.

Given the diverse conditions prevailing in the developed and the developing countries, it may be more appropriate to harmonize standards of a particular region where similar conditions prevail and where the population also has more or less similar immunity levels.

In India's view, the international standards formulation procedures followed by different international organizations should have uniformity. The International Organization for Standardization (ISO) and the Codex Alimentarius Commission (Codex) are following different standards formulation procedures.

For standards that are developed with a possible view of adopting them on a mandatory basis, a narrower definition could be adopted. Such a narrower definition cold provide that for the purpose of the SPS Agreement, a standard, guideline or recommendation shall

[12] An Indian Embassy Document.

be considered mandatory only if an agreed minimum number of countries from different regions have participated in its formulation, and that it has been adopted by consensus.

Transparency:
Issues of Transparency need to be considered from two broad aspects. First, as generally accepted, it is of vital importance to ensure that all Members are up to date in the fulfillment of their notification obligations with respect to the implementation of the Agreement. The second aspect from which transparency provisions need to be examined is in ensuring that the process of developing SPS measures is made as transparent as possible, especially in view of the potential that SPS measures have for affecting international trade.

Very often the notifications of Members do not contain details regarding the methodology of risk assessment and the factors taken into account for determining the appropriate level of SPS protection.

Often, requests for detailed information are responded to after a considerable time has elapsed and often after the expiry of the time period for making comments, rendering the whole exercise futile.

Producers should be provided sufficient time to adapt to the new requirements of the importing countries. It is logical to assume that producers in the exporting countries would commence initiating such changes only after the consultation process has been exhausted and the concerned Member has indicated its intention to finally promulgate an SPS measure.

Apart from raising this issue at international level, government has also initiated some measures that will be counter to the policies being followed by the developed countries. A major step in this direction was the introduction of the Plant Quarantine Order 2003. This aims at regulating the imports of the food and related material from other countries. The order makes it mandatory for the imports to have phytosanitary certificates. In case such a certificate cannot be furbished, then the consignment would be given clearance only after the local plant quarantine authority grant permission. The authority is given the right to subject the packaging material to treatment, if a need arises, at the expense of the importer.

The Main Objectives of the Plant Quarantine Order:

- To prohibit / regulate / restrict the import of plants / plant material, both for consumption and propagation.
- To prohibit / regulate the import of germplasm / GMOs / transgenic plant material for research purpose.
- To prohibit the import of deleterious weed species.

- To regulate the import of live insects / fungi and other microbial cultures / bio-control agents.
- To regulate imports of timber and bulk shipment of food grains.
- To regulate import of soil / peat of sphagnum-moss etc.

Conclusion

Ideologically it may be difficult to challenge the need of such an agreement between different nations that aims at providing us with a healthier world. Maintenance of hygienic and safe living conditions is one of the basic rights of human race. Coming together of the different segments of world to formulate this agreement is itself an acceptance of this right. Yet this historically landmark movement, from the time of its inception, has become a cause of conflict between the different factions. The conflicts arise due to the shortcomings present in the implementation process. Often there is clash of interests between the different groups involved, which results in a set of unacceptable actions and the corresponding reactions. Thus the solution to the problem boils down to improving the execution of the concept, and not the principle itself.

The first step in this direction would be the formulation of international standards that are based on scientific and empirical evidence, and are acceptable to a majority of the members. While formulating the standards care should be taken to ensure that the conditions prevalent in both developed as well the developing countries are given their due importance. This would mean bringing into practice the principle of 'Harmonization' and 'Transparency', conceptualized in the agreement. Further, this would require concrete efforts from all parties concerned.

From the perspective of the developed countries, they may have to adopt a more sympathetic approach to the whole issue. Simply imposing less stringent standards would not suffice. It is equally important to give equal weights to the voices being raised from the developing countries. Another issue to be addressed by the developed countries is regarding the availability of timely and complete information. This would surely lessen some unnecessary hassles for the exporting countries. Further, imposition of trade barriers under the disguise of SPS Agreement is something that should be condemned in all circumstances. This would surely impede the growth of 'fair and free' trade in world.

The developing countries on the other hand will have to take some extensive and elaborate steps towards building their capacity to comply with these standards. It would imply building an efficient domestic system that not only complies with standards set by other countries, but would also include developing the standards vital to the local conditions. This would surely be conducive to the overall growth of their domestic economies as well.

It may be safely concluded that countries world over, irrespective of their level of development have something to gain from the imposition of these standards.

Bibliography:

- Annual Report, (1999-00), Ministry of Food Processing, Government of India.
- Annual Report, 2003-04, Ministry of Food Processing Industries, Government of India.
- Evaluating Sanitary and Phytosanitary Standards as a Non-Tariff Barrier to Trade, Samrat Bose.
- Impact of Sanitary and Phytosanitary Measures on Developing Countries, Henson SJ, Loader RJ, Swinbank A, Bredahl M, Lux N, Department of Agricultural and Food Economics, University of Reading
- Implementation Issues in SPS: A Developing Country Perspective for Development Agenda on the Meandering Pathways from Doha to Cancun (2003), Rajesh Mehta and J George, a RIS Discussion Paper.
- India Hits Back at US, EU With Stringent Laws on Food Imports, (2004), Ashok B Sharma, Financial Express, India.
- Institutional and Legal Framework of SPS in India (2003), Rajesh Mehta and J George, a New Delhi Workshop on International Food Safety Regulations and Processed Food Exports.
- International Harmonization of SPS Standards, Paper submitted by India in the WTO Committee on Sanitary and Phytosanitary (SPS) Measures, Indian Embassy.
- Operation of the Standards and Trade Development Facility, Note by the Secretariat, (2003), Committee on Sanitary and Phytosanitary Measures, WTO.
- Processed Food Product Exports from India: An Exploration with the SPS Regime (2003), Rajesh Mehta and J George, Joint research Project of Australian National University, University of Melbourne, Research and Information System (India), Thammasat University (Thailand).
- Reviewing the SPS Agreement: A Developing Country Perspective, (2002), Michael Friis Jensen, CDR Working Paper, Centre for Development Research, Copenhagen
- Sanitary and Phytosanitary Measures in SAARC Countries, (2002), Dr. Tika Bahadur Karki, South Asia Watch on Trade, Economics and Environment (SAWTEE) and CUTS Centre for International Trade, Economics and Environment (CUTS-CITEE)
- Sanitary and Phytosanitary Measures: The Case of Mexican Avocados, (2003), Nishita Bakshi, Thesis submitted to the Faculty of the Virginia Polytechnic Institute and State University
- Setting the House in Order: a Study on Technical Standards that Affect Indian Agriculture Trade, (2003), Mohammed Saqib, Working Paper on Agriculture and Poor, Bazaar Chintan, IDE India.
- Standards and Agro-Food Exports from Developing Countries: Rebalancing the Debate, Steven Jaffee and Spencer Hensen
- The Impact of Sanitary and Phytosanitary on Developing Country Exports of Agricultural and Food Products, (1999), Spencer Henson, Rupert Loader, Alan

Swinbank, Maury Bredahl, Presented at The Conference on Agriculture and The New Trade Agenda in the WTO 2000 Negotiations

- Third World Must Actively Participate in Global Standard Making Bodies, Ashok B Sharma, Financial Express, India.
- Transparency, Paper submitted by India in the WTO Committee on Sanitary and Phytosanitary (SPS) Measures, Indian Embassy.
- WTO Agreement on SPS: Strategic Implications, (2003), Anand Kumar Jaiswal, Printed in Economic and Political Weekly, India.

Chapter - 5

THE SPS AGREEMENT: TRADE IN FOOD PRODUCTS

Tika B. Karki
Jeevan Lama
Indra B. Basnyat

Food quality and safety issues have entered into a new era of evolution as it involves integrated effort linking production to consumption in the entire food chain. The traditional domain of inspecting and analysing the end product does not necessarily meet the requirement of emerging trade regime of WTO and related agreements such as the SPS and the TBT Agreements.

Food control system practiced in the developing countries, especially in the South Asian Association for Regional Cooperation (SAARC) countries was evolved over a 5-decade period. Its basic framework does not cover the full range of food chain. It usually addresses only the final product. Hence there is a need to review and update current food legislation in the countries of the Region.

Human resources development is another crucial issue that needs to be addressed to implement integrated approach on food quality and safety. Participatory approaches where all stakeholders such as the primary producers (farmers), fishermen, food processing entrepreneurs, food handlers, law enforcing agencies and consumers at large, take part in the decision making process need to be evolved to meet high and changing standards of food safety and quality assurance in the food supply chain.

This chapter reviews Nepal's situation in this area and identifies areas of improvement. It starts by reviewing the SPS Agreement to identify main issues facing the developing countries. it is followed by discussing some safety issues on food trade. The third Section identifies gaps and deficiencies in standards. The last Section is devoted for conclusion and recommendations.

THE SPS AGREEMENT AND THE KEY FOOD-SAFETY ISSUES

An overview of the SPS Agreement

Article 20 of the GATT 1994 allows governments to regulate trade in order to protect human, animal or plant life or health, provided such actions do not discriminate or are used for disguised protection. The SPS Agreement was developed in the Uruguay Round to elaborate rules for the application of the provisions of the GATT 1994 which relate to the use of sanitary or phytosanitary measures of Article 20. The purpose is to establish a multilateral framework of rules that discipline the development, adoption and enforcement of sanitary and phytosanitary measures with minimum negative effects on trade. In a nutshell the main objectives of the SPS Agreement are the following.

- Protect and improve the current human health, animal health, and phytosanitary situation of all Member countries; and

- Protect Members from arbitrary or unjustifiable discrimination due to different SPS standards.

The SPS Agreement reinforces the right of WTO Member countries to apply measures necessary to protect human, animal and plant life and health. Its Annex A, which is an integral part of the Agreement, defines sanitary and phytosanitary measures as any measure applied to protect animal or plant life or health within the territory of the Member from risks arising from:

- the entry, establishment or spread of pests, disease, disease-carrying organisms or disease-causing organisms;
- additives, contaminants, toxins or disease-causing organisms in foods, beverages or feedstuffs;
- carried by animals, plants or products thereof, or from the entry, establishment or spread of pests; or
- prevent or limit other damage within the territory of the Member from the entry, establishment or spread of pests.

The SPS measures include all relevant laws, decrees, regulations, requirements and procedures including 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. Yet, their applications have to be such that they restrict arbitrary or unjustifiable discrimination on trade between countries where the same conditions prevail. Also, such measures shall not be applied in a manner that would constitute a disguised restriction on international trade.

Generally the developing countries apply lower SPS standards, qualitatively or quantitatively, than developed countries. Notwithstanding this situation the principles embodied in the SPS Agreement should help to facilitate trade from developing to developed countries by improving transparency, promoting harmonization and by preventing the implementation of SPS measures that cannot be justified scientifically. However, the recent experiences shown that meeting SPS standards can be very costly, and much of the above potential benefits are dependent on the ability of the developing countries to upgrade their standards and to effectively participate in such facilitating processes as equivalency. The following are the main elements of the SPS Agreement.

Harmonization

With the objective of reducing regulatory trade barriers, Members are required to base their SPS measures on international standards, guidelines and recommendations, where they exist and are sufficient to provide appropriate level of protection. They can establish a higher level of protection if scientific justification is provided in accordance with the requirements in Article 5 (Risk Assessment). The three recognized international standards-setting bodies are Codex Alimentarius

(Codex), International Office of Epizootics (OIE) and International Plant Protection Convention (IPPC). Members are also encouraged to participate in these bodies, within the limits of their resources, to promote development of SPS standards.

Equivalence

The relevant article states that Members shall accept the SPS measures of other Members as equivalent, even when these measures differ from their own or from those of other Members trading in the same products, if the exporting country objectively demonstrates to the importing country that its measures achieve the importing country's appropriate level of SPS protection. The purpose is to meet the importing country's sanitary protection requirements not the means by which this is achieved. This concept also serves as a basis for bilateral and multilateral agreements among trading partners on the basis of equivalence referred to as Mutual Recognition Agreements or MRAs (Box 1).

Box 1
Mutual Recognition Agreements (MRAs)

The purpose of a MRA is to facilitate trade whereby an importing country recognizes and accepts "conformity assessment" (testing, inspection and certification) of products undertaken in the exporting country rather than at the destination. Thus double-checking and inspections are avoided. The MRAs do not require harmonization of each Party's technical regulations, nor does it involve recognition of the standards that apply in each Party. This way, each party maintanins its internal standards and regulatory regime against which compliance is assessed by designated Conformity Assessment Bodies located in the other Party. Thus, in a way, this is a form of accepting equivalency.

Although MRAs are on the rise, so far this is mainly limited among developed countries in view of similar high-level standards and facilities. A majority of the developing countries have limited capacity in terms of certification and accreditation of laboratory testing, and making rapid progress in this area may not be feasible. Even where full scale MRAs may not be possible, this would be the direction to take. In initial stages, this process helps build confidence between the parties, e.g. through a process of understanding the capability and limitations of each other's laboratories. This paves the way for broader MRAs.

Initially, the approach to be taken would be to seek such agreements with neighbouring countries and at the level of regional standardizing bodies, e.g. among SAARC countries. A great deal of confidence building efforts would be needed, as well as capacity building at the regional level, in human resources and laboratory facilities. The establishment of regional and sub-regional laboratories, certification bodies and accreditation institutions would be the appropriate way of strengthening this trade facilitation measure.

Source: Authors Also see Malik (1998)

Risk assessment

Members are required to provide scientific evidence when applying SPS measures that differ from international standards. This evidence should be based on risk assessment, taking into account, when possible and appropriate, risk assessment methodologies developed by the international standards organizations. Further, Members are obliged to avoid arbitrary or unjustifiable distinctions in the levels of protection it considers to be appropriate if the distinctions would act to distort trade.

Adaptation to regional conditions including pest- or disease-free areas and areas of low pest or disease prevalence

The Agreement recognizes that SPS risks do not correspond to national boundaries; there may be areas within a particular country that have a lower risk than others. The Agreement, therefore, recognizes that pest- or disease-free areas may exist, determined by factors such as geography, ecosystems, epidemiological surveillance, and the effectiveness of SPS controls. A good example in this respect is Foot and Mouth Disease (FMD)-free areas within countries that do not have an FMD-free status overall.

Transparency

The Agreement establishes procedures for enhanced transparency in the setting of SPS standards amongst Members. Members are obliged to publish and notify the WTO SPS Committee Secretariat of all proposed and implemented SPS measures. Moreover, Members are required to establish an "Enquiry Point", which is the direct point of contact for any other Member regarding any questions about SPS measures or relevant documents.

Consultation and dispute settlement: The WTO Agreement establishes detailed and structured procedures for the settlement of disputes between Members regarding the legitimacy of SPS measures that distort trade. This takes the form of a dispute settlement body consisting of Member representatives.

Technical cooperation and Special and Differential Treatment

Article 9.1 of the SPS Agreement calls for the provision of assistance to developing countries, either bilaterally or through international organizations, to develop their capacity in all aspects of the Agreement, notably regulations and infrastructures. Article 10 is about special and differential treatment for developing and least developed countries.

The nature of food-standards problems facing developing countries

There is a growing literature on the nature of problems facing developing countries in this area, including costs of compliance to standards in export markets (see for example Henson et al 2000; Henson and Loader 2000; and Zarrilli 2000). Space does not permit discussing these experiences and issues in detail – the situation facing Nepal is discussed in the following sections. Very briefly, the main message has been that the developing countries face immense difficulties meeting the standards, especially of developed countries. Not only are the gaps wide to start with, the cost of meeting standards are often very high, and easily run into hundreds of millions of dollars. What is interesting, however, is that not all problems are difficult and costly, and sometimes low-cost solutions can contribute immensely, as noted below.

Table 1 is perhaps the best way of objectively showing the nature of problems facing developing countries in their efforts to expand food and agricultural exports to developed countries. It reports statistics published by the US Food and

Drug Administration (FDA) on reasons for detention and rejection of food consignments. It shows that *filth contamination* is the main factor for the rejection of food consignments. The filth contamination comprises of hair, rodents' excreta and urine, and foreign impurities etc. Thus, addressing the filth problem could be the single most important improvement, something that is easily understood by all stakeholders. It also should not cost much as it requires extension and information, and adoption of good post-production practices. Some other problems require more efforts, like microbiological contamination, food labelling, and pesticide residues. In summary, it is amazing that more than 50% of the rejections are due to lack of basic food hygiene and lack of labelling practices.

Table 1: **The incidence of import detentions cited by the US FDA**
(number of cases during July 1996-June 1997)

Contravention	Region				
	Africa	Asia	Europe	LAC[1/]	Total
Food Additives	2 (0.7)[2/]	426 (7.4)	69 (5.8)	57 (1.5)	554 (5.0)
Pesticide residues	0 (0.0)	23 (0.4)	20 (1.7)	821 (21.1)	864 (7.7)
Heavy metals	1 (0.3)	84 (1.5)	26 (2.2)	426 (10.9)	537 (4.8)
Mould	19 (6.3)	49 (0.8)	27 (2.3)	475 (12.2)	570 (5.1)
Microbiological contamination	125 (41.3)	895 (15.5)	159 (13.4)	246 (6.3)	1,425 (12.8)
Decomposition	9 (3.0)	668 (11.5)	7 (0.6)	206 (5.3)	890 (8.0)
Filth	54 (17.8)	2,037 (35.2)	175 (14.8)	1253 (32.2)	3,519 (31.5)
Labelling	38 (12.5)	622 (10.8)	237 (20.0)	201 (5.2)	1,098 (9.8)
Total	303 (100)	5,784 (100)	1,184 (100)	3,895 (100)	11,166 (100)

1/ Latin America and the Caribbean
2/ Figures within parentheses indicate percent of the respective column total

Source: Food and Drug Administration, USA

LEGAL AND INSTITUTIONAL INFRASTRUCTURE IN THE AREA OF FOOD SAFETY IN NEPAL

Food safety issues are multi-faceted and require multi-disciplinary approach for solution involving inputs from agriculture, industry and health sectors. The main objective of the food safety and quality control system is to safeguard the rights and well-being of consumers. How this is done depends largely on both legal and institutional infrastructure, the subjects of this section.

The Food Act 2023 (1966) and Food Regulation 2027 (1970): This Act and Regulation aims at meeting the objectives of providing safe food to consumers. The Food Regulation was amended in 1973, 1975, 1991, and in 1998. It is implemented in an integrated manner with the involvement of food inspectorate, laboratory services and law enforcement authority. Enforced throughout the country, the Food Act is considered to be comprehensive, and has the following provisions:

- Banning production, sale and distribution of substandard, contaminated and hazardous food items (Article 3).
- Misbranding of sales by false statement (Article 4).
- Detention of food products (Article 4a).
- Provision for licensing (food establishments, stores, etc) (Article 4b).

- Provision for penalty (Article 5).
- Liabilities of the offence committed by firm and corporate body (Article 6).
- Power to play down standard and quality of food (Article 7).
- Analysis of food in the specified laboratory (Article 8).
- Establishment of a Food Standardization Board (Article 9).
- HMG as plaintiff (Authority to hear cases) (Article 10).
- Authority to deal with offences (Article 11).
- Appeal – any person not satisfied with a decision may file an appeal within 35 days of the decision (Article 12).
- Power to make rules
- Laboratory for analysis and research (Article 13).
- Function of DFTQC
- Arrangement of food inspectors and their powers and duties.
- Analytical experts and their qualification.
- Food Standardization Board and its working procedure.
- Limits to be prescribed for the use of colour, preservatives and additives
- Other arrangements, as necessary, to maintain proper standard of foodstuff.
- Prohibition and regulation of sales of some food items: Provisioned under Article 7.8 (Part VII), this includes the following items:
- Ban on sale of mixed foods such as two or more than two kinds mixed oils.
- Brominated Vegetable Oil (BVO) in beverages.
- Gee adulterated with vegetable gee.
- Turmeric adulterated with other materials.
- Grain flour mixed with another grain flour or mixed with non-edible.
- Legumes mixed with *Lathyrus Sativa*.
- Any other food banned by law.

Department of Food Technology and Quality Control (DFTQC): This is the apex body in the area of food standards and safety. It has several divisions and branches, e.g. Quality Control and Standardization Division, Inspection Services and maintains the Central Food Research Laboratory. The functions of the Department as defined by Section 7.2 (part ll) of the Food Act are as follows.

- To analyse food samples sent by an authorized officer under the Act for the trial of the case in the court (Appeal sample).
- To assist Food Standardization Board for fixing standards of food products by carrying out necessary research and investigation.
- To conduct Food Inspector's training and to issue certificate to successful candidates.

The Director General DFTQC shall be responsible for issuing reports.

Public Analyst: The Regulation provides for the appointment, qualifications, duties and responsibilities of the Public Analyst (Article 7.3). It says that the DFTQC may appoint a Public Analyst or assign any person working in the analysis of manufactured or exported foods from any entity. On the request of the Director-General and the Inspector, the Public Analyst shall undertake necessary analysis of food and deliver analytical reports of the sample to the inspectorate.

Food Inspectors: The inspectors can inspect food-processing plants, identify critical point and assess whether they have been routinely monitored. Further, they can visit marketing areas and import/export points to collect representative samples for inspectional evidences for any violation of law. They also investigate complaints on food products and maintain records of all inspections made or actions taken by them. A total of 25 inspectors inspect markets, industries and custom points. There are five Regional Food Laboratories that also perform inspections in respective region. Food inspectors monitor cases filed against the business owners (shops, industries etc.) during their visits to District Administration Offices. They also monitor licenses and their renewals during regular inspection visits to industrial premises.

Food Standardization Committee: The major function of the Committee is to make recommendations to the government on matters related to food standards and safety issues. The Committee, provisioned under Clause 7.6 (Part V), is chaired by Secretary, MoAC, and consists of representatives from several ministries, representative from Consumer Associations, industrialists nominated by the FNCCI and Director-General of the DFTQC as Member-Secretary.

Laboratories and Equipment Facilities: Central laboratory is the apex laboratory for providing a wide variety of analytical services, e.g. testing for food additives, contaminants and food microbiology. The Central Laboratory has capability to analyse all major food commodities and facilities for monitoring pesticides residues, mycotoxins, heavy metals, radio nuclides, and microbiological analysis. The DFTQC is also equipped with some sophisticated equipments, e.g. Atomic Absorption Spectrophotometer, High Performance Liquid Chromatography, Gas Liquid Chromatography, Becquerel monitor for gamma radiation, Flame photometer, Spectrophotometer, pH-meter, Thin layer chromatography and so on.

GAPS AND DEFICIENCIES IN FOOD STANDARDS IN NEPAL

Nepal routinely experiences quality-related trade problems, notably with India, for some food commodities, e.g. vegetable ghee (*vanaspathi*). There are some other SPS-related cases, e.g. the export of honey to Norway.[35] At times problems have also come up with the export of orthodox tea to Europe mainly on the ground of Nepal's non-compliance with pesticide residue level. It is a common knowledge that there is a lot to be done in this area and it is an immensely difficult undertaking to improve standards. Before one embarks on that goal, it is essential to understand current gaps and deficiencies in order to identify where improvements are necessary. That is the purpose of this section.

Standards are categorized as being of two types - generic standards applicable to different food commodities and horizontal standards related to contaminants, hygiene, additives and labelling etc., which apply to all food commodities. From the prospective of SPS, horizontal standards, which have more health consequences, are receiving much more attention.

[35] For details, see Chapter 6 of this volume on SPS issues facing live animals and animal products.

For this study, detailed comparative tables of food standards were developed for most SAARC countries, including Nepal, for 19 food products.[36] The overall impression from this analysis is that harmonization of standards is moving at a slow pace, both among SAARC members and between SAARC and Codex standards. The following is a discussion of these points.

In SAARC countries, the standards were developed decades ago and not updated taking into account of advancement in science and technology, with the exception of India where standards are reviewed frequently. Thus, India takes the lead in the region on food standards, both horizontal and vertical. Nevertheless, the SAARC countries have a long way to go towards harmonizing standards with the Codex. In fact, the Codex does not even have standards for several important foodstuffs of the SAARC region, e.g. vanaspati ghee (hydrogenated fat), ghee, tea, coffee, and spices. It is important that the SAARC countries take a common stand in Codex for developing these standards. Codex standards are very much exhaustive, embracing physical, chemical and hygienic aspects, including permissible level of food additives, and maximum residue (of pesticides) limits (MRL) many food contaminants. Nepal itself has fixed these limits for a few preservatives, as well as permissible lists of approved colour with stated level of use.

Horizontal standards should be harmonized with Codex standards, as a general approach. However, it needs to be reviewed time and again while considering the specific nature of food processing industries and the type or variety of the food products manufactured by the industries. Therefore, the limits for food additives, food contaminants, food hygiene measure, and food labelling etc can be harmonized with codex taking cognisance of the specific needs of Nepal.

The food standards of Nepal and India are much closer for many fats and oil products, notably palm oil, palm kernel oil, palmolein, ghee, sunflower seed oil, corn oil, safflower seed oil, and vanaspati ghee etc. Food standards are also closer in Pakistan and Bangladesh.

Pesticides residue limits are very important for enhancing export potentials of food products, as Nepal already had some negative experiences on this account. There is an urgent need for a national monitoring programme for periodic assessment of their level of occurrences. Nepal has so far fixed limits for food-grains, pulses and legumes, skimmed milk powder, whole milk powder and mineral water. Codex has fixed safe limits of use for heavy metals such lead, copper, arsenic, tin, zinc, iron, cadmium, mercury, and methyl mercury. The best approach is to follow the Codex route for fixing limits for heavy metals.

Much variation exists in the use of approved synthetic food colours between codex and SAARC countries. Perhaps, it is hard to justify scientifically why the approved list is shorter or longer in these countries. In this case, it is worthwhile to accept codex standard for food colours to avoid unnecessary aberration even on the regionally traded foods. The Codex process for evaluating MRLs is elaborate. The

[36] For space reason the tables are not shown here, but are available in the background study (Karki et al. 2003).

Codex Committee on Food Additives and Contaminants (CCFAC) considers all aspects of health consequences before approval.

Code of good practices and guidelines for safer food production practices need to be developed taking consideration of small farmers and production practices followed by countless number of small manufactures of value -added processing system. These small producers and manufactures need to be addressed adequately as this kind of profession is bread and butter earning jobs for Nepalese people. The standard development processes should visualize such ground of reality and likewise resources are allocated for such an important undertaking.

Harmonization of standards with Codex has some limitations, as there are differences in production technologies and cultural practices. The existing Codex generic standards need to be reviewed and updated taking account of small farming system of developing countries. Unless food databases from developing countries are included in a transparent manner, the very basis for developing international standards often gets questioned.

Comparison of Nepalese and Indian food standards, with Codex standard as a reference

Commodities for which Codex standards exist

Honey: The levels of hydroxymethyl furfural in the Indian and Nepalese standards are 80 and 40 mg/kg respectively while other parameters are identical. But there are wide variations with the Codex standard.

Orange juice: While the Indian standard has fumaric acid as an additional parameter, Nepalese standard includes “fill of the container” as an additional parameter. The Codex standard includes additional provisions for added sugar, ethanol content, essential oils etc.

Tomato juice: The Nepalese standard includes two additional parameters (fill of container and mould count), while Indian standard includes fumaric acid as a parameter. Both standards differ from Codex.

Tomato ketchup/sauce: The Indian standard contains fumaric acid, while “fill of container” is specified in Nepal’s case; all other parameters are identical. Codex standard contains different parameters, such as tin (ppm) and natural tomato solids.

Wheat flour: Nepal standard is strict in terms of protein content (8%) and ash DB (0.7%) compared with Indian standard. While Nepal standard does not cover flour treatment for bakery purposes, Indian standard allows benzyl peroxide and potassium bromate at 40 ppm and 20 ppm, respectively. Codex standard includes fat acidity in flour, fungal proteolytic amylase and other additives. The use of additives and enzymes and their impact on quality of flour and intended product needs to be ascertained in standardization work.

Lentil (dehusked): All parameters are covered except that Nepal standard is stricter in damaged grains (3%) and aflatoxin (20 ppb), compared with 5% and 30

ppb in Indian standard, respectively. The Codex standard provisions additional parameters such as broken seeds of different colours and discoloured seeds.

Sugar: Both India and Nepal have identical sugar standards, while the Codex includes additional parameters like polarization, invert sugar, conductivity ash, colour (ICUMSA) units, and sulphated ash etc. Harmonization of Nepal standard with Codex requires data for all Codex parameters so that the extent of compliance can be verified.

Milk powder: Nepal standard for skimmed milk powder and whole milk is harmonized with Codex except for acidity parameter, which makes the former stricter. Nepal has adopted milk protein and such additional parameters as contaminants, pesticide residue, heavy metals, mycotoxins, radiation, and food additives. Indian standard does not as yet recommend milk protein as a parameter.

Edible oil: Nepalese and Indian standards are very close for fats and oils (e.g. palm oil, corn oil and safflower seed oil etc). However, peroxide value, which determines rancidity on fats and oils, is included in Nepalese standard only. Nepal has taken a right approach in adopting Codex standards.

Adulteration of edible oil with cheaper oils has been a traditional common practice in Nepal. However, the situation has now improved with the growth modern oil expellers and refineries. Existing edible oil standards are not adequate to ensure purity of edible oils as they focus only on physical and chemical characteristics. Rather, fatty acid profile and lipid classification such as sterols would give better indicators for identifying the purity of edible oils.

Commodities without Codex standards as yet

Ghee (from milk): India has adopted triple range of BRR and RM values: Cotton tract have BRR 41.5-45, and RM value 21, other cotton tract areas have BRR 40-43, and RM value 26. Some other areas have RM value 24, 26, and 28 depending upon locations. Nepal Ghee Standard is strict in terms or RM value (28) and for other parameters such as RI, Acid value, and Peroxide value (meq/kg), and applied according to Codex practice.

Vanaspati Ghee (Hydrogenation vegetable oil): The Nepalese standard is stricter because of additional parameters such as peroxide value not grater than 10-mg/kg oil. Also, the minimum limit of unsaponifiable matter in Nepal's case is 1.2% versus 2% in India's.

Coffee: The coffee standard is harmonized between India and Nepal.

Tea: India has two standards for different regions. However, Nepal standard varies in some components such as crude fibre content not greater than 15%, whereas Indian teas have this component greater than 17%-18.5% for both types of teas. While Indian standard contains pectinase enzyme as one parameter, Nepalese standard includes caffeine content. On the whole, Nepal standard is stricter in terms of extract by boiling tea, and crude fibre.

Spices: The Indian and Nepalese standards are very close. In case of dried ginger, both standards are identical except for one parameter - insect damage, which is not included in Nepal's case.

Biscuit: Indian standard is more strict than Nepalese as the value for acidity of the extracted fat is not greater than 0.1% compared with not more than 2.5% in Nepal's case.

Food grains: Indian standard has more parameters, such as weavilled grain and foreign food grains. Aflatoxin levels for Nepal and India are 20 ppb and 30ppb respectively.

CONCLUDING REMARKS

Main observations

Current key Issues and constrains on food safety area relate to the lack of:

- A comprehensive policy on food safety, resulting in ambiguous enforcement by various agencies
- A preventive and proactive measure in food safety management
- Adequate consideration being given to horizontal standards such as limits for pesticides, heavy metals, mycotoxins, and food additives
- Good practices in production, processing and marketing
- Well equipped reference food laboratory to carry out tests on contaminants, food additives, GMOS, and other emerging environmental pollutants
- Repair and maintenance facilities for laboratory equipments
- An export inspection agency for inspection and certification of food products
- Lack of coherence between various laws, and lack of coordination between law enforcing agencies
- Inadequate capacity for equivalency, and MRA

Main conclusions

- Existing food regulation has not addressed preventive approach to food safety management; it has mainly dealt with certain aspect of food adulteration only.
- The Food Act does not provide basic elements to be followed by producers, processors and food handlers.
- The minimum mandatory food standard is unable to cope with Codex system of standards and may pose problems with WTO-compatibility.
- The role of consumers and the correct flow of information system have hardly been envisaged in the existing regulatory framework.
- The current *modus operandi* does not involve in-process monitoring and assurance system to be practiced by producers, manufactures, handlers and traders.

Key recommendations

Policies, institutions and practices

- Updating and reviewing of food legislation should be expedited taking into account of SPS Agreement and preventive approach to food safety management.
- Capacity building (human resources, infrastructure and laboratories) efforts should be given topmost priority.
- Food safety strategy should be based on risk factors such as microbiological safety, food contaminants and some emerging risks like BSE, dioxins and PCBs.
- An integrated multidisciplinary approach to food safety should be adopted in the entire food chain (from production, processing and distributions including animal fed and other aspects of primary production).
- A preventive approach to food safety should be adopted to reduce risk of food contamination by addressing problems at source.
- Education and training about food hygiene and sanitary measures throughout the chain (including catering personnel and consumers) need to improve.
- Food producers, processors and distributors should have in-place control system according to HACCP approach.

Legislation

The following provisions should be accommodated in the amendment of food legislation:

1. ***The new legislation should be framed considering the primary responsibility of safety assurance***, which is basically associated with in the food manufacturers and suppliers. The consumers should be provided with essential and correct information so that they can make a choice about the food they choose to buy. The success of assuring food safety to the consumers lies within the responsibilities of the producers, processors and consumers and more importantly with the effective and efficient food control agency which operates at the national or at the local bodies (like DDC, VDC and Municipalities).

2. ***Food safety assurance***: The basic principles of food safety assurance that are to be incorporated in the new amendment to the regulatory framework are as follows:

- Any food sold from the premises is fit for human consumption, is not adulterated, damaged, deteriorated or perished,
- The premises and appliances and utensils used must be kept clean and sanitary.
- Prepared food is kept or stored in safe

3. ***Compensation to the consumer***

- Compensation for any injury caused to consumer health due to the reason of consuming the food, which is not human consumable.

- The manufacturer or the importer of food article becomes responsible in compensating.
- Consumers are to be provided with essential and accurate information to help to choose appropriate foods such as GM foods, nutrition and food for specific dietary uses (NFSDU).
- The proposed legislation should cover areas such as food hygiene, additives, solvents, and materials in contact with food, contaminants, primary foods, and the control system.
- Specific labelling requirements have to be incorporated covering quantitative declaration of ingredients.

A confidence that the food industry adheres to compliance that is adequately monitored and enforced by control authorities is required for internal market to function efficiently. The control system provides powers to inspectors for sampling, and inspection of food products. This also empowers inspector to examine, record, seize or destroy foods that are unsafe for consumption.

As the existing legislation did not consider preventive safety assurance measure, the proposed legislation take should into consideration the proactive quality management dimension such as Good Manufacturing Practice (GMP), Good Agricultural Practices (GAP) and Hygiene Practice (GAP) and Good Veterinary Practice (GVP).

A Food Council should be constituted comprising of relevant stakeholders such as agriculture, industry and trade, health, business communities, consumer forum and academicians for developing food safety policies. The purpose of the council is to review current measures and recommend for enhancing food safety assurance. Eventually this will become a forum for preparing national position on matters associated with food safety, quality, standards and risk aspects.

Production practices**:** Implementing food quality assurance activity requires adoption of good practices in crop and animal production such as Good Agricultural Practices (GAP), Good Veterinary Practices (GVP) and in food processing such as Good Manufacturing Practices (GMP) and Good Hygiene Practices (GHP) etc. These good practices not only ensure the safety of foods to the consumers, but it also promotes trade without having any risk to rejection of consignment. The good practices include planting the certified best quality seed of appropriate varieties, using certified and authorized chemical inputs (fertilizers, pesticides) in accordance with approved dosage (concentration, frequency, timing of use) etc, employing appropriate harvesting and on-farm storing and handling measures, using right kink of shipping to market food products, proper slaughtering of healthy animals taking care of avoiding Veterinary drug residue in animal, tissues, plus utmost care in food hygiene, food handling, food processing such that unwanted microbes and contaminants are deliberately in the food chain.

Laboratories, instruments and equipments needed for enhancing food safety programs: There is a wide gap in this area. Nepal needs many modern equipments if export trade is to be competitive. These include for example gas chromatography, high performance liquid chromatography, automatic amino acid

analyser, spectrophotometer, infrared spectrophotometer, automatic protein analyser, atomic absorption spectrophotometer, phase contrast microscope, near infrared spectrophotometer, polymerase chain reaction (PCR) and other inspection equipment and materials (see Karki et al 2003 for details).

Human resources development: As above, the gap between availability and requirements is very wide in human resources also. Detailed account of manpower requirements, including training needs, are also available in the more detailed background paper.

Quality control strengthening activities: To start an active quality assurance program, laboratories have to enhance confidence and reliability of analytical outputs. Several recommendations are made in this area, under three categories (details in the background study, Karki et al 2003): reviewing and updating current food law and regulation and improving the Food Safety Management; improvement of Food Inspectorate; and upgrading of Food Analysis Capability.

Information and training on consumer awareness for safe and proper food handling and storage practices: As they say, discipline begins at home, and better if it begins very early. Often, it is the lack of consumer awareness of food safety issues that complicates implementation. In societies, consumer demand for safe and hygienic foods drives the process of improvement. This is not in the domain of a ministry or agency, but a range of institutions, including schools, radio and TV has an important role to play here.

Strengthening of Codex Contact Point and national Codex Committees: There are several generic and horizontal standards developed by Codex. Besides standards, there are many good practices for improving quality and safety of foods. In order to participate activity in the codex work, it is essential to sensitise industries and their related organizations along with academia for developing national database and evaluate the implications of international food standards. Resources are required to strengthen capacity for Codex work and national data generation and thereby for active participation in Codex work.

Strengthening of SPS National Enquiry Point: SPS regulations (such as laws, decrees, or ordinances), or changes to regulations, technical regulations and standards all need to be notified to WTO through international web. The capacity of enquiry point requires strengthening in terms of exposure, training, documentation, and financial resources.

Infrastructure requirements: In order to cope with the current trend of food management system the existing infrastructure is unable to house laboratories, equipment and training facilities. Karki et al (2003) provide more details on the necessary infrastructures.

Working towards Equivalency and Mutual Recognition Agreements (MRA) with India and others: The issue of the equivalency is one of the major hurdles being experienced currently in agricultural trade between Nepal and India. To take one concrete example, India implements mandatory checks for monitoring pesticide residues on Nepalese vegetables. This check could easily take about one

week and also importantly checking facilities (laboratories) are not located in the vicinity of the boarder points.

In India, the Export Inspection Council undertakes inspections of designated food commodities before the products are exported. India has indicated that for an agreement on equivalency, which does away with double checking, Nepal should have a similar agency and arrangements. Even in the absence of such an agreement, the process of exporting Nepalese vegetables and other fresh products can be expedited if there was a sound system of monitoring the level of pesticide residues, including exchange of monitoring data among respective food safety agencies of the two countries. Given that trade is highly scattered and in small consignments, a further and preferred approach would be to recognize each other's monitoring data of pesticide residues from production sites themselves, rather than on the products. All this implies considerable effort and investment in building Nepal's capacity in monitoring pesticide residues for all important exportable food products.

In the emerging scenario across the world, Nepal should strive towards MRAs with India, at the regional level and with other countries. What is required is high standards in facilities, staff and processes, and importantly also in confidence building measures like regular contacts, visits and meetings. Given the present situation with technical standards in Nepal, this may appear impractical, but the cost in terms of lost trade of delaying this process would be very high.

Risk assessment: Nepal currently does not have the capacity to undertake risk assessment and thus to determine appropriate levels of protection. Developing this capacity requires a multi-disciplinary team from several subject areas, e.g. toxicology, epidemiology, microbiology, statistics, biology nutrition and food safety, and food science. Although developing such a capacity is a long-term process, some progress can be made with existing manpower and facilities, and by prioritising the work on some selected products, notably vegetables, tea, lentils and honey.

References

FAO (2000), *SPS Agreement: Provisions, Basic Rights and Obligations*, Module 2 of Volume III, FAO Resource Manual on Multilateral Trade Negotiations on Agriculture, FAO Rome (available in FAO web site).

Henson, S. and Rupert Loader (2000), "Barriers to agricultural exports from developing countries: The role of sanitary and phytosanitary requirements", *World Development*, 29 (1), pp. 85-102. Pergamon, UK.

Henson, S., R. Loader, A. Swinbank, M. Bredahl, and N. Lux (2000). Impact on Sanitary and Phytosanitaary Measures on Developing Countries, Centre for Food Economics Research, University of Reading, UK.

Karki, T. B. (1998), *Harmonization of Food Control Producers in SAARC Countries*, FAO/ ILSI Workshop on science based harmonization of regulator food quality and safety measures in SAARC region, 21-23 Sept, 1998, New Delhi, India.

Karki, T. B. (2002), *Sanitary and Phytosanitary (SPS) Measures in SAARC Countries*, Discussion Paper 43, SAWTEE, Kathmandu and CUTS, Jaipur.

Karki, T. B. Jeevan Lama and Indra Basnyet (2003), *The WTO SPS Agreement: Issues on Trade in Foods*, Background paper prepared for FAO.

Malik, R. K. (1998), "Mutual recognition agreements in international food trade", *Food, Nutrition and Agriculture*, Volume 21, 1998, FAO, Rome (available in FAO website).

Nepal (1996a), The Food Act 1996, Government of Nepal, Kathmandu, Nepal.

Nepal (1996b), The Food Rules 1996, Government of Nepal, Kathmandu, Nepal.

Nepal (2000/01), Annual Bulletin (2000/2001), Department of Food Technology and Quality Control, Kathmandu, Nepal.

UNCTAD/ GATT (1995), Understanding WTO Agreement on Sanitary and Phytosanitary Measures, UNCTAD/GATT, No. 46, Sept 1995, Geneva, Switzerland.

UNCTAD/ GATT (1995), WTO Agreement on Technical barriers to Trade (TBT). Implications for Developing Countries, UNCTAD/GATT, No. 44, March 1995, Geneva, Switzerland

Zarrilli, S. (2000), WTO Sanitary and Phytosanitary agreements issues for developing countries, PP 1338, Positive Agenda and Trade Negotiations, UNTCTAD/ITCD/TSB/10, Geneva, Switzerland.

WTO Agreements on SPS and TBT: Implications for Food Quality Issues

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Satish Y. Deodhar

satish@iimahd.ernet.in

ABSTRACT

Trade liberalization, hoped to be achieved through WTO Agreement on Agriculture (AoA) is expected to lead to export promotion and import substitution opportunities for Indian food sector. However, these opportunities cannot be exploited unless serious attention is paid to two important WTO agreements – Agreement on Sanitary and Phytosanitary Measures (SPS) and Agreement on Technical Barriers to Trade (TBT). Due to the 'experience' and 'credence' nature of food products, trading partners impose import restrictions based on food safety and quality concerns. These concerns are legitimised by SPS and TBT agreements. Hence, to obtain maximum possible benefit from these agreements, India will have to improve its safety and quality norms to match the Codex standards and participate effectively in Codex standard setting meetings. Moreover, it must ask for substantial amendments to some of the articles of these agreements which seem discriminatory in nature. Finally, India will have to strengthen import monitoring mechanisms so that domestic food and phytosanitary laws are effectively applied to imported food items.

WTO Agreements on SPS and TBT: Implications for Food Quality Issues

Satish Y. Deodhar*

1. Introduction

Almost six years have elapsed since various trade agreements were signed under the auspices of World Trade Organization (WTO,1995). One agreement considered most effective in reforming food and agricultural sector was the Agreement on Agriculture (AoA). The essence of AoA liberalization was that markets should be distortion-free, a standard thinking in neoclassical economics. AoA translated this thinking by aiming for improving market access and export competition and reduction in domestic support. This in-turn was to be achieved through tariffication of quantitative restrictions, and time-bound reduction in existing tariffs, export subsidies and domestic support. An important assumption in the neoclassical thinking is that there is complete information in the markets and elimination of tariffs and subsidies will lead to free trade among nations.

However, markets are not characterised by complete information preventing a smooth and distortion-free trade. This aspect is extremely important in the global trade in food products. Traditional economics textbooks cite food and agricultural markets/products as examples of perfectly competitive markets with homogeneous products, however, nothing can be farther from the truth. Individual food products are not homogeneous across countries; different countries and firms adopt different performance standards and safety and quality norms; and, moreover, buyers cannot ascertain quality of food products merely by physical inspection. As a result, AoA by itself cannot guarantee removal of all barriers to trade. Two other WTO agreements address this concern. They are: Agreement on Sanitary and Phytosanitary Measures (SPS) and Agreement on Technical Barriers to Trade (TBT).

This paper is organised as follows: In Section 2 motivation for SPS and TBT agreements is presented as a food quality regulation issue. In Section 3 implications of various articles of SPS and TBT are discussed. Essentially, I drive home the point that although SPS and TBT agreements are meant for promoting smooth flow of trade, some of the articles of these agreements have strong potential for creating unfair barriers to trade for the developing countries. Finally, Section 4 concludes by raising renegotiation issues and the need for domestic reforms.

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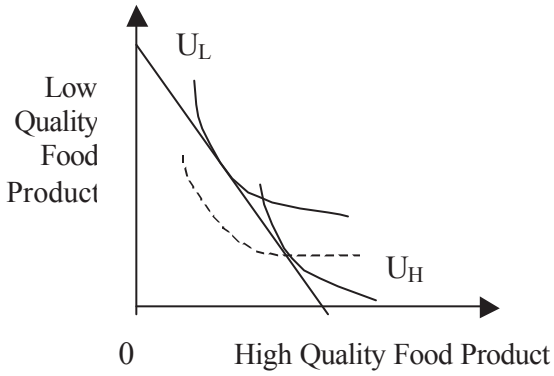
* Assistant Professor, Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad, India

Figure 1: Choice of Food Quality under Full Information

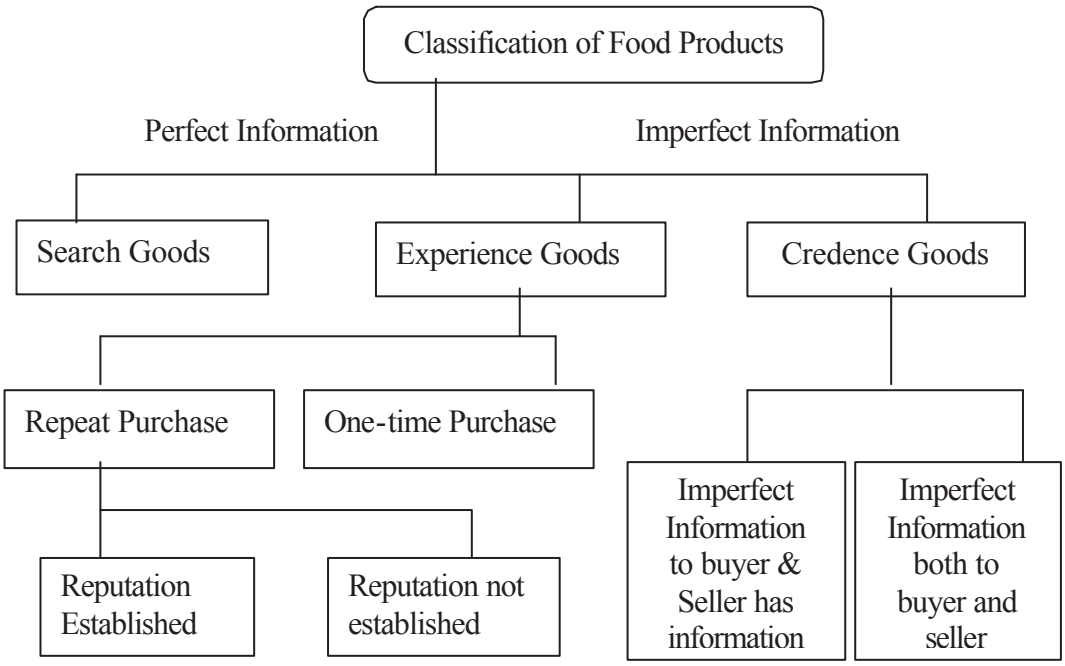


2. Motivation for SPS and TBT Agreements

In a full information environment, producers will produce various kinds of quality foods and consumers will choose the precise quality combinations that maximise their satisfaction. Figure 1 presents this standard neo-classical argument in Economics. Consumer H prefers a high-quality food item and consumer L prefers a lower-quality item as reflected in their respective indifference curves U_H and U_L respectively. Given the prices of the two types of quality foods, consumers make their optimum choices. Forcing either of them to choose the quality combination chosen by the other would lead to lower satisfaction. Moreover, in such case there is no need for any market intervention by government. Henson and Traill (1993) and Viscusi, Vernon and Harrington (1995) give similar arguments in terms of demand and supply for food safety. The limitation of the above analysis can be explained by drawing the distinction between Search goods, Experience goods and Credence goods (Nelson, 1970, 1974; Darbi and Karni, 1973). For search goods, consumers can determine a product's quality before they buy it by examining the product. For example, preshipment physical inspection of bananas by the buyer is good enough to ascertain quality before bananas are exported. The neoclassical analysis can hold good in this case. The distinction between the three types of goods is provided in Figure 2.

For experience goods, buyers cannot determine the quality until they buy and use the products. Here, if goods are of repeat-purchase nature, where choice is based on prior experience with product quality, the market can take care of itself. If consumers buy a product repeatedly, firm, which provides high-quality food product, can charge higher price. Thus, market imperfection can be overcome by a firm's reputation and repeat purchases. Meat products are a typical example of experience goods. Occurrence of food poisoning after eating meat products can be immediately related to the presence of E-coli or salmonella in meat products. If firms are unable to establish reputation then markets fail and external regulations are needed. Moreover, there is a moral hazard for producers if they sell experience goods to one-time consumers. Fly-by-night operators exporting meat products to West Asia as a one-time operation may not adhere to strict quality norms as they have no incentive to build reputation.

Figure 2: Quality Information Based Classification of Food Products



Furthermore, food items can also be classified as credence goods where consumer information stays imperfect both before and after the purchase. Many times consumers cannot establish for sure, the cause and effect relationship between contamination and ill-effects on health. A producer may or may not know the quality and safety of a food product but consumers cannot discern quality both before and after the purchase. E.g. adulteration and chronic effects of low-level exposure to pesticide residues and toxins can be dangerous to human health in the long-run. To give specific examples, carcinogenic effects of DDT, lead and aflatoxins may become apparent only in the long-run. Added to this are the issues related to negative effects of production and processing methods on environment and human resources (e.g. child labour).

The analysis provided above shows that free-market economics cannot solve the problem of food quality as there are many imperfections in the market. Certainly, markets can take care of food products which have the search-good characteristic. However, in host of other types, as discussed above, certain external regulatory mechanism is needed in the food sector. Such external regulatory mechanism exist within a country, however, in the framework of global trade in food products, one needs to have a global understanding of food standards relating to safety and quality issues. In the absence of such global mechanism, there is bound to be a proliferation of non-tariff-barriers to food trade. Such non-tariff-barriers can and do nullify the global welfare improvement as envisaged by AoA. Therefore, along with AoA, WTO also engaged the member countries to reach agreements on SPS and TBT which will aim at harmonizing food safety and quality norms of member countries and prevent unjust discrimination of imported food products. I now tern to the discussion of these two important agreements.

3. SPS and TBT Agreements and their Implications

Under the auspices of WTO, SPS and TBT agreements were signed along with many other agreements including AoA. In fact, AoA clearly endorses implementation of SPS agreement through its Article 14:

> "*Members agree to give effect to the Application of Sanitary and Phytosanitary Measures*."

However, SPS and TBT agreements have not received the kind of attention they should have from industry and researchers alike. There is a lot of confusion regarding understanding the difference between SPS and TBT agreements. The distinction between the two is as follows – The SPS articles refer to food and agricultural sector alone, while TBT measures refer to all products including food products. SPS agreement aims to protect human, animal and plant life or health from pest and diseases arising out of imports of food and agricultural products. On the other hand, TBT agreement deals with product specifications which include size, shape, weight and packaging material requirements including labelling and handling safety. An illustration given in Figure 3 makes this distinction quite clear.

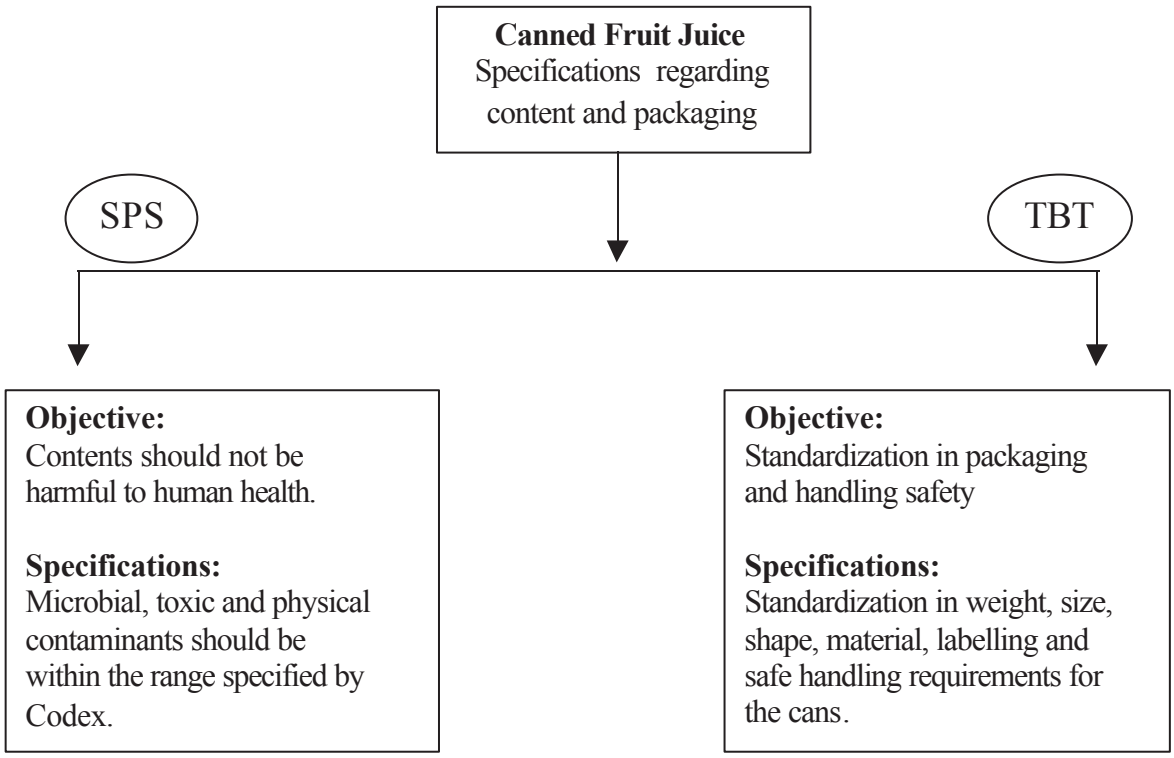
Articles 3.1 and 3.2 of SPS state (paraphrased):

> "*Members shall base their sanitary and phytosanitary*[3] *measures on international standards, guidelines and recommendations. The sanitary and phytosanitary measures that confirm to the international standards, guidelines and recommendations will be* **deemed necessary** *to protect human, animal or plant life or health.*"

For food products, the international standards, guidelines and recommendations refer to the guidelines suggested by the Codex Alimentarius Commission (CAC). CAC is a commission established by World Health Organization and Food and Agricultural Organization (FAO). Although the CAC guidelines have no backing of any international law, the WTO endorsement of these standards through SPS and TBT agreements has made these standards *de facto* mandatory.

An important CAC guideline for food processing companies is to follow a food quality management system called Hazard Analysis and Critical Control Points (HACCP). In fact, United States (US) and European Community (EC) have already made this system mandatory for food processing firms. EC put a ban on imports of fish from companies in Gujarat which did not adopt HACCP system (IE,1999). Moreover, about 100 crores of herbal product exports from India, targeted for 1997-98, were severely affected as US planned to impose ban on imports of these products if they did not confirm to HACCP (EFP, 1997). Indian seafood processors, in their bid to remain competitive in the US market, are taking help from foreign consultants at exorbitant cost to implement HACCP in their production units (CP, 1997). However, one need not focus on export markets alone. The dropsy-death episode in the edible oil market in 1998 is just an indication that Indian domestic industry has a lot of scope for improvement in agro-processing and food quality. Multinational companies like Nestle-India have already planned to implement HACCP for coffee growing and processing (ET, 1997).

Figure 3: Comparison of SPS and TBT coverage for a food product



However, things are not as simple as they appear. No doubt, if India does not comply with the SPS articles, it may face non-tariff-barriers to trade. But one must remember that many of the SPS articles favour the western nations. For example, in continuation of Articles 3.1 and 3.2, Article 3.3 states:

> *"Members may introduce or maintain sanitary or phytosanitary measures which result in a higher level of sanitary or phytosanitary protection than would be achieved by measures based on the relevant international standards, guidelines or recommendations, if there is a scientific justification ... "*

This article was introduced at the behest of some of the western countries including US. But this clearly amounts to undermining the importance of CAC standards and the harmonization principle of SPS agreement. CAC standards are based on scientific justification, and, once WTO endorses the international standards set by CAC, there is no need to allow countries to set standards stricter than the CAC standards.

There are numerous examples of non-tariff-barriers to trade encountered by the developing countries. Here are a few examples that affect India in particular:

- The requirement for aflatoxin content in groundnut is decided at 15 parts per billion (ppb) by CAC. Indian laws permit 30 ppb. Thus, there is room for improvement in the Indian standard. However, despite the CAC guideline of 15 ppb, EC has a stricter aflatoxin standard of only 4 ppb. Thus, even if Indian standards are improved to match the CAC standards, EC standards

prevent any import of groundnut from countries like India. This is gross violation of CAC guidelines.

- Similarly, in India, 0.2 ppm lead content in milk is considered safe. However, international requirements are 0.02 ppm.

- In one of the CAC meeting rounds, standard for sulphur in sugar was set at a maximum of 20 ppm. However, Indian scientists established at a later date that sulphur content of 75 ppm in Indian sugar is also quite safe.

- Spain is known to ban imports of squid and other marine products on the grounds of heavy metal contamination due to the presence of mercury. However, this ban is imposed mostly when there are excessive landings of these products by the Spanish fishermen. The ban is removed when their landings are quite low.

Then there are other articles which refer to infrastructure development in the developing countries and their participation in the CAC standards setting meetings. Article 9 of SPS agreement and a similar article for the TBT agreement (Article 11) mention that member countries agree to give assistance to developing countries, either bilaterally or through international organisations, in the areas of processing technology, infrastructure and research. As per the clauses, this assistance may take the form of advice, credit, donations, grants and/or technical expertise. However, no time-bound and concrete commitments are expressed in these articles. Finally, Articles 3.4 of SPS agreement and Article 2.6 of the TBT agreement express the wish that developing countries should fully participate in the standard setting meetings in relevant international organisations such as CAC. However, this remains only a wishful thinking as many developing countries do not have the requisite qualified personnel to actively participate in such meetings. India is an exception to this, but nonetheless, our participation in such meetings is poor.

4. Summary and Policy Suggestions

To conclude, AoA alone cannot guarantee freer trade in the food sector. The reason is that due to experience-good and credence-good nature of food products, countries impose many restrictions on imports of food and agricultural commodities. The concerns of importing countries are valid as they would like to prevent any harm to their citizens, plant & animal life/health due to pest and diseases carried-in through imports of food and agricultural products. However, imposition of these restrictions can and are also used to create unfair barriers to imports. Taking this experience in account, SPS and TBT agreements guarantee the importing countries to adopt SPS measures, but, at the same time aim at preventing unjust discrimination faced by imported products.

Having discussed the important articles of SPS and TBT, it becomes obvious that India will have to improve its quality norms by quantum leaps. However, at the same time, one must realise that the SPS and TBT guidelines are decided by the member countries in the CAC meetings. India must have a strategy for negotiating and arriving at just and fair food standards for its strategically important food

products. Hence, policy prescriptions for India are two-fold. One for the domestic reforms and other for strategic re-negotiation of SPS and TBT clauses. Let's consider these policy prescriptions.

Domestic Reform:

- Post-WTO experience abundantly indicates that Indian food industry will have to adopt HACCP as a strategic food quality management system. HACCP is a logical system which emphasizes hygiene and prevention of contamination in the production process (Deodhar, 1999). While big companies are incurring high costs to implement HACCP, the essence of HACCP can be effectively employed by small firms as well. For this purpose, government may give subsidy for the initial fixed costs associated with its implementation, and the recurring costs can be (and should be) borne by the respective enterprises.

- Indian food industry does not have a trained manpower to handle post-harvest quality management practices and food processing activities. There is an urgent need to train labourers engaged in post-harvest practices and shop-floor workers engaged in food processing activities. Setting-up of farm schools on the lines of Industrial Technical Institutes (ITI's) should be given priority, where essentials of hygiene, food handling practices and processing are taught in certificate courses. Such training be made mandatory to hire workers on farm or in processed food sector.

- Many of the food products imported into India contain weights measured in ounces and pounds. Labels are many times written in a foreign language, and the products contain additives that are not allowed by the Prevention of Food Adulteration Act (PFA) applicable to domestic products. Thus, our laws need to be applied with equal force on imported products, and wherever science permits, domestic food companies be allowed to use recently developed food additives and preservatives so that they can effectively compete with the imported products. For example, decolourant for buffalo milk is permitted elsewhere but not in India. Nisin, an important preservative essential for tropical climates, is not permitted in India. These things need to be changed.

- We need many more state-of-the-art testing and analysis laboratories for examining the imported food products. Investment in such laboratories is absolutely essential, otherwise we will not be able to use the SPS and TBT clauses to guard ourselves against the harmful effects of contaminants in imported products. The memories of the menace of parthenium species of grass that came along with the PL-480 imports of wheat from US are still fresh in our minds. We do not want to repeat such happenings.

Strategies for Re-negotiations:

- The Article 3.3 of SPS as discussed earlier is quite discriminatory. It allows countries to impose standards stricter than the ones suggested by CAC. The examples provided in the earlier section are clear indications of unfair trade barriers. In the coming round of renegotiations, India must oppose this article which undermines the importance of CAC guidelines and the principle of harmonization of food standards

among member countries. In this regard, view of Dr. H. Nakajima, the Director General of WHO (in 1996) is very much supportive of what has been said above. He states:

> *Stricter Standards (other than Codex) do not necessarily offer better health protection and may be used as non-tariff trade barriers* (Dawson, 1996).

- In fact, SPS agreement endorses guidelines of CAC. However, more often than not, we never have a representation in the CAC meetings when the standards on various food products are set. Due to lack of participation, standards get set which are unfavourable to developing countries. Articles 3.4 and 2.6 of SPS and TBT respectively, encourage developing countries to participate in standard setting meetings of CAC. India must take advantage of this provision. We must request FAO and WTO to facilitate such participation through subsidizing trips for the meetings and ask for organizing these meetings in developing counties.

- For effective participation in the CAC meetings India must be represented by a team consisting of food scientists, legal experts and economists in addition to the civil servants. Currently, Ministry of Health is the nodal agency for CAC related issues. However, ministries such as Ministry of Commerce and Ministry of Agriculture which are involved in administration of various food laws must also get involved in the CAC matters as they can better represent the industry and farmers' perspective on SPS and TBT.

- Articles 9 and 11 of SPS and TBT respectively allow for assistance to developing countries for upgrading their infrastructure, food technology and research. However, no concrete time-bound commitments are expressed in these articles. Thus, the articles remain only a wishful thinking. If India has to improve its food quality standards sooner if not overnight to the CAC levels, then in the re-negotiations we must insist on concrete, time-bound assistance commitments from WTO and/or FAO.

References

CP (1997). "Sudesh Seafoods," Capital Market, June 29, 1997, p. 70

Darbi, M.R. and E. Karni (1973). "Free Competition and the Optimal Amount of Fraud," *J. Law and Econ*., 16, 67-88

Dawson, R.J. (1996). "Impact of WTO on Codex Alimentarius and Its Implications for the South Asia Region," FAO, Bangcock, Thailand.

Deodhar, S.Y. and H. Dave (1999). "Securing HACCP in Agriculture to Build Brand Image (SHABRI) in the Context of WTO Agreements." Paper presented at the international workshop on Markets, Rights and Equity: Rethinking Food and Agricultural Standards in a Shrinking World, Michigan State University, Oct. 31 – Nov. 3, 1999.

EFP (1997). "US to Impose HACCP Norms on Indian Herbal Products," Express Farma Pulse, November 27, p.1.

ET (1997). "Nestle India Plans Overhaul of Quality Management System," Economic Times, April 26, 1997, p. 8

Henson S. and B. Traill (1993). "The Demand for Food Safety, Market Imperfections, and the Role of Government," Food Policy, 18, 152-162.

IE (1999). "Veraval Fishing Boom is Now Fizzling Out," Ahmedabad Newsline, Indian Express, April 19.

Nelson, P. (1970). "Information and Consumer Behaviour," *J. of Polit. Econ.,* 78, 311-329.

Nelson, P. (1974). "Advertising as Information," *J. of Polit. Econ.,* 81, 729-754.

Viscusi, W.K., J.M. Vernon and J.E. Harrington, Jr. (1995). *Economics of Regulation and Antitrust*, 2nd ed., Cambridge, MA: MIT Press.

WTO (1995). *The Results of the Uruguay Round of Multilateral Trade Negotiations - The Legal Texts*, reprint, Geneva: WTO.