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The University of Reading

# **Impact of sanitary and phytosanitary measures on developing countries**

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## Centre for Food Economics Research

The Centre for Food Economics Research (CeFER) was formed in 1991 to promote the research and teaching interests of the Department of Agricultural and Food Economics at The University of Reading. The Centre is a recognised centre for food economics research in Europe, with work encompassing all areas of the production, consumption and marketing of food. The Centre has active links with researchers throughout the world. Current research projects involve work with academic and other researchers in India, United States, Canada, Zimbabwe, Kenya, Cameroon and Mexico.

Research work within CeFER is concentrated in three main areas:

- **Economics of food safety and food quality and the role and impact of food policy:** This area examines consumer demand for food quality and safety, economic rationale for food safety and quality regulation and the costs and benefits of changes in the level of food quality and safety for consumers, food industry and government. The impact on world trade within the context of the WTO is currently a major research issue.
- **Consumer food choice and related issues concerning food market research, innovation and new product development:** This area explores the key factors influencing consumer food choice and the implications for food marketing and new product development within the food industry. Much of this work is undertaken in collaboration with the food industry.
- **Globalisation of the food industry:** This area explores the efficiency of alternative food marketing systems, developing linkages in the food chain between retailers, manufacturers and farmers, and the policy implications arising from these developments.

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# Impact of Sanitary and Phytosanitary Measures on Developing Countries

## Executive Summary

### **1. Background:**

As tariffs and quantitative restrictions to trade have declined, there has been growing recognition that sanitary and phytosanitary (SPS) measures can impede trade in agricultural and food products. Developing countries in particular experience problems in meeting the SPS requirements of developed countries and, it is claimed, this can seriously impede their ability to export agricultural and food products. Attempts have been made to reduce the trade distortive effects of SPS measures through, for example, the World Trade Organisation (WTO) SPS Agreement, although it is claimed that current initiatives fail to address many of the key problems experienced by developing countries.

### **2. Objectives of the study:**

The objective of the study was to assess the impact of sanitary and phytosanitary (SPS) measures, and the World Trade Organisation (WTO) SPS Agreement, on exports from developing countries. Furthermore, the study aimed to identify means by which any negative effects of SPS measures on developing countries can be reduced.

### **3. Methods:**

The study involved a series of ten developing country case studies and a survey of SPS contact/enquiry points in all low- and middle-income countries that are members of the WTO and/or Codex Alimentarius. In many cases the impact of SPS measures could not be quantified and the results should be interpreted with care. However, the study does highlight a number of key issues and gives credence to the concerns that developing countries have themselves expressed about the impact of developed country SPS requirements and the weaknesses of the SPS Agreement.

### **4. Key issues arising from the study:**

It is evident that developing countries are constrained in their ability to export agricultural and food products to developed countries by SPS requirements. Indeed, a number of developing countries consider SPS requirements to be one of the greatest impediments to trade in agricultural and food products, particularly in the case of the European Union (EU). This reflects the fact that developed countries typically apply stricter SPS measures than developing countries and that SPS controls in many developing countries are weak and overly fragmented. Furthermore, in certain circumstances SPS requirements are incompatible with prevailing systems of production and marketing in developing countries. As a consequence, wholesale structural and organisational change may be required in order to comply, and the associated costs can act to restrict trade in a similar manner to tariffs.

The problems developing countries have in complying with SPS requirements reflect their wider resource and infrastructure constraints that limit not only their ability to comply with SPS requirements, but also their ability to demonstrate compliance. A particularly acute problem is access to appropriate scientific and technical expertise. Indeed, in many developing countries knowledge of SPS issues is poor, both within government and the food supply chain, and the skills required to assess SPS measures applied by developed countries are lacking.

## 5. Concerns relating to the SPS Agreement:

Most developing countries are aware of the SPS Agreement, support its overall objectives, and acknowledge that there are longer-term benefits provided the Agreement is implemented in an appropriate manner. However, many have concerns about the manner in which the SPS Agreement has been implemented to date. Particular concerns are that developed countries take insufficient account of the needs of developing countries when setting SPS requirements, insufficient time is allowed between notification and implementation of SPS requirements, and insufficient technical assistance is given to developing countries.

To date, many developing countries have not actively participated in the SPS Agreement. Indeed, many are not represented at SPS Committee meetings or meetings of the international standards organisations and, as a result, may fail to utilise the provisions and mechanisms laid down by the Agreement to their advantage. Key problems are insufficient ability to assess the implications of developed country SPS requirements following notifications, insufficient ability to participate effectively in dispute settlement procedures, and insufficient ability to demonstrate that domestic SPS measures are equivalent to developed country requirements.

## 6. Potential solutions to problems associated with SPS measures:

There are a number of initiatives required to address the problems faced by developing countries in exporting agricultural and food products to developed countries due to SPS requirements. These can be sub-divided into three main categories. Firstly, efforts are required to **enhance the capability of developing countries to comply with the SPS requirements of developed countries**. These might include initiatives to improve access to scientific and technical expertise and the development of domestic SPS control systems that are effective and appropriate to local circumstances. Effectively targeted and appropriate technical assistance and greater regional co-operation between developing countries are likely to be important elements of these initiatives.

Secondly, **reform and/or the development of international institutions responsible for SPS matters** is required, so as to better address the needs of developing countries. This might include revisions to the transparency arrangements of the SPS Agreement, greater harmonisation of international SPS standards, changes to the decision-making procedures of the international standards organisations and the development of mechanisms for legal and/or technical assistance relating to SPS matters within the context of the WTO.

Thirdly, **developed countries need to take greater account of the needs of developing countries when promulgating and applying SPS requirements**. On the one hand, this requires greater recognition of the problems faced by developing countries. This may necessitate changes in institutional structures to incorporate developing country interests into the SPS standards-setting process. On the other hand, where possible, they need to permit longer periods for developing countries to comply with SPS requirements.

## 7. Recommendations:

Although the study has a number of limitations that should be borne in mind when interpreting the results, it does give credence to the concerns expressed by developing countries about the impact of SPS requirements on agricultural and food exports.

Furthermore, it raises a number of issues that are salient to the responsibilities and interests of DFID and makes a number of recommendations regarding future action:

- DFID should **collaborate more closely with MAFF and the Food Standards Agency** so as to incorporate better the interests of developing countries in SPS measure decision-making processes.
- A **review of the systems and institutional structures through which SPS measures are promulgated within the EU** should be undertaken, to assess the extent to which the impact on developing countries is taken into account at the current time and how developing country interests might be represented.
- A **review of different types of measures that can be applied to address particular SPS problems and their relative impact on developing country agricultural and food exports** should be undertaken. This needs to be performed in collaboration with agencies responsible for the promulgation and enforcement of SPS measures at both the national and EU levels.
- A **review should be undertaken of the notification procedures of the UK and EU** and mechanisms identified through which the needs of developing countries can be better addressed.
- A **study of different options for facilitating the participation of developing countries in the SPS Committee, Codex Alimentarius, OIE and IPPC** should be undertaken. This needs to be performed in collaboration with the WTO and international standards organisations and should feed into the on-going review of participation in organisations such as Codex Alimentarius.
- The **UK should continue its support for the Advisory Centre on WTO Law** to be established in Geneva later in 1999, and work to ensure fuller participation in the Dispute Settlement Mechanism for all members. Furthermore, policy makers may want to consider, in the light of the Advisory Centre on WTO Law, how access to scientific advice relating to the WTO and SPS issues may be offered.
- DFID should **continue to provide technical assistance to developing countries to enhance their capacity to implement SPS measures**. However, there is a need for the provision of technical assistance to be better co-ordinated between international agencies and donor countries and more closely targeted at the practical difficulties faced by developing countries.
- A **review of the constraints that limit the level of regional co-operation on SPS matters amongst developing countries and identification of the mechanisms through which these constraints can be alleviated** should be undertaken. This should be performed in collaboration with other countries and/or inter-governmental agencies.
- Support should be given to **further research on the impact of SPS measures on developing countries** to generate a more rigorous and, preferably, quantified assessment.

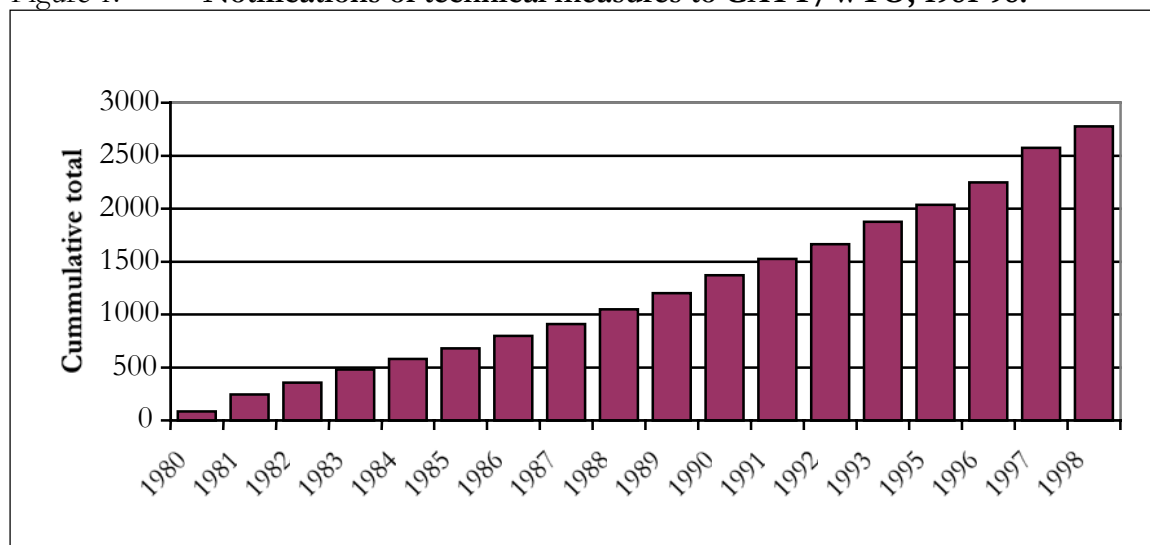
## Impact of Sanitary and Phytosanitary Measures on Developing Countries

### 1. Background

Considerable progress has been made since the Second World War, through various rounds of GATT negotiations, in lowering explicit barriers to trade such as tariffs. In the case of agricultural and food products, the most recent Uruguay Round in particular resulted in significant commitments to liberalise trade (Hathaway and Ingco, 1996). Specifically, significant reductions in tariffs were achieved for tropical agricultural products that are of greatest interest to developing countries (UNCTAD, 1998).

As tariff barriers have declined, however, the emphasis placed on non-tariff barriers has increased, both due to the global proliferation of non-tariff measures and because of wider recognition of the impact non-tariff barriers can have on trade. This is illustrated by the rate of notifications of technical measures to GATT/WTO (Figure 1). There is now concern that such technical measures can act, either explicitly or implicitly, as a barrier to trade in a similar manner to tariffs and quantitative restrictions (Laird and Yeats, 1990; Vogel, 1995; Sykes, 1995).

Figure 1. Notifications of technical measures to GATT/WTO, 1981-98:



Source: OECD (1997a); WTO

Non-tariff measures are widely applied to agricultural and food products throughout developed countries (Table 1) (Ndayisenga and Kinsey, 1994; Thilmany and Barrett, 1997). According to Ndayisenga and Kinsey (1994), technical standards account for around a third of all non-tariff measures, although their incidence is increasing, whereas others, for example quantitative restrictions, are in decline.

Table 1. **Non-tariff barriers on agricultural products in developed countries, 1994:**

Country	Total Number of Non-Tariff Measures
Canada	1,464
Sweden	709
Australia	418
France	394
Norway	393
New Zealand	323
Finland	302
USA	300
Austria	254
Italy	109
Belgium/Luxembourg	93
Greece	55
Denmark	32
Germany	24
United Kingdom	14
Ireland	3

*Source: Ndayisenga and Kinsey (1994)*

## 2. Objectives of the study and methods

The objective of the study is to assess the impact of Sanitary and Phytosanitary (SPS) measures and the World Trade Organisation (WTO) SPS Agreement on exports from developing countries. Furthermore, the study aims to identify means by which any negative effects of SPS measures on developing countries could potentially be reduced.

From the perspective of an individual developing country, the key issues to be addressed are the effects of SPS measures and the SPS Agreement on:

- Access to potential export markets, in both other developing countries and in developed countries.
- Ability of other countries to import, including other developing countries and developed countries.
- Structure and performance of domestic agricultural and food industries.

The information contained in this report was obtained through three main sources. Firstly, a thorough review of the relevant literature was conducted. This included reviewing academic literature, but also material related to the actual conduct of the SPS Committee process; including WTO documents, relevant case studies either before the Committee, or pending, and other material relevant to trade and SPS matters.

The main aim of this phase was to ascertain objective measures of the level of involvement of the developing countries in SPS matters, and to try to identify the main issues affecting such countries. This provided the necessary information in preparation for the second phase.

Secondly, visits were made to representatives of international organisations, including FAO (Rome), European Commission (Brussels), ACP Secretariat (Brussels), Codex Alimentarius (Rome), International Plant Protection Convention (Rome), UNCTAD (Geneva) and a number of developing country delegations to the WTO (Geneva) and/or EU (Brussels).

These visits and contacts provided a framework for the data collection phase, and enabled the team to build up a complete picture of how SPS issues are dealt with in the world trading environment. The final phase aimed to discover exactly how these issues affected the countries concerned.

In this third phase, ten developing country case studies were conducted namely: India; Zimbabwe; Egypt; Vietnam; Ghana; Ethiopia; Kenya; Cameroon; The Gambia; and Guatemala. In addition, some other countries are included in some of the discussions, where the issue concerned was of particular significance to them (for example, other countries in the Lake Victoria region, which were also affected by an EU ban on fish imports from the area). In addition, a short EU case study was undertaken to provide an overview of trade with developing countries and the SPS system employed.

Case-studies one to five were conducted by intensive one-week visits to the study countries, whilst cases six to ten were conducted using telephone interviews with relevant authorities and exporters (or locally based contacts in Embassies) in the countries concerned.

The main aim of these cases was to obtain information from government organisations (such as ministries of agriculture and trade; export promotion departments; customs and trade officials), to ascertain the current situation regarding SPS issues and policies and the manner in which the government does (or does not) support traders in meeting SPS requirements. It was also important to consider the position of traders themselves, so in each case a limited number of exporters were interviewed. The results of these interviews are mostly presented as case studies of particular products and the problems or otherwise experienced by exporters.

In the final phase, a survey was undertaken of all low and middle income countries as classified by the World Bank (1998), which were members of the WTO and/or Codex Alimentarius. In each case, a questionnaire was sent by FAX to the WTO delegation in Geneva or, where the country concerned was not a member of the WTO, the Codex Alimentarius contact point. The aim of the survey was to assess the extent to which the issues identified through the case studies were common to developing countries as a whole and to, where possible, quantify their relative importance. To a large extent this involved the use of five-point Likert scales. A copy of the questionnaire is given in Annex II.

A total of 92 questionnaires were successfully sent by FAX during April 1999. Any country that could not be contacted by FAX after five attempts was excluded from the sample. This applied to a total of 44 countries. A total of 65 fully completed questionnaires were returned, giving an overall response rate of 72 per cent.

This report aims to present an exploratory analysis of the impact of SPS measures on developing countries. Clearly there are weaknesses associated with the analysis, in particular the level of quantification, which should be taken into account when interpreting the results. However, the report does highlight a number of key issues and gives credence to the concerns that developing countries have themselves expressed about the impact of developed country SPS requirements and the weaknesses of the SPS Agreement. It is intended that the report will stimulate further research work to explore these issues in greater depth and, where possible, quantify the impact on developing country exports of agricultural and food products.



### 3. Nature of SPS measures

Sanitary and phytosanitary measures are a sub-set of technical measures, which are defined as:

“Standards governing the sale of products in national markets which have as their *prima facie* objective the correction of market inefficiencies stemming from externalities associated with the production, distribution and consumption of these products.”  
(Roberts and De Kremer, 1997).

Technical measures thus include standards that address animal and plant health, food safety, commercial fraud prevention, food quality, and environmental protection. In certain cases technical measures may simultaneously address more than one of these issues.

The sub-set of SPS measures is defined within the WTO as any action applied (WTO, 1994):

- To protect human or animal life from risks arising from additives, contaminants, toxins or disease-causing organisms in their food; this includes regulations regarding residues of fertilisers in food.
- To protect human health and life from plant or animal-carried diseases.
- To protect animal or plant life from pests, diseases or disease-causing organisms. Quarantine pests and diseases are defined by the international standard-setting organisations as those which are not present in the importing country, or are present, but under official control programs.
- To prevent or limit other damage to a country from the entry, establishment or spread of pests.

A variety of policy instruments are available to governments to correct perceived market failures associated with the protection of human, plant or animal health (OECD, 1997b). Figure 2 classifies SPS standards commonly applied by governments as they affect imports. The most interventionist measures are import bans that are generally applied where there is a significant and acute risk and/or great uncertainty about a hazard. Technical specifications are the most widely applied measures. These permit imports provided they are in compliance with certain pre-specified standards. Finally, information requirements are the least interventionist, permitting imports provided they are appropriately labelled.

Figure 2. **Classification of SPS standards:**

Import Bans		Technical Specifications			Information Requirements	
Total Ban	Partial Ban	Process Standards	Product Standards	Technical Standards	Labelling Requirements	Controls on Voluntary Claims

*Source: Roberts (1997; 1998)*

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

#### 4. SPS measures and trade

It is widely acknowledged that SPS standards can act to impede trade in agricultural and food products (Petrey and Johnson, 1993; Ndayisenga and Kinsey, 1994; Thilmany and Barrett, 1997; Hillman, 1997; Sykes, 1995; National Research Council, 1995). The trade impacts of SPS measures can be conveniently grouped into three categories:

- Those which prohibit trade by imposing an import ban or by prohibitively increasing production and marketing costs.
- Those which divert trade from one trading partner to another by laying down regulations that discriminate across potential supplies.
- Those which are trade reducing measures that increase costs or raise barriers for all potential suppliers.

In certain cases higher food safety standards are applied to imports than domestic supplies, for example where higher risks are associated with supplies from other countries. However, even where food safety standards are neutral, they can impede trade in agricultural and food products. This potential to distort trade flows relates to two separate (although inter-related) elements of the standardisation process:

- **Technical standards**, whereby qualitatively or quantitatively distinct technical standards are laid down for a particular product in different countries.
- **Conformity assessment procedures**, whereby separate and/or distinct procedures are required to demonstrate compliance with product standards in different countries.

The rationale is that if businesses are required to comply with different technical requirements in an export market to those in their home market, they will face additional costs that will act to reduce their competitiveness relative to domestic suppliers in that export market. Thus, attention is paid to costs of compliance in an attempt to assess the extent to which differences in technical standards and conformity assessment procedures might act as an impediment to trade.

In assessing the impact of technical standards and conformity assessment procedures on trade, the key issue is whether such measures are discriminatory. If we consider two suppliers, one domestic and the other an importer, who produce an equivalent product and have comparable levels of efficiency, technical standards and conformity assessment procedures are non-discriminatory if the costs of compliance are the same for both domestic suppliers and importers.

Technical standards and conformity assessment procedures are discriminatory if they impose greater production and/or compliance costs on importers than domestic producers. In certain cases discrimination is explicit - additional requirements are imposed on importers over and above those imposed on domestic suppliers. In the case of meat products, for example, this might occur where it is judged that imports pose greater risks to human and/or animal health than domestic supplies. Even where equivalent requirements are imposed on domestic and imported supplies, however, these

can act in a discriminatory manner if production and/or compliance costs are systematically greater for importers.

The scope for standards, which are applied in an equivalent manner on domestic suppliers and importers, to be discriminatory occurs when there are differences in technical standards and/or conformity assessment procedures between markets. These differences can be of both a quantitative and a qualitative nature. In the former case, there may be differences in the number of samples required for product testing, permitted levels of ingredients, performance thresholds etc. In the latter cases, there may be differences in permitted test methods, types of ingredient allowed, performance criteria etc. In either case, suppliers are required to comply with different technical standards and/or conformity assessment procedures in different markets, distorting the relative cost structures of domestic and imported suppliers:

- **Costs of compliance:** Costs of compliance are those costs that are necessarily incurred by a business in complying with technical standards. These may include the costs of adapting the product to meet local requirements and/or undertaking conformity assessment procedures both prior to export and/or at the port of entry.
- **Production costs:** Differences in technical standards and/or conformity assessment procedures can also impose additional production costs on importers. Firstly, economies of scale may be reduced because of the need to produce a separate product to that sold in the importer's home market. Secondly, capital designed to produce to standards in the importer's home market may be less efficient at producing to local technical standards.

The tendency of differences in technical standards and/or conformity assessment procedures between markets to discriminate against imports relates to the duplication of compliance efforts and the associated costs. In undifferentiated product markets, technical standards and conformity assessment procedures will act as an absolute barrier to trade whenever they result in the total costs of supply of importers exceeding that of domestic suppliers. In the case of differentiated products for which imported products are sold with a price premium, additional costs of compliance will act as an absolute barrier whenever they exceed the magnitude of the price premium. Even where imports do take place, however, additional costs of compliance will act to reduce competitiveness and/or returns to the importer.

To a certain extent, technical standards and/or conformity assessment procedures will naturally discriminate in favour of domestic suppliers and against foreign suppliers. National technical requirements generally reflect the institutional structures within that country. Domestic suppliers will be more accustomed to operating within these structures, indeed they will have themselves developed in response to them. Overseas suppliers, however, may have to learn and become accustomed to very different procedures to those in their own country. The costs associated with this will be particularly high where there are language differences and where assessment procedures lack transparency or are subject to relatively frequent change.

Costs of compliance with SPS standards in export markets will reflect the degree to which standards differ from those that prevail in the supplier's domestic market. Further, they will depend on the degree to which standards in different export markets differ. Table 2, for example, details limits on aflatoxins in spices for a range of developed

countries. It is evident that limits differ widely from Belgium, where aflatoxins may not be present, at one extreme, to the USA where a limit of 20 ppb is specified, at the other.

Table 2. **Maximum levels for aflatoxins in spices in various developed countries**

Country	Permitted Level	Products	Comments
Austria	$B_1 < 1$ ppb	All	
Belgium	Total = 0	All	May not be present
Germany	Total < 4 ppb	All	
Denmark	Total < 4 ppb	All	
Netherlands	$B_1 < 5$ ppb	All	
Switzerland	$B_1 < 1$ ppb $B_2 + G_1 + G_2 < 5$ ppb	All	
United Kingdom	Total < 50 ppb	Chilli	Advisory level
Spain	$B_1 < 5$ ppb Total < 10 ppb	All	
Sweden	Total < 5 ppb	All	
Finland	Total < 5 ppb	All	
Italy	$B_1 < 10$ ppb	All	
France	$B_1 < 10$ ppb	All	
USA	Total < 20 ppb	All	

Source: UNCTAD/Commonwealth Secretariat (1996)

Whereas much of the concern about the impact of SPS standards on trade has concentrated on mandatory government requirements, there is growing awareness that voluntary standards can also impede trade. If voluntary standards are so widely applied that they become *de facto* mandatory, there may in practice be little choice but for foreign suppliers to comply. For example:

- Compliance with established voluntary standards may be essential because consumers require compatibility with complementary products or services (for example plastic containers and microwave ovens).
- Voluntary standards may be closely related to consumer preferences (for example safety marks that are seen by consumers as an essential guarantee of minimum product quality).
- Voluntary standards may be considered crucial for compliance with mandatory standards (for example ISO 9000 as a means to satisfy the requirements of food safety regulations).

For example, Table 3 details the European Spice Association's (ESA) quality and sanitary standards for spices. These standards are widely implemented as minimum requirements by spice traders within the EU. In a case such as this, the impact on trade will be little different to that of mandatory standards laid down by governments. This is, however, a particularly problematic area since voluntary standards are largely beyond the traditional spheres of international negotiation and regulation.

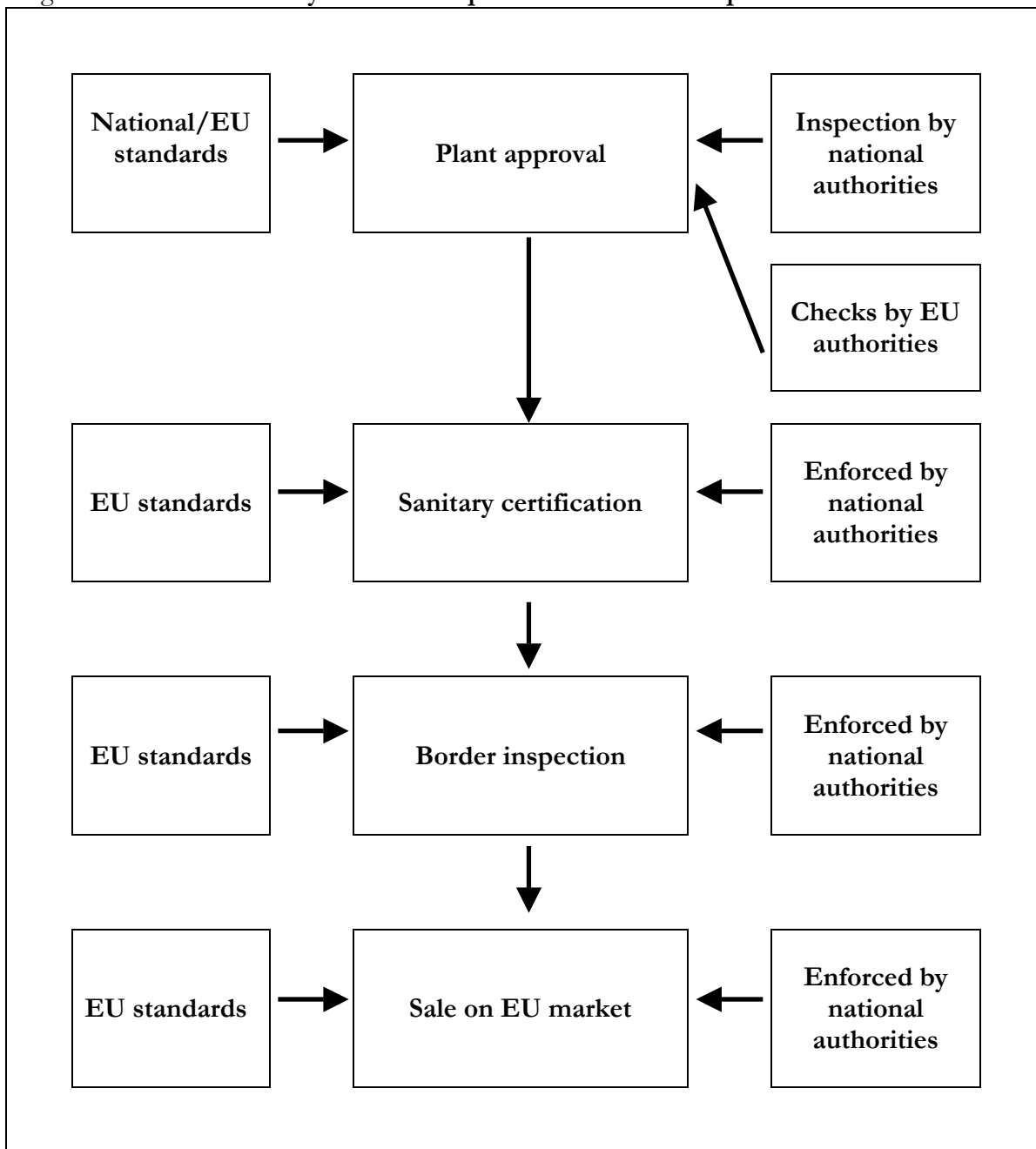
Table 3. Selected European Spice Association minimum quality and sanitary standards

Parameter	Standard
Extraneous matter	Herbs: 2% Spices: 1%
Foreign matter	2%
Salmonella	Absent in (at least) 25g
Yeast and moulds	Target: 105/g Absolute maximum: 106/g
<i>E.coli</i>	Target: 102/g Absolute maximum: 103/g
Heavy metals	Must comply with EU/national legislation
Pesticides	Used in accordance with manufacturers' recommendations and good agricultural practice Must comply with EU/national legislation
Treatments	Use of any EU approved fumigants to be indicated on accompanying documents Irradiation not to be used unless agreed between buyer and seller
Off odours	Free of any off odours or taste
Infestation	Free in practical terms from live and/or dead insects, insect fragments and rodent contamination visible to the eye
Aflatoxins	Grown, harvested, handled and stored in a manner so as to prevent the occurrence of aflatoxins or minimise the risk of occurrence If present, must comply EU/national legislation
Adulteration	Free

Source: UNCTAD/Commonwealth Secretariat (1996)

Conformity assessment procedures can also impose significant costs on exporters (National Research Council, 1995). For example, exporters of fish and fish products to the EU are subject to a system of prior approval whereby a 'competent authority' in their home country must certify that they comply with sanitary standards that are at least equivalent to those of the EU (Figure 3). Furthermore, individual product consignments may need to be certified and/or are subject to inspection at the EU border. This multi-tiered system of conformity assessment potentially imposes significant costs on exporters of fish to the EU.

Figure 3. **Conformity assessment procedures for fish imports to the EU**



In general, developed countries typically apply stricter requirements than developing countries, reflecting their greater economic means to control human, animal and plant health and the demands of their populations. Therefore in meeting the SPS standards of any market, developed country suppliers will tend to have lower costs of compliance than developing countries suppliers - the standards with which they must comply domestically will be closer to those of the potential export market and in some circumstances could even be lower.

The foregoing discussion suggests that the costs incurred by developing countries in supplying developed country markets tend to be greater than the costs incurred by developed countries in supplying the same markets. This asymmetry in costs of compliance will clearly favour trade flows from developed to developing countries. It



clearly demonstrates the potential benefits to developing countries of greater international harmonisation of SPS standards.

In the case of intra-developing country trade, SPS standards may be less of an issue. On the one hand, differences in SPS standards between exporting and importing countries will tend to be smaller. On the other, to the extent that higher SPS standards increase costs of production, developing country suppliers may have a competitive advantage over developed country suppliers.

Differences in systems of conformity assessment will also influence the costs of compliance imposed on developing versus developed country suppliers to any export market. To a large extent these will reflect the technical capabilities and institutional structures of individual countries, but also the type and level of standards that are applied. For example, countries that do not apply standards will, by implication, have no systems of conformity assessment in place. Developed countries tend to be sceptical about the efficacy of conformity assessment systems in developing countries and rely heavily on border inspections. Thus, to date, few Mutual Recognition Agreements (MRAs) on conformity assessment procedures have been signed between developed and developing countries.

## 5. SPS measures and developing countries

Although there is a paucity of broad systematic studies of the impact of SPS standards on trade, it is widely claimed that they can significantly impede exports of agricultural and food products from developing countries (see for example UNCTAD, 1997; Singh, 1994; FAO, 1999; FAO, 1998; UNCTAD/ Commonwealth Secretariat, 1996; UNCTAD, 1998). However, there are few examples of studies that have investigated the effects of SPS standards on trade flows in depth and even fewer that presented quantitative estimates.

Most rigorous studies of the impact of SPS standards on trade flows have been undertaken in the United States. Two examples are presented below by way of illustration. Although these studies do not address the impact on developing countries directly, they are of interest to the current study. They do provide some indication of the magnitude of the trade effects of SPS standards given that many of the markets of interest to US exporters may also be supplied by developing countries, for example the EU.

Roberts and De Kremer estimate the total impact of technical barriers on US exports of agricultural products at \$4907 million in 1996 (Table 4) (Roberts and DeKremer, 1997; Thornsbury *et al.*, 1997). Of this, 90 per cent was due to measures covered by the SPS Agreement. The impact of food safety standards in particular was estimated to have been around \$2,288 million.

Table 4. **SPS standards impeding agri-food exports from the United States, 1996**

Regulatory Goal	Number of Barriers	Estimated Trade Impact (\$ million)	Average Trade Impact per Barrier (\$ million)
Plant health	260	2516.79	17.02
Animal health		868.82	
Food safety		2288.00	
Natural environment		0.51	
Total		4424.73	

*Note:* Sum of estimated trade impact for individual regulatory goals may exceed overall trade impact for SPS measures because individual measures may have multiple regulatory goals.

*Source:* Thornsbury *et al.* (1998)

Calvin and Krisoff (1998) assess the impact of phytosanitary standards on US imports of apples into Japan, South Korea and Mexico over the period 1994/95 to 1995/96. The impact of phytosanitary standards is estimated to be equivalent to a tariff rate of up to 58 per cent. Further, the analysis suggests that harmonising phytosanitary standards in these countries to those of the United States would have increased apple imports by \$205 million in 1994/95 and \$280 million in 1995/96.

Various studies have addressed the issue of SPS standards and developing country exports directly, although they rarely quantify the impact. SPS issues are claimed to be an important issue for exports of: fish (ESCAP, 1996; Josupeit, 1997; Cato, 1998; Cato and Lima dos Santos, 1998); spices (UNCTAD/Commonwealth Secretariat, 1996); Oilseeds, oils and fats (FAO, 1998); livestock products (FAO, 1994; Colby, 1997; Petey and

Johnson, 1993; Johnson, 1997); and horticultural products (Giles, 1997; Gilmour and Oxley, 1998; Kortbech-Olesen, 1997). More theoretical work has demonstrated that developing countries find it difficult to trade with developed countries due to differences in quality requirements, which in turn reflect consumer demand or regulation (Murphy and Shleifer, 1997).

A broad indication of the impact of SPS requirements on developing country exports of agricultural and food products is provided by data on rejections following border inspection in developed countries. At the current time, these data are only systematically collected and publicly available for the US (Table 5)<sup>1</sup>. Over the period June 1996 to June 1997, there were significant rejections of imports from Africa, Asia and Latin America and the Caribbean due to microbiological contamination, filth and decomposition<sup>2</sup>. This indicates the considerable problems that developing countries have in meeting basic food hygiene requirements (FAO, 1999), let alone requirements for which more sophisticated monitoring and testing, and therefore more costly procedures are required, for example limits on pesticide residues and heavy metals. The cost of rejection at the border can be considerable, including loss of product value, transport and other export costs, and product re-export or destruction.

One particular issue highlighted by a number of studies is access to information on SPS requirements in developed countries (see for example Oduru and Yahya, 1998; Kortbech-Olesen, 1997). When SPS standards are subject to change on a relatively frequent basis and/or the costs of information are high, developing country exporters may find it difficult to ensure their products are in compliance prior to export. This can result in high rejection rates at developed country borders, as detailed in Table 5.

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<sup>1</sup> These data are published by the US Food and Drugs Administration (FDA) and cover all food products except meat and poultry.

<sup>2</sup> This data must be treated with care when comparing between regions and/or individual countries. Clearly, the level of rejections will reflect the overall volume of trade. Thus, for example, the total number of violations is greater for Latin America and the Caribbean than for Africa. Further, these data take no account of product that is eventually imported after further testing and/or following treatment to bring it into compliance with US SPS requirements.

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Table 5. Number of contraventions cited for US Food and Drug Administration import detentions, June 1996 to June 1997:

Reason for Contravention	Africa	Latin America and the Caribbean	Europe	Asia	Total
Food additives	2 (0.7%)	57 (1.5%)	69 (5.8%)	426 (7.4%)	554 (5.0%)
Pesticide residues	0 (0.0%)	821 (21.1%)	20 (1.7%)	23 (0.4%)	864 (7.7%)
Heavy metals	1 (0.3%)	426 (10.9%)	26 (2.2%)	84 (1.5%)	537 (4.8%)
Mould	19 (6.3%)	475 (12.2%)	27 (2.3%)	49 (0.8%)	570 (5.1%)
Microbiological contamination	125 (41.3%)	246 (6.3%)	159 (13.4%)	895 (15.5%)	1,425 (12.8%)
Decomposition	9 (3.0%)	206 (5.3%)	7 (0.6%)	668 (11.5%)	890 (8.0%)
Filth	54 (17.8%)	1,253 (32.2%)	175 (14.8%)	2,037 (35.2%)	3,519 (31.5%)
Low acid canned foods	4 (1.3%)	142 (3.6%)	425 (35.9%)	829 (14.3%)	1,400 (12.5%)
Labelling	38 (12.5%)	201 (5.2%)	237 (20.0%)	622 (10.8%)	1,098 (9.8%)
Other	51 (16.8%)	68 (1.7%)	39 (3.3%)	151 (2.6%)	309 (2.8%)
Total	303 (100%)	3,895 (100%)	1,184 (100%)	5,784 (100%)	11,166 (100%)

Source: FAO (1999).

To date, perhaps the most in-depth analysis of the impact of SPS requirements on developing country exports of agricultural and food products has been undertaken on the Bangladesh frozen shrimp sector. Over the period August to December 1997, exports of frozen shrimps from Bangladesh were banned by the European Commission because of concerns about hygiene standards in processing facilities and the efficiency of controls undertaken by Bangladesh government inspectors. Cato and Lima dos Santos (1998) estimate that the loss of revenue to shrimp processors as a result of the ban was \$14.6 million. Cato (1998) assesses the costs of upgrading sanitary conditions in the Bangladesh frozen shrimp industry to satisfy the EU's hygiene requirements. It is estimated that \$17.6 million was spent to upgrade plants over the period 1997-98, giving an average expenditure per plant of \$239,630. The total industry cost required to maintain HACCP in these plants is estimated to be \$2.2 million per annum. Further, the Bangladesh government is estimated to have spent \$283,000 over this period and predicts an expenditure of \$225,000 per annum to maintain a HACCP monitoring programme.

Table 6. Main difficulties faced by African developing countries in exporting food products

Factor	Score
Insufficient financial resources for food control	22

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Inadequate testing and inspection facilities	36
Inadequate trained manpower in the food industry	41
Inadequate standards and/or regulations	50
Inefficient food processing technologies	51

*Note: Each factor was scored on a five-point scale from 'highest priority' (1) to 'lowest priority' (5).*

*Source: Mutasa and Nyamandi (1998)*

Mutasa and Nyamandi (1998) assess the degree to which SPS standards impede exports from developing countries in Africa through a survey of Codex Alimentarius contact points. The key findings were as follows:

- 57 per cent had had products rejected in the past two years following border inspections. The main reasons were microbiological/spoilage (35%) and contamination (20%).
- All countries had standards covering traded foods. The majority of these standards (57%) were based on Codex standards.
- All countries inspected food products prior to export. The most important agencies that undertook this process were government (50%) and private organisations (32%).
- Respondents were asked to indicate the most important impediments to food exports associated with SPS standards. The most important was judged to be insufficient financial resources for food controls (Table 6).

In conclusion, the existing literature suggests that SPS standards are potentially a problem for developing country exports to developed countries. However, there has been little or no analysis of the nature of the problems developing countries have in complying with SPS standards in developed countries and/or attempts to quantify these costs. This study aims to explore this issue in more depth, although quantification is beyond the scope of the analysis.

## 6. SPS Agreement

The international community has addressed the impact of SPS standards on trade in agricultural and food products through the WTO's SPS Agreement. The Agreement grew out of several trade disputes, most notably between developed countries, that could not be resolved under the existing Technical Barriers to Trade (TBT) Code or through the then existing GATT dispute settlement procedures.

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

The key feature of the SPS Agreement is risk assessment and risk management in determining appropriate measures which provide an acceptable level of risk to the importer and which can be justified on technical and trade terms (Bigby, 1997). Thus the major objectives are:

- To protect and improve the current human health, animal health, and phytosanitary situation of all member countries.
- Protect the members from arbitrary or unjustifiable discrimination due to different sanitary and phytosanitary standards.

The Agreement thus permits individual nation states to take legitimate measures to protect the life and health of consumers given the level of risk that they deem to be 'acceptable', provided such measures can be justified scientifically and do not unnecessarily impede trade. However, they are required to recognise that measures adopted by other countries, although different, can provide equivalent levels of protection. The key elements of the Agreement are detailed below (WTO, 1995; WTO, 1996; Roberts, 1997):

### 6.1. Harmonisation

In many circumstances the harmonisation of SPS standards can act to reduce regulatory trade barriers. Therefore, Members are encouraged to participate in a number of international standards-setting organisations, most notably Codex Alimentarius, the International Office of Epizootics (OIE) and the International Convention on Plant Health (IPPC). Members are expected to base their SPS measures on the standards, guidelines, or recommendations set by these organisations, where they exist. They are, however, entitled to adopt measures that achieve a higher level of protection, provided this can be justified scientifically (See Section 6.3).

### 6.2. Equivalence

Members are required to accept the SPS measures of other members where they can be demonstrated to be equivalent; they offer the same level of protection. This protects

exporting countries from unjustified trade restrictions, even when these products are produced under simpler and/or less stringent SPS standards. However, in practice, the right of the importing country to test imported products limits the right of equal treatment.

### **6.3. Assessment of risk and determination of the appropriate level of sanitary or phytosanitary protection**

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

### **6.4. Adaptation to regional conditions, including pest- or disease-free areas and areas of low pest or disease prevalence**

The Agreement recognises 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, recognises 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.

### **6.5. Transparency**

The Agreement establishes procedures for enhanced transparency in the setting of SPS standards amongst Members. Members are required to notify the SPS Secretariat of all proposed and implemented SPS measures. This information is relayed to the 'Notification Authority' within each Member Government. Moreover, Members are required to establish an 'Enquiry Point' which is the direct point of contact for any other Member regarding notifications of SPS measures.

## **6.6. Consultation and dispute settlement**

The 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.



## 7. Provisions for developing countries under the SPS Agreement

Given that developing countries typically implement qualitatively or quantitatively lower SPS standards than developed countries, in principle the SPS Agreement should help to facilitate trade from developing to developed countries by improving transparency, promoting harmonisation and preventing the implementation of SPS measures that cannot be justified scientifically. Much of this is dependent, however, on the ability of developing countries to effectively participate in the Agreement. The Agreement itself tries to facilitate this by acknowledging the special problems that developing countries can face in complying with SPS measures and allowing for special and differential treatment:

- Members are instructed to take account of the special needs of developing countries, and in particular least-developed countries, in the development of SPS measures.
- To maintain opportunities for exports from developing countries, where the appropriate level of protection permits scope for the phased introduction of new SPS measures, longer periods should be given for products that are of special interest to developing countries.
- The SPS Committee is permitted to grant developing countries time-limited exemptions from obligations under the Agreement, taking into account their financial, trade and development needs.
- Members should encourage and facilitate the active participation of developing countries in international organisations such as Codex Alimentarius, OIE and IPPC.
- Members are encouraged to provide technical assistance to other Members, in particular developing countries, for the purpose of allowing such countries to meet the level of SPS protection required in their export markets.

Further, the Agreement permits additional time to developing countries to implement all or some of its provisions. Developing countries are permitted an additional two years (until 1997) to comply with all the provisions except those associated with transparency. The least developed countries were permitted an additional five years (until 2000) to comply with the Agreement in its entirety.

## 8. Impact of SPS measures on developing countries

The aim of this section is to identify the particular problems that developing countries can have in meeting SPS measures, particularly when exporting to developed countries. Results from the survey of low and lower middle income countries are presented to indicate the impact of SPS measures relative to other restrictions and a number of short case studies are provided as illustration. In many cases, further details are provided in the detailed country case studies reported in a separate volume.

Survey respondents were asked to consider a range of factors that might impede their country's ability to export agricultural and food products to the EU and indicate the significance of each on a five-point Likert scale from 'very significant' (1) at one extreme to 'very insignificant' (5) at the other. Overall, the factor considered the most significant impediment to exports to the EU was SPS requirements (Table 7). Other technical requirements, for example labelling regulations or compositional standards, and transport and other direct export costs were also considered important impediments to trade.

Table 7. **Mean significance scores for factors influencing ability to export agricultural and food products to the EU:**

Rank	Factor	Range	Mean Score
1	SPS requirements	1-3	2.1
2	Other technical requirements	1-4	2.8 <sup>a</sup>
	Transport and other direct export costs	1-5	2.8 <sup>a</sup>
3	Tariffs	2-5	3.3
4	Quantitative restrictions	3-5	3.8

*Note: Scores denoted by the same letter are not significantly different at the 5 per cent level*

Respondents were also asked to indicate the significance of SPS requirements as an impediment to agricultural and food exports to a number of developed country markets. The market for which SPS requirements were considered to be the most significant impediment to trade was the EU, followed by Australia and the United States (Table 8).

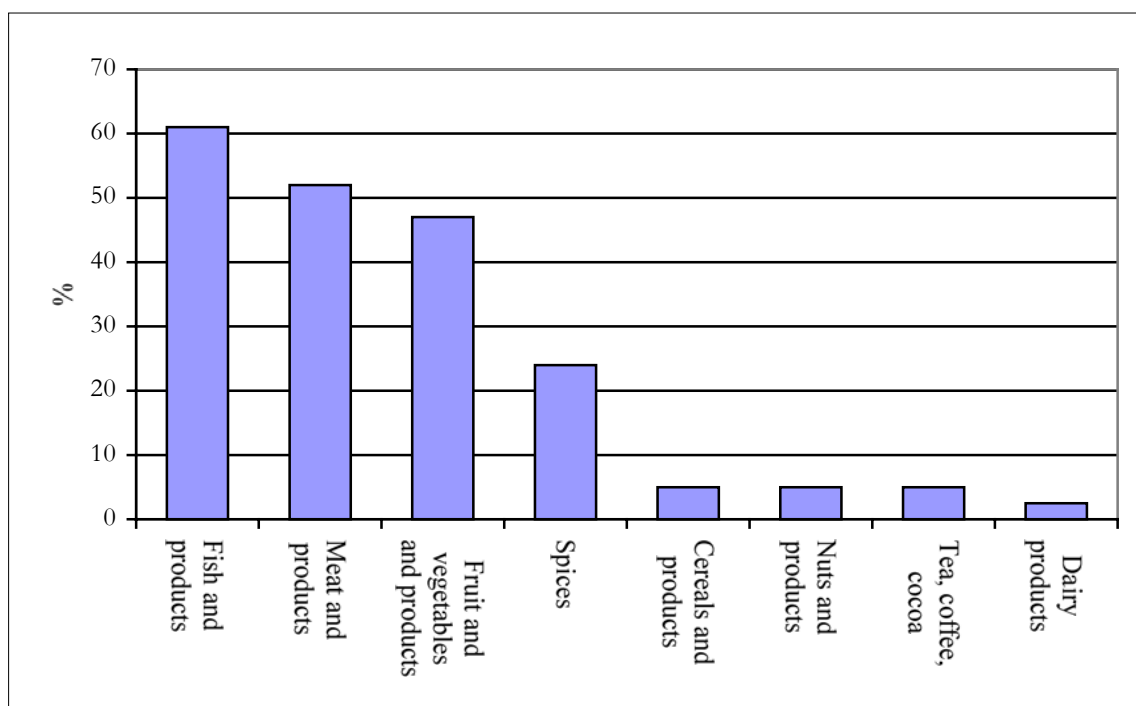
Table 8. **Mean significance scores for problems due to SPS requirements when exporting agricultural and food products to various developed countries:**

Rank	Factor	Range	Mean Score
1	European Union	1-3	2.1
2	Australia	1-4	2.7 <sup>a</sup>
	USA	1-5	2.8 <sup>a</sup>
3	Japan	2-5	3.3 <sup>b</sup>
	Canada	3-5	3.4 <sup>b</sup>

*Note: Scores denoted by the same letter are not significantly different at the 5 per cent level*

Figure 4 reports the proportion of countries that responded to the survey that had been prevented from exporting agricultural and food products to the EU in the last three years due to SPS requirements. The products for which SPS requirements had been a particular problem were meat/meat products, fish/fish products and fruit and vegetables/fruit and vegetable products. In many cases where SPS requirements had not impeded trade, for example dairy products, the countries concerned did not currently produce sufficient volumes of the product to export to the EU.

Figure 4. **Number of developing countries for which exports of agricultural and food products to the EU have been prevented as a direct result of SPS requirements in the last three years:**



In certain cases developed countries prohibit imports of agricultural and/or food products from particular countries because it is judged that the risk to plant, animal or human safety is unacceptably high. Thus, for example, India is not currently approved to export fresh and frozen meat to the EU because of its current FMD status (Case 1).

**Case 1. Indian meat exports to the EU**

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India was deemed to be Rinderpest free by the OIE in 1995. However, the EU only considers India to be provisionally Rinderpest-free. Further, a number of production areas conform to the OIE's standards for exports from countries with FMD. However, the EU lays down stricter requirements than the OIE for exports from countries with FMD - FMD must have been eradicated in a 100 kilometre area around the production area. At the current time, India is deemed not to satisfy these requirements and exports of fresh meat and meat products are not permitted

In other cases, imports may not be prohibited. However, certain restrictions may be put in place, for example border inspection requirements, that effectively bar imports because of the cost and/or time involved. This is illustrated by Case 2 below.

**Case 2. Fresh fish exports from East Africa to the EU**

Exports of fish from East Africa, mainly originating from Lake Victoria, to the EU have grown considerably through the 1990s and become an important element of agricultural and food exports, as well as the means of livelihood for a considerable number of predominantly small-scale fishermen. For example, in the case of Tanzania, fish and fish product exports were around 48,000 tonnes in 1997 and accounted for 10.2 per cent of total exports by value.

In December 1997, the EU imposed restrictions on imports of fish from a number of countries bordering Lake Victoria, namely Tanzania, Kenya, Uganda and Mozambique. These restrictions reflected concerns about sanitary standards and the control systems in place in these countries. These restrictions were introduced in two phases.

At the end of 1996, Salmonella was detected in imports of fish from the region and subsequently the EU undertook inspection visits. These concluded that the controls in place were inadequate to guarantee that the EU's hygiene requirements (laid down under Directive 91/493/EEC) were being complied with and in March 1997 imports were subject to Salmonella testing at the port of entry to the EU. These tests were at the importer's expense.

Further inspection visits were held in late 1997 at a time when there were elevated levels of Cholera in the region. Sanitary conditions in the supply chain were judged to have not improved and, in particular, the 'competent authority' in Tanzania, Kenya, Uganda and Mozambique was not considered to have adequate controls to ensure that the EU's hygiene standards were being met. Subsequently further restrictions were imposed, involving testing at the port of entry to the EU for *Vibrio cholera* and *Vibrio parahaemolyticus*. Given that these tests took five days to perform, in practice these restrictions acted to preclude exports of fresh fish to the EU.

These restrictions were lifted in mid-1998 following further inspection visits that indicated that standards of hygiene in the supply chain had improved and the 'competent authority' had implemented appropriate systems of control. It is estimated, in the case of Tanzania for example, that the incomes of fishermen, who had become dependent on exports to the EU, declined by 80 per cent during the period of the second round of restrictions.

In certain cases, exports may be required to meet the same SPS standards as domestic suppliers within the EU, but costs of compliance are high. As a result, developing country exporters may require long periods of time to comply. This is illustrated by Case 3 below.

**Case 3. Vietnamese fish exports to the EU**

Between 1991 and 1996 a company in Vietnam exported most of its products to the EU, where they had contracts with buyers in Belgium, France, Italy and Spain. Since the EU introduced new sanitary requirements in 1991 and required compliance by 1997, Vietnamese companies were required to obtain approval prior to export. As a result, exports to the EU declined dramatically. The interviewed company's biggest overseas market now is Japan, which accounts for 60 per cent of exports. Although prices are higher in Japan, the company considers the EU as a more stable market and therefore a favourable trading partner. Currently, exports to the EU are 30 per cent of overseas sales. They have a competitive advantage in the form of very low production and labour costs in Vietnam compared to other Asian middle-income countries. But before the company can export larger amounts to the EU, more plants need to be modified in order to comply with the EU's sanitary requirements.

In certain cases, the SPS standards laid down by developed countries are incompatible with the normal methods of production in developing countries. In this case, the costs of compliance act as an absolute barrier to trade; whole systems of production and distribution may need to be changed in order to comply. This is illustrated by Case 4.

**Case 4. Milk production in India**

India is one of the world's largest producers of milk and dairy products. Much of this production, however, is by smallholders who milk by hand and are members of co-operatives that collect milk for processing and further distribution. There are relatively few large-scale producers with mechanised milking facilities.

Directive 92/46/EEC lays down sanitary standards for milk production within the EU and Third Countries. This Directive requires that dairy products be manufactured from milk derived from cows that have been kept on farms and which have been mechanically milked. Given the predominance of hand milking in India, this effectively precludes smallholder producers and much of India's milk output from exports to the EU.

Conformity assessment procedures can also be complicated and costly to implement. Further, there may be cultural differences in the types and detail of information required by the EU, for example, and that generally regarded as satisfactory in developing countries. This is illustrated by Case 5 below.

**Case 5. Egyptian potato exports to the EU and disease-free areas**

Immediately after publication of the decision to require imports to be derived from certified disease-free production areas, the Egyptians launched a political offensive to get it changed. As a result they did little to prepare the required documentation until the EU provided technical assistance in October 1998. Dossiers for 133 pest-free areas were

subsequently prepared. The representative of the EU Commission in Egypt described the dossiers as poor. Maps were not readable, documentation was in Arabic and submitted materials were generally untidy. Ultimately, 23 pest free areas were proposed to the Plant Protection Committee, with only five areas approved as meeting requirements. Fourteen areas were not rejected, but additional information was requested before approval would be given. The remainder was rejected outright.

As of the middle of January 1999, a month into the peak season, only a handful of exporters had access to potatoes from disease-free areas. EU representatives in Egypt reported that 41 exporters would not be able to meet contractual obligations for deliveries in EU markets. Egyptians highlight the improvements that had been made in reducing infected shipments during the previous season, and feel strongly that the action taken by the EU was extremely harsh and unjustified.

The nature of SPS requirements is an important factor influencing the impact on developing countries. Of particular importance is the system of conformity assessment applied. In certain cases, for example the United States<sup>3</sup>, conformity is assessed through border inspection at the point of entry. In other cases, for example the EU, systems of prior approval and process-based inspection are employed. Responsibility for these is frequently delegated to approved 'competent authorities' in developing countries. In the former cases, although the costs of rejection at the point of entry may be costly, the supplier is free to comply in the manner that is most appropriate to their individual circumstances. In the latter case, the activities of the supplier are more constrained and the ability to demonstrate compliance is often dependent on the capabilities of the competent authority. If the competent authority is not able to undertake this task to a standard that is acceptable to the importing country, suppliers may be prevented from exporting, although their product may be in compliance with SPS requirements. This is illustrated by Case 6.

**Case 6. Shrimp exports from India to the EU**

India has had problems exporting shrimps to the EU relating to the need for processing establishments to be approved by the Export Inspection Council of India (EIC), which is the 'competent authority' recognised by the European Commission. This system of prior approval not only requires that suppliers of fish products comply with SPS requirements, but also that the recognised public authorities implement approved systems of conformity assessment.

The EU inspected a number of approved production facilities in 1997 and identified problems with the inspection and approval systems implemented by the EIC. As a result, imports from India were suspended for a period of four months whilst new systems were implemented to ensure that products exported to the EU were in full compliance with sanitary requirements. Thus, even though certain production facilities were of a satisfactory standard, they were prevented from exporting to the EU because existing public institutions were not considered competent to certify that this was the case.

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<sup>3</sup> The United States is progressively moving to system-based conformity assessment similar to that currently applied by the EU.

At the current time, exports to the United States are not subject to a system of prior approval based on inspection by an approved 'competent authority'. Rather, conformity is assessed through rigorous border inspection at the port of entry. Thus, shrimps were exported to the United States throughout the ban imposed by the EU. There are concerns, however, that similar problems will be encountered with exports to the United States in the future, as new regulations are implemented that require all processing establishments to implement HACCP. The implication of these regulations is that premises will need to be inspected and approved prior to export, as in the case of exports to the EU.

Some exporters face problems due to the length of time necessary to demonstrate compliance with SPS measures. Delays might be as a result of hold ups at the border of the importing country, or of domestic government or exporter dilatoriness. Case 7 illustrates this problem.

Case 7. **Border inspection of Zimbabwean horticultural produce imports to the EU**

Zimbabwe is a major importer of fresh horticultural produce, for example sugarsnap peas, mangetout and baby corn, to the EU. The majority is imported to the UK. Consignments of produce are required to be inspected by the Ministry of Agriculture in Zimbabwe to confirm that they are free of pests and diseases prohibited in the EU. However, in certain cases consignments are also inspected at the EU border. This can take a considerable period of time if officials are busy. It is suggested that this reflects a lack of confidence in the competence of the Zimbabwean authorities and is less likely to happen in the case of produce from developed countries, for example the USA. It is also claimed that lengthy border inspection occurs more frequently with imports to Mediterranean states that grow products that are in direct competition with those from developing countries.

Amongst the exporters interviewed as part of the study, rejections at the EU border were relatively rare. Even where products were held for inspection, they were eventually released and imported. However, in the case of certain products, in particular bulk blendable commodities such as coffee and cocoa, exporters often achieved a lower price unless legal and customer requirements were exactly adhered to (Case 8).

This section has highlighted the key impacts of SPS standards in developed countries that are raised by the ten country case studies. In certain cases, whether due to absolute bans or prohibitive restrictions, developing countries are prevented from gaining access to developed country markets. In others, SPS standards and/or the associated conformity assessment procedures can impose significant costs on exporters, or can impose delays that can reduce the value of products.

Case 8. **Price reductions for blending coffee from Cameroon and Ethiopia**

In Cameroon, quality is a major problem affecting export marketing. There is a widespread perception that buyers in Europe try to reduce the price on quality grounds due to quality problems – especially moisture content in the case of coffee. This company did appear to have an exhaustive testing system for their products. Cocoa was inspected prior to shipping. Although lacking in proper procedures and equipment, the crop was tested for uric acid, bean size, smoky beans, slatey beans and black beans. Coffee was tested primarily for black beans and humidity. It was suggested that International norms (such as 12% moisture) were well defined and well known.

In the Ethiopian case, crops tended to be of mixed quality (due largely to sun-drying and possible high moisture levels) and although they could be sold, they tended to attract much lower prices than the equivalent washed coffee crop (20% of exports).



## 9. Problems faced by developing countries

This section explores the factors that explain the degree to which SPS standards impede exports from developing countries. Again, brief case studies are presented to illustrate the key findings.

### 9.1. Access to compliance resources

A major problem faced by developing countries is access to the resources required to comply with SPS standards in developed countries. These include information on SPS standards themselves, scientific and technical expertise, appropriate technologies, skilled labour, general finance etc. If these resources are not available locally, they may need to be obtained overseas, significantly increasing the costs of compliance. For small and medium-sized companies these costs are likely to be prohibitive. This is illustrated by Case 9.

#### Case 9. Compliance with EU sanitary standards for fresh and frozen meat

At the current time, India is not approved for the export of fresh and frozen meat to the EU. However, some companies have been upgrading their sanitary standards in order to comply with the EU's requirements in anticipation of approval at a later date (when parts of India are accepted as FMD-free). One company that was interviewed, reported problems obtaining the required technical expertise and modern processing equipment to comply. They had had to bring in experts from New Zealand and Australia and import equipment at great cost. To recoup these costs, the entire output of the company had to be exported to higher value markets, in particular the Middle East.

### 9.2. Compliance period

The period allowed for compliance with developed country SPS standards is an important factor influencing compliance costs. In many cases developing countries require longer to comply due, in part, to limited access to compliance resources (see Section 9.1. above). If suppliers do not comply within the specified period they may be prevented from exporting. In the short term, the costs in terms of lost revenue can be significant. They may also lose customers and/or market share that can affect their long-term export performance. This is illustrated by Case 10.

Case 10. **Shrimp exports from India to the EU**

One major exporter of shrimps from India suffered significant economic losses as a result of problems complying with the EU's sanitary standards. Following the lifting of the general ban on exports to the EU in December 1997, the company applied for approval to export to the EU from the recognised Competent Authority in India. However, the changes required by the Authority before approval would be granted took a considerable period of time to implement. As a result, the company was prevented from exporting for a further period of three months, during which time its major competitors, who had obtained approval, started to trade with the EU. The economic cost was so great that it has threatened the commercial viability of the company.

**9.3. Response by developing country governments:**

Some of the exporters interviewed as part of the case studies suggested that their governments had been slow to react to changes in SPS standards in major export markets. As a result, the period within which they had been required to comply had been significantly reduced, increasing costs and, in extreme cases, limiting their ability to export. This is illustrated by Case 11.

Case 11. **Delays in compliance in the Ghana fish sector**

In the Ghanaian fish sector, the private sector is critical about the lack of progress made in 1997 in preparing for new regulations, despite the adequate compliance period allowed by the EU. Fresh and frozen fish shipments were stopped at the beginning of 1998, on the initiative of the Ghana Standards Board. An EU veterinary inspection team arrived in February 1998. In June 1998, the Ghana Standards Board was approved by the EU as the 'competent authority' to licence fish-processing plants and vessels for export to the EU. Various plants and vessels have since been approved, and shipments have been renewed, but by January 1999 they were not back to earlier levels.

**9.4. Nature of marketing chain**

In certain cases the conformity assessment procedures associated with SPS standards can be difficult and costly to put into practice within supply chains in developing countries. Supply chains tend to be longer and more fragmented than in developed countries and, as a result, the cost of establishing systems of traceability and supplier quality assurance can be prohibitive, in particular for small producers. This is illustrated by Case 12.

Case 12. **Zimbabwean beef exports to the EU**

Zimbabwe has been successful at developing its beef exports to the EU given the concessions granted under the Lomé Convention. However, the vast majority of the beef that is exported is produced on large-scale commercial farms. The level of participation of small-scale producers in the export trade is small.

The sanitary standards laid down by the EU require full traceability of animals down the supply chain. For example, exporters are required to demonstrate that animals are from

FMD-free areas and are free from certain other diseases. Further, recent requirements for the traceability of individual animals down the supply chain have necessitated both the branding and ear tagging of animals. The costs of meeting these requirements can be prohibitive for small-scale producers. Furthermore, the costs of implementing such controls are significantly lower if animals are procured from a relatively small number of large holdings. Consequently, exporters tend to obtain supplies from large rather than small producers wherever possible.

### **9.5. Production methods**

As discussed in Section 8 above, in certain cases the SPS standards of developed countries are not compatible with the production systems employed in developing countries. In certain cases, these systems need to be radically changed in order to comply. In others, significant levels of new investment are required to overcome indigenous problems, for example due to the climate, poor local infrastructure etc. Case 13 provides an example of this.

Case 13. **Production of Brazil Nuts in Bolivia**

Bolivia is by far the largest exporter of Brazil nuts (*castaña*) in the world, accounting for about 75 per cent of world trade; this product is Bolivia's fourth biggest export, and most of the product is exported to Europe. The product grows wild, and is harvested from deep in the forest by indigenous *campesinos* in the far north of the country. The product is picked by hand and packed into bags ready for transport (600 km) to La Paz for air or sea freight to Europe. EU SPS measures on aflatoxins, especially the aflatoxin B1 requirement of 4ppb, have the potential to seriously impede this trade, or add significantly to its costs. Although it is possible to grow the product on a plantation scale, it is felt that the economics of such production would not prove adequate, and furthermore it would not aid the social objective of offering poor farmers an economic alternative to coca leaf production in these remote areas.

The Bolivian government and traders, together with assistance from the EU, are considering ways around the problem posed by the new limits, but it seems inevitable that investment in transportation and storage facilities (which may not be merited by the overall size of the market) will have to be made. To date, some laboratory facilities have been set up (and have been accepted by the EU) to allow in-country testing of the export crop, but such facilities, and inspection in general, represent major costs.

### 9.6. Logistical problems

Case 14 highlights a particular problem that was reported widely. Logistics, in particular airfreight for perishable products, can represent a major barrier to products which otherwise might have met all necessary SPS measures. Such problems effectively represent a lack of access to the facilities or resources that are required to ensure the product still complies with the required measures at all levels of the marketing chain. Case 14 quotes examples from Kenya and Ghana.

Case 14. **Access to airfreight in Kenya and Ghana**

*Ghana:*

A looming problem for fish exports is airfreight capacity. Cargo flights have proved too unreliable, because they only fly when full, and not to a timetable. There is still cargo capacity on scheduled passenger flights to London, but flights to Paris via Zurich are at capacity.

*Kenya:*

It was claimed that the main problems faced in exporting to the EU were logistical. As a fairly small player, problems relating to transportation were paramount. In fact, airfreight space was so limited that often the crop had to travel to France via Italy, for example. This took considerably longer than direct trade to France, and the increased costs reduced the prices attainable by exporters to a level where it was only marginally profitable. One exporter expressed the view that, being new in the business and operating on a small scale, they did not have the power that other, larger, companies had. This related particularly to obtaining space on planes.

**9.7. Access to information**

Although participation and the effectiveness of such participation was cited frequently, access to the actual information on SPS requirements in foreign markets can be a problem, or can cause significant delays and confusion. In certain cases, for example ACP states, there may be relatively good access to information on the EU's SPS measures. In other cases, access may be difficult; in extreme cases the only source of information is the notification procedures of the SPS Agreement. Case 15 illustrates this.

Case 15. **Availability of information in Ghana**

Ghanaian officials reported that in 1996 new EU regulations were proposed, to come into force on 1 July 1997. HACCP systems would be required for fish imports to EU. However, implementation was to be delayed for one year (to 1 July 1998) for ACP countries. Ghana became aware of these new requirements through bilateral contacts with the EU in Brussels, both via its Embassy in Brussels and the European Commission's office in Accra. The EU offered considerable technical assistance in 1997. Ghanaian officials clearly believe that they benefited from their links with the EU as an ACP state and otherwise would have been left very much on their own to comply with the EU's requirements.

Although national and international standards are seen as important issues, the requirements of customers are frequently as, if not more, important in the case of non-traditional non-commodity products. The customer can also be an important source of information and expertise on regulatory requirements in developed countries. The UK multiple food retailers, for example, can play an important role in this respect. This is illustrated by case 16.

Case 16. **Importance of developed country customers**

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In Egypt, one company interviewed described the process of quality assurance. This company is the only Egyptian supplier to a UK supermarket which is noted for its exact quality requirements. Only small, new potatoes are exported to the supermarket. These potatoes are inspected, cleaned and packed in jumbo (one metric tonne) bags for export. This procedure, using hand labour for all operations, reduces skin damage to a minimum. Each year representatives of the supermarket, together with its importing agent inspect the company's production facilities and review its production practices. Detailed records of all production practices are kept, and made available to its customers.

### 9.8. Awareness

A major problem in many developed countries is the level of awareness and/or understanding of SPS measures in general and the SPS Agreement in particular. This is clearly related to access to information which is discussed in Section 9.7 above.

Considerable efforts have been made by organisations such as WTO, FAO and UNCTAD to raise awareness of SPS standards and the SPS Agreement amongst government officials in developing countries. Furthermore, many developing country governments have organised seminars and workshops in an attempt to enhance awareness amongst personnel that are responsible for SPS matters on a day-to-day basis, for example port inspectors, and within the food supply chain. However, in many instances recognition of the importance of SPS standards and their impact on export performance remains poor. As a result, initial reaction to new SPS measures is often delayed and/or inappropriate.

### 9.9. Internal regulatory structures

The extent and nature of existing regulatory structures for SPS matters in developing countries affects their ability to comply with standards in developed countries. If SPS standards are in place domestically, the food supply chain will be accustomed to operating in a regulated environment and will better appreciate the need to comply. Furthermore, public authorities may find it relatively easy to implement conformity assessment procedures required by developed countries given that they have an existing enforcement structure. Developing countries that will find it most difficult to comply will be those with little existing domestic SPS legislation and/or weak systems of control. This is illustrated by Case 17.

#### Case 17. SPS control systems in Zimbabwe

Zimbabwe has a well-developed SPS control system, with national standards (often based on international standards) and effective enforcement systems at both the national and local level. For example, the Ministry of Agriculture has well equipped testing facilities for both plant and animal products. Furthermore, there are established inspection procedures at all airports that handle imports/exports of plants, animals and food. As a consequence, the Zimbabwean authorities have found it relatively easy to perform the functions required to be recognised as a 'competent authority' by the EU.

### 9.10. Relative importance of factors

This section has highlighted the factors that influence the degree to which SPS standards, predominantly in developed countries, impede exports from developed countries. The next section aims to provide some indication of the relative importance of these problems. On the one hand, the problems discussed in each of the case studies are brought together in tabular form. On the other, results from the survey covering a wider range of developing countries are reported.

Table 9 summarises the responses of the case study countries to questions about the problems they face in complying with SPS requirements in the EU. The problems listed conform broadly with the sub-section headings above, but an attempt is made to identify which countries in particular reported such problems, and to note briefly the nature of the problem. The table thus gives an overview of the relative importance of the problems, including those that are on-going as well as those that were subsequently overcome. It should be noted, however, that the case study approach adopted in this work means that respondents were not bound to mention *every* possible problem they had faced. This table should therefore be treated with some caution. The implication is that the number of countries identified as experiencing each problem is likely to be an *under*-estimate.

Table 9. Summary of problems in meeting SPS requirements identified in case studies:

Nature of Problem	Countries affected	Products affected	Notes
Access to compliance resources	India Zimbabwe  Vietnam Ghana	Meat Meat General General General	Technical expertise lacking Poor abattoir facilities Lack of resources Lack of trained personnel and laboratory facilities
Compliance period	India  Zimbabwe Vietnam	Shrimps General General General	Delays in adaptation of competent authority to EU requirements Periods too short EU takes time to inspect Periods too short
Response by own government	Ghana  Zimbabwe Kenya Cameroon	Fish  General Fish General	Time taken to get Ghana Standards Board approval; slow response of own government to EU changes (and to ban)  Slow response of Competent Authority following ban Demise of state extension service
Nature of marketing chain	Zimbabwe  Ghana India  Ethiopia  Cameroon	Beef  Fish Milk Fish General  Coffee Coffee	Traceability required - huge problem for small-holders; capital investment required; reliability problems Artisanal methods - wooden boats, lack of ice Hand-milking; proving TB and Brucellosis free  Poor packaging and handling facilities; long distances to ports from production areas Small-holder production; sun-dried - unripe product; no specialist drying New system of payment does not encourage orderly marketing



Table 9. Summary of problems in meeting SPS requirements identified in case studies (continued):

Nature of Problem	Countries affected	Products affected	Notes
Production methods	Bolivia India  Ghana Vietnam Ethiopia Kenya Cameroon The Gambia	Brazil nuts General Milk Fish Poultry Coffee Fish Coffee Groundnut	Traditional growing and harvesting techniques; transportation delays EU takes little notice of local conditions Hand-milking Artisanal methods of catching and marketing  Catching and filleting methods Humidity and rancidity; lack of scale New aflatoxin levels will be hard to meet
Logistical problems	Kenya  Ghana Ethiopia Cameroon	Horticultural products Fish General Palm oil	Small producers - lack of airfreight capacity and bargaining power  Infrastructural rigidities and lack of cold storage; lack of airfreight capacity Port and other facilities Long-term contracts expected by US and European buyers.
Access to information	Zimbabwe  India Ghana Kenya	Flowers; beef; fresh produce General Tuna Fish	Well established trade - customer requirements paramount  Difficult to get full information on SPS requirements Stringent standards and inspections from UK buyers
Awareness	India Zimbabwe	General General	Problems for small businesses to get information
Internal regulatory structure	Egypt India  Ethiopia Vietnam Zimbabwe	General General Shrimp General General General	Poor Competent Authority; many agencies responsible for SPS matters Diversity of responsibility for SPS matters Poor Competent Authority/poor inspection system Small team responsible for SPS matters

The problems most frequently identified through the case studies were the nature of the marketing chain and production methods in developing countries (Table 9). In general, it was suggested that the SPS measures adopted by developed countries are incompatible with the (traditional) systems of production and marketing in developing countries and, as a result, costs of compliance tend to be high, sometimes prohibitively so. The nature of internal regulatory structures was also frequently cited. This suggests that the problems experienced by developing countries are closely related to internal factors such as the nature of supply chains and public authorities charged with SPS matters.

The aim of the survey was to explore whether the issues identified by the case studies were more generally applicable to developing countries as a whole. Respondents were presented with a number of potential problems associated with SPS requirements based on (but more specific than) the issues summarised above. They were asked to indicate the significance of each of these problems in terms of the ability to satisfy SPS requirements when exporting agricultural and food products to the EU on a five-point Likert scale from 'very significant' (1) at one extreme to 'very insignificant' (5) at the other.

The factors judged to be most significant in terms of the ability to satisfy the EU's SPS requirements were insufficient access to scientific/technical expertise and incompatibility of SPS requirements with domestic production/marketing methods (Table 10). Problems judged to be less significant were poor awareness of SPS requirements within agriculture and the food industry and poor access to information on SPS requirements. These results, as in the case studies, indicate the importance of inherent problems with internal institutions in developing countries associated with the supply of agricultural and food products and the management of SPS measures.

Clearly, although SPS standards can impose significant costs of compliance, the degree to which these actually impede trade differs between countries and individual producers within countries, according to their capacity to comply in a cost-effective manner. The factors that play a role in this respect provide some indication of mechanisms that could be used to overcome the problems faced by developing countries due to SPS standards (see Section 14).

Table 10. Mean significance scores for problems in meeting SPS requirements in exporting agricultural and food products to the EU:

Rank	Factor	Range	Mean Score
1	Insufficient access to scientific/technical expertise	1-3	1.6
2	Incompatibility of SPS requirements with domestic production/marketing methods	1-3	2.1
3	Poor access to financial resources	1-3	2.6
4	Insufficient time permitted for compliance	1-5	3.0 <sup>a</sup>
	Limitations in own country's administrative arrangements for SPS requirements	1-4	3.1 <sup>a</sup>
	Poor awareness of SPS requirements amongst government officials	1-5	3.1 <sup>a</sup>
5	Poor awareness of SPS requirements within agriculture and food industry	2-5	3.5
6	Poor access to information on SPS requirements	2-5	3.9

*Note: Scores denoted by the same letter are not significantly different at the 5 per cent level*

## **10. Wider implications of SPS measures in developed countries**

As well as the direct costs of compliance, SPS measures in developed countries have wider implications for developing countries. These are summarised below:

### **10.1. Economic dependency**

As is evident from several of the case studies (see particularly the Zimbabwe and Kenyan cases), SPS measures can effectively force exporters, and the in-country institutions that represent them, into very specific production and trading methods. To service this export trade, firms may have to implement specific systems (such as HACCP), or sign up to particular quality assurance schemes that can add significantly to costs. In the extreme, such requirements may tie the exporter to a particular trade (or a particular country - for example, with a specific British retailer). These arrangements tend to be attractive and lucrative in the short term, but can mean that exporters invest relatively heavily in staff, equipment and trading relations, which add to their costs. These may represent a potential burden in the medium to long-term, for example if the trade is halted for any reason.

This potentially beneficial improvement in quality management can cause problems if the export market becomes closed for any particular reason (such as the loss of a contract or reduction in demand), and traders have to revert to local markets or nearby export opportunities. Often these alternative markets are relatively lower value, and may not cover the extra fixed costs that have been put into servicing the higher value developed country export trade.

### **10.2. Quality of products on domestic markets**

The cases reveal several examples of the export business detracting from local markets. In the case of both Kenya (for fish) and Bolivia (for Brazil nuts), it was reported that local consumer welfare was compromised by either the non-availability of the products, or limited availability at high prices.

This is obviously a dualistic problem. On the one hand, consumer welfare is lowered by the non-availability of a traditional product, whilst on the other it is augmented by the financial benefits to the exporters. It is interesting to note that during the EU ban on fish from Lake Victoria, Nile Perch again became plentiful in its traditional local markets, although the price that the local market was able to pay was only 30 per cent of the normal export price.

A second issue relates to product quality. There were several reports of product that did not meet the required export SPS standards being sold on local markets. Given the circumstances of its rejection from the export trade (for example, high levels of aflatoxins in groundnuts in The Gambia, or in Brazil nuts in Bolivia, or unacceptably high levels of salmonella in fish from Kenya, Uganda, Tanzania and Mozambique), this might seriously threaten the welfare of local consumers. Naturally this depends on how local SPS standards are applied, but there were widespread reports of products with high levels of contamination appearing on local markets.

### **10.3. Enhanced export potential**

The contrast to Section 10.1 above is the implication that once a country, or an individual exporter, has met SPS standards as applied by countries which are deemed to have exactly quality requirements, then it is usually able to widen its export base, and supply a range of different markets. This might counteract some of the negative aspects of economic dependency referred to above.

A number of countries reported that because their standards are relatively high they felt that exacting SPS requirements were actually of benefit and could offer them an important source of competitive advantage. Associated with this, both Cameroon and Ethiopia recognised that, given the necessary resources, they could exploit the fact that their coffee, for example, is by definition organic. If this was coupled with rigid SPS standards and reliable conformity assessment procedures, their traders could benefit by serving growing market segments in developed country markets. Other examples of relatively extensive production methods might appeal to an increasingly environmentally aware world market, provided such claims are associated with high quality, and they can be proven.

## 11. Potential benefits to developing countries of the SPS Agreement

Generally, developing countries face the same problems associated with divergent SPS measures and/or conformity assessment procedures as developed countries. On the one hand, suppliers may face additional costs in meeting different national standards of the importing country. On the other hand, domestic suppliers may face additional costs in meeting international standards that are required to be competitive not only in the international market but also in their domestic market. The framework of the SPS Agreement puts in place a number of institutional innovations that will aid in reducing the trade distorting effect of SPS measures. The potential benefits to developing countries based on the commitments of Members under the Agreement include:

- Enhanced transparency, reducing transaction costs associated with exports to countries with divergent SPS measures.
- Transparent and clearly structured procedures for the settlement of disputes on the legitimacy of divergent national SPS measures.
- Greater account of the specific situation and problems faced by developing countries in the promulgation of SPS standards by developed countries.
- Greater international harmonisation of national SPS measures.
- Potentially enhanced levels of technical assistance from developed countries.

Further and most important, perhaps, is the change in attitudes of national regulator agencies that has followed the SPS Agreement. In most countries, it is now recognised that domestic regulations can not be put in place without considering the nation's obligations under the SPS Agreement. The emphasis of basing national standards on internationally agreed criteria should reduce future disputes arising from incompatibilities in standards. The increased flow of information arising from national implementation of the SPS Agreement will facilitate the resolution of incompatibilities long before they become trade disputes.

Whilst there are potentially significant benefits for developing countries from the SPS Agreement, a number of Members and certain international organisations, for example UNCTAD, have been critical of the manner in which it has operated to date (see for example UNCTAD, 1998; WTO 1998b; 1998c; 1998e). Some of their concerns are illustrated by Case 18 below and addressed in more detail in Section 12.

Case 18. **Aflatoxins, the EU and the SPS Agreement**

In 1998 the EU introduced new legislation setting maximum levels of aflatoxin contamination in foodstuffs. Aflatoxins are a form of mycotoxin which, when ingested, can produce toxic syndromes in humans and animals. For more than a decade the Codex Alimentarius Commission had been considering the establishment of maximum limits for aflatoxins in food. A revised proposal was tabled for a meeting in March 1998. Thus the EU and international initiatives were developing in parallel.

As required by the SPS Agreement, in January 1998 the EU gave notice of its intention to fix maximum limits for aflatoxin B1 and total aflatoxin in groundnuts, nuts, dried fruit, cereals, milk and processed products thereof. It stated, quite correctly, that there was no international standard, guideline or recommendation in existence, although as noted above - Codex was developing such a standard. It initially gave a rather short period for consultation, setting 15 February 1998 as the deadline for final comments, although this was later extended to 20 March 1998. Written representations against the proposed measures were received from The Gambia, Argentina, India, Senegal, Malaysia, Thailand, Brazil, Australia, New Zealand, Iran, USA, South Africa, Turkey, Philippines and Peru. The Gambia was first, on 4 February 1998, but several other countries clearly had difficulty meeting the time-scale set by the EU.

Several of the written submissions emphasised the adverse economic impact on their economies if the proposed measures were adopted. However, although the SPS Agreement insists that legitimate SPS provisions should not be "more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection, taking into account technical and economic feasibility", the economic impact on exporting countries is not formally listed as a relevant criterion. Most felt that the timing of the EC's proposed regulations, coming just before the Codex Committee meeting, was inappropriate and that the European Commission should wait for Codex to set the requisite international standards. Many queried the scientific justification for the proposed measures, suggesting they were unduly harsh. Finally, Members suggested that the proposed sampling procedure was 'unduly costly', 'burdensome' and 'unjust', and would render the measure even more trade restrictive.

In June 1998, the EU, whilst reaffirming that its proposals were scientifically justified, announced its intention to modify certain aspects in view of the comments received from other Members. These were formally communicated to the SPS Committee on 12 October 1998 (WTO, 1998f). Key revisions included a relaxation of maximum limits for unprocessed groundnuts and changes to the stated sampling provisions. The SPS Committee chairman "hailed the EC's announcement on aflatoxin as proof of the value of notification and consultation in the SPS Committee". Despite this, it is our understanding that a number of countries are still

profoundly unhappy with the EU's measures. Further questioning of the EU in the SPS Committee cannot be ruled out, and a legal challenge to the EU through the WTO's Dispute Settlement Procedure is still possible. However, most developing countries, several of which are adversely affected by this measure, would be deterred by the costs of such an endeavour.

It is clear that the notification procedures provided for give only a limited time to respond to proposed legislation, but it is also clear that when adverse responses were received this slowed the EU's legislative programme, and caused it to rethink its proposals. In recasting its proposed measures, many developing countries believe that the EU was more concerned to satisfy the worries of its major developed country trading partners, rather than those of developing countries. The latter, because of resource constraints, were in effect unable to pursue their complaints. The debate over the appropriate level of protection to be applied illustrated, first, the paucity of convincing scientific data, and second the imprecision of the SPS Agreement on the appropriate thresholds of risk which might, or which might not, be appropriate. Finally, the case illustrates the difficulties the international standards setting bodies have in fulfilling their mandate, in the SPS Agreement, on harmonising SPS standards on as wide a base as possible. There is still no Codex standard for aflatoxins.



## 12. Operation and participation of developing countries in the SPS Agreement

Developing countries will only actualise many of the potential benefits of the SPS Agreement if they are willing and able to fully participate in the institutions and practices that are established under the Agreement (Loader and Henson, 1999). This section aims to provide some objective measures of the degree to which developing countries actually participate in the SPS Agreement and the manner in which the Agreement itself has operated since its original inception. This should be interpreted with due regard to the additional time granted developing countries, and in particular least developed countries, to comply with the Agreement.

### 12.1. Participation in the SPS Agreement

Although the majority of low and lower middle income countries are members of the WTO, the rate of membership (62%) is significantly lower than amongst upper middle or high income countries (83% and 92% respectively) (Table 11). Likewise the majority of low and lower middle income countries are members of the three major international standards organisations, Codex Alimentarius, OIE and IPPC, although less than 30 per cent are members of the WTO and all three of these organisations.

Table 11. Membership of WTO and international standards organisations by income group, June 1999<sup>1</sup>

Income Group	Total Countries	WTO <sup>2</sup>	OIE	IPPC	Codex Alimentarius	All
Low	60	40	52	26	51	19
Lower middle	60	34	40	35	49	20
Upper middle	29	24	25	23	31	17
High	38	35	33	25	32	26
Total	187	133	150	109	163	75
<i>Least developed</i>	<i>29</i>	<i>29</i>	<i>21</i>	<i>11</i>	<i>25</i>	<i>9</i>

Notes: 1: Income groups defined by World Bank.

2: Figures in parentheses are numbers of observer countries.

Source: WTO

The SPS Agreement lays down certain requirements that aim to ensure transparency in the implementation of SPS measures in Member countries. Members are required to establish

specific contact points to facilitate communication regarding SPS measures. This involves firstly, a single national ‘enquiry point’, which is responsible for responding to queries from other Members and providing documents on the application of SPS measures, and secondly, a single national notification authority, which is responsible for all procedures associated with notification of new or amended SPS measures.

Table 12 details the numbers of members with defined national enquiry points and notification agencies. As of June 1999, only 65 per cent of low and lower middle income countries had specified an enquiry point and only 59 per cent had specified a national notification authority. These proportions include the 29 least developed countries that are not required to comply until 2000. Given the fundamental importance of the transparency conditions to the working of the SPS Agreement, this indicates an important weakness in the participation of the developing countries.

Table 12. **Implementation of transparency obligations by WTO Members by income group, June 1999<sup>1</sup>**

Income Group	Number of Members <sup>2</sup>	Enquiry Point	National Notification Authority	Both
Low	40	18	15	13
Lower middle	34	30	29	29
Upper middle	24	21	20	20
High	35	33	32	32
Total	133	102	96	94
<i>Least developed</i>	<i>29</i>	<i>8</i>	<i>6</i>	<i>4</i>

Notes: 1: Income groups defined by World Bank.  
2: Individual country members, excluding the European Union.

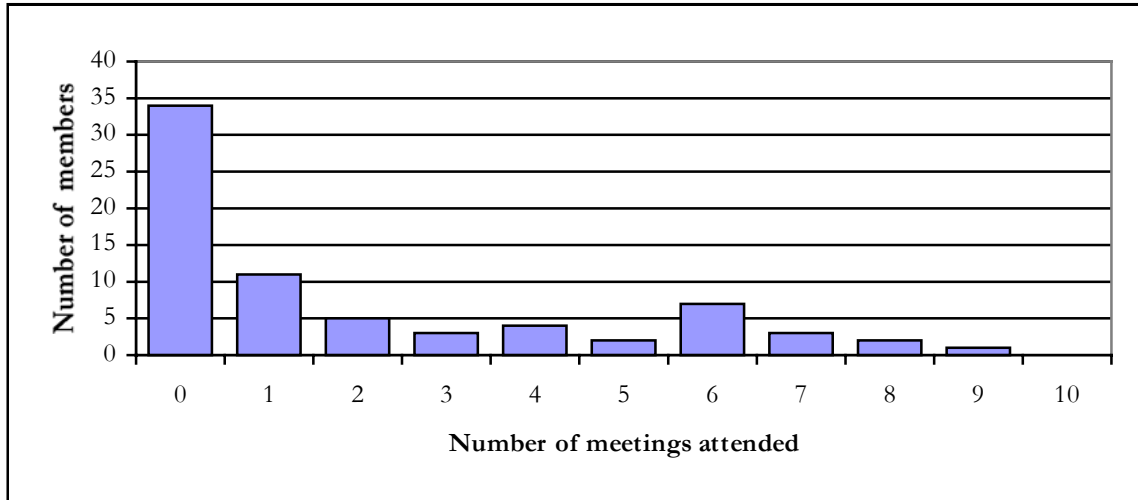
Source: WTO (1998a)

A further measure of the participation of developing countries in the SPS Agreement is attendance at meetings of the SPS Committee in Geneva. Figure 5 details the number of low and lower middle income countries that attended the 10 (out of 12) SPS Committee meetings over the period November 1995 to September 1998 for which participant lists are available. Over this period, almost 50 per cent attended no meetings of the SPS Committee and less than 20 per cent attended five or more of these meetings. In interpreting these figures it should be noted that many developing countries do not have permanent missions in Geneva and amongst most that do, one person is typically responsible for all WTO matters. Given the importance of other matters within the WTO it is perhaps not surprising that the representation of developing countries within the SPS Committee is so poor.

A number of developing countries have raised concerns about their ability to participate **effectively** in the SPS Agreement. Indeed, they have suggested that the key issue is not

whether they attend Codex Alimentarius, OIE, IPPC or SPS Committee meetings, but whether they are able to understand and contribute to the discussions that take place. The key constraint in this respect is the level of technical and scientific know-how of delegates from developing countries, in particular relative to that of delegates from the major developed countries (for example USA, EU, Japan, Australia and Canada). This is discussed further in section 13.4.

Figure 5. **Participation in SPS committee meetings by developing country Members, November 1995 to September 1998**



Where Members plan to implement SPS measures in areas where an international standard does not exist, or where the content of the proposed measure is not the same as an international standard, they are required to notify other Members through the SPS Committee Secretariat. Table 13 details the number of notifications made by Members as of July 1999. Over this period, only 34 per cent of low and low-middle income countries (including least developed countries) had issued any notifications, whilst the notifications by these countries accounted for only 10 per cent of the total. There are two possible reasons for this. Firstly, developing countries may have implemented SPS measures but not published notifications. Secondly, as discussed above, to the extent that they implement SPS measures, developing countries tend to implement international standards.

The foregoing discussion suggests that, to date, developing countries as a whole have not actively participated in the SPS Agreement. Whilst there are exceptions to this general conclusion, for example India, Philippines, Honduras, Costa Rica and Indonesia, it raises concerns about the ability of developing countries to benefit from the Agreement. Indeed, the failure of developing countries to participate even in SPS Committee meetings suggests that the workings of the Agreement will tend to be driven by the priorities of developed countries.

Table 13. **Notification of SPS measures by WTO Members, July 1999<sup>1</sup>:**

Income Group	Number of Members <sup>2</sup>	Number of Members Notifying Standards <sup>3</sup>	Number of Measures Notified

Low	40	9	19
Lower middle	34	16	201
Upper middle	24	14	372
High	35	28	1,708
Total	133	67	2,302
<i>Least developed</i>	<i>29</i>	<i>4</i>	<i>8</i>

*Notes:*    **1: Income groups defined by World Bank.**  
              **2: Individual country members, excluding the European Union.**  
              **3: EU member states are counted as individual notifying members**

*Source: WTO*

**12.2. Operation of the SPS Agreement:**

Developing countries have also expressed concerns about the manner in which the SPS Agreement operates which, it is claimed, constrains their ability to participate effectively. To a large extent these concerns mirror the commitments of all WTO Members under the SPS Agreement:

- The nature of notification procedures, in particular the length of time between notification and the implementation of new SPS measures and the quantity and quality of information provided with notification.
- The degree to which developed countries take account of the special needs of developing countries when implementing SPS measures and their willingness to permit additional time for compliance and/or transitional arrangements.
- The level and quality of technical assistance provided by developed countries to enable developing countries to meet their SPS requirements.
- The extent to which developed countries are prepared to accept the SPS measures in developing countries as equivalent and/or enter into bilateral negotiations with developing countries over SPS requirements.
- The nature of the process by which international standards are negotiated and agreed within Codex Alimentarius, OIE and IPPC and, in particular, the extent to which the needs of developing countries are taken into account.

An indication of the importance of each of these problems is provided by the survey. Respondents were asked to indicate the significance of each of these problems in terms of the benefits their country obtained from the SPS Agreement on a five-point Likert scale

from ‘very significant’ (1) at one extreme to ‘very insignificant’ (5) at the other. Mean significance scores are reported in Table 14.

Table 14. **Mean significance scores for problems associated with the manner in which the SPS Agreement operates:**

Rank	Factor	Range	Mean Score
1	Developed countries take insufficient account of the needs of developing countries in setting SPS requirements	1-3	1.8
2	Insufficient time allowed between notification and implementation of SPS requirements	1-3	2.3 <sup>a</sup>
	Insufficient technical assistance given to developing countries	1-3	2.3
3	Developed countries unwilling to accept developing country SPS measures as equivalent	1-5	2.8 <sup>b</sup>
	Harmonisation process takes insufficient account of needs of developing countries	1-5	2.8 <sup>b</sup>
4	Insufficient information given with notifications of SPS requirements	1-5	3.2
5	Developed countries unwilling to engage in bilateral negotiations with developing countries	1-5	3.7

*Note: Scores denoted by the same letter are not significantly different at the 5 per cent level*

The issue judged to be the most significant problem associated with the operation of the SPS Agreement was that developed countries took insufficient account of the needs of developing countries in setting SPS requirements. The length of time allowed between the notification and implementation of SPS requirements and the level of technical assistance provided by developed countries were also considered highly significant problems. This suggests that the problems associated with the operation of the SPS Agreement as perceived by developed countries are closely related to the actions of developed countries in setting and managing SPS measures and the level of assistance they provide to developing countries.

The SPS Committee has discussed many of the concerns outlined above as part of the triennial review of the SPS Agreement (WTO, 1999b). In the case of transparency arrangements, it is considered that many of the concerns put forward by developing countries could be resolved if members more comprehensively applied the recommended procedures. However, some revisions of the recommended procedures have been agreed, for example greater use of electronic means of communication, providing access to informal translations of documents where available and extension of the period allowed for comments on notifications. Furthermore, Members have been encouraged to accord longer time frames for compliance with SPS requirements on products of interest to developing countries where appropriate. It is evident, however, that many developing countries have remaining concerns about the manner in which the Agreement operates and in particular the degree to which developed country members actually take their special needs into account.

### **13. Constraints to the participation of developing countries in the SPS Agreement**

This section aims to identify the key factors that influence the ability of developing countries to participate in the procedures of the SPS Agreement. The discussion is sub-divided into the key activities associated with the SPS Agreement.

#### **13.1. Transparency mechanisms**

Developing countries are frequently limited in their ability to participate effectively in the transparency mechanisms of the SPS Agreement. For example, they may find it difficult to assess and formulate an appropriate response to notifications of new SPS measures in the 60 days which is normally allowed before those measures are implemented. They may also find it difficult to attend meetings of the SPS Committee and, if they do, present a reasoned case backed up by the necessary scientific and/or economic data. There are a number of reasons for this:

- In some cases, awareness and understanding of the SPS Agreement amongst government officials is inadequate. As a consequence, reaction to notifications can be slow and/or inappropriate.
- In many cases, administrative responsibilities for SPS matters have not been clearly defined and may be inappropriate given the need to recognise and respond to SPS notifications that are of potential interest to national economic interests in a short space of time. For example, SPS Enquiry Points are typically based in government departments responsible for trade issues, whereas the expertise is normally in the Ministry of Agriculture. Clearly defined means of communication between the two are often lacking.
- In certain cases developing countries lack the scientific expertise necessary to comment on notifications in an informed manner. For example, new SPS measures may address relatively new hazards for which scientific expertise is predominantly based in developed countries.
- Related to the above, developing countries may lack surveillance, toxicological and epidemiological data based on their own particular circumstances to enable them to effectively challenge notifications of new SPS measures.
- Financial resources are a serious problem in virtually all developing countries. Thus all but the largest developing countries (for example India, Brazil etc.) are generally unable to attend meetings of the SPS Committee on a regular basis; missions in Geneva are typically under-staffed and the costs of sending experts from capitals is prohibitive. These countries have to rely on key issues being identified at an early stage so a representative can attend when absolutely necessary.

Notwithstanding the above, it is evident from the number of responses to the EU's proposals for new limits on aflatoxins in nuts, cereals and milk, that developing countries are able and willing to make their views known when their economic interests are affected (Swinbank, 1999). In this case, virtually all written responses were from developing countries, including small members such as The Gambia.

### **13.2. Risk assessment**

When WTO Members choose to implement standards over and above those of the international standards organisations, they are required to undertake a risk assessment (taking account of the procedures recommended by the international standards organisations). Developing countries have two problems in this respect:

- Given that risk assessment methods are not fully developed and subject to change over time, they generally lack the necessary expertise. Akin to this, they also tend to lack the scientific data that is required to support such an analysis.
- Should a developing country be challenged by a developed country to justify their own SPS measures, they may find it difficult to present a clearly argued case. Again this reflects resource limitations and/or a lack of scientific data. This suggests that many developing countries might have to concede defeat if challenged by a developed country even if they consider their case is valid.

Whilst acknowledging the above problems, it is evident that certain developing countries do have the necessary resources, expertise and/or data to undertake risk analysis either to challenge SPS measures adopted by a developed country or to support their own measures. However, these are typically large countries, for example India, or upper middle income countries such as Brazil or Thailand.

### **13.3. Dispute settlement procedures**

Developing countries may find it very difficult to participate in the complaints procedures of the WTO, either as a defendant or a complainant. This reflects many of the issues raised above: limited financial resources; lack of scientific data; and lack of expertise. Therefore, many developing countries feel that they can only resort to dispute settlement as a collective effort or as a partner to a developed country complainant.

Many developing countries are also sceptical about the extent to which their interests will be taken into account in the dispute settlement procedures. For example, India is still aggrieved by the changes made by the Appellate body in the recent Shrimp Turtle case. Regardless of whether these views are valid or not, they reveal a certain scepticism of the dispute settlement process.

### **13.4. International standards organisations**

To understand the concerns that developing countries have about the nature and role of international standards within the SPS Agreement, it is important to appreciate the process by which standards are set in these organisations. In the case of Codex Alimentarius, for example, a lengthy eight-step procedure is followed before final adoption of a standard.

Draft standards are discussed and developed in one of 28 specialist committees, often involving participation from experts drawn from industry as well as government, and adopted at the biannual meetings of the Commission. Until recently most decisions were reached by consensus, even though the Rules of Procedure provide that, if a consensus is not reached, decisions are taken by a majority of the votes cast.

These traditional working practices have been subject to increasing strain. The SPS Agreement has significantly increased the relevance of Codex standards; and where Codex standards do not exist but trade tensions do, then there is considerable pressure for standards to be speedily adopted. Thus in Codex's meetings in 1995 and 1997, one and two standards respectively were adopted following a vote.

Given the exalted role that the international standards setting organisations have in the SPS Agreement, their decision-making procedures will be the subject of considerable debate in coming years. This will be particularly so if, as some have claimed, particular countries can orchestrate the committee and decision-making procedures to push through measures which are subsequently instrumental in settling SPS disputes in the WTO.

Developing countries have concerns about this process. Firstly, it is extremely costly to participate effectively in these international bodies, in particular at the committee level. This is not just a question of airfares and subsistence, but of technical competence and backup. However, if developing countries do not attend and a vote is taken, their views will not be taken into account. Secondly, developed countries might send a large team, comprising several experts, whereas developing countries typically make do with one generalist. Thirdly, officials in many developing countries do seem to be intimidated by the operations of the standards setting organisations whose procedures they imperfectly understand. In this environment, rightly or wrongly, the suspicion is that standards emerge that better suit the interests of the developed, rather than the developing world.

### **13.5. Relative importance of factors**

This section has identified a number of constraints to the effective participation of developing countries in the SPS Agreement. An attempt is now made to prioritise these problems based on an overview of the ten country case studies and the results of the survey.

Table 15 overleaf summarises the responses of the case study countries to questions about the constraints that prevent them from participating effectively in the SPS Agreement. The constraints listed conform to the sub-section headings above, but an attempt is made to identify which countries in particular reported such constraints, and to note briefly the nature of the issue. These results should, however, be interpreted with care, as noted in Section 9.10.

The constraints most frequently cited in the case studies were associated with participation in the transparency mechanisms of the SPS Agreement. Indeed, seven of the eight case study countries that were members of the WTO made reference to constraints associated with the transparency mechanisms. Examples of problems include lack of financial resources to attend SPS Committee meetings, inability to respond quickly to notifications of new SPS



measures, lack of scientific expertise to critically appraise notifications and the fragmented nature of internal institutions responsible for SPS matters. A number of case studies also referred to their limited ability to undertake risk assessment of SPS measures both internally and in response to notifications by developed countries. This was generally related to financial constraints and lack of scientific expertise.

The aim of the survey was to explore whether the constraints identified by the case studies were more generally applicable to developing countries as a whole. Respondents were presented with a number of potential constraints that might prevent their country from participating effectively in the SPS Agreement, based on (but more specific than) the subsection headings above, and asked to indicate the significance of each on a five-point Likert scale from 'very significant' (1) at one extreme to 'very insignificant' (5) at the other. Mean significance scores are reported in Table 16.

Table 15. Summary of factors influencing ability to participate effectively in SPS Agreement from case studies

Nature of Constraint	Countries affected	Notes
Participation in transparency mechanisms	India Zimbabwe Egypt Kenya Cameroon The Gambia Guatemala	Lack of resources and expertise; fragmented responsibility for SPS matters Finance; lack of expertise EU slow to send notifications Some joint attendance with Tanzania; fragmented responsibility for SPS matters Only one person handling SPS; slow response to notifications Small country so few representatives; no Geneva mission; lack of information Inadequate resources; slow to respond to notifications
Risk Assessment	India Egypt Zimbabwe Ghana Kenya The Gambia	Inadequate technical assistance Cost - potatoes Lack of expertise and therefore negotiating power Limited resources and scientific data Lack of information Lack of facilities and personnel
Dispute settlement procedures	India Ghana Cameroon Guatemala	Shrimp Turtle case - changes made by Appellate body Problems with travelling to meetings - infrastructure and expertise Low staffing - but private sector could attend if informed. Inadequate resources
International standards organisations	India  Guatemala	Questions as to who sets Codex standards? Reluctance on the part of developed countries to accept equivalence. No role in setting standards

Table 16. **Mean significance scores for factors influencing ability to participate effectively in SPS Agreement:**

Rank	Factor	Range	Mean Score
1	Insufficient ability to assess implications of developed country SPS requirements following notification	1-3	1.5
2	Insufficient ability to participate effectively in dispute settlement procedures	1-3	2.0
3	Insufficient ability to demonstrate that domestic SPS measures are equivalent to developed country requirements	1-5	2.6
4	Insufficient ability to undertake risk assessment of SPS requirements	1-5	3.0 <sup>a</sup>
	Insufficient ability to attend SPS Committee and international standards organisation meetings	1-5	3.1 <sup>a</sup>
5	Insufficient ability to assess the scientific justification of developed country SPS requirements	1-5	3.7

*Note: Scores denoted by the same letter are not significantly different at the 5 per cent level*

The most significant constraint to effective participation in the SPS Agreement was judged to be insufficient ability to assess the implications of developed country SPS requirements following notification (Table 16). Insufficient ability to participate effectively in the dispute settlement procedures and to demonstrate that domestic SPS measures are equivalent to developed country requirements were also considered major constraints. These constraints clearly relate to the level of access to scientific and legal expertise, which is an inherent problem for developing countries reflecting, to a large extent, their limited financial resources.

## **14. Approaches to overcome the problems faced by developing countries**

The foregoing discussion has highlighted some of the major issues associated with SPS standards, predominantly in developed countries, as they affect exports from developing countries. It has also addressed the role of the SPS Agreement and the problems that developing countries face in effectively participating in the Agreement. This section now explores possible ways in which these problems can be overcome.

### **14.1. Revision of transparency mechanisms**

Many developing countries have been critical of the manner in which the transparency mechanisms established under the SPS Agreement operate. Whilst the notification system is supported in principle, it is suggested that current arrangements do not take adequate account of the circumstances of developing countries (see for example WTO, 1998c; 1998e). Suggestions for improvement include the following:

- Increased length of time between the routine notification of a new SPS measure and its application. This would permit developing countries to assess better the impact on their economic interests and to engage in bilateral consultation.
- Revision of the format of notifications so that they routinely contain more information on the nature of the proposed SPS measure.
- Increased willingness on the part of developed countries to enter constructive bilateral negotiations with developing countries where their economic interests are adversely affected by a proposed SPS measure.

These changes to the transparency arrangements of the SPS Agreement would help to overcome a number of the problems that developing countries have experienced with the SPS Agreement. For example:

- Developing countries would be better able to assess the implications of SPS notifications for their domestic agricultural and food sector and, therefore, in a better position to represent their interests in bilateral negotiations and the SPS Committee.
- Developing countries would be able to identify the changes required to comply with developed country SPS requirements more rapidly and, therefore, would effectively have a longer time period in which to comply. It is likely that costs of compliance would decline as a result.

- Developing countries would be better informed about the SPS requirements of developed countries and their scientific justification. Therefore, they would be in a stronger position to challenge requirements which were not considered to be scientifically justifiable and/or demonstrate that their own domestic requirements were equivalent.

To a large extent many of the potential improvements highlighted above are covered by the existing SPS Agreement and the transparency procedures agreed within the SPS Committee, as recently revised (WTO, 1999b). There is scope, however, for further improvements in the practical arrangement of these procedures to better address the needs of developing countries. Further, it is worth considering whether the SPS Agreement itself should be updated to extend the commitments of Members regarding the transparency of new SPS measures.

#### **14.2. Account of impact on developing countries**

An effective way to overcome a number of the problems faced by developing countries due to developed country SPS requirements is for greater account to be taken of these problems when new SPS requirements are promulgated. The SPS Agreement commits all Members to take account of the special circumstances of developing countries when developing SPS measures and to permit time-limited exemptions where necessary. However, a number of developing countries claim that there is little evidence that developed countries actually do this. Further, some suggest that certain aspects of the SPS Agreement, for example equivalency, are rarely applied in the case of developing countries (see for example WTO, 1998b; 1998e).

The foregoing discussion suggests that there is a need for developed countries to take greater account of the needs and special circumstances of developing countries when promulgating and applying SPS requirements. In particular, there should be more willingness to consider:

- Granting longer periods of time for developing countries to consider and respond to notifications (see Section 14.6 below).
- Granting longer periods of time for developing countries to comply with SPS requirements, during which exports should be allowed to continue.
- Adapting SPS requirements, where possible, to the local circumstances of developing countries. For example, if a particular hazard (for example a plant disease) does not exist in a country, that country should not be required to inspect for that disease.

- Accepting SPS measures in developing countries as equivalent to those required.

There are three basic requirements if SPS requirements promulgated by developed countries are to reflect better the interests of developing countries. Firstly, willingness on the part of developed country governments to acknowledge the problems faced by developing countries and to adopt SPS measures that minimise these problems where possible. Secondly, the development of institutional structures which enable the interests of developing countries to feed routinely into the policy-making process. Thirdly, transparency of the policy-making process to clearly demonstrate that the interests of developing countries have been taken into account whenever a new SPS measure is introduced and the changes (if any) that were made as a result.

In many developed countries existing institutional structures make it difficult for adequate account to be taken of the impact of SPS standards on developing countries. In most cases, administrative responsibility for SPS standards and relations with developing countries lies with separate government departments. In the EU, for example, SPS issues are predominantly the responsibility of DGVI and DGXXIV, whilst relations with developing countries are the responsibility of DGVIII. There is no evidence of routine consultation on SPS issues between these separate parts of the Commission.

In the UK there has been some attempt to bridge this gap in public policy-making. Since 1997, the Department for International Development (DFID) has been responsible for commenting on the implications of Government policy for developing countries. Given the range and number of SPS measures, it may not be realistic to expect DFID to assess and comment on SPS measures on a routine basis.

The practical and political difficulties of implementing such procedures should not, however, be underestimated. On the one hand, there may be good scientific reasons why developed countries apply particular SPS requirements to imports of agricultural and food products from developing countries. In this case, developed country governments cannot be seen to compromise the safety of domestic consumers, whatever the implications for developing countries. On the other hand, the resource costs of the necessary changes in organisational structures and procedures could be significant and will compete with domestic issues that are of greater priority at the political level.

### **14.3. Technical assistance**

Technical assistance can address many of the problems associated with developed country SPS measures which developing countries face when exporting agricultural and food products and in participating effectively in the SPS Agreement. Specifically it can:

- Improve access to scientific expertise and, in turn, enhance the ability of developing countries to assess the scientific justification for developed country SPS measures, undertake risk assessment and demonstrate the scientific justification for their own SPS requirements, and participate in the WTO's dispute settlement procedures.
- Facilitate the development of effective SPS control systems in developing countries.

- Enhance awareness and understanding of SPS issues amongst developing country government officials and the agricultural and food sectors.
- Enhance the ability of developing countries to participate effectively in the SPS Committee and international standards organisations.

Technical assistance is currently given to developing countries by international organisations such as FAO (see for example WTO, 1997a), UNCTAD, EU and WTO as well as developed countries on a bilateral basis (WTO, 1997b). This assistance has, however, been the subject of criticism by certain developing countries (see for example WTO, 1998b). In particular, it is claimed that the technical assistance often fails to address the key day-to-day problems faced by developing countries. Indeed, it is suggested by some developing countries, that technical assistance can be given as a ‘knee-jerk’ reaction or to off set criticisms of the impact of SPS requirements on the economic interests of developing countries.

Technical assistance can take many forms, including provision of scientific and technical expertise, technology transfer, financial support, training etc. Whilst it is undoubtedly the case that developing countries require more and better technical assistance from developed countries, it is also evident that the demand for technical assistance is virtually endless whilst the funds that are likely to be made available for this purpose are limited. It is essential, therefore, that particular emphasis is placed on the identification of priority needs and provision of the most *appropriate* technical assistance:

- Technical assistance should be appropriate to the particular circumstances and problems of developing countries rather than the needs of developed countries (for example risk assessment) and/or developed country perceptions of the problems of developing countries.

- Technical assistance needs to be more detailed and intensive than it has tended to be to date. It is suggested that there needs to be greater provision of 'hands-on' training directed at the technical and practical problems faced by developing countries (for example implementation of traceability systems, HACCP, certification systems etc) rather than simply the dissemination of information through seminars and workshops.
- Technical assistance needs to be directed not only at government decision-makers and institutions, but also agriculture and the food industry, in particular small and medium-sized enterprises.

The success of technical assistance clearly depends on the willingness of developing countries to accept advice and adapt their established systems and procedures. Furthermore, if technical assistance is to achieve the desired outcome, developing countries may need to make a reciprocal commitment to provide financial or technical support in the medium to long term. Thus, for example, there may need to be a commitment to adequately resource an SPS control system once it has been established.

#### **14.4. Legal and scientific assistance**

A problem faced by developing countries in considering whether to challenge an SPS measure implemented by another WTO Member is access to legal expertise and advice. The UK is working to ensure fuller participation in the WTO's dispute settlement mechanism by all members. The UK helped to develop proposals for an Advisory Centre on WTO Law in Geneva, which will become operational in the autumn of 1999. This Centre has attracted support from developed and developing countries. It will offer free or subsidised legal advice and assistance in pursuing cases in WTO Panels.

Developing countries have similar problems with access to scientific advice. It may be possible for the Advisory Centre on WTO Law to call upon the advice of scientific experts where necessary.

#### **14.5. Harmonisation of SPS requirements**

Harmonisation of SPS standards internationally is a key objective of the SPS Agreement to the benefit, it is suggested, of developed and developing countries alike. It is evident, however, that the rate of adoption of international standards, particularly amongst developing countries, has been relatively low. Table 17, for example, details the Members of Codex Alimentarius that currently accept Codex Maximum Residue Levels (MRLs) for pesticides in food.

It is evident that there are potential benefits to developing countries from greater harmonisation of SPS measures, for example:

- Provided developing countries are able to demonstrate compliance in an effective manner, exporters would face lower costs of compliance when exporting agricultural and food products to developed countries.



- The need for developing countries to demonstrate equivalency of their SPS requirements with those of developed countries would be diminished.
- Less use would be made of the notification procedures laid down by the SPS Agreement. This would overcome the problems faced by developing countries in assessing and responding to the relatively large volume of notifications that are made in a typical year and allow government officials to better focus their attention on priority issues.
- Provided adequate account was taken of the needs and special circumstances of developing countries in the harmonisation process, there would be less scope for developed country SPS measures to conflict with production and/or marketing systems in developing countries.
- Developing country exporters would be less dependent on established developed country markets because products could be diverted to alternative markets, for example when faced with adverse demand/price movements, which had also adopted international SPS standards.

Table 17. **Countries informing acceptance of Codex Alimentarius Maximum Residue Levels for pesticides, January 1999**

Country	
Argentina	Jordan
Australia	Malaysia
Bulgaria	Mexico
Brazil	Mozambique
Canada	New Zealand
China	Romania
Cuba	Singapore
Egypt	Tanzania
India	Thailand
Indonesia	USA
Israel	

*Source: Codex Alimentarius*

The extent of these benefits will depend, however, on the extent to which developing countries are able and willing to participate in the process of harmonisation themselves, as is illustrated by the following scenarios:

- Harmonised standards are adopted by both developed and developing countries, in which case developing country exporters would face the same SPS requirements in the domestic and export markets. However, exporters could still be subject to additional conformity assessment procedures in each export market.
- Harmonised standards are adopted predominantly by developed countries, in which case developing country exporters would face different SPS requirements in the domestic and export markets. However, once these standards had been achieved, the product could

be exported to all developed countries that apply these standards. Exporters could still be subject to additional conformity assessment procedures in each export market.

These scenarios suggest that, provided adequate account is taken of the needs and circumstances of developing countries when defining the level at which SPS measures are harmonised, developing countries would benefit the most if they are able and willing to align their own SPS requirements with international standards. However, they may still benefit, albeit to a lesser extent, from greater harmonisation of developed country SPS requirements even if these are over and above their own requirements. A good illustration of this is the EU: although the EU's SPS requirements are significantly more stringent than those of most developing countries, harmonisation has meant that one set of SPS requirements has replaced the individual requirements of the 15 Member States.

Developing countries, however, have been critical of current procedures for establishing international standards which, it is claimed, fail to take adequate account of their needs and special circumstances. As a result, the form and level of international standards may be inappropriate and/or unachievable for developing countries (see for example WTO, 1998d). Key issues include the nature of decision-making processes within the international standards organisations and the ability of developing countries to represent themselves effectively given their limited financial, scientific and technical resources. This suggests that, if developing countries are to benefit from greater international harmonisation of SPS measures, the role of the international standards organisations needs to be better defined and their procedures adapted to facilitate the more effective inclusion of developing country interests within the harmonisation process.

#### **14.6. Enhanced regional co-operation**

It is claimed that regional co-operation can help to address a number of the problems that developing countries face due to SPS measures, in particular participation in the SPS Committee and international standards organisations:

- It can facilitate the more active participation of developing countries in the SPS Committee and international standards organisations through collective action, sharing the responsibility to attend meetings etc.
- It can facilitate the sharing of information and scientific and technical expertise on SPS matters. This can enable developing countries to better assess the implications of new SPS measures in developed countries, to demonstrate that the measures they apply are equivalent to developed country requirements, and to justify through risk assessment their own SPS requirements.
- By providing a mechanism for the sharing of knowledge and experiences, regional co-operation can facilitate the development of effective systems of SPS control in developing countries that best meet local needs and priorities.
- Regional co-operation can act as an effective conduit for technical assistance. In cases where problems/issues are common to countries in particular regions, provision of

technical assistance at the regional rather than national level can enable resources to be used more effectively by, for example, preventing duplication of effort.

Regional co-operation can take a number of forms. In certain cases relatively informal alliances have evolved between countries, often under the auspices of existing regional organisations. For example, the MERCOSUR countries meet and discuss SPS issues to identify common interests and, where possible, present a united front within the SPS Committee. In certain cases, scientific and technical expertise is shared.

Regional co-operation can also take place through more formal institutional structures. Good examples are the Regional Plant Protection Organisations (RPPOs) within the IPPC. In the case of Africa the RPPC is the Inter-African Phytosanitary Council (IAPSC), which was formed in 1954 to provide a forum for co-operation in establishing phytosanitary standards within Africa and to act as the regional co-ordination body for the IPPC. The IAPSC currently has 51 members. Within the WTO, the Africa Group is an official forum for the discussion of all issues associated with trade, including SPS measures. The Group meets weekly in Geneva and is provided with administrative support and translation facilities by the WTO.

Clearly, regional co-operation is a potentially valuable initiative for developing countries. It can allow resources and/or efforts to be better focused on issues that are of prime importance and increase the political power of developing countries within the SPS Committee and international standards organisations. However, many such initiatives are typically poorly resourced, often lacking basic administrative support, translation facilities etc. Furthermore, regional co-operation is clearly dependent on the ability and willingness of developing countries to co-operate and thus will tend to be limited to areas in which countries have a common interest and/or are subject to similar resource constraints.

#### **14.7. Revision of developing country SPS systems**

Many of the problems faced by developing countries in meeting the SPS requirements of developed countries and/or participating effectively in the SPS Agreement relate to the nature of their own SPS control systems. In many cases these systems are relatively poorly developed and/or overly fragmented and typically employ limited systems of enforcement. The development/reform of these systems is clearly a prerequisite for developing countries to be able to satisfy the requirements of developed countries. Priority areas include:

- The responsibility for responding to SPS notifications needs to be clearly defined, ideally within government departments/agencies responsible for domestic SPS matters.
- Effective mechanisms need to be developed for gathering information on the impact of new SPS measures in the time available between notification and implementation of new SPS measures.
- Domestic SPS control institutions and systems need to be developed and/or reformed to enable them to satisfy the requirements of a 'competent authority' as specified by the EU and other key trading partners.

It is evident that technical assistance can play an important role in facilitating these developments. However, there also needs to be considerable willingness on the part of developing country governments to reform existing institutional structures and to commit the necessary resources to enable the SPS controls, which are established, to work effectively.

#### 14.8. Relative importance of factors

An indication of the importance of each of these factors which might reduce the problems faced by developing countries due to SPS requirements in exporting agricultural and food products to the EU is provided by the survey. Respondents were asked to indicate the significance of each of these factors as solutions to the problems they faced due to SPS requirements on a five-point Likert scale from ‘very significant’ (1) at one extreme to ‘very insignificant’ (5) at the other.

Mean significance scores for potential solutions to the problems faced by developing countries, due to SPS requirements when exporting agricultural and food products to the EU, are reported in Table 18. Key issues are the period of time permitted for developing countries to comply with SPS requirements and the extent to which the impact on the developing country is taken into account by developed countries in setting their SPS requirements. Clearly both of these issues are under the direct control of the EU and other developed countries on a unilateral basis, albeit with an input from developing countries themselves through, for example, bilateral negotiations.

Table 18. **Mean significance scores for solutions to problems due to SPS requirements when exporting agricultural and food products to the EU:**

Rank	Factor	Range	Mean Score
1	Longer period for compliance with SPS requirements	1-2	1.9 <sup>a</sup>
	Greater account of impact on developing countries in setting of developed country SPS requirements	1-3	1.9 <sup>a</sup>
2	Greater harmonisation of SPS requirements	1-3	2.3 <sup>b</sup>
	Revision of notification procedures within SPS Agreement	1-4	2.3 <sup>b</sup>
3	Revision of procedures within international standards organisations	1-5	2.6 <sup>c</sup>
	Revision of own country’s administrative arrangements for SPS requirements	1-5	2.6 <sup>c</sup>
	More appropriate technical assistance	1-4	2.6 <sup>c</sup>
4	Greater level of technical assistance	1-5	2.9
5	Legal assistance to participate in dispute settlement procedures	1-5	3.2 <sup>d</sup>

	Greater regional co-operation between developing countries on SPS issues	1-5	3.2 <sup>d</sup>
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*Note: Scores denoted by the same letter are not significantly different at the 5 per cent level*

Harmonisation of SPS requirements and revision of notification procedures within the SPS Agreement were also judged to be important by the survey respondents. These are issues, however, which can only be addressed on a multilateral basis through the WTO and international standards organisations. In part, this may require procedural changes that are subject to approval at the ministerial level.

A further priority issue is the reform of SPS control systems within developing countries. Whilst it is evident that the impetus for this must come from developing countries themselves, technical assistance is important, both in terms of scientific and technical expertise and the necessary finance.

## 15. Conclusions

This report presents a preliminary attempt to assess the extent to which SPS measures impede developing country exports of agricultural and food products. Although the results should be interpreted with caution given the limitations of the methods employed, they do provide some credence to the concerns that developing countries have expressed about the SPS requirements of developed countries. Indeed, the results suggest that SPS measures are currently one of the foremost issues affecting exports of agricultural and food products from developing countries.

Care should be taken to not draw broad conclusions about the impact of SPS measures on developing country exports of agricultural and food products. It is evident that the impact of SPS measures on trade flows differs between product types, the forms of SPS measures applied, and between developing countries themselves. For example, countries with effective SPS control systems in place will tend to face fewer problems than countries in which these systems are not fully developed. Likewise, SPS measures are clearly more of an issue for products which are associated with higher sanitary or phytosanitary risks, for example meat and fruit.

A number of factors influence the ability of developing countries to meet the SPS requirements of developed countries. The most important appear to be the level of access to scientific and technical expertise and the incompatibility of developed country SPS requirements with prevailing production and/or marketing methods in developing countries. This suggests that whilst the problems experienced by developing countries relate, in part, to the inherent resource limitations associated with lower levels of economic development, they are also influenced by the nature of the SPS measures applied by developed countries. Developed country SPS requirements are clearly promulgated in the context of their own agricultural and food supply chains and in certain cases these can be incompatible with systems of supply in developing countries. In extreme cases, such measures can preclude developing country exports.

The SPS Agreement aims to foster discipline in the use of SPS measures to minimise their impact on trade and to establish mechanisms through which Members can obtain redress should measures be implemented which impede their exports and which are not justifiable scientifically. However, developing countries have a number of concerns about the manner in which the Agreement has been implemented to date. Particular concerns are that developed countries take insufficient account of the needs of developing countries when setting SPS requirements, insufficient time is allowed between notification and implementation of SPS requirements and insufficient technical assistance is given to developing countries.

In many cases developing countries are unable to participate effectively in the SPS Agreement and secure the full benefits it offers. Key issues are the ability to assess the implications of developed country SPS requirements following notification, to participate effectively in the WTO's dispute settlement procedures, and to demonstrate that domestic SPS measures are equivalent to developed country requirements. To a large part these problems relate, in turn, to the poor financial and technical resource base of most developing countries.

There are many factors which would reduce the impact of SPS requirements on exports of agricultural and food products from developing countries. The survey highlighted three in particular. Firstly, longer periods for developing countries to comply with developed country SPS requirements. Secondly, greater willingness on the part of developed countries to consider the impact on developing countries when promulgating SPS requirements. Thirdly, more widespread international harmonisation of SPS requirements, encompassing the measures applied by both developed and developing countries. This clearly puts much of the onus on developed countries to take appropriate action to minimise the impact that their SPS requirements have on developing countries.

DFID does not have a direct influence on the SPS requirements adopted by the EU. However, having funded this study, it can now play an important role by increasing awareness amongst policy-makers of the impact the EU's SPS requirements can have on developing countries. Further, in certain circumstances it can assist developing countries in overcoming the problems they face due to SPS measures, for example by promoting regional co-operation between developing countries and/or facilitating the development of effective SPS control systems.

This study is the most detailed assessment to date of the problems faced by developing countries in exporting agricultural and food products due to SPS measures. Although many of the findings of the study are qualitative, they do suggest that the SPS measures adopted by developed countries are a significant problem for developing countries and highlight a number of issues which need attention. Given the paucity of previously published work in this area, there is a clear need for further research.

## 16. Recommendations

The foregoing discussion has highlighted a number of areas for action which would help to reduce the impact of the EU's SPS requirements on exports of agricultural and food products from developing countries. Clearly, there is a role for DFID in this respect, although any action purely on a unilateral basis is unlikely to have a significant impact. Therefore, the following recommendations largely focus on issues which DFID should explore further with a view to co-ordinated action within the UK government, European Commission or institutions such as WTO or UNCTAD.

- ***Ways should be explored through which developing country interests can be incorporated into decision-making processes within the UK and EU regarding SPS requirements.*** In practice, this would necessitate institutional change, for example the development of effective channels of inter-agency consultation. At the national level, DFID should collaborate more closely with MAFF and the Food Standards Agency. This should be undertaken in the near future given that the structure and modus operandi of the Food Standards Agency is still evolving. At the EU level, DFID should undertake a review of the systems and institutional structures through which SPS measures are promulgated, to assess the extent to which the impact on developing countries is taken into account at the current time and how this might be enhanced.
- ***Ways should be explored through which SPS requirements can be adapted to meet better the needs of developing countries.*** This might take the form of alternative means of conformity assessment, longer compliance period etc. To explore the scope for this, DFID should undertake a review of different types of measures that can be applied to address particular SPS problems and their relative impact on developing country agricultural and food exports. This would need to be undertaken in close collaboration with agencies responsible for the promulgation and enforcement of SPS measures at both the national and EU levels.
- ***The notification procedures of the UK and EU should be monitored and recommendations made for reforms to better meet the needs of developing countries.*** As noted above, the transparency procedures of the SPS Agreement have recently been revised as part of the triennial review of the Agreement. However, it is important that further efforts are put into ensuring that the notification procedures address effectively the needs of developing countries. DFID should undertake a review of these procedures and explore how the needs of developing countries can be better addressed, for example by allowing longer consultation periods, routinely providing additional information etc.



- ***Ways should be explored through which the participation of developing countries in meetings of the SPS Committee and international standards organisations can be facilitated.*** DFID should undertake a study of different options for facilitating the participation of developing countries in the SPS Committee, Codex Alimentarius, OIE and IPPC. This might consider, for example, changes in the institutional structure of these organisations, external funding to permit developing country officials to attend meetings and provision of scientific and/or technical experts to advise developing country governments. Clearly, this needs to be undertaken in collaboration with the WTO and international standards organisations and should feed into the on-going review of participation in organisations such as Codex Alimentarius.
- ***Continued support should be given to initiatives for the provision of legal advice to developing countries relating to WTO matters, and consideration given to means to provide scientific advice.*** The UK should continue its support for the Advisory Centre on WTO Law to be established in Geneva later in 1999, and work to ensure fuller participation in the Dispute Settlement Mechanism for all members. In the coming year the UK should encourage as many WTO members (developed, developing and economies in transition) to support the proposal. Policy makers may want to consider, in the light of the Advisory Centre on WTO Law, how access to scientific advice relating to the WTO and SPS issues may be offered. Such a Scientific Advisory Centre should look to develop links between the WTO and sources of scientific expertise, for example FAO, national/international research centres etc.
- ***Support should be provided to enhance the capacity of developing countries to implement SPS measures.*** Technical assistance is clearly essential in this respect. However, there is a need for the provision of technical assistance to be better co-ordinated between international agencies (for example WTO, FAO, UNCTAD) and donor countries. Furthermore, technical assistance needs to be more closely targeted at the practical difficulties faced by developing countries through, for example, more 'hands-on' training. The impact of technical assistance, however, clearly depends on the willingness of developing countries themselves to revise existing SPS institutions and to manage them in an efficient and accountable manner.
- ***Ways should be explored through which regional co-operation between developing countries on SPS matters can be facilitated.*** DFID should undertake a review of the constraints that limit the level of regional co-operation on SPS matters amongst developing countries and identify mechanisms through which these constraints can be alleviated. This should be undertaken in collaboration with other countries and/or agencies, for example UNCTAD, FAO and WTO.
- There is a clear need for ***further research work on the impact of SPS requirements on developing countries.*** Annex III makes some suggestions in this respect. Indeed, it may be difficult to pursue many of the recommendations outlined above unless further, and preferably quantified, evidence of the impact of SPS requirements on developing countries is available.

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## Annex I

### Agreement on Sanitary and Phytosanitary Measures

*Members,*

*Reaffirming* that no Member should be prevented from adopting or enforcing measures necessary to protect human, animal or plant life or health, subject to the requirement that these measures 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;

*Desiring* to improve the human health, animal health and phytosanitary situation in all Members;

*Noting* that sanitary and phytosanitary measures are often applied on the basis of bilateral agreements or protocols;

*Desiring* the establishment of a multilateral framework of rules and disciplines to guide the development, adoption and enforcement of sanitary and phytosanitary measures in order to minimise their negative effects on trade;

*Recognising* the important contribution that international standards, guidelines and recommendations can make in this regard;

*Desiring* to further the use of harmonised sanitary and phytosanitary measures between Members, on the basis of international standards, guidelines and recommendations developed by the relevant international organisations, including the Codex Alimentarius Commission, the International Office of Epizootics, and the relevant international and regional organizations operating within the framework of the International Plant Protection Convention, without requiring Members to change their appropriate level of protection of human, animal or plant life or health;

*Recognising* that developing country Members may encounter special difficulties in complying with the sanitary or phytosanitary measures of importing Members, and as a consequence in access to markets, and also in the formulation and application of sanitary or phytosanitary measures in their own territories, and desiring to assist them in their endeavours in this regard;

*Desiring* therefore to elaborate rules for the application of the provisions of GATT 1994 which relate to the use of sanitary or phytosanitary measures, in particular the provisions of Article XX(b)<sup>4</sup>.

*Hereby agree as follows:*

#### Article 1

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<sup>4</sup> In this Agreement, reference to Article XX(b) includes also the chapeau of that Article.

### **General Provisions**

1. This Agreement applies to all sanitary and phytosanitary measures which may, directly or indirectly, affect international trade. Such measures shall be developed and applied in accordance with the provisions of this Agreement.
2. For the purposes of this Agreement, the definitions provided in Annex A shall apply.
3. The annexes are an integral part of this Agreement.
4. Nothing in this Agreement shall affect the rights of Members under the Agreement on Technical Barriers to Trade with respect to measures not within the scope of this Agreement.

### **Article 2**

#### **Basic Rights and Obligations**

1. Members have the right to take sanitary and phytosanitary measures necessary for the protection of human, animal or plant life or health, provided that such measures are not inconsistent with the provisions of this Agreement.
2. Members shall ensure that any sanitary or phytosanitary measure is applied only to the extent necessary to protect human, animal or plant life or health, is based on scientific principles and is not maintained without sufficient scientific evidence, except as provided for in paragraph 7 of Article 5.
3. Members shall ensure that their sanitary and phytosanitary measures do not arbitrarily or unjustifiably discriminate between Members where identical or similar conditions prevail, including between their own territory and that of other Members. Sanitary and phytosanitary measures shall not be applied in a manner which would constitute a disguised restriction on international trade.
4. Sanitary or phytosanitary measures which conform to the relevant provisions of this Agreement shall be presumed to be in accordance with the obligations of the Members under the provisions of GATT 1994 which relate to the use of sanitary or phytosanitary measures, in particular the provisions of Article XX(b).

**Article 3**  
**Harmonisation**

1. To harmonise sanitary and phytosanitary measures on as wide a basis as possible, Members shall base their sanitary or phytosanitary measures on international standards, guidelines or recommendations, where they exist, except as otherwise provided for in this Agreement, and in particular in paragraph 3.
2. Sanitary or phytosanitary measures which conform to international standards, guidelines or recommendations shall be deemed to be necessary to protect human, animal or plant life or health, and presumed to be consistent with the relevant provisions of this Agreement and of GATT 1994.
3. 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, or as a consequence of the level of sanitary or phytosanitary protection a Member determines to be appropriate in accordance with the relevant provisions of paragraphs 1 through 8 of Article 5<sup>5</sup>. Notwithstanding the above, all measures which result in a level of sanitary or phytosanitary protection different from that which would be achieved by measures based on international standards, guidelines or recommendations shall not be inconsistent with any other provision of this Agreement.
4. Members shall play a full part, within the limits of their resources, in the relevant international organisations and their subsidiary bodies, in particular the Codex Alimentarius Commission, the International Office of Epizootics, and the international and regional organisations operating within the framework of the International Plant Protection Convention, to promote within these organisations the development and periodic review of standards, guidelines and recommendations with respect to all aspects of sanitary and phytosanitary measures.
5. The Committee on Sanitary and Phytosanitary Measures provided for in paragraphs 1 and 4 of Article 12 (referred to in this Agreement as the "Committee") shall develop a procedure to monitor the process of international harmonisation and co-ordinate efforts in this regard with the relevant international organisations.

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<sup>5</sup> For the purposes of paragraph 3 of Article 3, there is a scientific justification if, on the basis of an examination and evaluation of available scientific information in conformity with the relevant provisions of this Agreement, a Member determines that the relevant international standards, guidelines or recommendations are not sufficient to achieve its appropriate level of sanitary or phytosanitary protection.

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**Article 4**  
**Equivalence**

1. Members shall accept the sanitary or phytosanitary measures of other Members as equivalent, even if these measures differ from their own or from those used by other Members trading in the same product, if the exporting Member objectively demonstrates to the importing Member that its measures achieve the importing Member's appropriate level of sanitary or phytosanitary protection. For this purpose, reasonable access shall be given, upon request, to the importing Member for inspection, testing and other relevant procedures.
2. Members shall, upon request, enter into consultations with the aim of achieving bilateral and multilateral agreements on recognition of the equivalence of specified sanitary or phytosanitary measures.

**Article 5**  
**Assessment of Risk and Determination of the Appropriate Level  
of Sanitary or Phytosanitary Protection**

1. Members shall ensure that their sanitary or phytosanitary measures are based on an assessment, as appropriate to the circumstances, of the risks to human, animal or plant life or health, taking into account risk assessment techniques developed by the relevant international organisations.
2. In the assessment of risks, Members shall take into account available scientific evidence; relevant processes and production methods; relevant inspection, sampling and testing methods; prevalence of specific diseases or pests; existence of pest- or disease-free areas; relevant ecological and environmental conditions; and quarantine or other treatment.
3. In assessing the risk to animal or plant life or health and determining the measure to be applied for achieving the appropriate level of sanitary or phytosanitary protection from such risk, Members shall take into account as relevant economic factors: the potential damage in terms of loss of production or sales in the event of the entry, establishment or spread of a pest or disease; the costs of control or eradication in the territory of the importing Member; and the relative cost-effectiveness of alternative approaches to limiting risks.
4. Members should, when determining the appropriate level of sanitary or phytosanitary protection, take into account the objective of minimising negative trade effects.
5. With the objective of achieving consistency in the application of the concept of appropriate level of sanitary or phytosanitary protection against risks to human life or health, or to animal and plant life or health, each Member shall avoid arbitrary or unjustifiable distinctions in the levels it considers to be appropriate in different situations, if such distinctions result in discrimination or a disguised restriction on international trade. Members shall co-operate in the Committee, in accordance with paragraphs 1, 2 and 3 of Article 12, to develop guidelines to further the practical

implementation of this provision. In developing the guidelines, the Committee shall take into account all relevant factors, including the exceptional character of human health risks to which people voluntarily expose themselves.

6. Without prejudice to paragraph 2 of Article 3, when establishing or maintaining sanitary or phytosanitary measures to achieve the appropriate level of sanitary or phytosanitary protection, Members shall ensure that such measures are not more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection, taking into account technical and economic feasibility<sup>6</sup>.
7. In cases where relevant scientific evidence is insufficient, a Member may provisionally adopt sanitary or phytosanitary measures on the basis of available pertinent information, including that from the relevant international organisations as well as from sanitary or phytosanitary measures applied by other Members. In such circumstances, Members shall seek to obtain the additional information necessary for a more objective assessment of risk and review the sanitary or phytosanitary measure accordingly within a reasonable period of time.
8. When a Member has reason to believe that a specific sanitary or phytosanitary measure introduced or maintained by another Member is constraining, or has the potential to constrain, its exports and the measure is not based on the relevant international standards, guidelines or recommendations, or such standards, guidelines or recommendations do not exist, an explanation of the reasons for such sanitary or phytosanitary measure may be requested and shall be provided by the Member maintaining the measure.

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<sup>6</sup> For purposes of paragraph 6 of Article 5, a measure is not more trade-restrictive than required unless there is another measure, reasonably available taking into account technical and economic feasibility, that achieves the appropriate level of sanitary or phytosanitary protection and is significantly less restrictive to trade.

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**Article 6**

**Adaptation to Regional Conditions, Including Pest- or Disease-Free Areas  
and Areas of Low Pest or Disease Prevalence**

1. Members shall ensure that their sanitary or phytosanitary measures are adapted to the sanitary or phytosanitary characteristics of the area - whether all of a country, part of a country, or all or parts of several countries - from which the product originated and to which the product is destined. In assessing the sanitary or phytosanitary characteristics of a region, Members shall take into account, inter alia, the level of prevalence of specific diseases or pests, the existence of eradication or control programmes, and appropriate criteria or guidelines which may be developed by the relevant international organisations.
2. Members shall, in particular, recognise the concepts of pest- or disease-free areas and areas of low pest or disease prevalence. Determination of such areas shall be based on factors such as geography, ecosystems, epidemiological surveillance, and the effectiveness of sanitary or phytosanitary controls.
3. Exporting Members claiming that areas within their territories are pest- or disease-free areas or areas of low pest or disease prevalence shall provide the necessary evidence thereof in order to objectively demonstrate to the importing Member that such areas are, and are likely to remain, pest- or disease-free areas or areas of low pest or disease prevalence, respectively. For this purpose, reasonable access shall be given, upon request, to the importing Member for inspection, testing and other relevant procedures.

**Article 7**

**Transparency**

Members shall notify changes in their sanitary or phytosanitary measures and shall provide information on their sanitary or phytosanitary measures in accordance with the provisions of Annex B.

**Article 8**

**Control, Inspection and Approval Procedures**

Members shall observe the provisions of Annex C in the operation of control, inspection and approval procedures, including national systems for approving the use of additives or for establishing tolerances for contaminants in foods, beverages or feedstuffs, and otherwise ensure that their procedures are not inconsistent with the provisions of this Agreement.

**Article 9**  
**Technical Assistance**

1. Members agree to facilitate the provision of technical assistance to other Members, especially developing country Members, either bilaterally or through the appropriate international organisations. Such assistance may be, inter alia, in the areas of processing technologies, research and infrastructure, including in the establishment of national regulatory bodies, and may take the form of advice, credits, donations and grants, including for the purpose of seeking technical expertise, training and equipment to allow such countries to adjust to, and comply with, sanitary or phytosanitary measures necessary to achieve the appropriate level of sanitary or phytosanitary protection in their export markets.
2. Where substantial investments are required in order for an exporting developing country Member to fulfil the sanitary or phytosanitary requirements of an importing Member, the latter shall consider providing such technical assistance as will permit the developing country Member to maintain and expand its market access opportunities for the product involved.

**Article 10**  
**Special and Differential Treatment**

1. In the preparation and application of sanitary or phytosanitary measures, Members shall take account of the special needs of developing country Members, and in particular of the least-developed country Members.
2. Where the appropriate level of sanitary or phytosanitary protection allows scope for the phased introduction of new sanitary or phytosanitary measures, longer time-frames for compliance should be accorded on products of interest to developing country Members so as to maintain opportunities for their exports.
3. With a view to ensuring that developing country Members are able to comply with the provisions of this Agreement, the Committee is enabled to grant to such countries, upon request, specified, time-limited exceptions in whole or in part from obligations under this Agreement, taking into account their financial, trade and development needs.
4. Members should encourage and facilitate the active participation of developing country Members in the relevant international organisations.

**Article 11**  
**Consultations and Dispute Settlement**

1. The provisions of Articles XXII and XXIII of GATT 1994 as elaborated and applied by the Dispute Settlement Understanding shall apply to consultations and the settlement of disputes under this Agreement, except as otherwise specifically provided herein.
2. In a dispute under this Agreement involving scientific or technical issues, a panel should seek advice from experts chosen by the panel in consultation with the parties to the dispute. To this end, the panel may, when it deems it appropriate, establish an advisory technical experts group, or consult the relevant international organisations, at the request of either party to the dispute or on its own initiative.
3. Nothing in this Agreement shall impair the rights of Members under other international agreements, including the right to resort to the good offices or dispute settlement mechanisms of other international organisations or established under any international agreement.

**Article 12**  
**Administration**

1. A Committee on Sanitary and Phytosanitary Measures is hereby established to provide a regular forum for consultations. It shall carry out the functions necessary to implement the provisions of this Agreement and the furtherance of its objectives, in particular with respect to harmonisation. The Committee shall reach its decisions by consensus.
2. The Committee shall encourage and facilitate ad hoc consultations or negotiations among Members on specific sanitary or phytosanitary issues. The Committee shall encourage the use of international standards, guidelines or recommendations by all Members and, in this regard, shall sponsor technical consultation and study with the objective of increasing co-ordination and integration between international and national systems and approaches for approving the use of food additives or for establishing tolerances for contaminants in foods, beverages or feedstuffs.
3. The Committee shall maintain close contact with the relevant international organisations in the field of sanitary and phytosanitary protection, especially with the Codex Alimentarius Commission, the International Office of Epizootics, and the Secretariat of the International Plant Protection Convention, with the objective of securing the best available scientific and technical advice for the administration of this Agreement and in order to ensure that unnecessary duplication of effort is avoided.
4. The Committee shall develop a procedure to monitor the process of international harmonisation and the use of international standards, guidelines or recommendations. For this purpose, the Committee should, in conjunction with the relevant international organisations, establish a list of international standards, guidelines or recommendations relating to sanitary or phytosanitary measures which the Committee determines to have a Members of those international standards, guidelines or recommendations which they

apply as conditions for import or on the basis of which imported products conforming to these standards can enjoy access to their markets. For those cases in which a Member does not apply an international standard, guideline or recommendation as a condition for import, the Member should provide an indication of the reason therefor, and, in particular, whether it considers that the standard is not stringent enough to provide the appropriate level of sanitary or phytosanitary protection. If a Member revises its position, following its indication of the use of a standard, guideline or recommendation as a condition for import, it should provide an explanation for its change and so inform the Secretariat as well as the relevant international organisations, unless such notification and explanation is given according to the procedures of Annex B.

5. In order to avoid unnecessary duplication, the Committee may decide, as appropriate, to use the information generated by the procedures, particularly for notification, which are in operation in the relevant international organisations.
6. The Committee may, on the basis of an initiative from one of the Members, through appropriate channels invite the relevant international organisations or their subsidiary bodies to examine specific matters with respect to a particular standard, guideline or recommendation, including the basis of explanations for non-use given according to paragraph 4.
7. The Committee shall review the operation and implementation of this Agreement three years after the date of entry into force of the WTO Agreement, and thereafter as the need arises. Where appropriate, the Committee may submit to the Council for Trade in Goods proposals to amend the text of this Agreement having regard, inter alia, to the experience gained in its implementation.

### **Article 13 Implementation**

Members are fully responsible under this Agreement for the observance of all obligations set forth herein. Members shall formulate and implement positive measures and mechanisms in support of the observance of the provisions of this Agreement by other than central government bodies. Members shall take such reasonable measures as may be available to them to ensure that non-governmental entities within their territories, as well as regional bodies in which relevant entities within their territories are members, comply with the relevant provisions of this Agreement. In addition, Members shall not take measures which have the effect of, directly or indirectly, requiring or encouraging such regional or non-governmental entities, or local governmental bodies, to act in a manner inconsistent with the provisions of this Agreement. Members shall ensure that they rely on the services of non-governmental entities for implementing sanitary or phytosanitary measures only if these entities comply with the provisions of this Agreement.

### **Article 14 Final Provisions**

The least-developed country Members may delay application of the provisions of this Agreement for a period of five years following the date of entry into force of the WTO Agreement with respect to their sanitary or phytosanitary measures affecting importation or imported products. Other developing country Members may delay application of the provisions of this Agreement, other than paragraph 8 of Article 5 and Article 7, for two years following the date of entry into force of the WTO Agreement with respect to their existing sanitary or phytosanitary measures affecting importation or imported products, where such application is prevented by a lack of technical expertise, technical infrastructure or resources.

### **Annex A** **Definitions<sup>7</sup>**

1. *Sanitary or phytosanitary measure*: Any measure applied:
  - (a) 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, diseases, disease-carrying organisms or disease-causing organisms;
  - (b) to protect human or animal life or health within the territory of the Member from risks arising from additives, contaminants, toxins or disease-causing organisms in foods, beverages or feedstuffs;
  - (c) to protect human life or health within the territory of the Member from risks arising from diseases carried by animals, plants or products thereof, or from the entry, establishment or spread of pests; or
  - (d) to prevent or limit other damage within the territory of the Member from the entry, establishment or spread of pests.

Sanitary or phytosanitary measures include all relevant laws, decrees, regulations, requirements and procedures including, inter alia, end product criteria; processes and production methods; testing, inspection, certification and approval procedures; quarantine treatments including relevant requirements associated with the transport of animals or plants, or with the materials necessary for their survival during transport; provisions on relevant statistical methods, sampling procedures and methods of risk assessment; and packaging and labelling requirements directly related to food safety.

2. *Harmonisation*: The establishment, recognition and application of common sanitary and phytosanitary measures by different Members.
3. *International standards, guidelines and recommendations*:

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<sup>7</sup> For the purpose of these definitions, "animal" includes fish and wild fauna; "plant" includes forests and wild flora; "pests" include weeds; and "contaminants" include pesticide and veterinary drug residues and extraneous matter.

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- (a) for food safety, the standards, guidelines and recommendations established by the Codex Alimentarius Commission relating to food additives, veterinary drug and pesticide residues, contaminants, methods of analysis and sampling, and codes and guidelines of hygienic practice;
  - (b) for animal health and zoonoses, the standards, guidelines and recommendations developed under the auspices of the International Office of Epizootics;
  - (c) for plant health, the international standards, guidelines and recommendations developed under the auspices of the Secretariat of the International Plant Protection Convention in co-operation with regional organisations operating within the framework of the International Plant Protection Convention; and
  - (d) for matters not covered by the above organisations, appropriate standards, guidelines and recommendations promulgated by other relevant international organisations open for membership to all Members, as identified by the Committee.
4. *Risk assessment*: The evaluation of the likelihood of entry, establishment or spread of a pest or disease within the territory of an importing Member according to the sanitary or phytosanitary measures which might be applied, and of the associated potential biological and economic consequences; or the evaluation of the potential for adverse effects on human or animal health arising from the presence of additives, contaminants, toxins or disease-causing organisms in food, beverages or feedstuffs.
5. *Appropriate level of sanitary or phytosanitary protection*: The level of protection deemed appropriate by the Member establishing a sanitary or phytosanitary measure to protect human, animal or plant life or health within its territory.

NOTE: Many Members otherwise refer to this concept as the "acceptable level of risk".

6. *Pest- or disease-free area*: An area, whether all of a country, part of a country, or all or parts of several countries, as identified by the competent authorities, in which a specific pest or disease does not occur.

NOTE: A pest- or disease-free area may surround, be surrounded by, or be adjacent to an area - whether within part of a country or in a geographic region which includes parts of or all of several countries -in which a specific pest or disease is known to occur but is subject to regional control measures such as the establishment of protection, surveillance and buffer zones which will confine or eradicate the pest or disease in question.

Area of low pest or disease prevalence - An area, whether all of a country, part of a country, or all or parts of several countries, as identified by the competent authorities, in which a specific pest or disease occurs at low levels and which is subject to effective surveillance, control or eradication measures.

## Annex B



## Transparency of Sanitary and Phytosanitary Regulations

### *Publication of regulations*

1. Members shall ensure that all sanitary and phytosanitary regulations<sup>8</sup> which have been adopted are published promptly in such a manner as to enable interested Members to become acquainted with them.
2. Except in urgent circumstances, Members shall allow a reasonable interval between the publication of a sanitary or phytosanitary regulation and its entry into force in order to allow time for producers in exporting Members, and particularly in developing country Members, to adapt their products and methods of production to the requirements of the importing Member.

### *Enquiry points*

3. Each Member shall ensure that one enquiry point exists which is responsible for the provision of answers to all reasonable questions from interested Members as well as for the provision of relevant documents regarding:
  - (a) any sanitary or phytosanitary regulations adopted or proposed within its territory;
  - (b) any control and inspection procedures, production and quarantine treatment, pesticide tolerance and food additive approval procedures, which are operated within its territory;
  - (c) risk assessment procedures, factors taken into consideration, as well as the determination of the appropriate level of sanitary or phytosanitary protection;
  - (d) the membership and participation of the Member, or of relevant bodies within its territory, in international and regional sanitary and phytosanitary organisations and systems, as well as in bilateral and multilateral agreements and arrangements within the scope of this Agreement, and the texts of such agreements and arrangements.
4. Members shall ensure that where copies of documents are requested by interested Members, they are supplied at the same price (if any), apart from the cost of delivery, as to the nationals of the Member concerned<sup>9</sup>.

### *Notification procedures*

5. Whenever an international standard, guideline or recommendation does not exist or the content of a proposed sanitary or phytosanitary regulation is not substantially the same as the content of an international standard, guideline or recommendation, and if the regulation may have a significant effect on trade of other Members, Members shall:

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<sup>8</sup> Sanitary and phytosanitary measures such as laws, decrees or ordinances which are applicable generally.

<sup>9</sup> When "nationals" are referred to in this Agreement, the term shall be deemed, in the case of a separate customs territory Member of the WTO, to mean persons, natural or legal, who are domiciled or who have a real and effective industrial or commercial establishment in that customs territory.

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- (a) publish a notice at an early stage in such a manner as to enable interested Members to become acquainted with the proposal to introduce a particular regulation;
  - (b) notify other Members, through the Secretariat, of the products to be covered by the regulation together with a brief indication of the objective and rationale of the proposed regulation. Such notifications shall take place at an early stage, when amendments can still be introduced and comments taken into account;
  - (c) provide upon request to other Members copies of the proposed regulation and, whenever possible, identify the parts which in substance deviate from international standards, guidelines or recommendations;
  - (d) without discrimination, allow reasonable time for other Members to make comments in writing, discuss these comments upon request, and take the comments and the results of the discussions into account.
6. However, where urgent problems of health protection arise or threaten to arise for a Member, that Member may omit such of the steps enumerated in paragraph 5 of this Annex as it finds necessary, provided that the Member:
- (a) immediately notifies other Members, through the Secretariat, of the particular regulation and the products covered, with a brief indication of the objective and the rationale of the regulation, including the nature of the urgent problem(s);
  - (b) provides, upon request, copies of the regulation to other Members;
  - (c) allows other Members to make comments in writing, discusses these comments upon request, and takes the comments and the results of the discussions into account.
7. Notifications to the Secretariat shall be in English, French or Spanish.
8. Developed country Members shall, if requested by other Members, provide copies of the documents or, in case of voluminous documents, summaries of the documents covered by a specific notification in English, French or Spanish.
9. The Secretariat shall promptly circulate copies of the notification to all Members and interested international organisations and draw the attention of developing country Members to any notifications relating to products of particular interest to them.
10. Members shall designate a single central government authority as responsible for the implementation, on the national level, of the provisions concerning notification procedures according to paragraphs 5, 6, 7 and 8 of this Annex.

***General reservations***

11. Nothing in this Agreement shall be construed as requiring:

- (a) the provision of particulars or copies of drafts or the publication of texts other than in the language of the Member except as stated in paragraph 8 of this Annex; or
- (b) Members to disclose confidential information which would impede enforcement of sanitary or phytosanitary legislation or which would prejudice the legitimate commercial interests of particular enterprises.

**Annex C**  
**Control, Inspection and Approval Procedures<sup>10</sup>**

- 1 Members shall ensure, with respect to any procedure to check and ensure the fulfilment of sanitary or phytosanitary measures, that:
  - (a) such procedures are undertaken and completed without undue delay and in no less favourable manner for imported products than for like domestic products;
  - (b) the standard processing period of each procedure is published or that the anticipated processing period is communicated to the applicant upon request; when receiving an application, the competent body promptly examines the completeness of the documentation and informs the applicant in a precise and complete manner of all deficiencies; the competent body transmits as soon as possible the results of the procedure in a precise and complete manner to the applicant so that corrective action may be taken if necessary; even when the application has deficiencies, the competent body proceeds as far as practicable with the procedure if the applicant so requests; and that upon request, the applicant is informed of the stage of the procedure, with any delay being explained;
  - (c) information requirements are limited to what is necessary for appropriate control, inspection and approval procedures, including for approval of the use of additives or for the establishment of tolerances for contaminants in food, beverages or feedstuffs;
  - (d) the confidentiality of information about imported products arising from or supplied in connection with control, inspection and approval is respected in a way no less favourable than for domestic products and in such a manner that legitimate commercial interests are protected;
  - (e) any requirements for control, inspection and approval of individual specimens of a product are limited to what is reasonable and necessary;

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<sup>10</sup> Control, inspection and approval procedures include, inter alia, procedures for sampling, testing and certification.

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- (f) any fees imposed for the procedures on imported products are equitable in relation to any fees charged on like domestic products or products originating in any other Member and should be no higher than the actual cost of the service;
- (g) the same criteria should be used in the siting of facilities used in the procedures and the selection of samples of imported products as for domestic products so as to minimise the inconvenience to applicants, importers, exporters or their agents;
- (h) whenever specifications of a product are changed subsequent to its control and inspection in light of the applicable regulations, the procedure for the modified product is limited to what is necessary to determine whether adequate confidence exists that the product still meets the regulations concerned; and
- (i) a procedure exists to review complaints concerning the operation of such procedures and to take corrective action when a complaint is justified.

Where an importing Member operates a system for the approval of the use of food additives or for the establishment of tolerances for contaminants in food, beverages or feedstuffs which prohibits or restricts access to its domestic markets for products based on the absence of an approval, the importing Member shall consider the use of a relevant international standard as the basis for access until a final determination is made.

- 2 Where a sanitary or phytosanitary measure specifies control at the level of production, the Member in whose territory the production takes place shall provide the necessary assistance to facilitate such control and the work of the controlling authorities.

Nothing in this Agreement shall prevent Members from carrying out reasonable inspection within their own territories.

**Annex II**  
**Questionnaire**









### **Annex III Further Work**

This study has presented an overview of the issues associated with SPS standards and the SPS Agreement as they affect developing countries. Although a large volume of information has been collected, in particular through the country case studies, the analysis has necessarily been broad. What is now required is an in-depth analysis of the impact of SPS measures on developing country trade in agricultural and food products which explores and, where possible, quantifies the:

- Costs of compliance with SPS requirements.
- Problems encountered in complying with SPS requirements.
- Aspects of SPS requirements that are of particular difficulty for developing countries.
- Impact of SPS requirements on the level and direction of trade flows.
- Impact on livelihoods of, in particular, poor agricultural producers and/or food processors.
- Specific technical assistance and other requirements that would help to offset any negative effects of SPS requirements.

Ideally, this would be pursued through a series of in-depth case studies based on particular countries/regions and/or products, for example:

- Sanitary standards and fish exports from East Africa and/or Asia.
- Aflatoxins and exports of nuts from South America.
- Phytosanitary standards and exports of horticultural products from Africa.

A study of this kind would act to validate the results of the current work and to provide detailed and quantitative evidence of the impact that SPS requirements can have on developing countries. It is apparent from discussions with individuals involved with the promulgation of SPS measures within the EU that such detailed evidence is required to demonstrate unequivocally the impact that SPS standards can have on developing countries.