



CAFTA: SANITARY AND PHYTOSANITARY EVALUATION

A project for the United States Department of Agriculture

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RESEARCH OBJECTIVES

This report, in a partnership with the United States Department of Agriculture (USDA) and the Bush School, informs the USDA on the status of Sanitary and Phytosanitary (SPS) regulatory systems in the five Central American countries that are participating in negotiations for a Central American Free Trade Agreement (CAFTA) with the United States. The five CAFTA countries (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua) must overcome the complex regulatory framework, processes, and institutional capacities that present barriers to free trade with the United States. It is clear that Sanitary and Phytosanitary (SPS) issues are a key element of building this relationship.

SPS is a general term used to describe a variety of regulations on trade in agricultural products to protect human, animal, and plant health. The ultimate goal of the World Trade Organization's (WTO) SPS Agreement is to aid countries in building capacity to levels of sustainability. The WTO defines SPS as any measures that are applied to prevent or limit other damage to a country from the entry, establishment, or spread of pests and diseases (World Trade Organization 2003). Among other things, SPS regulations:

- Protect human or animal life from risks arising from additives, contaminants, toxins, or disease-causing organisms and their food;
- Protect human life from plant- or animal-carried diseases;
- Protect animal or plant life from pest, diseases, or disease-causing organisms; and
- Prevent or limit other damage to a country from the entry, establishment, or spread of pests.

These subject areas are useful in that they highlight the “nature of the limiting factors” of a national SPS system (Canale 2002). Countries deficient in SPS processes and outcomes may not be able to fully trade with the United States and the rest of the world.

In order to evaluate SPS compliance in CAFTA countries, the Bush School research team utilized the Phytosanitary Capacity Evaluation (PCE) model to measure the level of compliance with international standards. Dr. Felipe Canale, Chairman of the Interim Commission on Phytosanitary Measures, developed the Phytosanitary Capacity Evaluation model just prior to the Twenty-fifth Regular Sanitary and Phytosanitary (SPS) Committee Meeting on November 7-8, 2002. The Bush School survey was sent to the appropriate in-country experts in each of the five CAFTA countries. The survey examined multiple aspects of SPS compliance in three categories. The categories were:

- Legislation and Institutional Issues
- Facilities and Equipment

- Documented Procedures

The survey is most helpful for determining how best to apply technical assistance to help countries improve their own SPS system. In addition, the PCE model can be applied as a self-examination to determine one's own compliance with international standards. A trading partner can also use the model to determine another country's level of compliance with international standards.

RECOMMENDATIONS

The PCE model is a beneficial tool for evaluating the progress of CAFTA countries' compliance with the International SPS Agreement, and the research team has used the PCE model as our main analytical tool. A survey based on this model was sent to Foreign Agriculture Service (FAS) and Animal and Plant Health Inspection Service (APHIS) officials in the five CAFTA countries. Our analysis is based on the results of this survey. As such, we conclude that:

- The USDA must ensure that more training is available to ensure that every country has at least one individual who has the knowledge of SPS requirements to answer relatively basic questions about the status of compliance.
- The USDA should commit to educating substantial numbers of people in each country about the details of SPS requirements.
- Aid should include funding for more laboratories and laboratory equipment.
- The USDA should pay significant attention to assisting CAFTA countries in developing reliable certification systems, devoting particular attention to pest concerns.
- The USDA should improve communication with FAS and other officials in each country to ensure a better understanding of conditions at local levels.

AREAS FOR FUTURE RESEARCH

The Bush School research project also allows us to suggest areas for further study.

- More research should be targeted on problem areas discovered by the survey responses to determine the extent of aid required to bring the country into compliance with international SPS standards.
- Implement the PCE model to determine the level of compliance in each country with respect to meat products.

- Collect information from each of the five countries on the specific equipment needed to conduct pest diagnostic, in the areas of Entomology, Virology, Weed Science, Fungal and Bacterial Pathology, and Mycology.
- Collect information on the equipment needed to carry out inspection services at points of entry of each country.
- Conduct a survey of the local agriculture producers in order to gauge their level of understanding and acceptance of SPS measures put in place by the national organization.
- Identify practices in place in the industry in each country to respond to exotic pests and diseases and determine the level of aid needed to upgrade industry practices.

It should be noted that these areas of research would require each country to inventory, survey, or catalog details of SPS measures and their applications. Our findings show that such research would require significant resources, but would ultimately allow the USDA and its affiliates and counterparts to effectively target technical aid where it is needed.

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INTRODUCTION

SPECIFIC AIMS OF THE REPORT

The goal of this report is to inform the United States Department of Agriculture on the status of Sanitary and Phytosanitary (SPS) regulatory systems in the five Central American countries that are participating in negotiations for a Central American Free Trade Agreement (CAFTA). The research contained in this report was conducted at the request of the USDA to identify the extent of the scientific basis of SPS measures in Central America, and to determine relative compliance with international accords. The research team notes that information about SPS measures is scarce, and has worked diligently to supply relevant information to the USDA. Our team understands that SPS measures are a critical part of USDA's role in the CAFTA process.

METHODOLOGY

SPS is a general term used to describe a variety of regulations on trade in agricultural products to protect human, animal, and plant health. The ultimate goal of the World Trade Organization's (WTO) SPS Agreement is to aid countries in building capacity to levels of sustainability. The WTO defines SPS as any measures that are applied to prevent or limit other damage to a country from the entry, establishment, or spread of pests and diseases (World Trade Organization 2003).

SPS measures are an important mechanism to protect plants, animals, and humans from infestation and disease. Trade between countries can be obstructed when new products are introduced without sufficient regulatory procedures or when a country's SPS standards and practices do not meet the satisfaction of their trading partners. Numerous international organizations such as the World Trade Organization (WTO), the Foreign Agriculture Organization of the United Nations (FAO), and World Health Organization (WHO) recognize the need for equalized systems in food and agriculture safety to help prevent the spread of disease. Such organizations also recognize that developing nations need technical aid for the improvement of SPS standards within their borders. This report targets five developing countries in Central America, examines their current regulatory regimes in light of international standards, and identifies potential problem areas with their SPS practices, capabilities and infrastructure.

Data was collected from a variety of primary and secondary sources to complete this report. The research team has examined government documents and reports such as trade agreements and economic data. Our research team has also developed and administered a survey to evaluate the SPS measures currently in place in the CAFTA countries. The team has identified experts in each country who can authoritatively speak about SPS measures and the national SPS organizations. Their feedback constitutes a pivotal component of the report.

Appendix D provides a more detailed discussion of the impact of free trade in the Western Hemisphere.

OUTLINE OF THE REPORT

Chapter 2 defines the scope of Sanitary and Phytosanitary (SPS) measures and examines the use of SPS measures as protectionist barriers to trade. The chapter includes information on the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), and on the various international organizations concerned with SPS, as well as a discussion of the importance of SPS measures in the context of the Central American Free Trade Agreement.

Chapter 3 discusses the rationale for and implementation of the Phytosanitary Capacity Evaluation model developed by the Ministry of Foreign Affairs and Trade and the Interim Commission for Phytosanitary Measures, and implemented for the purposes of this report. This model can be used to determine SPS compliance and to assess technical assistance and capacity building needs. The chapter concludes with a guide for evaluation of SPS compliance in CAFTA countries.

Chapter 4 presents an examination of SPS compliance in the five CAFTA countries. The chapter contains a set of recommendations for each CAFTA country based on the responses to a survey on SPS issues in the region.

Chapter 5 recommends steps to improve SPS compliance in the five CAFTA countries. The suggested changes apply across the region and would impact all five countries. All recommended changes are a result of extensive analysis of surveys sent to subject-matter experts in Central America.

THE IMPACT OF SANITARY AND PHYTOSANITARY MEASURES ON FREE TRADE

This chapter defines Sanitary and Phytosanitary (SPS) measures and examines the use of these measures as protectionist barriers to trade. The chapter explores such topics as the World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) as well as the various international organizations concerned with SPS. The chapter concludes with a discussion on the importance of SPS measures as they relate to the Central American Free Trade Agreement.

SANITARY AND PHYTOSANITARY MEASURES

Sanitary and phytosanitary (SPS) is a general term used to describe a variety of regulations on trade in agricultural products to protect human, animal, and plant health.

The World Trade Organization defines SPS as any measures that are applied to:

- Protect human or animal life from risks arising from additives, contaminants, toxins or disease-causing organisms in their food;
- Protect human life from plant- or animal-carried diseases;
- Protect animal or plant life from pests, diseases, or disease-causing organisms;
- Prevent or limit other damage to a country from the entry, establishment or spread of pests. (World Trade Organization 1995)

THE PRECAUTIONARY PRINCIPLE

SPS measures can be used by a government as a tool to restrict trade through reliance on the precautionary principle. The precautionary principle means “that a new product or technology should not be approved as long as there is the possibility of some harm being done, that is, effectively demanding a conclusive proof of zero-risk.” (Moschini 2001, 4) Governments can use the precautionary principle to establish regulations or procedures that prohibit specific products, or more particularly, products from specific countries from being imported. Critics of the precautionary principle argue that it is unscientific because it assumes a new product or technology poses a threat and places a burden on the producer to prove that the product is safe, rather than relying on a scientific assessment to prove a product is not safe. (Moschini 2001)

The World Trade Organization (WTO) has rejected the use of the precautionary principle as a permanent standard for SPS regulations. In 1995, the WTO adopted a general agreement on international trade SPS regulations to prevent exaggerated abuses of non-commercial

barriers. The WTO's *Agreement on the Application of Sanitary and Phytosanitary Measures* (see next section) seeks to eliminate the use of the Precautionary Principle as a tactic to prohibit free trade. Article 2.2 of the WTO SPS Agreement says, "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..." (World Trade Organization 1995)

THE SPS AGREEMENT

Sanitary and Phytosanitary measures help to ensure the safe trade of agricultural goods. Governments are free to implement SPS measures as they deem necessary to protect plants and animals against disease and infestation, but this freedom of implementation can lead to ambiguous standards.

The General Agreement on Tariffs and Trade (GATT), which was updated in 1994 (GATT 1994) by members of the World Trade Organization, did not consider the role that Sanitary and Phytosanitary measures might play in trade negotiations. The WTO sought to close off this loophole by standardizing the international guidelines for SPS measures with the passage of the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), which took effect January 1, 1995. The SPS Agreement allows countries to choose their own SPS measures, but it also says regulations should:

- Be based on science.
- Be applied only to the extent necessary to protect human, animal or plant life or health.
- Not arbitrarily or unjustifiably discriminate between countries where identical or similar conditions prevail. (World Trade Organization 1995)

The goal of the SPS Agreement is to remove unjustifiable barriers to trade, not simply to achieve a minimum standard of SPS regulations. Many conditions including climate, indigenous pests, and types of goods require very different regulations in different markets. Adherence to the SPS Agreement helps to ensure that justifiable and proper regulations are in place for the purpose of plant, animal and human safety. (World Trade Organization 2003)

The SPS Agreement helps members communicate and disseminate new information, such as up-to-date risk assessments, to trading partners. Article III of the SPS Agreement states that members shall work "within their resources" with various organizations as they apply to ensure a timely and appropriate review of SPS measures for dissemination to the international community. The agreement also requires that all member nations maintain "Enquiry Points," or persons assigned to relay information on SPS measures to and from the international community. (World Trade Organization 1995)

INTERNATIONAL SPS ORGANIZATIONS

The SPS Committee within the WTO is the forum for discussion, information exchange and resolution of Sanitary and Phytosanitary issues. It is open to all WTO Members, who often send food safety and animal and plant health experts to the meetings. Observer status has been granted to the Office International des Epizooties (OIE), the joint FAO/WHO Codex Commission (Codex), the International Plant Protection Convention (IPPC), and other intergovernmental organizations active in SPS issues, including the World Health Organization (WHO), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Conference on Trade and Development (UNCTAD), the International Trade Center (ITC) and the International Standards Organization (ISO). (World Trade Organization n.d.)

The SPS Agreement language refers to three standard-setting international organizations, called the “three sisters,” whose activities are especially relevant to its objectives: the FAO/WHO Codex Commission, the Office International des Epizooties, and the international and regional organizations operating within the framework of the FAO International Plant Protection Convention (IPPC). These organizations are observers and important contributors to SPS Committee meetings, and advise WTO dispute settlement panels. (World Trade Organization n.d.)

CODEX ALIMENTARIUS COMMISSION

The Codex Alimentarius Commission, which is based in Rome, is a subsidiary organ of the FAO and the WHO. The SPS Agreement designates Codex as the authority for all matters related to international food safety evaluation and harmonization. Several Codex activities relate to the evaluation of food-borne hazards, although Codex also develops non-health related technical food standards, such as nutrition, composition, and quality standards. Codex develops scientific methodologies, concepts and standards to be used worldwide for food additives, microbiological contaminants, veterinary drug and pesticide residues. It has also developed useful references like the "General Principles on Food Hygiene" and the "General Principles on Meat Hygiene." (Food and Agriculture Organization/World Health Organization 2003)

OFFICE INTERNATIONAL DES EPIZOOTIES

The Office International des Epizooties (OIE) is the world animal health organization, based in Paris. The OIE's "International Animal Health Code" and "Aquatic Animal Health Code" offer international animal health standards and procedures that are periodically amended to take into account the latest scientific research. The OIE develops manuals on the following: animal diseases; standards for diagnosis, vaccination, epidemiological surveillance, disease control and eradication; procedures such as disinfection and certification; and laboratory equipment. The OIE collects, analyzes, and disseminates veterinary scientific

information to its 164 member countries, which include the US and all five CAFTA countries. OIE exists to provide information and promote “international solidarity” or a universal standard in controlling animal diseases. (Office International des Epizooties 2002)

INTERNATIONAL PLANT PROTECTION CONVENTION

The International Plant Protection Convention (IPPC), also based in Rome, is a subsidiary body of the FAO. Its main objectives are to take specific actions to prevent the introduction and spread of plant pests, and to promote measures for pest control, including information exchange. It has developed region-specific lists of plant pests. The IPPC develops international plant import health standards, principally on quarantine pests, a "Glossary of Phytosanitary Terms," basic principles governing phytosanitary laws and regulations, and harmonized plant quarantine procedures (Office International des Epizooties 2002). The IPPC guidelines for pest risk assessment provide a scientific means for evaluating risks before governments determine the appropriate level of plant protection. National Plant Protection Organizations (NPPOs) and Regional Plant Protection Organizations (RPPOs) work together to help contracting parties meet their IPPC obligations. (Office International des Epizooties 2002)

The Interim Commission on Phytosanitary Measures (ICPM) governs the implementation of the IPPC. It is presently composed of representatives from the NPPOs from both contracting parties to the IPPC and FAO members. The Commission provides a forum for the discussion of international plant protection issues and, assisted by several subsidiary bodies, delivers its annual program of work. (World Trade Organization n.d.)

NATIONAL SPS ORGANIZATIONS

The USDA Animal and Plant Inspection Service (APHIS) enacts and imposes SPS regulations according to the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), which requires signatory countries to adhere to certain basic concepts. These concepts include transparency, harmonization, equivalence, risk assessment, and regionalization as defined by the WTO. (Animal and Plant Health Inspection Service 1999)

SPS IN THE CONTEXT OF CAFTA

Sanitary and Phytosanitary (SPS) regulations are a key component of the negotiations between the United States and the CAFTA countries. The SPS regulatory systems in Central America must be harmonized with the United States and international standards for CAFTA countries to participate in free trade with the United States. In order to encourage, support, and sustain free trade between Central America Free Trade Agreement (CAFTA) countries and the United States, it is necessary to develop a better understanding of the SPS regulatory framework, processes, and institutional capacities within these countries that present possible barriers to trade with the United States. A pivotal object of the negotiations of the CAFTA agreement is the standardization of SPS measures and processes in CAFTA countries.

PHYTOSANITARY CAPACITY EVALUATION

This chapter explains the Phytosanitary Capacity Evaluation (PCE) model that was used to examine the SPS regulatory infrastructure, practices, and capabilities of CAFTA countries.

A DIAGNOSTIC TOOL

Determining the level of a foreign government's compliance with the Sanitary and Phytosanitary (SPS) Agreement is a difficult challenge, particularly in developing and least developed states where information is hard to find or non-existent. Adequately trained SPS professionals are in short supply, especially in poor economies. Inspectors and inspection facilities are often ill equipped, under-funded, and poorly staffed. Legislation can be too vague or unenforceable. Even when sufficient personnel are in place to execute SPS functions, they may not be properly trained.¹

Identifying specific problem areas for carrying out the standards of the SPS Agreement will help the USDA pinpoint appropriate technical aid applications. However, information on each country varies in quality and quantity in the public domain, and does not always yield the kind of answers one hopes to find. To solve this problem, we have employed a diagnostic tool that can be consistently applied from country to country. This tool will enable the group to pinpoint specific problem areas and make recommendations for solving them.

THE RATIONALE FOR THE PCE MODEL

Dr. Felipe Canale, Chairman of the World Trade Organization's (WTO) Interim Commission on Phytosanitary Measures, developed the Phytosanitary Capacity Evaluation (PCE) model just prior to the Twenty-fifth Regular SPS Committee Meeting on November 7-8, 2002. Dr. Canale's presentation was hosted by the Secretariat of the Committee at a seminar on technical assistance and capacity building related to the SPS Agreement on November 5, 2002. Dr. Canale recommended that an international diagnostic tool resembling one constructed by the government of New Zealand be used to determine SPS compliance and to assess technical assistance and capacity building needs. (Canale 2002)

The New Zealand model, according to Dr. Canale, was "primarily intended as a tool to assist countries to modernize their phytosanitary system" (2002). Modernizing a government's phytosanitary system requires building sufficient capacity to implement the phytosanitary requirements of another trading partner, or more broadly, the international community and the SPS Agreement. Determining the necessary amount of assistance to effectively modernize a nation's phytosanitary system can be done by first taking an inventory of the nation's current abilities to carry SPS obligations. The PCE model determines the level of compliance

¹ Summary of statements taken from an interview with Ing. Eduardo A. Palomo Pacas of Fort Dodge Animal Health of El Salvador, March 6, 2003.

by identifying the necessary components for compliance and comparing them to the actual components available in the country. (Canale 2002)

The PCE model can be applied as a self-examination to determine one's own compliance with international standards, or it can be used – as it is in this context – by a trading partner to determine another country's level of compliance with international standards. This model also helps to reduce conflict that can emerge in negotiations by specifically focusing on key components of SPS implementation. Survey questions are precisely targeted to eliminate discrimination against a single country or product, which means the model is flexible enough to be employed as an internal or external tool that reaches similar conclusions. (Canale 2002)

In his presentation, Dr. Canale demonstrated the traditional application of technical assistance to bring a national SPS system into compliance. Canale suggested a bottom-up approach in which assistance was directed primarily at local levels. Such an approach ensures that infrastructure needs are met before the emphasis moves to a focus on improving technical skills. Then the improvement of regulations and institutional issues continuing up to the national level would follow. Since the introduction of the SPS Agreement, a more modern approach has replaced this traditional approach. (Canale 2002)

The establishment of an international standard for SPS allows a top-down application of technical assistance. National legislation and the recognition of authority must be improved before an effective national system can be achieved. The modern approach does not mean that steps cannot be taken on local and national fronts simultaneously, but it does suggest that a nationally recognized and sustained organization forms the basis for improving the SPS system. The national SPS organization in each country will ultimately be responsible for communicating its policies to international bodies such as the WTO. In addition, the national organizations will improve policies within their respective governments, with developing scientific research, and with educating the public and workforces. It is therefore imperative that the national organization must receive sufficient support from the national government and its trading partners. (Canale 2002)

Dr. Canale's research demonstrates that developing countries tend to have difficulty implementing SPS standards because they lack the necessary components. The PCE model helped to identify which key components were missing. The lack of access to basic equipment, for example, can lead to a "Domino Effect" (Canale 2002). Without the basic equipment, the national organization may not be able to document diseases and infestations. Without the documentation there can be no risk analysis, and without risk analyses the national organization cannot provide scientific justification for its SPS measures. The result, Dr. Canale says, is a "reduction in [the developing countries'] ability to compete globally." (2002)

IMPLEMENTING THE PCE

The Phytosanitary Capacity Evaluation model can be divided into three main subject areas:

1. Legislation and Institutional Issues
2. Facilities and Equipment
3. Documented Procedures

These subject areas are useful in that they highlight the “nature of the limiting factors” of a national SPS system. (Canale 2002) This is most helpful for determining how best to apply technical assistance to help a country improve its own SPS system. Knowing the nature of the system deficiency will help determine whether the assistance should come in the form of:

- a) national coordination to help develop an institutionally sustainable organization, or,
- b) technical cooperation directed at improving the education, training, workforce, and procedures of the organization, or,
- c) investments in facilities and equipment necessary to perform various tasks associated with SPS implementation. (Canale 2001)

Each of the three main subject areas is tested for compliance in seven categories. Table 3.1 shows how the data collected can be assembled for analysis.

Table 3.1 PCE ANALYTICAL LAYOUT

CAFTA Country*	Legislation	Facilities & Equipment	Documented Procedures
Risk Analysis			
Surveillance			
Certification			
Inspection			
Diagnosis			
Institutions			

Exotic Pest Response			
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EVALUATING COMPLIANCE IN CAFTA COUNTRIES

The Ministry of Foreign Affairs and Trade in Wellington, New Zealand, first made their research questionnaire available to the public on the Internet.² The questionnaire is a thorough examination of the necessary components for compliance and is quite extensive. For the purposes of model simplification and working with time constraints, the research team disseminated an abbreviated version of the New Zealand Questionnaire to selected contacts in each CAFTA country. (See Appendix A on Page 37)

Since the New Zealand questionnaire had over four hundred question, the researcher team consolidated and adapted the Canale model, ensuring a shorter and more user-friendly survey. An analysis of the research findings based on their responses to the questionnaire is included in Chapter 4 of this report. Our questionnaire addressed three areas: Legislative and Institutional Issues, Facilities and Equipment, and Documented Procedures.

LEGISLATIVE AND INSTITUTIONAL ISSUES

The questionnaire included eighteen questions pertaining to legislative and institutional issues. These questions are targeted to determine the extent of the national organization's statutory authority, and to gain specific knowledge about staffing and personnel capacities. Responses to these questions reveal whether a national organization is a legitimate, cohesive arm of the national government, whether it has sufficient authority to carry out its statutory duties, and whether the incentive structure for compliance is likely to yield positive action by those under the national organization's jurisdiction.

FACILITIES AND EQUIPMENT

The sixteen facilities and equipment questions are intended to evaluate each country's access to the necessary equipment for carrying out SPS functions. The facilities and equipment questions focused specifically on the status of inspection facilities, particularly at points of entry, on laboratory facilities and equipment for various types of testing, and on computer system technology. Access to the items listed in the questionnaire is vital to meeting SPS requirements. Knowing what each country does and does not have access to allows for technical assistance to be applied more efficiently.

² The complete PCE model questionnaire as developed by the Ministry of Foreign Affairs and Trade of New Zealand and the Interim Commission for Phytosanitary Measures can be found at <http://icpm.massey.ac.nz/>

DOCUMENTED PROCEDURES

The third section of the questionnaire contained 24 questions about the documented procedures in each country. These questions targeted the national organization's performance in executing the functions necessary to fulfill international SPS obligations. Responses to these questions reveal what duties have been and are being performed by the national organization in compliance with the SPS standards. The questions also target record-keeping and correspondence practices.

ANALYSIS OF PCE SURVEYS

This chapter examines SPS compliance in the five CAFTA countries using the PCE model. The chapter examines legislative and institutional issues, facilities and equipment, and documented procedures in each country. There are also country-specific recommendations for better targeting technical aid.

4.1 COSTA RICA

Officials from the Foreign Agriculture Service of the USDA, APHIS in Costa Rica, and the Ministry of Agriculture from the government of Costa Rica responded to the survey of SPS capacity in Costa Rica. See Table 4.1 on Page 13 for a categorical summary of SPS needs in Costa Rica.

LEGISLATIVE AND INSTITUTIONAL ISSUES

Survey responses from Costa Rica show the need for more personnel to staff laboratories and execute inspection services. Questions 13, 14, and 18 in the section for *Legislation and Institutional Issues* (see Appendix B on Page 44) ask whether the respondent country has enough sufficiently trained specialists, laboratory staffers, and inspection personnel to carry out the designated functions of the national organization involving SPS. Each of these questions was marked “No” on the survey from Costa Rica.

Costa Rica’s legislation gives the national organization substantial authority to conduct inspections, train personnel, undertake risk analysis, and issue phytosanitary regulations. The most recent revision to Costa Rica’s legislation was in 1997. These revisions give the national organization broad authority to comply with the World Trade Organization’s (WTO) SPS Agreement. The organization has authority of search and seizure as well as power to issue certificates and regulations, and authority over pest diagnostics.

Responses indicate there are a sufficient number of laboratory managers (Question 15), and that the managers have written authority to carry out their functions (Question 16). There are also adequate training programs in place for staff involved in inspection activities (Question 17).

FACILITIES AND EQUIPMENT

Questions 4 and 5 of the survey’s section on *Facilities and Equipment* (see Appendix B on Page 44) ask respondents about access to virology equipment such as compound microscopes, cold light sources, and water purification systems that are essential to comply with SPS requirements. Question 2 asks respondents about the containment facilities in their countries.

In each case, responses from Costa Rica noted a lack of this equipment. Officials in Costa Rica also noted the need for basic and advanced virology equipment (Questions 4 and 5).

Costa Rica does have sufficient laboratories as well as suitable access to basic laboratory equipment for entomology, weed science, and fungal and bacterial pathology (Questions 1, 3, 6, and 7). Costa Rica's National Action Plan for Improved Capacity Building indicates that the country is prepared to correct its deficiencies. Among other things, Costa Rica pledges to strengthen key agencies that are charged with applying the rules of trade agreement. The nation pledges to create a world-class customs service. (Government of Costa Rica 2002)

DOCUMENTED PROCEDURES

The survey responses from Costa Rica indicate that documented procedures are lacking in the areas relating to random pest and disease surveys (Question 9), certified alterations (Question 15d), and procedures for investigation reports from importing countries (Question 21). Officials in Costa Rica indicated that they were uncertain about documented procedures regarding validation and trace back of phytosanitary certificates (Question 16)

However, the National Action Plan for Trade Capacity Building for Costa Rica does not mention either validation or trace back. (Government of Costa Rica 2002) Further investigation may be required to address the deficiencies noted in the survey responses and give them attention in Costa Rica's National Action Plan.

RECOMMENDATIONS

Technical Aid can be targeted on:

- Designing training programs to increase the pool of qualified individuals to staff existing facilities and to operate existing equipment.
- Building SPS-related infrastructure at points of entry and specialized databases for compliance.
- Facilitating random pest and disease surveys.
- Providing procedures for certified alterations and investigating reports from importing countries.
- Implementing validation and trace back of phytosanitary certificates.

Table 4.1 Matrix of Phytosanitary Capacity Needs for Costa Rica	Costa Rica	Legislation & Institutional Issues	Facilities & Equipment	Documented Procedures & Training
Risk Analysis	---	---	Does not have access to basic virology equipment or advanced virology equipment	---
Surveillance	---	---	---	Random pest and disease surveys are not regularly undertaken
Certification	---	---	---	Does not have documented procedures and work instruction to cover certified alterations
Inspection	Does not have a sufficient number of employees for inspection services	---	---	---
Diagnosis	Does not have a sufficient number of trained specialists for pest diagnosis	---	Does not have sufficient air-filtered and temperature controlled containment facilities	---
Institutions	Does not have sufficient laboratory support staff	---	---	---
Exotic Pest Response	---	---	---	---

4.2 EL SALVADOR

Officials from the Foreign Agriculture Service of the USDA and the Ministries of Economy and Agriculture of El Salvador responded to the survey of SPS capacity in El Salvador. See Table 4.2 on Page 16 for a categorical summary of SPS needs in El Salvador.

LEGISLATIVE AND INSTITUTIONAL ISSUES

Responses indicate that El Salvador is equipped with sufficient training programs, inspection service personnel, risk analysis staff, and trained specialists. Respondents point toward the lack of sufficient technical laboratory support staff (Question 14) and managers (Question 15) to carry out the necessary functions for compliance with the SPS Agreement. The National Action Plan for Trade and Capacity Building in El Salvador lists improving human resources as one of its core needs in 2002-2004. The plan proposes the following resolution in part c.5 of the Needs 2002-2004 section:

Exchange of technical experts from both the private and public sector in the areas of inspection, control and quarantine administration: Such a program would help enhance the understanding of practices used in partner markets, serve for transfer of technical knowledge and provide opportunities for exchange of ideas and learning by doing in the areas of sanitary and phytosanitary measures. (Government of El Salvador 2002)

Respondents from El Salvador were unsure whether the national legislation was in compliance with the SPS Agreement (Question 4), or whether the national organization was responsible for inspection of agricultural products shipped internationally (Question 5c). El Salvador's National Action Plan for Trade Capacity Building reported that the "legal framework for the application of sanitary and phytosanitary measures includes...the Central American Regulation on Sanitary and Phytosanitary Measures and the WTO SPS Agreement" (2002). Some effort to resolve the discrepancies between the national legislation and the requirements of the WTO SPS Agreement may be necessary to insure compliance.

FACILITIES AND EQUIPMENT

Survey respondents indicated an insufficient number of laboratories capable of diagnosis in mycology, nematology, entomology, and weed science (Question 1). Respondents noted that El Salvador does not have sufficient hardware and software capable of running risk analysis programs (Question 9). The national organization also does not have access to relevant books, journals, and CD-ROMs (Question 10). El Salvador lacks air filtered and temperature controlled containment facilities, advanced virology equipment and insect-proof rooms for inspection (Questions 5 and 13).

DOCUMENTED PROCEDURES

Respondents to the survey on El Salvador indicate that the national organization does keep adequate records on SPS requirements and documents its certifications, but they point toward procedural problems with SPS. There is no requirement for the identification of new pests in the country to be reported to the national organization (Question 2). Crops grown for export are not officially surveyed on a regular basis (Question 7) and no pest free zones have been declared (Question 12). The national organization does not have documented procedures for certified alterations, security over official seals, or consignment identification (Questions 15d, 15i and 15j).

Survey respondents indicated several uncertainties that warrant further investigation. They were not certain whether there is an approved set of guidelines or standards for undertaking risk analysis that is consistent with the WTO SPS Agreement (Question 4), whether the national organization has made contact points available for an importing country's national organization to report cases of non-compliance (Question 20), or whether the national organization has established procedures for investigating reports from importing countries of non-conforming consignments covered by a phytosanitary certificate (Question 21). Finally, respondents did not know whether the national organization has a system for issuing re-export phytosanitary certificates in accordance with international standards (Question 22).

The National Action Plan for El Salvador identifies the need for enhanced knowledge, awareness, and adaptation of SPS measures. The need for strengthening the national SPS enquiry point is also mentioned in the National Action Plan. However, there are no specific plans to address the deficiencies indicated by the survey respondents.

RECOMMENDATIONS

Technical Aid can be targeted on:

- Increasing inspection staff, managers, and trained specialists for pest diagnosis.
- Educating officials about the requirements of the WTO SPS Agreement and ensuring the national legislation complies.
- Strengthening laboratories capable of diagnosis in mycology, nematology, entomology, advanced virology, and weed science by providing access to basic equipment.
- Purchasing hardware and software for risk analysis.
- Disseminating relevant up-to-date books, journals, CD-ROMs for research.

- Purchasing air filtered and temperature controlled containment facilities and inspection facilities at points of entry.
- Developing procedures for identifying and reporting new pests.
- Surveying export crops and establishing pest-free zones.
- Strengthening procedures for certifications, security over official seals, consignment identification.
- Setting up contact points for an importing country to report non-compliance and investigating reports of non-conformity.

Table 4.2 Matrix of Phytosanitary Capacity Needs of El Salvador

El Salvador	Legislation & Institutional Issues	Facilities & Equipment	Documented Procedures & Training
Risk Analysis	---	Does not have access to advanced virology equipment, Risk analysis software, or up-to-date relevant books, journals, CD-ROMs, and Soil and Climate Maps	---
Surveillance	---	---	Crops grown for export are not officially surveyed on a regular basis
Certification	---	---	Does not have documented procedures and work instruction to cover certified alterations security over official seals, or consignment identification / security
Inspection	Does not have a sufficient number of employees for inspection services	Does not have designated insect-proof rooms for inspection at all entry points	---
Diagnosis	---	Does not have sufficient number of laboratories capable of diagnosis, or sufficient air-filtered and temperature controlled containment facilities	---
Institutions	Does not have sufficient laboratory managers or the written responsibilities for the managers to carry out the functions of the national organization	---	---
Exotic Pest Response	---	---	There is not a legal requirement for new pests in the country to be reported to the national organization; No pest free areas have been declared in the country

4.3 GUATEMALA

Officials from the Foreign Agriculture Service of the USDA in Guatemala responded to the survey of SPS capacity in Guatemala. See Table 4.3 on Page 19 for a categorical summary of SPS needs in Guatemala.

LEGISLATIVE AND INSTITUTIONAL ISSUES

Guatemala's most significant need is human capital. The survey responses show insufficient numbers of trained specialists for pest diagnostics (Question 13), laboratory support staff (Question 14), laboratory managers (Question 15), and inspection service personnel (Question 18). Legislation provides for compliance with the SPS Agreement and gives appropriate authority to the national organization, but inspection and diagnostics are lacking because of the shortage of trained personnel.

Respondents also indicated that training programs for staff involved in inspection activities were not available or adequate (Question 17). The following statement from the National Action Plan for Trade and Capacity Building for Guatemala underscores the importance of trained personnel to comply with international SPS standards:

The implementation of sanitary and phytosanitary measures is predicated on the updating of both technicians' expertise and reinforcing procedures of control, inspection, and approval. This entails an overhauled internal organization....The question of having the necessary resources and facilities to recruit and keep trained personnel in specialized agencies is also emphasized. (Government of Guatemala 2002)

The plan also outlines Guatemala's request for international aid from both public and private sources to meet these needs.

FACILITIES AND EQUIPMENT

Officials in Guatemala noted the lack of laboratories capable of diagnosis in mycology, virology, nematology, and weed science (Question 1), insufficient air filtered and temperature controlled containment facilities, and the lack of access to risk analysis software and the hardware necessary to operate it (Questions 2 and 9).

There is, however, access to relevant and up-to-date books, journals, and CD-ROMs (Question 10). Guatemala maintains up-to-date records on SPS requirements and has the basic equipment to carry out inspections at points of entry (Questions 14 and 15).

It is not clear whether the expressed need for laboratory facilities stems from the lack of human capital or the lack of physical infrastructure. Further study would be helpful in

determining whether or not Guatemala can provide adequate staffing or if it needs to invest in physical infrastructure.

DOCUMENTED PROCEDURES

The respondents to the survey indicated that Guatemala's SPS needs primarily focused on the *Legislative and Institutional* and *Facilities and Equipment* issues. Guatemala did not indicate any problems associated with documented procedures in their survey responses. But, Guatemala's National Action Plan for Trade Capacity Building noted, "the implementation of sanitary and phytosanitary measures is predicated on the updating of both technicians' expertise and reinforcing procedures of control, inspection and approval" (2002). This would indicate deficiencies in Guatemala's procedures. Further investigation may be needed to identify which procedures need to be addressed.

RECOMMENDATIONS

Technical Aid can be targeted on:

- Increasing inspection staff, managers, and trained specialists for pest diagnosis.
- Strengthening laboratories capable of diagnosis in mycology, nematology, entomology, advanced virology, and weed science by providing access to basic equipment.
- Using training and employment programs to increase the pool of qualified individuals to staff existing facilities and to operate existing equipment.
- Providing hardware and software for risk analysis.
- Providing air filtered and temperature controlled containment facilities and inspection facilities at points of entry.

Table 4.3 Matrix of Phytosanitary Capacity Needs for Guatemala

Guatemala	Legislation & Institutional Issues	Facilities & Equipment	Documented Procedures & Training
Risk Analysis	---	---	---
Surveillance	---	---	---
Certification	---	---	---
Inspection	Does not have a sufficient number of employees for inspection services; Does not have adequate training for staff involved in inspection activities	---	---
Diagnosis	Does not have a sufficient number of trained specialists for pest diagnosis	Does not have sufficient number of laboratories capable of diagnosis, or sufficient air-filtered and temperature controlled containment facilities	---
Institutions	Does not have a sufficient number of laboratory support staff or laboratory managers	---	---
Exotic Pest Response	---	---	---

4.4 HONDURAS

Officials from the Foreign Agriculture Service of the USDA and APHIS in El Salvador responded to the survey of SPS capacity in El Salvador. See Table 4.4 on Page 23 for a categorical summary of SPS needs in El Salvador.

LEGISLATIVE AND INSTITUTIONAL ISSUES

The survey response reports that the government of Honduras most recently revised its national legislation on SPS in 2002; however, respondents were not certain that the current legislation is in compliance with the WTO SPS Agreement. The legislation does give responsibility for SPS to the national organization, but the national organization suffers from several setbacks related to training and staff.

Respondents indicated that the national organization is not capable of conducting research pest detection and treatment (Question 8), there is not a formal group for undertaking risk analysis (Question 9), and there is not a sufficient number of trained specialists (Question 13), laboratory support staff (Question 14), or inspection service personnel (Question 18). They note that the national organization has sufficient laboratory managers, yet they lack the guidelines to carry out their duties (Question 16).

The current state of training programs for staff involved in inspections is not available nor adequate enough to meet the needs of the national organization (Question 17). It is clear that much work is needed in the areas of training and staff development in Honduras. The National Action Plan for Trade Capacity Building cites “improved skill levels of existing personnel,” and “expansion of qualified technical personnel,” as top priorities for Honduras to effectively participate in CAFTA.

FACILITIES AND EQUIPMENT

Responses to the survey on Honduras point toward considerable needs in facilities and equipment. There are not sufficient laboratories for diagnosing mycology, virology, nematology, entomology, and weed science (Question 1). There are inadequate resources for entomology, virology, weed science, fungal and bacterial pathology, and nematology (Questions 3-8). There are also reported deficiencies in air filtered and temperature controlled containment facilities (Question 2).

The national organization responsible for SPS in Honduras lacks current books, journals, and soil and climate maps (Question 10), risk analysis software (Question 9), and basic equipment and facilities for inspections at points of entry (Questions 13 and 14). Honduras does not maintain up-to-date records of the SPS requirements of importing countries, nor do they keep adequate records of SPS certificates issued (Question 15).

DOCUMENTED PROCEDURES

Responses to the survey in Honduras indicate substantial obstacles to compliance. The national organization does not keep appropriate records for inspection, testing, treatment, or other verification of phytosanitary certificates (Question 17), or the relevant personnel records, names, samples. The national organization does not adequately communicate with personnel or industry within the country (Question 18). The National Action Plan for Trade Capacity Building notes:

[A] need to improve means of communicating relevant information on foreign sanitary and phytosanitary measures to domestic exporters through the Internet, as well as communicating such information on Honduran measures to international trading partners. (Government of Honduras 2002)

Additional deficiencies were indicated in the areas of identification of nematodes, weeds, arthropod pests, fungi and bacteria, viruses and virus like organisms (Question 1). There is currently no legal requirement for anyone identifying a new pest in the country to report it to the national organization (Question 2). The national organization does not have a reliable record-keeping system for tracking pests and diseases (Question 10). In addition, there is no standard set of guidelines for responding to exotic pests introductions that is consistent with international standards (Question 14).

Honduras has many documented procedures in place that cover key aspects of the certification system. The only deficiencies in this area are with procedures for working with industry (Question 15.g) and security over official seals and marks (Question 15.i).

The national organization does not have procedures in place for investigating reports from importing countries of non-conforming consignments covered by phytosanitary certificates (Question 21). In addition, there is no system for issuing re-export phytosanitary certificates in accordance with international standards. Honduras is lacking documented procedures for inspecting regulated articles in the national mail system (Question 24). Finally, insufficient records are kept of an importing country's SPS requirements (Question 24).

RECOMMENDATIONS

Technical Aid can be targeted on:

- Using training and employment programs that will increase the pool of qualified individuals to staff existing facilities and to operate existing equipment
- Educating officials about the requirements of the WTO SPS Agreement and ensuring the national legislation complies

- Strengthening laboratories capable of diagnosis in mycology, nematology, entomology, advanced virology, and weed science by providing access to basic equipment
- Providing air filtered and temperature controlled containment facilities and inspection facilities at points of entry
- Providing hardware and software for risk analysis
- Disseminating relevant up to date books, journals, CD-ROMs for research
- Developing procedures for identifying and reporting new pests
- Communicating with industry within the country
- Establishing an adequate exotic pest response system

Table 4.4 Matrix of Phytosanitary Capacity Needs for Honduras	Legislation & Institutional Issues	Facilities & Equipment	Documented Procedures & Training
Risk Analysis	Not capable of conducting research on pests and diseases; Does not have a formal group for risk analysis	Does not have access to equipment for basic entomology, basic virology, advanced virology, basic weed science, fungal and bacterial pathology, or nematology; Does not have access to Risk analysis software, or up-to-date relevant books, journals, CD-ROMs, and Soil and Climate Maps	---
Surveillance	---	---	Does not have reliable record-keeping system for tracking pests & diseases
Certification	---	Adequate records are not kept of each phytosanitary certificate issued	Does not have documented procedures for working with industry, for security over official seals, for investigating reports of non-conformity, for issuing re-export certificates; Sufficient records are not kept for inspection, testing or treatment
Inspection	Does not have a sufficient number of employees for inspection services; Does not have adequate training for staff involved in inspection activities	Does not have designated insect-proof rooms for inspection at all entry points or access to the basic equipment to carry out inspections	Does not have procedures for inspecting mail
Diagnosis	Does not have a sufficient number of trained specialists for pest diagnosis	Does not have sufficient number of laboratories capable of diagnosis, or sufficient air-filtered and temperature controlled containment facilities	---
Institutions	Does not have sufficient laboratory support staff or the written responsibilities for laboratory managers to carry out the functions of the national organization	---	Does not have procedures for communication with personnel and industry within the country; Sufficient records are not kept of an importing country's SPS requirements
Exotic Pest Response	---	---	Does not have procedures for identification of nematodes, weeds, arthropod pests, fungi and bacteria, viruses and virus like organisms; There is not a legal requirement for new pests in the country to be reported to the national organization; No national guidelines for responding to exotic pests

4.5 NICARAGUA

Officials from the Foreign Agriculture Service of the USDA, APHIS, and the Ministry of Agriculture in Nicaragua responded to the survey of SPS capacity in Nicaragua. See Table 4.5 on Page 27 for a categorical summary of SPS needs in Nicaragua.

LEGISLATIVE AND INSTITUTIONAL ISSUES

No revisions have been made to the national legislation since the Nicaraguan government enacted the first version in 1998. Responses to the survey indicate that the national organization has sufficient authority and institutional capability to insure compliance with international SPS standards. However, the national organization lacks a formal group for undertaking risk analysis (Question 9), training programs for staff involved inspection activities (Question 17), and a sufficient number of inspection service employees (Question 18).

Aside from the personnel and training deficiencies, Nicaragua's legislation and institutions are relatively well-suited for compliance with the WTO SPS Agreement. The National Plan for Institutional Strengthening produced by Nicaragua signals a major commitment to training and updating staff on SPS. Strengthening the national organization responsible for SPS compliance means that laboratories in Nicaragua must receive national and international accreditation.

FACILITIES AND EQUIPMENT

Responses to the survey from Nicaragua indicate that there has been progress in moving toward SPS compliance but work remains to be done. Officials responded positively in regard to the availability of laboratories and laboratory equipment, but Nicaragua lacks access to basic and advanced virology research (Question 4 and 5).

Nicaragua does not have access to at-risk software packages nor the hardware necessary to operate this software (Question 9). In addition, it is reported that there is limited or no access to current literature, media, or soil and climate maps (Question 10).

There is currently a national database of pest and disease records available in Nicaragua as well as access to basic surveillance equipment (Questions 11 and 12), but the national organization lacks the equipment to carry out inspections at entry points (Questions 13 and 14).

With respect to information on the SPS requirements of trading countries, Nicaragua does not maintain up-to-date records (Question 15) and does not track and monitor SPS certificates throughout the export process (Question 16).

DOCUMENTED PROCEDURES

The results of the SPS survey indicated that Nicaragua does not have legal requirements for anyone identifying a new pest in the country to report the pest information to the national organization (Question 2). There are no guidelines or standards for undertaking risk analysis consistent with the international SPS agreement (Question 4). Crops grown for export are not officially surveyed on a regular basis (Question 7). Targeted surveys are not usually completed when pest occurrences are expected to be highest (Question 8). The national organization does not publish or distribute information on detected pests and diseases (Question 11). There have not been any “pest-free” areas declared in the country (Question 12). While the NPPO has documented procedures and work instructions to cover key aspects of the certification system such as control over issuance (Question 15.a), inclusion of additional declarations (Question 15.b), and completion of phytosanitary certificates (Question 15.e), they do not have documented procedures and work instructions to cover certified alterations (Question 15.d), procedures for working with industry (Question 15.g), sampling, inspections, and verification procedures (Question 15.h), security over official seals/marks (Question 15.i), or consignment identification, trace ability, or security (Question 15.j).

The Nicaraguan national SPS organization does not have procedures in place for timely communication to relevant personnel and to industry within the country concerning changes in importing country phytosanitary requirements, pest status and geographical distribution, and operational procedures (Questions 18.a, 18.b, 18.c). The national SPS organization also does not have a system for working effectively with the nominated representatives of relevant national organizations to discuss phytosanitary requirements (Question 19), nor does it have a system for investigating reports from importing countries of non-conforming consignments covered by a phytosanitary certificate (Question 21). Nicaragua also reported that sufficient records are not kept of an importing country’s SPS requirements (Question 24).

Nicaragua responded positively to roughly half of the survey questions pertaining to documented procedures, so, while they have some procedures in place, they are still in need of assistance. The National Plan for Institutional Strengthening acknowledged steps that will be taken to address all trade-related issues, but documented procedures do not appear to be a priority. Nicaragua noted in its National Plan for Institutional Strengthening that modernization of sanitary, phytosanitary, and quality systems was a goal, yet there was no funding allocated to meet this goal listed in the breakdown of the costs of implementing the action plan (Government of Nicaragua 2002). Nicaragua did allocate a total of \$123,400 for equipment and databases, which pertains to the documented procedures portion of the survey. This money could be used to aid in the creation of institutionalized documented procedures that are necessary for SPS measures based on scientific risk assessment. Some relevant programs Nicaragua plans to support are training/courses on the WTO SPS agreement and the International Agreement on Phytosanitary Protection (Government of Nicaragua 2002). Nicaragua is also planning to spend \$1,000,000 on a program that will disseminate SPS

requirements applied by Nicaragua and the United States on current or potentially exported by Nicaragua (Government of Nicaragua)

RECOMMENDATIONS

Technical Aid can be targeted on:

- Using training and increasing personnel for inspections and pest diagnostics.
- Strengthening laboratories to achieve national accreditation.
- Identifying the specific needs in laboratories capable of diagnosis in advanced virology.
- Providing hardware and software for risk analysis, and guidelines for research.
- Disseminating of the relevant up to date books, journals, CD-ROMs for research
- Building inspection facilities at points of entry.
- Educating officials about the requirements of the WTO SPS Agreement and ensuring the national legislation complies.
- Developing procedures for identifying and reporting new pests.
- Surveying export crops and establishing of pest-free zones.
- Setting up contact points for an importing country to report non-compliance and investigating reports of non-conformity.
- Communicating with industry within the country.

Table 4.5 Matrix of Phytosanitary Capacity Needs for Nicaragua

Nicaragua	Legislation & Issues	Institutional	Facilities & Equipment	Documented Training	Procedures & Procedures
Risk Analysis	Does not have a formal group for risk analysis			No national guidelines for undertaking risk analysis	
Surveillance	---	---	---	Crops grown for export are not officially surveyed on a regular basis, targeted surveys are not done when pest occurrence is expected to be highest; Does not distribute information on pests / diseases	
Certification	---	---	---	Adequate records are not kept of each phytosanitary certificate issued; Does not have documented procedures for certified alterations, working with industry, for sampling, inspection or verification, for security over official seals, for consignment identification, or for investigating reports of non-conformity	
Inspection	Does not have a sufficient number of employees for inspection services; Does not have adequate training for staff involved in inspection activities				---
Diagnosis	---	---	Does not have sufficient air-filtered and temperature controlled containment facilities		---
Institutions	---	---	---	Does not have procedures for communication with personnel and industry within the country; Sufficient records are not kept of an importing country's SPS requirements	
Exotic Pest Response	---	---	---	There is not a legal requirement for new pests in the country to be reported to the national organization; No pest free areas have been declared in the country	

CONCLUSIONS AND RECOMMENDATIONS

This chapter discusses the crosscutting SPS issues facing CAFTA countries arranged by survey subject area, and followed by overall observations. The recommendations stem from the findings of our research.

SUBJECT AREA CONCLUSIONS AND RECOMMENDATIONS

LEGISLATIVE AND INSTITUTIONAL ISSUES

The majority of survey respondents indicated that they are lacking in human resources. Viewing the compiled data side by side (see Appendix B on Page 44) reveals that all CAFTA countries primarily lack inspection personnel and facilities needed to comply with the SPS agreement. Chapter 4 provides some suggestions on applying technical aid to address these problems. Training is also lacking in CAFTA countries. Part of the human resources problem is lack of trained personnel, possibly because the programs are unavailable, underfunded, or ill-equipped.

It is clear from our interactions with CAFTA officials and our own experience with this project that there is a steep learning curve involved in the technical nature of SPS requirements. Understanding a nation's regulatory structure—from national levels to local levels—requires extensive study, contacts, and resources. For example, only one country, El Salvador, had the ability to pinpoint a single source to adequately answer the majority of the survey questions. By contrast, four of the five countries relied on the combined efforts of many sources to complete each survey. *The USDA must ensure that more training is available to ensure that every country has at least one individual who has the knowledge of SPS requirements to answer relatively basic questions about the status of compliance. Countries should also heavily invest in training to address this problem.*

The USDA should commit to educating substantial numbers of people in each country about the details of SPS requirements. It is evident from each country's action plan that this is a desired outcome from CAFTA negotiations. One possible solution is the Salvadoran suggestion of an exchange program where experts from the United States would work in Central America and officials from Central America would work with the USDA to learn best practices. This would allow officials to return to the region with the necessary skills to ensure compliance with SPS requirements.

FACILITIES AND EQUIPMENT

CAFTA countries have capital needs, and the obvious target for investment capital is inspection and research facilities. Primary needs are diagnosis equipment for pests and diseases and air filtered and temperature controlled containment facilities. There are not even

sufficient laboratories for diagnosis in mycology, virology, nematology, entomology, and weed science in three of the five CAFTA countries. As indicated in Chapter 4, few countries also have access to risk analysis software packages or the software capable of running these programs. There is also a lack of access to relevant books, journals, or CD-ROMs.

Aid should also include funding for more laboratories and laboratory equipment. One component of the USDA's technical aid should be increasing access to these vital resources. Although the USDA has been instrumental in improving trade infrastructure in Central America, work remains to be done. Potential sources for funding these initiatives do exist. For instance, the United States Agency for International Development and the Inter-American Development Bank note that technical assistance should include training for officials such as food safety inspectors.

DOCUMENTED PROCEDURES

A problem area for CAFTA countries is documented procedures for both their certification systems and security over official seals and marks. An issue that cut across all CAFTA countries is the lack of documented procedures for investigating reports from importing countries of non-conforming consignments covered by a phytosanitary certificate. Again, Guatemala was the only country reporting documented procedures for these importing countries, three countries reported having no documented procedures, and one country reported they did not know. Honduras reported a lack of documented procedures for keeping records of phytosanitary certificates. Honduras and Nicaragua reported lacking documented procedures for timely communication with relevant personnel and industry regarding importing phytosanitary requirements, pest status, and operational procedures. Nicaragua reported significant problems with documenting procedures for many key aspects of the certification system.

Documentation regarding pests is another area in which CAFTA countries need assistance. The majority of the countries surveyed reported that they did not have documented procedures for identifying and reporting new pests to the national organization. Additionally, the procedures for tracking pests within the CAFTA countries are insufficient in each country.

The USDA should pay significant attention to assisting CAFTA countries in developing reliable certification systems, devoting particular attention to pest concerns. Agriculture safety hinges on secure certification. SPS measures are designed to ensure that a minimum standard is met in all stages of the production process. The certification process is a crucial component of maintaining secure trade in agricultural products.

OVERALL CONCLUSIONS AND RECOMMENDATIONS

COMMUNICATION

Communication between the policy makers in the FAS in Washington and the FAS personnel on the ground in CAFTA countries can be improved. Communication is fragmented within the countries. Few individuals have a comprehensive understanding of the level of SPS compliance in Central America. This information is frequently dispersed among several officials. Much of the information necessary to complete the surveys came from individuals employed by FAS.

Close communication with these and other officials in each country would lead to a better understanding of conditions at local levels. FAS officials and other experts would benefit from closer communication with industry leaders, officials from foreign governments, and implementing personnel.

FURTHER RESEARCH

The PCE model helps pinpoint problem areas in a country's SPS infrastructure. It allows the individuals responsible for implementing the SPS regulations to communicate their needs to those who are in a position to provide aid. A positive response to every question on the survey would indicate that a country has all that it needs to comply with international SPS standards. Negative responses reveal problem areas that need to be addressed that might prevent a country from engaging in safe and secure trade of agricultural goods. This survey has been used as a tool to diagnose the status of compliance.

More research should be targeted on problem areas discovered by the survey responses to determine the extent of aid required to bring the country into compliance with international SPS standards. The survey does not specifically inventory the problem areas in each country; it only isolates capacity needs. More work must be done to quantify specific amounts of funding necessary and applications of technical aid to solve these problems.

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Appendix A

SAMPLE PCE SURVEY

Each CAFTA country was surveyed using the following questionnaire. As noted in the report, each country used a number of sources to locate information to complete the survey.



Thank you for taking the time to respond to our brief survey. We are graduate students at the *George Bush School of Government and Public Service at Texas A&M University*. At the direction of the United States Department of Agriculture we are conducting a review of the Sanitary and Phytosanitary measures in place in each of the five countries participating in the Central American Free Trade Agreement negotiations.

We would appreciate your input on the following questions regarding SPS. Knowledge of SPS terminology, agricultural processes, and SPS procedures and capacities in your country are necessary to answer the questions. There are 48 questions in the survey, which can be completed in a short amount of time. Please check only one box per question.

Should you have any questions regarding our research, please contact us via email at cblackburn@bushschool.tamu.edu.

		Yes	No	DK
LEGISLATION AND INSTITUTIONAL ISSUES				
1	Is there a national organization concerning SPS mandated by legislation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	What year was the legislation enacted?			
3	What is the year of the most recent revision?			
4	Does current legislation comply with the current SPS agreement?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Is the national organization responsible for:			
5.a	Issuing phytosanitary certificates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.b	Providing surveillance of agriculture products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Yes	No	DK
5.c	Responsible for inspection of agricultural products shipped internationally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.d	Responsible for disinfestations and disinfections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.e	Responsible for conducting risk analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Is the national organization responsible for training and development of staff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Is the national organization responsible for distribution of information within the territory regarding regulated pests and the means of their prevention and control?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Is the national organization capable of conducting research on treatment procedures for the detection of pests and disease?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Is there a formal group for undertaking risk analysis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Is the national organization responsible for the issuance of phytosanitary regulations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Is the national organization responsible for determining details of import requirements/protocols, including monitoring/auditing phytosanitary functions performed by trading partners?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Does current legislation give the national organization the authority to carry out the responsibilities listed in questions 6-11, including search and seizure of agricultural products?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Does the national organization have sufficient number of trained specialists on staff for pest diagnostics?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Does the national organization have sufficient technical laboratory support staff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Does the national organization have sufficient laboratory managers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Do managers have written responsibilities to carry out the functions listed in questions 6-16 effectively?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Are training programs for staff involved in inspection activities (such as pest detection, sampling and record-keeping) available or adequate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Does the national organization have a sufficient number of employees for inspection services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FACILITIES AND EQUIPMENT

1	Are there sufficient laboratories in the country capable of diagnosis in Mycology, Virology, Nematology, Entomology, and Weed Science?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Are there sufficient air filtered and temperature controlled containment facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Does the national organization have access to basic entomology laboratory equipment? <i>[Compound microscope, cold light source, binocular stereo zoom microscope, illuminated magnifier, insect rearing chambers, x-ray equipment, computers, micropipettes, hot plates, top loading balance, magnetic stirrer, analytical balance, blender, laboratory glassware, refrigerator, curation equipment, autoclave, laboratory chemicals, -20 degrees centigrade freezer]</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Yes	No	DK
4	Does the national organization have access to basic virology equipment? <i>[Cold light source, binocular stereo zoom microscope, illuminated magnifier, computers, micropipettes, pH meter, hot plates, top loading balance, magnetic stirrer, analytical balance, blender, refrigerator, autoclave, laboratory chemicals, -20 degrees centigrade freezer, fume hood, high speed refrigerated centrifuge, rotary shaker, spectrophotometer, lyophiliser, micro-centrifuge, water purification system, microwave oven, temperature incubators, specialist chemicals, laboratory glassware, electrophoresis equipment, ELISA equipment]</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Does the national organization have access to advance virology equipment? <i>[Ultra microtone, Ultra centrifuge, PCR machine, Ultra low temperature freezer (-80 degrees C), electron microscope, hybridization oven, ultraviolet cross linker, high speed vacuum freeze dryer, ultraviolet viewer with Polaroid camera]</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Does the national organization have access to basic weed science laboratory equipment? <i>[Compound microscope, cold light source, illuminated magnifier, hot plates, magnetic stirrer, laboratory glassware, refrigerator, autoclave, laboratory chemicals, -20 degrees centigrade freezer, seed sampling equipment, herbarium facilities, centrifuge, water bath, dissecting microscope, microwave oven, dissection kits]</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Does the national organization have access to basic fungal and bacterial pathology laboratory equipment? <i>[Cold light source, binocular stereo zoom microscope, illuminated magnifier, computers, micropipettes, pH meter, hot plates, top loading balance, magnetic stirrer, analytical balance, blender, refrigerator, autoclave, laboratory chemicals, -20 degrees centigrade freezer, fume hood, high speed centrifuge, rotary shaker, spectrophotometer, lyophiliser, micro-centrifuge, water purification system, microwave oven, temperature incubators, laboratory glassware, electrophoresis equipment, ELISA equipment, BOD incubator, laminar flow cabinet, dissection equipment, bacterial cell counter, near UV lights, fluorescence microscope, culture collection]</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Does the national organization have access to basic nematology equipment? <i>[Compound microscope, cold light source, illuminated magnifier, hot plates, magnetic stirrer, laboratory glassware, refrigerator, autoclave, laboratory chemicals, -20 degrees centigrade freezer, centrifuge, water bath, dissecting microscope, microwave oven, dissection kits, trays, micropipettes, culture collection, blender, soil corers, temperature incubators, nematode sieving apparatus, nematode extraction funnels, nematode counting dishes, missed extraction apparatus, spades]</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Does the national organization have access to @Risk analysis software package or equivalent, and the hardware capable of running it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Does the national organization have access to up-to-date relevant books, journals, CD ROMs, and Soil and Climate Maps?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Is there a national database of pest and disease records?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Yes	No	DK
12	Does the national organization have access to basic surveillance equipment? [<i>Specimen jars, sweep nets, suction traps, killing jars, quadrant grids, spades, soil corers, hand lens, knives, trowels, pheromone traps, polythene bags</i>]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Does the national organization have designated insect-proof rooms (with tables, adequate lighting, and clean surfaces) for inspections at all entry points?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Does the national organization have access to basic equipment to carry out inspections? [<i>Chemicals, respirators, gloves, water proof aprons, ear muffs, boots, coats, overalls, dust masks, first aid kit, sampling bags, spatula, mirrors, hair brush, cutters, seed samplers, flashlight, eyeglass, seed inspection trays, nail pullers, crowbars, tin snips, can openers, sack needles, twine, pliers, crescent/ spanners, illuminated magnifiers, sticky tape, refrigerators, light traps, disposal bags, incinerations facilities, cleaning/decontamination equipment, stereo microscope, compound microscopes, vacuum cleaner, aspirators, glassware, heat sealing equipment</i>]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Does the national organization maintain up-to-date information on importing countries phytosanitary requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Are adequate records kept for each phytosanitary certificate issued (testing/treatment/verification, names, dates, results, and any samples taken) and traceable through all stages of production, handling, and transport to the point of export?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DOCUMENTED PROCEDURES				
1	Are there documented procedures for identification of nematodes, weeds, arthropod pests, fungi and bacteria, viruses and virus like organisms?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Is there a legal requirement for anyone identifying a new pest in the country to report it to the national organization?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Are inspectors approved by the national organization to carry out inspections on imports in Airports, Seaports, and Land border posts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Is there an approved set of guidelines or standard for undertaking risk analysis that is consistent with the International SPS Agreement?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Have commodity based pest and disease lists been prepared for products grown in your country?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Is there a national database of surveillance records?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Are crops grown for export officially surveyed on a regular basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Are targeted surveys usually done when pest occurrence is expected to be highest?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Are random pest and disease surveys regularly undertaken?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Does the national organization have reliable record-keeping system for tracking pests and diseases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Does the national organization publish and distribute information on pests and diseases detected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	DK
12 Have any “pest-free” areas been declared in the country?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 Are phytosanitary measures enforced in pest free areas to maintain pest free status?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 Is there a national standard or set of guidelines for responding to exotic pest introductions that are consistent with international standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 Does the NPPO have documented procedures and work instructions to cover the following key aspects of the certification system:			
15.a Control over issuance (manual or electronic)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.b Inclusion of additional declarations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.c Completion of the treatment section of the certificates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.d Certified alterations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.e Completion of phytosanitary certificates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.f Signature and delivery of phytosanitary certificates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.g Procedures for working with industry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.h Sampling, inspection and verification procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.i Security over official seals / marks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.j Consignment identification, trace ability, and security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.k Record Keeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 Is a copy of each phytosanitary certificate retained for purposes of validation and "trace back"?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 For each phytosanitary certificate are records kept as appropriate on:			
17.a Inspection, testing, treatment or other verification that was conducted on a consignment basis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.b The names of the personnel who undertook these tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.c The date on which the activity was undertaken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.d The results obtained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.e Any samples taken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 Does the national organization have procedures in place for timely communication to relevant personnel and to industry within the country concerning changes in:			
18.a Importing country phytosanitary requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Yes	No	DK
18.b	Pest status and geographical distribution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.c	Operational procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Does the national organization have a system for working effectively with the nominated representatives of relevant national organizations to discuss phytosanitary requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Has the national organization made available a contact point for an importing country national organization to report cases of non-compliance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	Has the national organization established procedures for investigating reports from importing countries of non-conforming consignments covered by a phytosanitary certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	Does the national organization have a system for issuing re-export phytosanitary certificates in accordance with international standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	Are there documented procedures for inspecting regulated articles for:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.a	Passengers and their baggage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.b	Air cargo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.c	Sea cargo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.d	Mail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.e	Land cargo (e.g. trucks and cars etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	Are sufficient records kept of an importing country's SPS requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix B

Compiled Survey Responses		Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua
		Legislation and Institutional Issues				
1	Is there a national organization concerning SPS mandated by legislation?	Y	Y	Y	Y	Y
2	What year was the legislation enacted?	1968	DK	DK	1994	1998
3	What is the year of the most recent revision?	1997	DK	DK	2002	1998
4	Does current legislation comply with the current SPS agreement?	Y	DK	Y	DK	Y
5	Is the national organization responsible for:					
5.a	Issuing phytosanitary certificates	Y	Y	Y	Y	Y
5.b	Providing surveillance of agriculture products	Y	Y	Y	Y	Y
5.c	Responsible for inspection of agricultural products shipped internationally	Y	DK	Y	Y	Y
5.d	Responsible for disinfestations and disinfections	Y	Y	Y	Y	Y
5.e	Responsible for conducting risk analysis	Y	Y	Y	Y	Y
6	Is the national organization responsible for training and development of staff?	Y	Y	Y	Y	Y
7	Is the national organization responsible for distribution of information within the territory regarding regulated pests and the means of their prevention and control?	Y	Y	Y	Y	Y
8	Is the national organization capable of conducting research on treatment procedures for the detection of pests and disease?	Y	Y	Y	N	Y
9	Is there a formal group for undertaking risk analysis?	Y	Y	Y	N	N
10	Is the national organization responsible for the issuance of phytosanitary regulations?	Y	Y	Y	Y	Y
11	Is the national organization responsible for determining details of import requirements/protocols, including monitoring/auditing phytosanitary functions performed by trading partners?	Y	Y	Y	Y	Y
12	Does current legislation give the national organization the authority to carry out the responsibilities listed in questions 6-11, including search and seizure of agricultural products?	Y	Y	Y	Y	Y
13	Does the national organization have sufficient number of trained specialists on staff for pest diagnostics?	N	Y	N	N	Y
14	Does the national organization have sufficient technical laboratory support staff?	N	Y	N	N	Y

Compiled Survey Responses		Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua
15	Does the national organization have sufficient laboratory managers?	Y	N	N	Y	Y
16	Do managers have written responsibilities to carry out the functions listed in questions 6-16 effectively?	Y	N	Y	N	Y
17	Are training programs for staff involved in inspection activities (such as pest detection, sampling and record-keeping) available or adequate?	Y	Y	N	N	N
18	Does the national organization have a sufficient number of employees for inspection services?	N	N	N	N	N
Facilities and Equipment						
1	Are there sufficient laboratories in the country capable of diagnosis in Mycology, Virology, Nematology, Entomology, and Weed Science?	Y	N	N	N	Y
2	Are there sufficient air filtered and temperature controlled containment facilities?	N	N	N	N	N
3	Does the national organization have access to basic entomology laboratory equipment? [<i>Compound microscope, cold light source, binocular stereo zoom microscope, illuminated magnifier, insect rearing chambers, x-ray equipment, computers, micropipettes, hot plates, top loading balance, magnetic stirrer, analytical balance, blender, laboratory glassware, refrigerator, curation equipment, autoclave, laboratory chemicals, -20 degrees centigrade freezer</i>]	Y	Y	Y	N	Y
4	Does the national organization have access to basic virology equipment? [<i>Cold light source, binocular stereo zoom microscope, illuminated magnifier, computers, micropipettes, pH meter, hot plates, top loading balance, magnetic stirrer, analytical balance, blender, refrigerator, autoclave, laboratory chemicals, -20 degrees centigrade freezer, fume hood, high speed refrigerated centrifuge, rotary shaker, spectrophotometer, lyophiliser, micro-centrifuge, water purification system, microwave oven, temperature incubators, specialist chemicals, laboratory glassware, electrophoresis equipment, ELISA equipment</i>]	N	Y	Y	N	N

Compiled Survey Responses		Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua
5	Does the national organization have access to advance virology equipment? [<i>Ultra microtone, Ultra centrifuge, PCR machine, Ultra low temperature freezer (-80 degrees C), electron microscope, hybridization oven, ultraviolet cross linker, high speed vacuum freeze dryer, ultraviolet viewer with Polaroid camera</i>]	N	N	Y	N	N
6	Does the national organization have access to basic weed science laboratory equipment? [<i>Compound microscope, cold light source, illuminated magnifier, hot plates, magnetic stirrer, laboratory glassware, refrigerator, autoclave, laboratory chemicals, -20 degrees centigrade freezer, seed sampling equipment, herbarium facilities, centrifuge, water bath, dissecting microscope, microwave oven, dissection kits</i>]	Y	Y	Y	N	Y
7	Does the national organization have access to basic fungal and bacterial pathology laboratory equipment? [<i>Cold light source, binocular stereo zoom microscope, illuminated magnifier, computers, micropipettes, pH meter, hot plates, top loading balance, magnetic stirrer, analytical balance, blender, refrigerator, autoclave, laboratory chemicals, -20 degrees centigrade freezer, fume hood, high speed centrifuge, rotary shaker, spectrophotometer, lyophiliser, micro-centrifuge, water purification system, microwave oven, temperature incubators, laboratory glassware, electrophoresis equipment, ELISA equipment, BOD incubator, laminar flow cabinet, dissection equipment, bacterial cell counter, near UV lights, fluorescence microscope, culture collection</i>]	Y	Y	Y	N	Y
8	Does the national organization have access to basic nematology equipment? [<i>Compound microscope, cold light source, illuminated magnifier, hot plates, magnetic stirrer, laboratory glassware, refrigerator, autoclave, laboratory chemicals, -20 degrees centigrade freezer, centrifuge, water bath, dissecting microscope, microwave oven, dissection kits, trays, micropipettes, culture collection, blender, soil corers, temperature incubators, nematode sieving apparatus, nematode extraction funnels, nematode counting dishes, missed extraction apparatus, spades</i>]	Y	Y	Y	N	Y
9	Does the national organization have access to @Risk analysis software package or equivalent, and the hardware capable of running it?	Y	N	N	N	N
10	Does the national organization have access to up-to-date relevant books, journals, CD ROMs, and Soil and Climate Maps?	Y	N	Y	N	N
11	Is there a national database of pest and disease records?	Y	Y	Y	Y	Y

Compiled Survey Responses		Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua
12	Does the national organization have access to basic surveillance equipment? [<i>Specimen jars, sweep nets, suction traps, killing jars, quadrant grids, spades, soil corers, hand lens, knives, trowels, pheromone traps, polythene bags</i>]	Y	Y	Y	Y	Y
13	Does the national organization have designated insect-proof rooms (with tables, adequate lighting, and clean surfaces) for inspections at all entry points?	Y	N	Y	N	N
14	Does the national organization have access to basic equipment to carry out inspections? [<i>Chemicals, respirators, gloves, water proof aprons, ear muffs, boots, coats, overalls, dust masks, first aid kit, sampling bags, spatula, mirrors, hair brush, cutters, seed samplers, flashlight, eyeglass, seed inspection trays, nail pullers, crowbars, tin snips, can openers, sack needles, twine, pliers, crescent/ spanners, illuminated magnifiers, sticky tape, refrigerators, light traps, disposal bags, incinerations facilities, cleaning/decontamination equipment, stereo microscope, compound microscopes, vacuum cleaner, aspirators, glassware, heat sealing equipment</i>]	Y	Y	Y	N	N
15	Does the national organization maintain up-to-date information on importing countries phytosanitary requirements?	Y	Y	Y	N	N
16	Are adequate records kept for each phytosanitary certificate issued (testing/treatment/verification, names, dates, results, and any samples taken) and traceable through all stages of production, handling, and transport to the point of export?	Y	Y	Y	N	N
Documented Procedures						
1	Are there documented procedures for identification of nematodes, weeds, arthropod pests, fungi and bacteria, viruses and virus like organisms?	Y	Y	Y	N	Y
2	Is there a legal requirement for anyone identifying a new pest in the country to report it to the national organization?	Y	N	Y	N	N
3	Are inspectors approved by the national organization to carry out inspections on imports in Airports, Seaports, and Land border posts?	Y	Y	Y	Y	Y
4	Is there an approved set of guidelines or standard for undertaking risk analysis that is consistent with the International SPS Agreement?	Y	DK	Y	Y	N
5	Have commodity based pest and disease lists been prepared for products grown in your country?	Y	Y	Y	Y	Y

Compiled Survey Responses		Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua
6	Is there a national database of surveillance records?	Y	Y	Y	Y	Y
7	Are crops grown for export officially surveyed on a regular basis?	Y	N	Y	Y	N
8	Are targeted surveys usually done when pest occurrence is expected to be highest?	Y	Y	Y	Y	N
9	Are random pest and disease surveys regularly undertaken?	N	Y	Y	Y	Y
10	Does the national organization have reliable record-keeping system for tracking pests and diseases?	Y	Y	Y	N	Y
11	Does the national organization publish and distribute information on pests and diseases detected?	Y	Y	Y	Y	N
12	Have any "pest-free" areas been declared in the country?	Y	N	Y	Y	N
13	Are phytosanitary measures enforced in pest free areas to maintain pest free status?	Y	DK	Y	Y	N
14	Is there a national standard or set of guidelines for responding to exotic pest introductions that are consistent with international standards?	Y	Y	Y	N	Y
15	Does the NPPO have documented procedures and work instructions to cover the following key aspects of the certification system:					
15.a	Control over issuance (manual or electronic)	Y	Y	Y	Y	Y
15.b	Inclusion of additional declarations	Y	Y	Y	Y	Y
15.c	Completion of the treatment section of the certificates	Y	Y	Y	Y	Y
15.d	Certified alterations	N	N	Y	DK	N
15.e	Completion of phytosanitary certificates	Y	Y	Y	Y	Y
15.f	Signature and delivery of phytosanitary certificates	Y	Y	Y	Y	Y
15.g	Procedures for working with industry	Y	Y	Y	N	N
15.h	Sampling, inspection and verification procedures	Y	Y	Y	Y	N
15.i	Security over official seals / marks	Y	N	Y	N	N
15.j	Consignment identification, trace ability, and security	Y	N	Y	Y	N
15.k	Record Keeping	Y	Y	Y	Y	Y
16	Is a copy of each phytosanitary certificate retained for purposes of validation and "trace back"?	DK	Y	Y	Y	Y
17	For each phytosanitary certificate are records kept as appropriate on:					

Compiled Survey Responses		Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua
17.a	Inspection, testing, treatment or other verification that was conducted on a consignment basis	Y	Y	Y	N	Y
17.b	The names of the personnel who undertook these tasks	Y	Y	Y	N	Y
17.c	The date on which the activity was undertaken	Y	Y	Y	N	Y
17.d	The results obtained	Y	Y	Y	N	Y
17.e	Any samples taken	Y	Y	Y	N	Y
18	Does the national organization have procedures in place for timely communication to relevant personnel and to industry within the country concerning changes in:					
18.a	Importing country phytosanitary requirements	Y	Y	Y	N	N
18.b	Pest status and geographical distribution	Y	Y	Y	N	N
18.c	Operational procedures	Y	Y	Y	N	N
19	Does the national organization have a system for working effectively with the nominated representatives of relevant national organizations to discuss phytosanitary requirements?	Y	Y	Y	DK	N
20	Has the national organization made available a contact point for an importing country national organization to report cases of non-compliance?	Y	DK	Y	Y	Y
21	Has the national organization established procedures for investigating reports from importing countries of non-conforming consignments covered by a phytosanitary certificate?	N	DK	Y	N	N
22	Does the national organization have a system for issuing re-export phytosanitary certificates in accordance with international standards?	Y	DK	Y	N	Y
23	Are there documented procedures for inspecting regulated articles for:	Y	DK	Y	N	Y
23.a	Passengers and their baggage	Y	Y	Y	Y	Y
23.b	Air cargo	Y	Y	Y	Y	Y
23.c	Sea cargo	Y	Y	Y	Y	Y
23.d	Mail	Y	Y	Y	N	Y
23.e	Land cargo (e.g. trucks and cars etc)	Y	Y	Y	Y	Y
24	Are sufficient records kept of an importing country's SPS requirements?	Y	Y	Y	N	N

Appendix C

FROM NAFTA TO CAFTA: FREE TRADE IN THE WESTERN HEMISPHERE

In developing the Central America Free Trade Agreement (CAFTA), a proposed trade accord between the United States and five Central American nations (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua), it is informative to examine the best practices and successes of other relevant free trade agreements. The most instructive trade agreements are the North American Free Trade Agreement (NAFTA) and the Canada-Costa Rica Free Trade Agreement of 2001. Both accords involved developing trade ties between developed and developing nations. Further, both contained impressive mechanisms for fostering agricultural trade.

NORTH AMERICAN FREE TRADE AGREEMENT

With NAFTA, the United States, Canada, and Mexico created the largest, richest, and most productive free trade zone in the world. (Robert 2001) This agreement was a cornerstone for expanding trade within the Western Hemisphere. NAFTA's success in increasing trade among its three partner countries is the driving force behind calls for CAFTA as well as the free trade agreement between the U.S. and Chile. NAFTA, for instance, has doubled U.S. trade with Mexico and tripled trade with Canada. (Zoellick 2003) Moreover, it was also instrumental in helping Mexico recover from the 1994 peso crisis.

The increased exports that result from agreements such as NAFTA can "crisis-proof" an economy. Observers note that Mexico and Chile both achieved annual double-digit increases in their exports in the 1990s. Unlike their Latin American neighbors, both largely avoided the worst of the economic turbulence of the late 1990s. ("Wanted: A New Regional Agreement for Economic Growth" 2003)

The NAFTA accord has provided benefits for all three of its partner countries. Since the implementation of the agreement in 1994, Mexico has gone from being the world's twentieth largest exporting nation to its seventh largest. More impressively, Mexico is now Latin America's largest exporter. Total U.S.-Mexico trade is valued at \$263 billion today, three times what it was before NAFTA.(USTR 2002)

A hallmark of NAFTA is the agreement's schedule of gradual tariff elimination. NAFTA eliminated many tariff barriers immediately and began a process to phase out all tariffs over fifteen years. On January 1, 2003, the U.S. and Mexico eliminated almost all tariffs on their bilateral agricultural exports. For example, import tariffs on chicken will fall from nearly 50 percent to zero. Although for now Mexico will maintain tariffs on corn, sugar, and some dairy products, NAFTA will eliminate all agricultural tariffs by 2008.(Smith 1996; Case and Corchado 2002)

NAFTA AND AGRICULTURE

Chapter Seven, the agreement's section on agricultural trade between the three North American countries, is a pivotal part of NAFTA. This section of the accord liberalizes agricultural trade by reducing, eliminating, and harmonizing sanitary and phytosanitary (SPS) measures. NAFTA prohibits the use of SPS measures that are disguised as barriers to trade. While nothing in NAFTA prevents member countries from establishing measures to protect consumers from unsafe products or protect domestic crops and livestock from foreign diseases, countries are encouraged to adopt international and regional standards where appropriate.(U.S.-Mexico Chamber of Commerce 1999)

The NAFTA process works to avoid barriers created by SPS measures. Moreover, it harmonizes agricultural classification and develops consistent grading and marketing standards. An example of the harmonization of SPS measures may be found in the 1997 decision to allow the importation of Mexican avocados into the U.S. American officials had prohibited the import of these avocados since 1914 because of SPS reasons. U.S. officials feared the presence of seed weevils in Mexican avocados, but Mexico's government persuaded Washington that modern pesticides and more careful growing techniques had eliminated the seed weevil pests. In a sign of good faith, the Mexican administration soon lifted its six-year ban on American cherries (USDA 1997).

NAFTA specifically prohibits the relaxing of environmental, health, or safety measures as a way to attract investment. An environmental side agreement, negotiated by the Clinton administration, required each NAFTA country to enforce its own environmental laws. Cooperation between the American and Mexican governments on environmental matters is impressive. For instance, the two nations created a joint Border Environmental Cooperation Commission to aid communities on both sides of the border in coordinating and carrying out environmental infrastructure projects.(Robert 2001; Border Environmental Cooperation Commission 2003)

Similar cooperation is evident on food safety issues. In April 1998, the U.S. Food and Drug Administration (FDA) issued draft guidelines on steps to minimize microbial food safety hazards for fresh fruits and vegetables. The Mexican Agricultural Ministry (SAGAR) is working in coordination with FDA and USDA in many areas of food safety, including the development of fifteen sanitary protocols. SAGAR, in turn, is providing information and technical assistance to Mexican farm organizations. Among other things, the Ministry has established eighty specific animal and plant health standards and sixty-four quality standards as part of its certification system for animal and plant health, quality assurance, and food safety.(U.S.-Mexico Chamber of Commerce 1999)

CANADA AND COSTA RICA FREE TRADE AGREEMENT

The recent Canada-Costa Rica Free Trade Agreement is also instructive for the CAFTA process. Notably, the trade pact is North America's first between a large developed country

and a smaller developing country. Costa Rica has a population of 3.9 million people, a gross domestic product (GDP) of \$15 billion, and a per capita income of \$3,775. Canada, on the other hand, is an affluent, industrial society of 31 million people. Its GDP is \$722 billion with a per capita income of more than \$23,000. Trade between the two nations was \$269 million in 2001.(Bounds 2001)

The unique feature of the Canada-Costa Rica accord is its asymmetric tariff elimination schedules. Canada will liberalize its market more quickly than Costa Rica because of its stronger economy. In market access, for example, Canada will abolish tariffs for 86 per cent of goods covered by the treaty upon ratification. Costa Rica will do so for only 65 per cent of Canadian goods. The remaining tariff reductions will be delayed for up to fourteen years. Further, sensitive products such as beef, milk, poultry, and egg products are excluded from the accord.(Canada-Costa Rica FTA 2002)

Another notable feature of the Canada-Costa Rica agreement is its attention to labor and environmental standards. These issues are not part of the Canada-Costa Rica treaty but are instead handled in NAFTA-style side agreements. Canada will advise and train labor inspectors to strengthen Costa Rica's ability to enforce workers. Unlike NAFTA, there are no trade sanctions or fines applicable for treaty breaches. If either country has a complaint about the labor or environment provisions, they may petition the other nation's labor or environment minister. A review panel made up of representatives from other nations will resolve lingering disputes. (Canada-Costa Rica FTA, 2002)

The Canada-Costa Rica Free Trade Agreement represents the first bilateral free trade agreement to include innovative stand-alone procedures on trade facilitation. Canadian and Costa Rican exporters will benefit from the increased efficiency of trade procedures and the reduction, simplification, and modernization of trade procedures.(Bounds 2001)

With regard to SPS standards, both Canada and Costa Rica agreed to abide by World Trade Organization (WTO) guidelines. They further committed themselves to create a bilateral committee on SPS measures. The committee will work to eliminate difficulties by promoting the transparency of SPS information and identifying common solutions to SPS problems.(Canada-Costa Rica FTA 2002)

A STRATEGY FOR FREE TRADE

NAFTA and the Canada-Costa Rica accord are critical first steps on the way to creating the world's largest free trade zone, the Free Trade Area of the Americas (FTAA). Although progress toward the FTAA stalled in the late 1990s, the administration has gotten the negotiations back on track because of a two-part strategy. First, working with the European Union (EU), the administration forged an agreement in November 2001 to begin a comprehensive new round in the World Trade Organization (WTO) talks. The administration's goal in the so-called Doha Development Round is to harmonize subsidies and tariffs while reducing them to much lower levels. (Zoellick 2002)

Second, Congress granted the president trade promotion authority, also known as fast track, in the Trade Act of 2002. The new legislation authorizes the administration to participate in trade negotiations without facing amendments from Congress. The House and Senate can only accept or reject trade accords in their entirety, a provision that eliminates the prospect that congressional amendments could cripple the trade agreements. (Bergsten 2002)

The third critical step on the way to an FTAA is the successful negotiation of several bilateral trade agreements. Among the proposed agreements are trade pacts with Morocco, Australia, the Southern African Customs Union, and five Central American nations (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua). The Bush administration maintains that these bilateral agreements will pressure more reluctant trading partners such as Brazil into beginning new rounds of regional and global trade negotiations. (Alden 2003)

THE CENTRAL AMERICA FREE TRADE AGREEMENT

One of the proposed regional trade pacts is the Central America Free Trade Agreement (CAFTA), a proposed accord between the five Central American nations and the United States.

These five nations have attempted closer economic integration before, most notably in the Central American Common Market (CACM) in the 1960s. The progress of that union was halted first by a brief war between El Salvador and Honduras, and then by guerrilla conflicts in several countries. In the past decade the wars have ended, and the common market has been revived by the governments that came to power in the region in the 1990s. (Salazar-Xirinachs et al. 2001) These governments were like-minded in their commitment to economic reform. Further, American policy, particularly the Caribbean Basin Initiative (CBI) of the 1980s and 1990s, created a new demand for the region's exports and led to increased foreign investment in the region. The CBI provides preferential access to the American market for exports originating in the Caribbean and Latin America; its provisions apply to all five CAFTA nations. (Salazar-Xirinachs et al. 2001)

The CAFTA nations have been pushing for free-trade talks with the United States ever since Mexico and Canada gained preferential access to the American market under the North American Free Trade Agreement (NAFTA) in the early 1990s. (Smith 1996) These nations believe that closer economic ties with the United States will help their economies expand, reduce poverty rates, and strengthen democratic institutions in the region. Moreover, the U.S. government sees freer trade as a key component of its national security strategy. Further, closer integration of the American and Central American markets continues the reforms seen in the 1980s under the Washington Consensus reforms. (Smith 1996)

Nevertheless, implementation of CAFTA will require extensive negotiations. The accord faces many challenges, the largest of which is developing a model where one can integrate smaller developing economies like those of the CAFTA countries with the large, developed economy of the United States. Other obstacles include macroeconomic vicissitudes such as

exchange rate instability, fiscal imbalances, and inflation in the Central American countries. The region’s economic downturn in the late 1990s is another obstacle. The slowing growth rates and economic instability of 1998-2000 dampened optimism about the FTAA and regional economic alliances such as CAFTA and MERCOSUR, a trade pact among Brazil, Argentina, Uruguay, and Paraguay. (Salazar-Xirinachs 2001)

CAFTA-U.S. TRADE

Bilateral trade between the U.S. and the five CAFTA countries amounts to \$22 billion annually. American exports to Central America have about the same value as U.S. exports to Russia, India, and Indonesia combined. CAFTA would give these nations preferential access to the 100 million household-strong American market while lower tariffs would help American companies in gaining access to the CAFTA countries.(USTR 2002)

The CAFTA nations have integrated themselves into the world economy through four dynamics: non-traditional exports, maquiladoras, immigration, and tourism. As a result, Central America’s reliance on its five traditional exports (coffee, bananas, sugar, cotton, and beef) has declined as more diverse economies emerged in the 1990s. The nations are no longer “after dinner economies,” a description often applied to them because of their exports of coffee, tea, and rum.(Orozco 2002) As Table 1 indicates below, almost half of the national income in these countries comes from remittances, exports, assistance, and tourism.

Table C-1: Central America in the Global Economy, 2000 (in millions of U.S. dollars)

Sector	Guatemala	El Salvador	Honduras	Nicaragua	Costa Rica
Remittances (R)	560.1	1750.7	409.1	600.0	43.2
Merchandise Exports (X) (Not including maquiladora)	2276.2	2476.7	698.5	522.8	4643.2
Maquiladora	373.8	456.3	623.5	102.2	1221.8
Official Development Assistance (A)	264.0	180.0	449.0	562.0	12.0
International Tourism (T)	518.0	254.0	240.0	116.0	1102.0
GDP	18988.0	13211.0	5932.0	2396.0	15851.0
Percentage: (R) + (X) + (A) + (T)/GDP	21%	39%	41%	79%	44%

Sources: World Bank 2002, "World Development Indicators CD-ROM"; CEPAL 2002.

Of special importance is the economic effect that international migration has had on these countries. Central America's economic interdependence operates in large part as a because of migrants who reside abroad and serve as the primary source of tourism for countries like Honduras, Nicaragua, and El Salvador. These individuals transfer almost \$3 billion annually in remittances. (Orozco 2003)

Nevertheless, agriculture remains a key export sector for the CAFTA nations. A key Nicaraguan trade official, Mario Arana, admitted as much during an interview with a Mexican news agency. Arana noted that the talks with Canada and the United States promote access to markets for agricultural exports. (Notimex 2003) The impact of agriculture on the overall economy of these nations is readily apparent when one examines their GDP figures. Agriculture's share of the GDP is 58 percent in Nicaragua, 41 percent in El Salvador, 47 percent in Guatemala, 40 percent in Honduras, and 24 percent in Costa Rica. Moreover, several million peasant producers in the region derive their livelihood from domestic agriculture.(Girvan 2003)

NEGOTIATING CAFTA

In January 2003, the U.S. and the five Central American countries announced that they would seek to conclude a comprehensive free trade agreement by the end of the year. Talks began in Costa Rica and proceeded to a second round in Cincinnati, Ohio, in February 2003. Five negotiating groups are slated to cover such issues as market access, investment and services, government procurement and intellectual property, labor and environment, and dispute settlement. (Saccomano 2003)

Nine rounds of negotiations are planned in 2003. Trade ministers also agreed to immediately address health issues related to agricultural trade. This special effort will focus on resolving such problems as import bans on U.S. pork, poultry, and dairy products.(Saccomano 2003)

Appendix D

THE WTO AGREEMENT ON THE APPLICATION OF 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 minimize their negative effects on trade;

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

Desiring to further the use of harmonized sanitary and phytosanitary measures between Members, on the basis of international standards, guidelines and recommendations developed by the relevant international organizations, 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;

Recognizing 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 endeavors 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) (1);

Hereby agree as follows:

Article 1: 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: HARMONIZATION

1. To harmonize 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.(2) 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 organizations and their subsidiary bodies, in particular the Codex Alimentarius Commission, the International Office of Epizootics, and the international and regional organizations operating within the framework of the International Plant Protection

Convention, to promote within these organizations 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 harmonization and coordinate efforts in this regard with the relevant international organizations.

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 organizations.

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 minimizing 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 cooperate 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.

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 organizations 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.

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 programs, and appropriate criteria or guidelines, which may be developed by the relevant international organizations.

2. Members shall, in particular, recognize 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 organizations. 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 fulfill 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 organizations.

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 organizations, 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 organizations 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 harmonization. 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 coordination 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 organizations 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 harmonization and the use of international standards, guidelines or recommendations. For this purpose, the Committee should, in conjunction with the relevant international organizations, establish a list of international standards, guidelines or recommendations relating to sanitary or phytosanitary measures which the Committee determines to have a major trade impact. The list should include an indication by 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 therefore, 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 organizations, 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 organizations.

6. The Committee may, on the basis of an initiative from one of the Members, through appropriate channels invite the relevant international organizations 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

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 labeling requirements directly related to food safety.

2. Harmonization — The establishment, recognition and application of common sanitary and phytosanitary measures by different Members.

3. International standards, guidelines and recommendations

(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 cooperation with regional organizations operating within the framework of the International Plant Protection Convention; and

(d) for matters not covered by the above organizations, appropriate standards, guidelines and recommendations promulgated by other relevant international organizations 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.

7. 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 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 organizations 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.

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:

(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 organizations 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

1. Members shall ensure, with respect to any procedure to check and ensure the fulfillment of sanitary or phytosanitary measures, that:

(a) such procedures are undertaken and completed without undue delay and in no less favorable 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 favorable 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;

(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 minimize 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.

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

Appendix E

GLOSSARY AND ACRONYMS³

BARRIERS TO TRADE

Restrictions on international trade such as quotas or tariffs that prevent a firm from making an international purchase or sale.

BILATERAL TRADE AGREEMENT

A trade agreement that two countries undertake, often to reduce tariffs and quotas on items between themselves. They are free to implement different trade policies with respect to other countries.

DETECTION SURVEY*

Survey conducted in an area to determine if pests are present

DEVELOPING COUNTRY

Another name for a low-income country or middle-income country, that is, a country with a relatively low or middle level of per capita income.

EQUIVALENCE*

The situation of phytosanitary measures, which are not identical but have the same effect.

EXOTIC*

Not native to a particular country, ecosystem or ecoarea (applied to organisms intentionally or accidentally introduced as a result of human activities). As the Code is directed at the introduction of biological control agents from one country to another, the term "exotic" is used for organisms not native to a country.

FAST TRACK AUTHORITY

Procedures designed to facilitate negotiation of trade agreements. In the U.S., fast track authority gives the President the power to negotiate a trade agreement and submit it to Congress for approval or disapproval without amendment.

FOOD AND AGRICULTURE ORGANIZATION (FAO)

An organization of the United Nations, founded in 1945, whose objectives are to raise levels of nutrition and standards of living, to improve agricultural productivity, to better the living conditions of rural populations, and to conserve natural resources. FAO conducts agricultural research, provides development assistance, collects and disseminates information, and provides policy advice to governments.

FREE TRADE

³ The term and definitions in this glossary are taken directly from www.agtrade.org/glossary.htm unless otherwise noted.

* Denotes terms and definitions taken directly from FAO Glossary of Phytosanitary Terms, April 2002

When two or more countries agree to drastically diminish, if not eliminate, tariffs and quotas between themselves on some or all goods. However, each country is free to pursue independent policies with respect to the rest of the world.

GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT)

A series of international agreements first begun in 1947 aimed at gradually liberalizing international trade in goods and services. Also refers to the organization set up in Geneva to implement and enforce these agreements. The eighth and most recent round of trade negotiations under the GATT lasted from 1986 to 1994 and was called the Uruguay Round.

HARMONIZATION*

The establishment, recognition and application by different countries of phytosanitary measures based on common standards

INFRASTRUCTURE

The capital embodied in transportation (roads, railways, waterways, etc.), communications (telephones, radios, televisions, etc.), electricity, water supplies, sanitation, and financial institutions.

INSPECTION*

Official visual examination of plants, plant products or other regulated articles to determine if pests are present and/or to determine compliance with phytosanitary regulations.

INTRODUCTION*

The entry of a pest resulting in its establishment

LESS-DEVELOPED COUNTRY

Another name for a low-income country or middle-income country, that is, a country with a relatively low or middle level of per capita income.

MONITORING*

An official ongoing process to verify phytosanitary situations

NON-TARIFF TRADE BARRIER

Regulations used by governments to restrict imports from, and exports to, other countries, including embargoes, import quotas, and technical barriers to trade.

NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA)

An agreement implemented in 1994 committing Canada, the U.S., and Mexico to the elimination of all tariffs, quotas, and other trade barriers between them before 2009. Trade relations with other countries are unaffected by NAFTA.

PEST*

Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products

PEST FREE AREA*

An area in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained

PEST RISK ANALYSIS*

The process of evaluating biological or other scientific and economic evidence to determine whether a pest should be regulated and the strength of any phytosanitary measures to be taken against it

PROTECTIONISM

The practice of shielding domestic firms by using tariffs, quotas, or other trade barriers to discourage imports. Usually substantial output inefficiencies follow and consumer welfare decreases.

PHYTOSANITARY CERTIFICATION*

Use of phytosanitary procedures leading to the issue of a Phytosanitary Certificate

PHYTOSANITARY MEASURE*

Any legislation, regulation or official procedure having the purpose to prevent the introduction and/or spread of quarantine pests, or to limit the economic impact of regulated non-quarantine pests

PHYTOSANITARY PROCEDURE*

Any officially prescribed method for implementing phytosanitary regulations including the performance of inspections, tests, surveillance or treatments in connection with regulated pests

POINT OF ENTRY*

Airport, seaport or land border point officially designated for the importation of consignments, and/or entrance of passengers

SURVEILLANCE*

An official process, which collects and records data on pest occurrence or absence by survey, monitoring or other procedures

SURVEY*

An official procedure conducted over a defined period of time to determine the characteristics of a pest population or to determine which species occur in an area

TRANSPARENCY*

The principle of making available, at the international level, phytosanitary measures and their rationale

WORLD TRADE ORGANIZATION (WTO)

An organization based in Geneva set up in 1995 to implement and enforce the Uruguay Round Agreement. Replaces the General Agreement on Tariffs and Trade (GATT). WTO establishes the legal and institutional foundations of the international trading system. It

determines government obligations in trade legislation and regulation, and specifies trade dispute resolution mechanisms. Currently has 142 member countries.