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TWENTY-NINTH FAO REGIONAL CONFERENCE FOR LATIN AMERICA AND THE CARIBBEAN

Caracas, Venezuela, 24 to 28 April 2006

FOOD SAFETY AND ANIMAL AND PLANT HEALTH: TRENDS AND CHALLENGES FOR LATIN AMERICA AND THE CARIBBEAN

Background: Trends in global trade in agricultural products and food

1. In 2003 world agriculture trade was valued over $500 billion, doubling, from $250 billion in 1986-87. Developing countries' share of world agricultural exports constitutes 33%, compared with their 25% of world merchandise exports (FAO, 2005). In 1980-81, the share of exports of fresh and processed fruit and vegetable products accounted for 16.7% of the total agricultural exports from developing countries, while in 2000-01 this had increased to 21.8% (Diop & Jaffee, 2005).

2. In recent years, there has been increasing awareness of health risks related to food consumption. The objective of food safety addresses agents and procedures along the entire food chain, from production and processing to marketing and consumption.

3. Consumer health risks related to food include "… risks from veterinary drug and pesticide residues, food additives, pathogens (i.e., illness-causing bacteria, viruses, parasites, fungi, and their toxins), environmental toxins such as heavy metals (e.g., lead and mercury) and persistent organic pollutants (e.g., dioxin), and unconventional agents such as prions associated with bovine spongiform encephalopathy (BSE) in cattle." (Buzby, 2001). One estimate for the United States has identified 250 food-borne pathogens which each year cause 76 million human illnesses, 325,000 hospitalizations, 5,200 deaths, and an unknown number of chronic conditions (Crutchfield and Roberts, 2000).

4. Likewise, the dramatic increase in global trade has led to the increased spread of animal and plant pests and pathogens, leading governments to seek measures to increase the protection of their animal herds, crops and wild vegetation from introduced pests and diseases.

5. These concerns have led to the development of public mandatory regulations related to food safety, animal and plant health (FSAPH). In addition, a number of private entities have developed private standards, some of which include FSAPH.

6. This paper examines the public mandatory system of measures for FSAPH, as well as some of the private standards systems related to FSAPH, in order to highlight their differences

and to examine the opportunities and challenges that they present. The paper then provides conclusions and recommendations for the attention of the Conference.

Measures and Standards: Concepts and Definitions

7. Measures are mandatory public regulations. Standards are voluntary and may be developed by public or private entities. Measures and standards may be set for processes or final products. Process measures and standards specify the characteristics of a production process. Product measures and standards specify characteristics of the final product. Public measures are set to maximize public good, including "externalities" related to environment and public health. Private standards are designed mainly to minimize the risks and transaction costs of the firms involved.

8. Countries set sanitary and phytosanitary measures (SPS measures) to protect human, animal and plant life or health. Sanitary and phytosanitary measures, by their very nature, restrict the movement of goods that present a risk to food safety and animal and plant health. These measures are subject to challenge if they are considered to be disproportionate to the risk they are meant to avert. International and regional standards are developed by relevant intergovernmental bodies and countries may wish to base their SPS measures on regional or international standards, guidelines or recommendations where such exist.

9. Additionally, there are a substantial number of private standards for final food products and production processes. Such standards may include considerations of FSAPH. These standards present opportunities for farmers and processors to engage in the national regional and global supply chain, but also present challenges to resource-poor and small-scale farmers and processors and governements.

International agreements and programmes concerning sanitary and phytosanitary measures

Agreement on the Application of Sanitary and Phytosanitary Measures

10. The Agreement on the Application of Sanitary and Phytosanitary Measures (the "SPS Agreement") entered into force with the establishment of the World Trade Organization on 1 January 1995. The agreement provides a multilateral framework of rules and disciplines to guide the development, adoption and enforcement of sanitary and phytosanitary (SPS) measures in order to minimize their negative effects on trade; it applies to all sanitary and phytosanitary measures that may, directly or indirectly, affect international trade.

11. The basic aim of the SPS Agreement is to maintain the sovereign right of any government to provide the level of health protection it deems appropriate, but to ensure that these sovereign rights are not misused for protectionist purposes and do not result in unnecessary barriers to international trade.

12. SPS measures are defined in the agreement as: "any measure applied:

- to protect animal or plant life or health within the territory of the Member from risks arising from the entry, establishment or spread of pests, diseases, disease-carrying organisms or disease causing organisms;
- 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;
- 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;

- to prevent or limit other damage within the territory of the Member from the entry, establishment or spread of pests."

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

14. Under the SPS Agreement, SPS measures are not to be applied in a manner that would constitute a means of arbitrary or unjustifiable discrimination among Members where the same conditions prevail or a disguised restriction on international trade. Measures are to be applied only to the extent necessary to protect human, animal or plant life or health, are to be based on scientific principles and are not to be maintained without sufficient scientific evidence.

15. The SPS Agreement encourages harmonization of SPS measures among Members on as wide a basis as possible. WTO Members are to base their sanitary or phytosanitary measures on international standards, guidelines or recommendations, where they exist, except if there is a scientific justification for a higher level of protection or, as a consequence of the level of sanitary or phytosanitary protection a Member determines to be appropriate. Sanitary or phytosanitary measures that conform to international standards, guidelines or recommendations are deemed to be necessary to protect human, animal or plant life or health. The SPS Agreement identifies three organizations to set international standards: The FAO/WHO Codex Alimentarius Commission; the World Organization for Animal Health (OIE) and the International Plant Protection Convention.

16. To ensure that SPS measures do not restrict trade, the Agreement mandates Members to accept the sanitary and phytosanitary measures of others as equivalent to their own if the exporting country demonstrates to the importing country that its measures achieve the importing country's appropriate level of SPS protection.

17. The requirements of risk assessment and sufficient scientific evidence are essential for maintaining the balance in the SPS Agreement between the shared, but sometimes competing, interests of promoting international trade and of protecting the life and health of human beings, animals or plants. The Agreement identifies procedures and criteria for the assessment of risk and the determination of appropriate levels of sanitary or phytosanitary protection. It recognizes there will be cases where scientific evidence is insufficient and where a Member may have to adopt measures provisionally. The agreement provides for an elaborate binding dispute settlement procedure. The procedure has now been used several times.

Codex Alimentarius Commission

18. The Codex Alimentarius Commission, a joint intergovernmental body of the Food and Agriculture Organization (FAO) and the World Health Organization (WHO, was created in 1963 by FAO and WHO to implement the Joint FAO/WHO Food Standards Programme through the development of international food quality and safety measures and related texts such as guidelines, codes of practice, etc. with the objective of protecting the health of consumers and facilitating fair practices in international food trade. The Codex Alimentarius Commission is composed of 173 member countries, plus the European Community.

19. Codex measures cover all the main foods, whether processed, semi-processed or raw; pesticide and veterinary drug residues, additives and contaminants levels, including environmental contaminants and naturally occurring toxicants in foodstuffs and animal feeds, good hygienic and manufacturing practices, including the HACCP system handling and packaging provisions, nutrition and labelling requirements, official inspection and certification systems for food import and export including guidelines for the establishment of equivalence

agreements, as well as protocols for the food safety assessment of foods derived from biotechnology, among others. The adopted Codex texts are published in the Codex Alimentarius that can be downloaded from the Codex Website at: www.codexalimentarius.net.

20. Since 2003, FAO and WHO have provided assistance, through a voluntary Trust Fund, to support the costs of participation of developing countries in the work of the Commission and its subsidiary bodies. Both agencies, together with bilateral and multilateral donors, also provide technical support and capacity building for the establishment and maintenance of national Codex infrastructures, updating of national food legislation, etc.

The International Plant Protection Convention (IPPC)

21. The International Plant Protection Convention (IPPC) is a multilateral treaty negotiated within the framework of FAO. The Convention is deposited with the Director-General of the FAO, and the Secretariat is provided by the Organization. Parties to the Convention agree to "secure common and effective action to prevent the spread and introduction of pests of plants and plant products and to promote measures for their control ..." The Convention provides rights and obligations to countries. Most importantly, it recognizes that "With the aim of preventing the introduction and/or spread of regulated pests into their territories, contracting parties shall have sovereign authority to regulate, in accordance with applicable international agreements, the entry of plants and plant products and other regulated articles" but limits this right by stipulating that such measures have to be made necessary by phytosanitary considerations and have to be technically justified. It also indicates a number of other conditions Contracting Parties will have to meet.

22. One of the most important activities of the IPPC is the establishment of International Standards for Phytosanitary Measures (ISPMs). ISPMs provide countries with a basis for their national phytosanitary measures. Harmonization of measures at the regional and international levels will substantially reduce the burden of countries to justify their own measures and to meet the measures of their trade partners. The standards are adopted by the annual meeting of the Commission on Phytosanitary Measures, the governing body of the Convention, which consists of all Contracting Parties. An extensive standard setting procedure exists, which provides for technical soundness and review by all Contracting Parties during the formulation of the Standard.

23. The IPPC provides for the exchange of official mandated information among countries. The IPPC Secretariat has established for this purpose the International Phytosanitary Portal (IPP). https://www.ippc.int. Through a combination of FAO provided funds and voluntary trust funds the Secretariat assists developing countries parties to participate in the standard setting procedure and information exchange. It also technically supports FAO projects that aim at strengthening national phytosanitary systems.

24. At the request of countries, the IPPC can also provide a dispute settlement mechanism; an extensive dispute settlement procedure has been adopted by its Governing Body. At present, the IPPC has 143 Contracting Parties.

World Organisation for Animal Health (OIE)

25. The OIE is an intergovernmental organisation created by the International Agreement of 25 January 1924, signed by 28 countries. In May 2004, the OIE totalled 167 Member Countries.

26. The OIE produces four publications which contain comprehensive international measures and references for animals. OIE measures are recognised by the World Trade Organization as reference international sanitary rules. They are prepared by elected Specialist Commissions and by Working Groups bringing together internationally renowned scientists, most of whom are experts within the network of 156 Collaborating Centres and Reference Laboratories that also contribute towards the scientific objectives of the OIE. These measures are adopted by the International Committee.

Application of measures and standards: Economic impact and market access

27. The economic impact of the application of FSAPH measures and standards resulting from the costs of compliance and the lack of access to markets, can be very important.

28. In Argentina, Foot and Mouth Disease (FMD) was detected in July 2000. By May 2001 over 150,000 animals per week were exposed to the virus. In April 2001 the Argentine government began a multistep programme to eradicate the disease, including vaccinations. The effects on export markets were severe. Most major export markets for chilled or frozen meat from Argentina remained closed for most of 2001. The value of exports of beef from Argentina fell from US$ 706 million in 2000 to US$ 267 million in 2001. In addition, the vaccination program cost US$ 65 million in 2001 and the downstream meat packing industries that produced for export lost an estimated US$ 40 million per month (Rich, 2004).

29. In 1996 the U.S. Centers for Disease Control and Prevention (CDC) and Health Canada received reports of more than 1,465 cases of food-borne illness from *Cyclospora*, a protozoan parasite. Raspberries imported from Guatemala were identified as the most likely source of contamination. In 1997 another large outbreak of food-borne illness in the United States and Canada implicated Guatemalan raspberries. The Guatemalan government and the private sector developed a Model Plan of Excellence (MPE), a mandatory program in Guatemala. In 1999 the United States allowed entry of raspberries produced under the MPE. In 2000 there were two illness outbreaks that were traced back to one Guatemalan farm, which was removed from the MPE. No outbreaks have been associated with Guatemalan raspberries since 2000. While the MPE was a technical success, it was not an economic one. During the 1990s other countries increased their fresh raspberry exports to the U.S., notably Mexico and Chile. In 1996 Guatemala had an estimated 85 raspberry growers for the export market, while in 2002 only 3 remained. In 2001, Guatemalan raspberry exports to the U.S. were 16 percent of the 1996 level (Calvin et al., 2003).

30. Otsuki, Wilson and Sewadeh (2001) estimated the impact of changes in the European Union's aflatoxin regulatory limit in food using trade and regulatory survey data for fifteen European and nine African countries between 1989 and 1998. They examined three regulatory scenarios: regulatory limits set at pre-EU harmonized levels (status quo), the maximum level set by Codex, and the new harmonized EU regulatory limit. They used risk assessments conducted by the Joint FAO/WHO Expert Committee on Food Additives to determine human health implications of strengthening aflatoxin regulatory limits and a gravity model, which includes aflatoxin regulatory limits as one of the explanatory variables, to predict the effect on trade flows between Africa and Europe of changes in the aflatoxin regulatory limit. They conclude that compared to Codex maximum level, the implementation of the new harmonized aflatoxin regulatory limit in the EU would reduce health risk by approximately 1.4 deaths per billion a year, but would simultaneously decrease African exports of cereals, dried fruits, and nuts to Europe by 64% or $679 million.

31. Jaffee and Henson (2004) argue that measures are not necessarily important barriers for developing countries. They estimate the value of developing country agro-food border rejections because of SPS measures to be about $1.8 billion, 74 per cent of which is accounted for by middle-income countries. The estimated value of low-income country agricultural and food product trade rejected at the importing country border is $275 million, representing just less than 1 per cent of the agricultural and food exports of these countries.

32. Although in some cases sanitary and phytosanitary issues have denied access to export markets, resulting in substantial costs in terms of lost sales and market share, the rising food quality and effective sanitary and phytosanitary national systems have also allowed some countries to strategically position themselves in competitive global markets.

Private standards and certification programmes

33. There exist numerous and growing private initiatives to develop standards and certification programmes for food processes and products, some including FSAPH. These initiatives are driven by goals of improving product image, seeking differentiation through market niche creation and expansion, increasing quality and providing consistency of the quality, responding to special consumer interests, and lowering transaction costs. Some initiatives seek to support specific production systems (organic, sustainable, "green"), human welfare (labour standards, fair-trade), animal welfare (wildlife/biodiversity conservation, general animal welfare, or explicitly "bird- or dolphin-friendly"), or seek final products free of certain substances (hormones, bioengineered organisms, additives). Finally there are campaigns or codes of practice that promote certain issues (pro-poor, pro-cooperative, local production) that may not be strictly certifications or based on written standards, but appeal to or respond to some of the same motivations as formal systems. Both formal and informal standards are contributing to changing consumer demands and expectations in both developed and developing countries. A summary of these initiatives for cash crops can be found in FAO (2003).

34. Among the oldest private systems of standards and certification is the production of organic products. A number of private organizations, most notably the International Federation of Organic Agriculture Movements (IFOAM), have worked for over twenty years in the development of standards for organic production and systems of certification. More recently there has been considerable effort and success in harmonizing these systems. The development of these private systems has greatly influenced the development of the official public organic production standards and programs.

35. The International Organization for Standardization (ISO) published its new standard for food safety management systems: ISO 22000, in September 2005. ISO 22000 specifies the requirements for a food safety management system in the food chain in order to provide consistently safe end products that meet both the requirements agreed with the customer and those of applicable food safety regulations. ISO 22000 standards combine the HACCP principles with prerequisite programmes (i.e. a specified procedure or instruction).

36. A number of private standards schemes are used by US and European wholesalers and retailers, especially for fresh produce. In Europe, largest private standards and certification programs is that of the Euro-Retailer Produce Association's Good Agriculture Practices (EurepGAP). This program is backed by 22 large-scale retail chains in Europe. EurepGAP has the stated claim of increasing consumer confidence in food safety. In the United States, the Food Marketing Institute has 1,500 food retail and wholesale member companies, operating in approximately three-quarters of all food retail store sales in the United States. This institute manages the Safe Quality Food Program (SQF 1000 and SQF 2000). The SQF Program is based on the principles of HACCP, Codex, ISO and Quality Management Systems.

37. An important distinction between public and private FSAPH systems is that the public systems are developed and managed publicly to protect human, animal and plant life or health , while the private systems are designed and managed privately for the interests of private parties.

38. Some private, voluntary certification and standard schemes create market differentiation and thus provide a price-incentive for compliance. For instance consumers are willing to pay extra price for organic products and the producer receives part of that higher price. Mandatory measures for food safety require firms to internalize the costs of compliance, thus overcoming a potential market failure. Most of the large retailer and processor standards and certification schemes do not provide price incentives. Rather, due to their power in the market, they require compliance, or the market is closed. Thus these private schemes become de facto mandatory schemes for certain types of products in certain markets. This is especially true in the case of fresh produce in Europe. In these cases the costs of complying must likewise be absorbed by the producer, with no promise of higher returns.

Challenges and opportunities in Latin America and the Caribbean

39. The importance of SPS measures in regional and international trade, and the rapid growth of private standard schemes offer opportunities and challenges in Latin America and the Caribbean. A number of these challenges and opportunities are discussed here.

New and strengthened public institutions

40. The evolving focus on food chains, traceability, and SPS measures and private standards necessitates a review of the public institutions that support FSAPH goals. Most governments face a challenge in the re-design of the institutions needed to consolidate a vigorous FSAPH sector. Traditionally, these areas have been split among several Ministries and vice-ministries, dividing responsibilities and authority. Old organizational structures often prove rigid and may create unnecessary barriers, preventing the effective and efficient integration. The new approach, that works on the production and management systems, as well as final products, requires a new integration of resources and coherent management of the system. Some countries are forging new institutional structures, such as Jamaica's creation of the National Agricultural Health and Food Safety Coordinating Committee and Chile's current review on creating a Ministry of Food and Agriculture.

41. The demands for producing to and certifying compliance against measures and standards often imply additional physical and human resources. Often technicians and professionals require new training and updating of skills. Many new skills are required, such as risk analysis.

Regional and sub-regional cooperation

42. In particular animal and plant health measures require regional and sub-regional cooperation. New introductions in the region and in sub-regions may in the end affect all. Developing countries and countries with small economies may have insufficient capacity to challenge the measures of their trade partners, and they many not have sufficient capacity to provide scientific justification to protect their own animal and plant resources. Diagnostic services may need to be shared and the establishment and maintenance of areas free of a particular plant pest or animal disease often concern more than one country.

Infrastructure and quality assurance

43. Demands of the SPS measures and private standards require quality assurance programs that include internationally-accredited systems and infrastructure. As of 1997 Codex recommends that laboratories responsible for control of food exports and import comply with ISO/IEC standard 17025:2005 "General Requirements for the Competence of Calibration and Testing Laboratories," and the requirement for laboratory accreditation with ISO/IEC 17011:2004 "General requirements for accreditation bodies accrediting conformity assessment bodies." Directive 93/99/EEC of the European Union states that food control laboratories are required to become formally accredited to an internationally recognized standard such as ISO Standard 17025, participate in proficiency programs and use validated methods by July 1999.

Collaboration with academic institutions and the private sector

44. Most governments do not have the resources to stay up-to-date in all of the necessary fields, including knowledge, infrastructure, managerial skills, and specialized equipment. In many countries universities and the private sector have the greatest concentration of resources in the area of FSAPH. The public sector is challenged to develop appropriate working relationships with these sectors to the benefit of overall increased safety and quality. Work with the private sector is vitally important, but requires careful work relations to avoid possible conflicts of interest or perception of such conflicts.

Incorporating consumers in FSAPH discussion and application

45. Consumers are the ultimate interested party in FSAPH systems, but often are not engaged early in the development of standards and codes of practice. Too often consumers and consumer groups react strongly to highly publicized problems. Governments need to learn to reach out and work closely with consumers groups to work on prevention and building consumer confidence in functioning FSAPH systems.

FSAPH measures and standards: trade barriers or opportunities for improvement?

46. Although there is a literature regarding sanitary and phytosanitary standards as trade barriers, Jaffee & Hensen (2004) warn against over-generalizing. They argue that "…the picture for developing countries as a whole is not necessarily problematic and certainly is less pessimistic than the mainstream 'standards-as-barriers' perspective. Indeed, rising standards serve to accentuate underlying supply chain strengths and weaknesses and thus impact differently on the competitive position of individual countries and distinct market participants. Some countries and/or industries are even using high quality and safety standards to successfully (re-)position themselves in competitive global markets. This emphasizes the importance of considering the impacts of food safety and agricultural health measures within the context of wider capacity constraints and underlying supply chain trends and drivers. The key question for developing countries is how to exploit their strengths and overcome their weaknesses such that they are gainers rather than losers in the emerging commercial and regulatory context."

47. Some developing countries have seen an opportunity to upgrade capacity and make necessary adjustments in the structure and operation of their supply chains, thus positioning themselves in increasingly competitive agro-export markets.

Challenge of multiple standards

48. The growing number of private standard systems, in addition to the SPS measures, present a number of challenges. One challenge presented by the multiple private standards and certifications is the possibility for inconsistency or conflicts among various sets of standards. This may lead to difficulty or impossibility of one production system meeting conflicting requirements.

49. Multiple systems mean multiple layers of work. The reporting systems required can become overwhelming for small producers and costly for medium and large producers.

50. Additional standards and certifications result in higher costs. While sometimes the costs are offset by a premium for certified products, increasingly the trend, especially among the supermarket-linked standards is that market access is the only incentive. The high fixed and operating costs of meeting new and multiple standards is especially troublesome to smaller-scale producers who can't spread the cost over large volumes of production.

51. Multiple standards often lead to confusion. Some farmers are not even aware of the implications of meeting, or not, a specific standard. Government officials will work hard to ensure the definition and adherence to SPS and TBT measures and the international standards on which these are based, while the markets may be requesting from farmers, packers, and exporters, compliance with different sets of standards. Efforts are being made to benchmark national standards to often private regional and international standards (e.g. ChileGAP and Mexico Calidad Suprema). Although such standards often comply with international SPS standards and national SPS measures, this is not necessarily the case.

52. Multiple private systems do not necessarily strengthen national FSAPH systems. Interviews with stakeholders involved in private sanitary and phytosanitary certification schemes in Guatemala report: "It was surprising that interviewees did not criticize this standard or outline advantages or disadvantages of the system. From their vantage point, EurepGAP is viewed as a requirement, and the sooner they implement it, the better off they will be. Some of them

expressed a desire to focus on obtaining the certification rather than knowing the details of how the system operated." (Flores, et al. 2005).

53. The issue of private standards being stricter than SPS has been raised in the Committee on Sanitary and Phytosanitary Measures of the World Trade Organization. St Vincent and the Grenadines, supported by Jamaica, Peru, Ecuador and Argentina, complained that EurepGAP's requirements are tougher than the public SPS measures and suggested that the SPS public measures should be used. One country stated that if the private sector was going to have unnecessarily restrictive standards affecting trade, and countries had no forum in which to advocate some rationalization of these standards, that twenty years of discussions in international fora would have been wasted.

54. Finally, there is the danger that the complexity or confusion of multiple private standards in addition to the SPS measures may lead to cynicism or a backlash against the carefully constructed public SPS measures.

FSAPH opportunities: improving national systems and harnessing FSAPH to reduce hunger and poverty

55. Perhaps the greatest challenge in the region is how to take advantage of the SPS measures and private standards, to work towards the improvement of national sanitary and phytosanitary systems for national and export opportunities, while achieving societal goals of hunger and poverty reduction. The increasingly stringent and complex sets of private standards are difficult and costly to implement, especially to resource-poor farmers with little formal education, to small-scale producers and small and medium agro processing and marketing firms. The increasingly stringent and complex sets of private standards are difficult and costly to implement, especially so to resource-poor farmers with little formal education, to small-scale producers and small and medium agro processing and marketing firms. Bringing resource-poor and small to medium farmers, processors, and marketers into the international playing arena will require specific strategies, policies, investment and programmes to ensure that FSAPH standards do not benefit but a small segment of society. The broader issue of helping trade work for the poor is explored in detail in the recent edition of FAO's The State of Food and Agriculture publication (FAO, 2005).

Technical cooperation by FAO in the LAC Region in FSAPH Related Activities

56. FAO has provided important technical cooperation to countries to support their efforts to improve the situation of FSAPH in LAC. A number of important projects, trainings and workshops have been held. The document "Capacity building for food quality and food safety: Selected activities of the Food and Agriculture Organization (FAO) and the World Health Organization (WHO)" is available at ftp://ftp.fao.org/codex/cac/cac28/if28_05e.pdf.

57. FAO developed Codex projects for Central America, the Andean countries, Argentina, Brazil, Paraguay and Uruguay. One of the key goals of these projects was to determine the current state of harmonization and equivalence of national standards to those of the Codex Alimentarius, and to promote harmonization. The countries have been motivated to review their policies and adopt Codex Alimentarius standards.

58. FAO is currently executing two regional projects on development of quality assurance systems for food analysis laboratories, one for South America and the other for Central America, Cuba, Dominican Republic and Mexico. The reports from these projects can be found at: www.rlc.fao.org/prior/comagric/codex/.

59. Animal health laboratories have been supported via the Regional Network of Veterinary Laboratories, established in 1983 to increase the technical, scientific, and operational level of veterinary research and diagnostic levels. Over 300 national institutions participate in the

network. Major activities include training, information sharing, and providing reference standards for laboratory standardization. FAO has carried out similar projects of cooperation with pesticide laboratories throughout LAC.

60. In the area of animal health, the FAO has carried out important technical cooperation in the region, including a regional project to Evaluate and Reinforce the System for the Prevention of BSE and the System of Quality Control (TCP/RLA/0177), and a pilot project on the Establishment of a National System for Identifying and Registering Beef Cattle in Chile (TCP/CHI/2801). This project was the basis for a now national program in Chile.

61. In the area of plant health, FAO has worked closely with many member countries to evaluate and then strengthen their national plant protection services (e.g. TCP/RLA/2912, Strengthening the Phytosanitary Capacity of Member Countries of OIRSA), as well as providing technical assistance to improving services for specific crops (e.g. TCP/TRI/2902, Establishment of a Mandatory Health Certification Scheme for Citrus in Trinidad and Tobago).

62. An important source of official information on FSAPH is the International Portal on Food Safety, Animal & Plant Health (IPFSAPH) (www.ipfsaph.org), which supports the implementation of the Sanitary and Phytosanitary (SPS) Agreement by providing a single access point for authorized official international and national information across the sectors of food safety, animal and plant health.

63. The IPFSAPH is developing a local portal for LAC. This portal, PRISA (http://prisa.fao.org), will provide an opportunity for officials and interested parties to post and share official and non-official documents of regional interest in Spanish, Portuguese, and English.

Recommendations for the attention of the Conference

64. The Conference, based on its examination and discussion of this paper, may wish to consider the following conclusions and recommendations for endorsement:

Technical and regional cooperation

65. Key to ensuring that countries in LAC are able to take full advantage of the new opportunities presented by increasing liberalization of agricultural trade, both regionally and internationally, and ensure that FSAPH issues will not be applied in an unjustified or discriminatory manner, is technical cooperation among member governments. It is vital that the technical assistance needs be identified in the region to respond to expressed priorities.

66. There is vital necessity for regional cooperation around FSAPH issues. Although often competitors for the same markets, the countries and private sector of the region should clearly see that there are a great many potential benefits through regional cooperation, especially when facing highly organized, integrated and large countries, regions, and markets. Some examples of activities that could be subject to further regional cooperation include the establishment and maintenance of pest-free areas, control of transboundary pests, quality assurance programs for regional laboratory and diagnostic services, and import risk analysis. Regional organizations, including the networks of laboratories, such as Interamerican Network of Food Analysis Laboratories (INFAL), the Regional Plant Protection Organizations, and other relevant regional entities and fora, including the FAO/WHO (Codex) Coordinating Committee for Latin America and the Caribbean (CCLAC) should play important roles in delivering the cooperation.

67. The members may consider the establishment of a regional Trade-Related Capacity Building (TRCB) Programme to assist countries in developing the needed national capacities at different levels.

FAO lead role, especially in the development of the international regulatory frameworks (Codex, IPPC, OIE) and their application in LAC

68. In particular through the Secretariat of the IPPC and the Secretariat (jointly with the WHO) of the Codex Alimentarius Commission, FAO has a special and defined global role in relation to FSAPH issues. To meet the regional dimensions of this role in LAC, FAO should evaluate the quality and quantity of its delivery of relevant services.

Modernization and strengthening of national systems

69. Institutional analysis, reform and modernization are needed in many countries. Key indicators of an efficient, functional national system should be developed and on-going monitoring of progress towards improvement must be carried out. Interesting initiatives throughout the region could be analyzed and shared.

70. Organizational structures will probably need modification. New work groups will be created, with new profiles and functions. The growing importance and role of FSAPH institutions must be matched by adequate resources. Governments will need considerable support and technical assistance to design the appropriate systems and finance them. In most cases, budgets must be increased, in some cases dramatically. Governments must determine the appropriate balance between cost recovery for these services and the national investment in ensuring safe and nutritious food production and consumption.

71. The use of higher standards and stricter codes of practice should serve as catalysts to raise the overall quality for domestic markets. Governments need to ensure that true national systems are built, not allowing parallel systems, one of high safety for export and a second of lower safety for domestic consumption..

72. FAO should facilitate a process of information exchange and sharing of lessons learned as institutions modernize and reform throughout the region. FAO should upon request provide advise on and support the development of institutional arrangements that best respond to the new FSAPH context.

Public-private dialogue

73. FSAPH issues are not only for the government, but directly entail and need the full support of the private sector. It is urgent that public-private sector initiatives be developed and fostered. Certain countries have positive experiences that they should share with other countries of the region.

74. FAO should play an active role by being an impartial broker in on-going discussions among the stakeholders of both public and private FSAPH systems and entities. Careful efforts should be made to ensure that all stakeholders can become engaged in order to design and promote programmes to ensure greater inclusion of rural players, in particular small-scale farmers and entrepreneurs, in the implementation of FSAPH measures and standards and take advantage of new and expanded market opportunities.

Literature cited

Beghin, J. and J. Bureau, 2001. Quantification of Sanitary, Phytosanitary, and Technical Barriers to Trade for Trade Policy Analysis, Center for Agricultural and Rural Development, Iowa State University, Working Paper 01-WP 291, December.

Buzby, J.C., 2001. Effects of food-safety perceptions on food demand and global trade. In A. Regmi (ed.) *Changing structure of global food consumption and trade*. Market and Trade Economics Division, Agriculture and Trade Report no. WRS-01-1, pp. 55-66. Washington DC: Economic Research Service, U.S. Department of Agriculture.

Calvin, L., L. Flores, and W. Foster, 2003. Food Safety in Food Security and Food Trade: Case Study: Guatemalan Raspberries and *Cyclospora*. Focus 10, Brief 7. International Food Policy Research Institute, Washington, D.C.

Crutchfield, S.R. and T. Roberts, 2000. Food Safety Efforts Accelerate in the 1990's. *FoodReview* 23(3), pp. 44-49

Diop, N. and S.M. Jaffee, 2005. Fruits and vegetables: global trade and competition in fresh and processed product markets. Pp. 237-257 in Global Agricultural Trade and Developing Countries, M.A. Aksoy and J.C. Beghin, Eds. The World Bank. 309 pp.

FAO, 2003. Environmental and Social Standards, Certification and Labelling for Cash Crops. FAO, Rome.

FAO, 2005. The State of Food and Agriculture: Agriculture Trade and Poverty: Can trade work for the poor? FAO, Rome.

Flores, L.G., D. Thiagarajan, L. Busch, 2005. The relationship of third-party certification (TPC) to sanitary/phytosanitary (SPS) measures and the international agri-food trade. Case study: Guatemala – with emphasis on food safety standards. Raise SPS Global Analytical Report #3, USAID.

Jaffee, SM and S Hensen, 2004. Standards and Agro-Food Exports from Developing Countries: Rebalancing the Debate. World Bank Policy Research Working Paper 3348, June 2004.

Jaffee, SM and S Hensen, 2005. Agro-food exports from developing countries: the challenges posed by standards. pp. 91-114 in Global Agricultural Trade and Developing Countries, M.A. Aksoy and J.C. Beghin, eds. The World Bank. 309 pp.

Maskus, K. and J. Wilson, eds., 2001. Quantifying the Impact of Technical Barriers: Can It Be Done?. University of Michigan, Ann Arbor.

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

Rich, K.M., 2004. Animal Diseases and the Cost of Compliance with International Standards and Export Markets: The Experience with Foot-and-Mouth Disease in the Southern Cone. The World Bank, Washington, DC.

Roberts, D., T. Josling and D. Orden, 1999. WTO Disciplines on Sanitary and Phytosanitary Barriers to Agricultural Trade: Progress, Prospects, and Implications for Developing Countries. Invited Paper, Conference on Agricultural and the New Trade Agenda from a Development Perspective, World Bank, Geneva, October.