

Practical actions to promote food safety

FAO/WHO
Regional Conference on Food Safety
for the Americas and the Caribbean

6–9 December 2005
San José, Costa Rica

FINAL REPORT

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FOREWORD

Ensuring safe food is essential for the protection of human health and for improving the quality of life in all countries. The importance of safe food, whether domestically produced and consumed, imported or exported, is well known by the countries of the Americas and the Caribbean. An estimated 57,000 deaths have occurred in Latin America and the Caribbean as a result of food- and waterborne diarrhoea in 2004, but even this estimated burden likely greatly underestimates the true magnitude of the food-borne disease problem in the region. Each food-borne disease outbreak results in a number of direct and indirect costs, in addition to the resultant human suffering. Furthermore, food safety is foundational to all other issues in the area of nutrition and food security, as well as international trade of foods. Food exports from the region are currently worth some US\$66 billion, or 12% of the world's total food trade, and this figure could increase rapidly over the coming decades if food safety and quality standards are improved.

Despite these well-known and important reasons, many challenges remain to improving food safety in the region. The countries of the region recognize the importance of developing practical actions for capacity building to overcome these challenges and to promote food safety in the region. Accordingly, following the guidance of the FAO/WHO governing bodies, in line with the suggestions made by the participants at the first and second Joint FAO/WHO Global Fora of Food Safety Regulators (GF1-Morocco, January 2002 and GF2- Thailand, October 2004) and the kind invitation of the Government of Costa Rica, FAO and WHO jointly convened the first Regional Conference on Food Safety for the Americas and the Caribbean in San José, Costa Rica from 6 to 9 December 2005.

The Conference brought together over 175 delegates from 32 member countries of the Americas and the Caribbean and observers from 14 international governmental and non-governmental organizations to discuss food safety issues in the region, under the general theme of "Practical Actions to Promote Food Safety".

The participants at the Conference recommended a series of practical actions to the member countries and to FAO and WHO to strengthen food safety systems in the region. It was generally recognized by the participants that although the convening of the Conference itself was successful, its true success can only be measured by the degree of implementation of the recommended actions of the Conference and the improved safety of foods produced and consumed in the region.

ACKNOWLEDGEMENTS

The Joint Secretariat of the FAO/WHO Regional Conference on Food Safety for the Americas and the Caribbean wishes to express its sincere thanks to all those who contributed towards the success of this Conference, in particular to the Costa Rican authorities for their willingness to host the Conference and their warm hospitality. The Joint Secretariat also expresses its thanks to the chair, vice-chairs, rapporteur, and working group chairs and rapporteurs for their dedicated hard work and the exceptional manner in which they conducted the Conference; all those who prepared and presented working papers for the Conference; those who prepared Conference Room Documents and those who made interventions during the Conference.

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**Report of the FAO/WHO Regional Conference on Food Safety
for the Americas and the Caribbean**
San José, Costa Rica, 6-9 December 2005

I. EXECUTIVE SUMMARY

A Regional Conference on Food Safety for the Americas and the Caribbean, jointly convened by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO), took place from 6 to 9 December 2005 in San José, Costa Rica, at the kind invitation of the Government of Costa Rica. Over 175 delegates from 32 member countries of the Americas and the Caribbean and observers from 14 international governmental and non-governmental organizations participated in the Conference, which was designed to: i) Facilitate discussion on food safety issues important to all countries of the Americas and the Caribbean and identify practical and sustainable actions to address these issues; ii) Identify opportunities for improving regional cooperation in promoting food safety to protect human health and increase food trade opportunities, taking into account the prevailing conditions in agriculture, post-harvest operations, food processing, food trade, public health and consumer protection; iii) Promote the strengthening and/or the establishment of regional networks for the exchange of food safety-related information and experiences among all stakeholders; iv) Encourage public/private partnerships for consumer and industry awareness raising and capacity building in food safety; v) Promote improved interaction between academia, research organizations and other food safety officials.

Countries have recognized the need for increased national attention and international, regional and national cooperation to strengthen food safety systems in the countries of the Region. The Conference highlighted the value of adopting a food-chain approach to ensuring food safety, within a *Biosecurity* framework, addressing food safety, animal and plant health in an integrated manner. The Conference further emphasized the need to adopt an integrated/coordinated institutional framework for food control systems. Within this context, the conference recommended a series of practical actions to strengthen food safety in the region.

The key actions recommended include the following:

- a) Conduct a regional follow-up study of national harmonization and adoption of Codex standards;
- b) Conduct pilot risk assessments/risk analyses in selected countries of the region, utilizing local intake levels and addressing products of interest to the region;
- c) Work to harmonize procedures and implement equivalence agreements between the countries of the region through the Codex process;
- d) Harmonize definitions used in the area of food safety;
- e) Identify a team to study factors that could contribute to a food-borne disease (FBD) outbreak and conduct a simulation exercise;
- f) Develop protocols to address specific FBDs occurring in the region;
- g) Work together amongst the countries of the region to provide technical assistance in the area of FBD surveillance; and
- h) Share work plans for modernizing national food control systems.

II. INTRODUCTION

1. The Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) jointly convened the FAO/WHO Regional Conference on Food Safety for the Americas and the Caribbean (the Conference) in an effort to facilitate discussion on practical actions and recommendations to promote food safety in the countries of the Americas and the Caribbean. The Conference was held in San José, Costa Rica, from 6 to 9 December 2005 at the kind invitation of the Government of Costa Rica. The Conference was attended by high-ranking policy officers and technical experts from 32 member countries of the Americas and the Caribbean region of FAO and WHO. It was also attended by 14 international organizations as observers. A list of all participants is included in Annex 1.

2. This Conference is part of a series of global and regional events that FAO and WHO are convening to meet the needs of member countries for policy guidance and capacity building in food safety. This series includes the First and Second FAO/WHO Global Fora (GF) of Food Safety Regulators (GF1 - Morocco, 28 to 30 January 2002 and GF2 - Thailand, 12 to 14 October 2004), and regional events in Europe (Hungary, February 2002), Asia and the Pacific (Malaysia, May 2004), the Near East (Jordan, March 2005) and Africa (Zimbabwe, October 2005). The Conference was convened in the light of the recommendations and feedback from these events and direction from FAO/WHO governing bodies.

3. The objectives of the Conference were to i) facilitate discussion on food safety issues important to all countries of the Americas and the Caribbean and identify practical and sustainable actions to address these issues; ii) identify opportunities for improving regional cooperation in promoting food safety to protect human health and increase food trade opportunities, taking into account the prevailing conditions in agriculture, post-harvest operations, food processing, food trade, public health and consumer protection; iii) promote the strengthening and/or the establishment of regional networks for the exchange of food safety-related information and experiences among all stakeholders; iv) encourage public/private partnerships for consumer and industry awareness raising and capacity building in food safety and v) promote improved interaction between academia, research organizations and other food safety officials.

4. The Provisional Agenda for the Conference is found in Annex 2 (AC 05/1).

III. OPENING CEREMONY (AGENDA ITEM 1)

5. The opening ceremony began with welcome remarks from the Deputy Minister of Foreign Trade of Costa Rica, the Honourable Doris Osterlof. In her remarks, she underlined the importance of ensuring safe food to increase the competitiveness of food exports from the countries of the region in the light of increasingly strict food import regulations. The speaker also noted the need for safe food to ensure the health of increasingly demanding domestic consumers. The text of her address is appended as Annex 3.

6. Mr Alan Bojanic, FAO Representative in Costa Rica, noted the important role of food safety in food security and health. He highlighted the multisectoral nature of food safety and the need for a production-to-consumption approach to food safety. The speaker expressed the desire that the conference would lead to collaborative work within and between the countries of the region to improve the safety of food.

7. Mr Carlos Samayoa, WHO Representative in Costa Rica, noted in his welcoming remarks that food safety is one of the priority areas of WHO and that many of the current food safety problems are a reflection of lack of integrated intersectoral systems.

8. In his welcoming remarks on behalf of FAO, Mr Kraissid Tontisirin, Director, Food and Nutrition Division, highlighted the importance of food safety as a bedrock for nutrition and food security, as well as for trading food internationally. He recalled that ensuring safe and nutritious food contributes to the member countries of the region achieving the Millennium Development Goals. He recounted the challenges for the countries of the region to improve the efficiency and effectiveness of their food control systems. The speaker informed the Conference of various actions taken by FAO, in partnership with WHO and other organizations, to assist member countries in their efforts to improve food safety and quality. He reiterated his organization's readiness to further expand its capacity building programme to work with the countries of the region in this field. The text of his speech is appended in Annex 4.

9. Mr Jørgen Schlundt, Director, Department of Food Safety, Zoonoses and Foodborne Diseases, WHO, welcomed the participants on behalf of WHO. He noted that WHO estimates that 57 000 people die every year from food- and waterborne diarrhoeal diseases in the region of the Americas, although the total burden of food-borne disease is very difficult to estimate. He stressed the importance of INFOSAN, the International Food Safety Authorities Network, which WHO and FAO launched one year ago to facilitate international collaboration to address this global burden. The speaker noted that, in May 2005, the World Health Assembly adopted the revised International Health Regulations (IHR) which provide a unique framework for the containment of public health emergencies of international concern, and will include INFOSAN. The text of his speech is appended in Annex 5.

10. The Minister of Agriculture and Livestock Production of Costa Rica, the Honourable Rodolfo Coto, welcomed the participants to the Conference and urged them to seize the opportunity to share their food safety knowledge and achievements. He stressed how important it was for public institutions to work with private companies in enhancing food safety. In this connection, he referred to Costa Rica's Inter-institutional Committee on Food Safety (CIIA) and its excellent work of coordination in this regard. The text of his speech is appended in Annex 6.

11. In her welcoming remarks, the Honourable María del Rocío Sáenz, Minister of Health of Costa Rica, provided data on food-borne diseases in Costa Rica and noted that national actions had achieved a reduction in diarrhoeal-related deaths from 135 in 1995 to 93 in 2004. She concluded her intervention by requesting the Conference to develop recommendations on how to strengthen national multisectoral food control systems, including improving the regulatory environment, surveillance of food-borne diseases and transfer of appropriate technologies. The text of her speech is appended in Annex 7.

12. The Minister of Economy, Industry and Commerce, the Honourable Gilberto Barrantes, officially opened the Conference by noting the high level of commitment of the government of Costa Rica for this Conference. He highlighted the essential need to strengthen national food control systems, as this benefits public health as well as improving the national economy. The speaker also emphasized that in order to improve the safety of food; cooperation is needed between government officials, consumers and private industry, including small and medium producers. The text of his address is appended as Annex 8.

IV. DESIGNATION OF CONFERENCE CHAIRS AND RAPPORTEUR (AGENDA ITEM 2)

13. The Conference designated Ms Isabel Araya of Costa Rica as Conference Chair, Ms Carolina Padró of Argentina and Mr Modesto Omar Robles Velásquez of Cuba as Conference Vice-Chairs and Mr Bertrand Gagnon of Canada as Conference Rapporteur. The Conference expressed its appreciation to these members for their agreement to serve in these roles.

V. ADOPTION OF THE AGENDA (AGENDA ITEM 3)

14. The Conference adopted the proposed agenda and agreed to the timetable as presented by the secretariat.

**VI. NATIONAL FOOD SAFETY SYSTEMS IN THE AMERICAS AND THE CARIBBEAN –
A SITUATION ANALYSIS (AGENDA ITEM 4)**

15. Mr Cecilio Morón, FAO, presented the contents of the first discussion paper on “National food safety systems in the Americas and the Caribbean - a situation analysis” (AC 05/2). The discussion papers and a list of the Conference Room Documents (CRDs) for the entire Conference can be found in Annexes 9 and 10. The speaker indicated that the paper had been based on information submitted from 15 countries of the region, as well as information from FAO, WHO, WTO and USDA. He highlighted the importance of food safety and the challenges and limitations to strengthening national food control systems. The presentation further outlined the situation regarding various aspects of national food control systems, such as food legislation, food inspection, laboratory support and food-borne disease surveillance. The speaker concluded by summarizing the main actions that are being taken by the governments of the region to strengthen their national food control systems.

16. The Conference expressed its appreciation to FAO for preparing the paper and agreed on the importance of strengthening national food control systems and the needs of the region in this regard.

17. The Conference noted the particular challenges for small and less developed businesses (SLDBs) to be able to fully implement the necessary food safety controls to meet national and international standards and participate in food safety activities at the national level. The approach taken in Canada to work through national industry associations in which SLDBs are members was cited as one example to overcome this challenge.

18. The importance of harmonizing national food control norms with Codex texts and utilizing other relevant tools such as the FAO/WHO model food law and FAO/WHO guidelines for national food control systems was noted. The Conference considered that the issue of mutual recognition and equivalence agreements was important to the countries of the region because, at present, some countries are having difficulty demonstrating equivalence in their national food safety control systems.

19. The need for collaborative initiatives and the avoidance of duplication of efforts at the national, regional and international level was re-enforced. The importance of the collaboration of all partners, including government, industry, consumers and academia, throughout the food chain was noted. The Conference encouraged FAO/WHO to continue their technical assistance programme to assist less developed countries to improve their national food control systems.

**VII. IMPROVING THE EFFECTIVENESS OF NATIONAL FOOD CONTROL SYSTEMS IN THE AMERICAS AND
THE CARIBBEAN (AGENDA ITEM 5)**

20. Mr Michael De Shield, Belize, presented a paper on “Improving the effectiveness of national food control systems in the Americas and the Caribbean - a case study of Belize” (AC 05/3). The presenter highlighted the following five strategy areas that Belize identified as important for sustaining effective food control systems:

- a) Development of a formal national food safety policy;
- b) Upgrading of food control systems;
- c) Improving laboratory infrastructure;
- d) Improving food safety education programmes; and

- e) Strengthening programmes for surveillance, investigation and control of food-borne diseases.

21. The speaker emphasized that the development of a national food safety policy was fundamental to the sustainability of an effective national food safety programme. The presenter summarized the following as some of the major challenges to improving food safety in the country: a) maintaining technical competencies in a climate of dwindling resources; b) inadequate food-borne disease surveillance programmes; and c) financing of public good services provided by the Belize Agriculture Health Authority (BAHA).

22. The Conference welcomed the document, thanked Belize for presenting the paper and highlighted the value of the experiences of Belize as a model for improving the effectiveness of national food control systems in other countries.

23. The Conference highlighted the need to ensure “institutional memory/continuity” in the light of potentially changing political environments. The importance of investing in the development of technical and professional skills of food safety officials was noted as an approach to alleviate this concern. The importance of support at the political level as well as from the food industry was emphasized, as this support can facilitate the development of clear national food safety objectives and policies to carry forward the necessary reforms.

24. It was noted that a number of “models” exist around the world in terms of institutional reforms that have been implemented to enhance effectiveness of national food control systems. The importance of selecting the appropriate models (or elements of models) that are relevant to each national situation and objectives was noted.

25. A number of additional considerations of particular relevance to enhancing the effectiveness of national food control systems were raised, including the need for the following: a) clarity of roles and responsibilities; b) adequate laboratory infrastructure and human resource capacity; c) food safety education and training; d) adequate infrastructure and resources for food-borne disease surveillance; and e) appropriate consultation and communication mechanisms.

VIII. INTERNATIONAL AND REGIONAL COOPERATION IN FOOD SAFETY (AGENDA ITEM 7)

26. Ms Maya Pineiro, FAO, and Mr Genaro García, WHO/PAHO, jointly presented a paper on international and regional cooperation in food safety (AC 05/5). Ms Pineiro mentioned some of the recent developments in the area of food safety, such as consumers’ growing demand for zero risk in the food they consume and increased risks due to global food trade. The speaker also outlined the role of international organizations in ensuring food safety and provided specific information on FAO and WHO’s roles in promoting food safety. FAO’s recently adopted strategy for safe and nutritious food, utilizing a food chain approach, was highlighted. Ms Pineiro also described an integrated approach and measures for countries to implement a broader vision for food safety, as well as some of the lessons that have been learned in the implementation of food safety technical cooperation projects, including the need for national ownership of projects and sustainability. Mr García outlined some specific joint actions of FAO and WHO, as well as with organizations such as IICA and OIRSA, in technical cooperation in food safety. The results of various evaluations to assess the food safety situation in the countries of the region, as well as the forthcoming FAO tool to assess food safety capacity building needs were also highlighted. The speaker listed some key factors necessary to increase international technical cooperation, such as acknowledging that everyone has a role in ensuring food safety. The need for improved cooperation in food borne disease surveillance and food contaminant monitoring was also emphasized.

27. The Conference agreed on the importance of international and regional technical cooperation in food safety and expressed its appreciation to FAO and WHO/PAHO for preparing the paper and providing the information.

28. The Conference urged both organizations to continue their efforts in providing technical assistance and to continue to strengthen their cooperation with each other and with other providers of technical assistance, including other countries. Several delegations noted that the outcome of this Conference should provide additional guidance and impetus to strengthen national food safety control systems.

29. The ongoing challenge related to the availability of resources in FAO and WHO/PAHO national offices throughout the region was noted, especially related to food safety technical cooperation and programming. In that regard, the need to cooperate in order to maximize use of resources and to avoid duplication of efforts was again emphasized. In addition, the need to prioritize national needs as well as to establish clear objectives and action plans to improve food safety was recognized.

30. The Conference considered the necessity of ensuring that international food safety standards are reflective of the situations in the various regions of the world. In that regard, several delegations expressed their concern regarding the insufficient availability of data from the region on food contamination levels and food consumption patterns and emphasized the importance of generating such data.

31. Delegations also expressed their concern that even though food safety is prioritized as a key area in FAO and WHO at the international level by their member states, allocation of resources for activities and strategies at global, regional and national levels by the organizations and the donor community may not be reflecting this prioritization. The Conference also noted the need for improved information flow of activities related to food safety between international, regional, and national levels.

32. Several additional food safety initiatives in the region recently or currently supported by various international, regional and national partners were noted. The Conference expressed its appreciation for these efforts, and encouraged these agencies to continue their efforts to address the particular needs of the region in food safety.

IX. ASSURING FOOD SAFETY AT THE PRODUCTION/ PROCESSING LEVEL (AGENDA ITEM 6)

33. Ms Jennifer Lee, Costa Rica, presented a document on “Assuring food safety at the production/processing level” (AC 05/4). The speaker noted that assuring food safety and quality can be challenging for the countries of the region, and must be dealt with through innovative approaches and public/private sector cooperation. The need to address issues of food safety and quality across all the links of the food chain, thus necessitating a multisectoral approach, was emphasized. The speaker outlined the importance of the application of appropriate safety and quality assurance systems, including GAPS, GMPs and HACCP, as well as key considerations for their application. A number of examples of the application of these systems in the countries of the region were cited. The importance and challenges in assuring food safety and quality in small and medium enterprises, as well as in street-vended foods was also addressed. A number of recommendations for countries to apply good practices to ensure food safety and quality were also listed.

34. The delegates thanked Costa Rica for preparing the paper and expressed their appreciation for the clarity, practicality and usefulness of the paper to the member countries of the region.

35. The Conference noted that the important elements/approaches that can best promote food safety and quality at the production/processing level include the following: a) the application of an integrated system with a “total food chain” approach; b) the recognition of the responsibilities of various stakeholders; and c) the promotion of GAPS, GMPs and HACCP-based systems.

36. The importance of appropriate and targeted training programmes in food safety and quality was emphasized, as well as the expertise available in this regard in academia. The Conference emphasized the importance of technical assistance in this regard and encouraged FAO, WHO and other relevant organizations to continue to provide this support. It was also noted that less developed countries should solicit assistance from developed countries to strengthen their ability to meet their obligations under the WTO SPS and TBT Agreements that may otherwise be difficult to attain.

37. The Conference underlined the challenges faced by small and medium enterprises (SMEs) in ensuring food safety and quality. In particular, participants emphasized the need for a management commitment to change for the successful implementation of GAP/GMP/HACCP programmes and noted that adequate education can assist countries in this regard.

38. The Conference highlighted the importance of harmonizing national requirements and measures to relevant international food safety standards (i.e. Codex), as this can contribute to reducing the situations where exporting countries need to comply with a multitude of different requirements.

39. The safety of street-vended foods was noted as an issue of great concern for the region, thus necessitating formal recognition of this activity in order to improve the technical assistance, sanitary surveillance and financial support of regional/national programmes to ensure food safety and quality. In this regard, FAO mentioned the existence of codes of practice on the safety of street-vended foods as well as a training manual that are available to assist any regional/national initiatives.

X. TECHNICAL ISSUES OF REGIONAL CONCERN (AGENDA ITEM 8)

40. Mr Paul Mayers, Canada, presented a document on “Capacity building in the regulation and safety assessment of foods derived from modern biotechnology - a Canadian perspective” (AC 05/6). The speaker provided a brief overview of modern biotechnology as it relates to application in food production and noted the regulatory environment of such products, with particular emphasis on the principles for risk analysis and guidelines for safety assessment adopted by the Codex Alimentarius Commission. He then went on to share Canada’s experience in providing technical assistance to build capacity in developing countries for the conduct of safety assessment of foods derived from modern biotechnology. The speaker noted that Canada had developed modular training tools aimed at providing experiential training in the conduct of safety assessment and had applied these tools in training workshops in over twenty countries. He indicated that Canada had recently been invited to partner with FAO and WHO to develop a standardized training package that would assist countries in the implementation of the internationally accepted principles for risk assessment of products derived from modern biotechnology.

41. The delegates thanked Canada for preparing the paper and for sharing its experience in capacity building in the area of the safety assessment of foods derived from modern biotechnology.

42. Many countries indicated that this subject is a priority concern for them, therefore underlining the need to develop/further enhance technical capacity in this area. The Conference recognized that the countries of the region may have different needs in this regard as they are at different stages of technical development.

43. The Conference recognized that a general knowledge of food safety risk assessment techniques is a good foundation for risk assessment of foods derived from modern biotechnology and noted the activities undertaken by FAO and WHO/PAHO in the region in that regard.

44. It was noted that training initiatives may benefit from the inclusion of both food safety and environmental assessments of such products and that this may prove particularly useful in small countries where the same resources/expertise may be responsible for both assessment functions.

45. The Conference agreed that opportunities for training should be explored from a regional perspective, using existing regional fora, such as FAO and WHO meetings, CCLAC and CARICOM, in order to maximize effectiveness. An evaluation of technical capacity at the national level, the identification of specific needs and the customization of training programmes on that basis was recommended as the best approach for such capacity building. Canada indicated its willingness to support such initiatives to the greatest extent possible.

46. Ms Nury Prat, Inter-American Network of Food Analytical Laboratories (INFAL, with FAO/PAHO joint secretariat), presented information on this organization (CRD 15). The speaker outlined the objectives of INFAL, its voluntary and official nature, as well as its structure. The main activities of INFAL were highlighted, including a “chat” system of electronic communication; internet-based distance-learning courses, inter-laboratory testing and cooperation provided by INPPAZ/PAHO. The FAO project providing technical assistance to the network was also noted.

47. The Conference thanked INFAL for presenting the paper and expressed appreciation for the assistance provided to the food analytical laboratories in the region through this network.

48. The Conference noted that the intention of the FAO project was to assist in the strengthening of the quality assurance of the laboratory results, not specifically to comply with the ISO 17025 standard, although meeting the ISO standard may be a result of good laboratory practices. It was emphasized that ISO 17025 is a private standard which laboratories can use as a basis for equivalence; however, although it is recommended by Codex, each country must decide if they choose to seek accreditation for meeting the standard.

49. Several delegations expressed interest in joining the network and others noted the value of more English-speaking countries joining the network so that the electronic chat sessions could also be held in English. The Conference noted that FAO and PAHO are working to facilitate the participation of more English-speaking countries in the network.

XI. THE CONSUMER: ACTIVE PARTICIPATION IN FOOD SAFETY COMMUNICATION (AGENDA ITEM 9)

50. Ms Marisa Caipo, speaking on behalf of Consumers International, presented a document on “Active consumer participation in food safety communication” (AC 05/7). The speaker highlighted the series of campaigns conducted by Consumers International in 2004/2005 in the countries of the region under the theme “wholesome food, safe food, responsible consumers”. She noted that these campaigns included training and information dissemination activities based on the WHO 5 keys for safer food and other material developed with PAHO and INPPAZ. It was emphasized that these campaigns have contributed to raising the awareness of food safety issues among consumers and have also resulted in the development of guidelines for national consumer organizations to assist these organizations to better participate in the work of the Codex. The participation of Consumers International in the FAO Codex projects was also highlighted. The speaker concluded with a series of recommendations stressing the need for governments to ensure the sustainability and continuity of national food safety policies and include consumer participation in all aspects of their development.

51. The delegates thanked Consumers International for preparing the paper and agreed on the importance of the active participation of consumers in ensuring food safety.

52. Member countries stressed the importance of consumer participation in food safety matters, while acknowledging the challenges for such active participation, including the lack of organization of consumer associations and the lack of resources. The Conference noted the inclusion of input from consumers in public policy development in several countries within the region and the efforts of other countries to include consumer associations in different mechanisms related to the development of food

control systems. The need for countries to increase the participation of consumer associations in National Codex Committees was also underlined. It was noted that consumer involvement throughout the process of food standard/regulatory development may result in improved acceptance of such norms by the general public.

53. The Conference emphasized the need to raise awareness among consumers and noted various examples of consumer education campaigns, the inclusion of food safety in the curriculum in primary schools and other means to communicate information in food safety matters.

XII. PROCEEDINGS OF THE WORKING GROUPS (AGENDA ITEM 10)

54. The Conference agreed to discuss the following items in two concurrent Working Groups: 1) The impact of multilateral trade agreements and trade measures on food safety, animal and plant health and; 2) Current food safety issues in the region and the need to strengthen and link food-borne disease surveillance and food contaminant monitoring systems to better address them. The two Working Groups were requested to discuss their respective themes and to propose concrete recommendations and practical actions to improve food safety in the region in these specific areas. The Conference designated Mr Gonzalo Ríos of Chile as Chairperson and Ms Pamela Whitehall of Barbados as Rapporteur of the first Working Group and Ms Sofia Heredia of Mexico as Chairperson and Mr Osbil Watson of Jamaica as Rapporteur of the second Working Group. The Conference expressed their appreciation to these delegates for their agreement to serve in these roles.

55. The first Working Group referred to the paper prepared by Chile in this regard (CRD 39). The Working Group structured its discussion under the headings of transparency, harmonization, equivalence, risk analysis, technical assistance, relations with other international fora or agencies and institutional frameworks. The following points were discussed:

Transparency

56. The Working Group expressed concerns regarding the ill-established SPS/TBT notification processes and poor communication between the countries of the region with regard to notification. Recommendations put forward by the Working Group to deal with these concerns included:

- Strengthening of SPS/TBT notification authorities;
- Improvement in the follow-up process to keep abreast of restrictions and other trade matters;
- Establishment of national and regional committees to facilitate the implementation of the SPS Agreement, which would work in conjunction with Codex National Committees and Contact Points;
- Encouragement of horizontal cooperation where more experienced countries can transfer knowledge to neighbouring countries; and
- Encouragement of political and institutional cooperation to generate a national policy of transparency in developing food safety measures.

Harmonization

57. The Working Group recognized the difficulty encountered by the countries of the region with regard to variations in product and process descriptions. The issue of how to best address the requirements of countries having more stringent standards than Codex was also noted. Recommendations concerning harmonization included:

- Establishment of working groups within the region to harmonize definitions, using Codex as a reference;

- Clarification of the rules of harmonization and when and how to apply national legislation vs. internationally agreed standards;
- Development of a procedure (within CCLAC) for following up on the regional harmonization and adoption of Codex standards;
- Comparison of Codex standards with stricter ones from importing countries for the purpose of identifying differences and determining whether they are justified;
- Coordination of measures generated by Codex, IPPC and OIE; and
- Strengthening participation of countries in specific bodies such as WTO and Codex.

Equivalence

58. In spite of the development of several guidelines and criteria to deal with the issues of equivalence, countries of the region have not implemented this principle. Equivalence must be recognized as not only being applicable to products, but also to systems, procedures and measures.

59. The Working Group noted the lack of sufficient regional capacity to adopt measures dealing with equivalence and also noted that the procedure is time and resource consuming. The Working Group proposed the following recommendations to deal with these issues:

- Establishment of objective parameters for determining equivalence. Work towards a better definition of an objective basis of comparison;
- Highlighting clear justification between the cost of initiating equivalence and the benefits derived from its implementation;
- Clarification of the principles that govern equivalence between countries;
- Equivalence procedures should be simple and not used as barriers to trade;
- Good baseline standards should be used as equivalence references; and
- Processes must be developed within a reasonable time period.

Risk analysis

60. The Working Group recognized the challenges faced by the region with regard to risk analysis, noting that the majority of risk analyses are performed outside the region. The point was also made that the issue of precaution could possibly be used as a technical barrier to trade, and it should be regarded as an exception, rather than a principle. Wider use of risk analysis in the region would reduce the application of precautionary approaches in food trade. The Working Group recommended:

- Conducting regional pilot case studies on risk analysis, using own data. This is important for equivalence and for formulating standards;
- Exchanging local data for risk assessments and use of existing international information and risk assessments when applicable;
- The cooperation of countries well-established in risk analysis should be sought; and
- Training programmes in risk analysis should be strengthened.

Technical assistance

61. The Working Group noted that technical assistance is required in a number of areas including that of *Biosecurity*, but priorities need to be established. Regional programmes should be developed with multisectoral participation.

Relations with other international fora or agencies

62. Better coordination between Codex, OIE, ISO and other international organizations should be sought so as to avoid duplication and overlap and to achieve synergies in standardization processes.

Institutional framework

63. The Working Group recommended the following in this regard:

- Improving the coordination of parties responsible for food safety, public health and trade;
- Generating national actions on *Biosecurity* that included food safety and animal and plant health.

64. The second Working Group agreed that all aspects of national food safety systems must be strengthened in order to provide a foundation for effective integrated food-borne disease (FBD) surveillance and food contaminant monitoring. It was recognized that although the FBD surveillance and food contaminant monitoring systems in the countries of the region are at different levels of development, some common areas of deficiencies exist.

65. In particular, the Working Group emphasized the importance of the surveillance of chronic illnesses and their possible relation with veterinary drug, pesticide residues and other toxic substances in food, in addition to the surveillance of acute illnesses. The group underlined the need for accurate food consumption data and food contaminant levels from the countries of the region in order to establish accurate maximum residue limits (MRLs) for the region.

66. The group also noted the lack of integrated systems of reporting of diseases and food contaminant monitoring data between agencies within most countries of the region. The need for food regulators to address the issues of traceability of food products, as well as obesity and other nutritional issues, was also mentioned.

67. The following points related to the need to modernize and strengthen national food control systems were highlighted by the group:

- These systems should be based on science and a risk analysis approach;
- Political will, including at the ministerial and decision-making level, must be ensured to effect such modernization;
- Laboratory infrastructure and human resource capacity, including information collection and exchange mechanisms, must be strengthened;
- Consumers, healthcare providers and other actors must be made aware of the need to report FBDs and how to prevent future FBDs;
- Countries should improve the methods of reporting FBD outbreaks, the study of contributing factors and identification of causative agents to prevent future outbreaks;
- A systematic, multisectoral approach including all stakeholders is needed to assess needs and then prioritize and implement the necessary actions;
- National results-oriented action plans, including coordinated concrete actions, indicators, responsibilities, outcomes, etc. for improving national food control systems, including strengthening FBD surveillance and food contaminant monitoring systems must be implemented;
- Countries of the region should work together to assist each other in this regard;
- Technical assistance should be sought from FAO/WHO and other relevant providers; and
- All efforts must build on past efforts/ongoing work in the region.

68. The Chairs and Rapporteurs of the Working Groups presented the outcome of their discussions in the subsequent re-convening of the plenary session. Suggestions of specific actions to be undertaken by

the countries of the region were made and are reflected in the reports of the Working Groups and in the following suggested actions.

XIII. ACTIONS SUGGESTED BY THE CONFERENCE

69. The Conference recognized the need for increased national attention and international, regional and national cooperation to strengthen food safety systems in the countries of the region. The Conference highlighted the value of adopting a food-chain approach to ensuring food safety, within a *biosecurity* framework, addressing food safety, animal and plant health in an integrated manner. The Conference further emphasized the need to adopt an integrated/coordinated and multisectoral institutional framework for food control systems.

70. In addition to the actions suggested during the debate of each discussion paper and as a result of the deliberations of the Working Groups, the Conference considered that the following actions could be undertaken by the countries of the region amongst themselves, or with the assistance of FAO and WHO if possible:

- Conduct a regional follow-up study of national harmonization and adoption of Codex standards;
- Conduct pilot risk assessments/risk analyses in selected countries of the region, utilizing local data and existing international risk assessments to address products/hazards of interest to the region;
- Work to harmonize procedures and implement equivalence agreements between the countries of the region through the Codex process;
- Harmonize definitions used in the area of food safety;
- Identify a team to study factors that could contribute to a FBD outbreak and conduct a simulation exercise;
- Develop protocols to address specific FBDs occurring in the region;
- Work together amongst the countries of the region to provide technical assistance in the area of FBD surveillance; and
- Share work plans for modernizing national food control systems.

Conference Side Events

71. Four side events to the Conference were held on issues of interest to the region. FAO and WHO convened parallel events immediately after the final plenary session on Tuesday, 6 December. FAO presented and distributed some of the guidance and technical materials it has recently developed to assist countries to improve various aspects of their food quality and safety systems. WHO held an interactive dialogue with participants to gain feedback on their current food safety concerns and present WHO products and projects available to countries of the region. Two events were also held in parallel on Thursday, 8 December, the report-writing day of the Conference. The FAO Animal Production Service held an event on the safety of feed and food of animal origin and the Food Safety Institute of the Americas held an event to present its programmes and gain feedback from participants. More information on all these side events is available from the Conference website (www.foodsafetyforum.org/americas). The reports of the two side events held on Thursday, 8 December, are appended as Annexes 11 and 12.

72. Two educational field trips were organized by the host country on the morning of Thursday, 8 December. The participants visited either a vegetable or a dairy production and processing facility.

XIV. ADOPTION OF THE REPORT

73. The Conference reviewed and adopted the draft report. The report will be a public document and will be posted on the Conference website and published through the usual channels. The report will also

be forwarded as an information document to the 29th Session of the Codex Alimentarius Commission (Geneva, 3-8 July 2006) and to other relevant fora.

XV. CLOSING OF THE CONFERENCE

74. Kraisid Tontisirin, Director of the FAO Food and Nutrition Division, on behalf of FAO and WHO, expressed their appreciation to the Government of Costa Rica for hosting the Conference and for their warm hospitality. He also thanked the organizing committee, participants and secretariat for their hard work that made the Conference a highly valuable event. He noted that the Conference was successful in both its process and its outcomes and reaffirmed the support of FAO to work with the countries of the region towards achieving safe and nutritious food through a multisectoral and integrated food chain approach.

75. The Conference was closed by the Minister of Economy, Industry and Commerce of Costa Rica, who reaffirmed the country's commitment to assuring food quality and safety. He re-iterated his thanks to FAO and WHO for giving Costa Rica the opportunity to host the Conference and to all the participants for their contributions.

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ANNEX 2
(AC 05/1)

**FAO/WHO Regional Conference on Food Safety
for the Americas and the Caribbean**
San José, Costa Rica, 6-9 December 2005

PROVISIONAL AGENDA

Agenda Item	Subject matter	Document Reference
1.	Opening of the conference	
2.	Election of officers	
3.	Adoption of the Provisional Agenda and Timetable	AC 05/1
4.	National food safety systems in the Americas and the Caribbean - a situation analysis	AC 05/2
5.	Improving the effectiveness of national food control systems in the Americas and the Caribbean	AC 05/3
6.	Assuring food safety at the production/processing level	AC 05/4
7.	International and regional cooperation in food safety	AC 05/5
8.	Technical issues of regional concern	AC 05/6
9.	The consumer: active participation in food safety communication	AC 05/7
10.	Working group discussions	
11.	Other matters	
12.	Adoption of the draft report	CRD Z

NOTES ON THE PROVISIONAL AGENDA

Item 1 - Opening of the conference: The FAO/WHO Regional Conference on Food Safety for the Americas and the Caribbean will be opened by a high-ranking official from the region.

Item 2 – Election of officers: Delegates will designate a Chairperson and a Vice-Chairperson to lead the plenary meeting of the conference.

Item 3 – Adoption of the Agenda and Provisional Timetable: In order to keep the conference focused, any proposals for additional topics must be relevant to the agenda and integrated and discussed with existing items.

Item 4 - National food safety systems in the Americas and the Caribbean - a situation analysis: The preparation of the paper will be led by the FAO/WHO regional and subregional food safety officers, including information and inputs from the countries of the region. It will address the economic, health, and social impacts of food safety systems of the region and other relevant issues.

Item 5 - Improving the effectiveness of national food control systems in the Americas and the Caribbean: This paper, prepared by the government of Belize, will analyze the strengths of the region and effective methods to utilize these strengths to overcome the challenges of improving food safety.

The paper will address strengthening of the various components of food control systems, the costs and benefits of modernizing food control systems, prioritization of resources, and other relevant issues.

Item 6 - Assuring food safety at the production/processing level: This paper will address the application of appropriate quality assurance schemes, controlling the safety of foods produced by small and medium-sized enterprises, the safety of street foods, and other relevant issues. The paper will be prepared by the government of Costa Rica.

Item 7 – International and regional cooperation in food safety: This paper, prepared by the FAO/WHO regional and subregional food safety officers, will address the challenges in sustainability of regional and subregional networks; the role of public/private partnerships; the need for collaboration, coordination, and communication between and among all partners involved in food safety; and other relevant issues.

Item 8 - Technical issues of regional concern: These papers will include issues such as the application of traceability measures, foods derived from modern biotechnology, and risk analysis and other relevant issues. The governments of Argentina and Canada will prepare papers in this regard.

Item 9 - The consumer: Active participation in food safety communication: The preparation of the paper will be led by a consumers group of the region and address the important role of consumers in food safety communication and other relevant issues.

Item 10 - Working group discussions: Participants will divide into two working groups to further discuss various aspects of an action plan to improve food safety in the region.

Item 11 – Other matters: Any other matters will be discussed at this time.

Item 12 – Adoption of draft report: The Chairperson of the conference will present the draft report of the discussions as drafted by the Secretariat. The draft report should fully reflect the different points of view and approaches expressed during the conference.

**FAO/WHO REGIONAL CONFERENCE
ON FOOD SAFETY FOR THE AMERICAS AND THE CARIBBEAN
6–9 December 2005**

Address by H.E. Doris Osterlof Obregón, Deputy Minister of Foreign Trade

The Importance of Food Safety for Costa Rica's Exports (Advantages and Disadvantages)

In contrast to earlier times when food safety was only beginning to emerge as a topic, it has now become a key item on a country's competitiveness agenda, at both national and international level. Its importance is confirmed by the existence of consumers who are increasingly demanding in terms of product quality and the growing concern of States to safeguard the health of their citizens.

The subject is no less important for foreign trade. In the face of an increasing volume and range of imported and exported goods on national and international markets, as a result of trade liberalization, the assurance that a food will not cause harm if prepared and consumed appropriately assumes crucial importance.

There are international barriers associated with the seal of food safety which logically presents a problem of non-tariff barrier to trade. However, from a different perspective, this aspect can also be viewed as an opportunity for exports. Hence the importance of having a national food safety system that can enhance the opportunities and minimize the barriers to trade.

World trade in fresh and processed foods is moving upwards. Increasingly stringent food safety measures are therefore being introduced each day, not only for products for export but also for those for the domestic market, for it is not a question of the international markets getting the better products at the expense of the local market. Under such a situation, agriculture and the food industry have to rapidly adapt to new technologies to be competitive and meet the requirements.

Costa Rica's food industry exports currently represent 10 percent¹ of the total value of its exported goods. It exports some 270 food-industry products² that need to meet the safety requirements of the client markets. These products include processed foods, sugar, fruit puree and pulp, palm oil, fruit juice and concentrate, processed and canned fish, palm hearts, alcohol, bakery products, sauces and assorted food products.

At the same time, its exports of fresh produce account for slightly more than 20 percent of the total value of its exports, including banana, coffee, pineapple, melon, cassava, malanga, chayote, plantain, yam, mango and other fruit. These products also have to comply with safety standards.

Agricultural produce and food-industry products for export represent approximately 30 percent of the total value of exports, which indicates the importance of these sectors and the need to maintain and improve their competitiveness by incorporating food safety assurance systems.

Costa Rica has undoubtedly made progress in improving its food safety system, but this still needs to be reinforced not only to protect people's health but also to be competitive on international and the national markets.

¹ Preliminary data in October 2005 provided by PROCOMER.

² Source: COMEX. Product refers to each 10-digit tariff line.

My examples of agricultural produce and food-industry products indicate that compliance with international food safety standards has opened up markets for Costa Rica's fresh and processed food products, which translates into increased earnings for an exporting country such as ours.

Consolidating and increasing this export capacity from a food safety perspective does however present challenges. Hence the need to bolster the technical capacity of national experts and to enhance the infrastructure in order to help producers to meet the country's obligation to supply products that present no risk to public health.

At the same time, we need to increase awareness of the importance of food quality and safety not only among consumers and producers, but also among policy-makers and those taking decisions.

This raising of awareness is important if a country's producers (for the domestic and export markets) are to seize the opportunities associated with food safety. But at the same time, they need to draw attention to instances where food safety concerns and nutritional fears are not based on scientific evidence so that we avoid creating unnecessary barriers to trade.

Clearly, access to food export markets depends not only on the elimination of trade barriers but also on the ability of exporting countries to meet the regulatory requirements of importing countries, especially at a time of heightened international concern to tighten plant and animal health mechanisms because of "mad cow" and other diseases, and more recently "avian flu".

These are all reasons why the efforts deployed by organizations such as FAO and WHO in activities such as that which brings us together today are of vital importance for raising our capacity to supply safe products that will help protect consumer health and for ensuring the transparency of trade practices, whether production be for the domestic or for the international market.

Thank you.

**FAO/WHO REGIONAL CONFERENCE
ON FOOD SAFETY FOR THE AMERICAS AND THE CARIBBEAN
6-9 December 2005
Address by Dr Kraissid Tontisirin, Director, Food and Nutrition Division
Food and Agriculture Organization of the United Nations**

Your Excellencies, the Honourable Rodolfo Coto, Minister of Agriculture and Livestock Production, the Honourable María del Roció Sáenz, Minister of Health, the Honourable Gilberto Barrantes, Minister of Economy, Industry and Commerce and the Honourable Doris Osterlof, Deputy Minister of Foreign Trade,

Distinguished Ambassadors and representatives of the Diplomatic Corps from various countries of the Americas and the Caribbean,

Dear colleagues from WHO and other UN agencies;

Distinguished delegates, ladies and gentlemen!

It is my pleasure to welcome you on behalf of the Food and Agriculture Organization of the United Nations to the FAO/WHO Regional Conference on Food Safety for the Americas and the Caribbean. This conference is part of a series of regional conferences that FAO and WHO are convening to provide a forum where food safety officials from the region can come together to share information and experiences on how the safety of foods may be improved. FAO is grateful to the Government of Costa Rica for hosting this conference and I thank the organizing committee for the efforts made to make this a successful event.

The importance of food safety

The issue that has brought us together here, food safety, is of critical importance to the Americas and the Caribbean. Let me just mention four reasons:

- **First, ensuring safe and healthy food is an important precondition of food security.** It is essential for improving human life in all countries, whether developed or developing. Rather than being a luxury of the rich, everyone should have the right to an adequate supply of safe, nutritious food.
- **Secondly, lack of food safety has a high cost.** Each outbreak of food-borne illness causes not only human suffering, but also direct and indirect costs. It is estimated that in developed countries, these costs amount to US\$100/person/year on average. They could be even greater in developing countries, and they include the loss of lives.
- **Thirdly, greater food safety is important for both exports and imports.** For example, Guatemala was able to increase its exports of fresh fruits and vegetables more than three-fold from the year 1990 to 2000, largely by improving their quality and safety control systems. Further, proper import inspection is needed to prevent contaminated foods from reaching consumers in importing American and Caribbean countries.
- **Finally, improving food safety has the added advantage that it helps reduce food losses or even avoid them.** New technologies and practical control measures are available to improve the safety of food, thereby extending its usable life.

Challenges to improving food safety

Despite increased availability of advanced tools and approaches, many challenges remain to improving food safety in the region. Let me mention some:

- 1) **Adherence to food safety standards has a cost.** Depending on the step in the food chain where the standard is set, these costs are borne by food producers, processors or retailers, but finally they are also reflected in the price paid by consumers. This calls for efficiency in meeting standards to prevent some suppliers from being pushed out of business.
 - Take the example of fruits and vegetables, an important export from several American and Caribbean countries. In fact, the value of exports of fresh fruits and vegetables from Latin America and the Caribbean has nearly doubled from 1990 to 2000. However, new regulations in some importing markets require fruit and vegetable imports to be traceable at all stages of production, processing and distribution, creating new challenges in many producing countries.
 - Fish and fish products are also an important product for the region, both for export and local consumption. For example, Nicaragua was able to more than double the value of its shrimp exports from 1994- 2000 by implementing a Hazard Analysis Critical Control Point system to improve the hygiene of shrimp processing. However, implementation of HACCP can be very costly, while great damage could be done to their shrimp export industry by only one food contamination incident.
 - Further, strict new mycotoxin regulations, including strict levels of Ochratoxin A in coffee, increases compliance costs for coffee producers, thus reducing profit margins.
- 2) **Can we afford zero risk standards?** I am aware that zero tolerance for food contaminants with a severe health impact is the general principle on which many national standards are established. Indeed, many people take the term 'safe food' to mean food with zero risk, but zero risk is often unattainable. Clearly, food must be safe for human consumption. Indeed, this is the ultimate rationale of standards and regulations adopted by Codex. However, where there is a margin for practical decisions in risk management, the benefits of aiming for absolute food safety should be balanced against the real extent of potential harm to consumers as well as the often high compliance costs.
- 3) **Recent food scares have underlined how food safety problems can cross borders.** Globalization, rising trade in food and agricultural products and increasing international travel have made it more difficult for countries to respond effectively to food crises without cooperation from their neighbours and trading partners. This makes it more important than ever to deepen food safety cooperation through the development of regional networks that provide a means to share relevant information and knowledge, and enhance readiness to plan and react to food emergencies.
- 4) **In many parts of the Americas and the Caribbean, consumer awareness about food safety remains limited.** Food safety could be considerably enhanced simply by raising public awareness and knowledge about food safety. Developing policies and programmes to inform, educate and communicate with consumers should therefore be an immediate priority.
- 5) **In spite of improvements to official food control systems in the region, several countries still have overly fragmented or outdated food control systems.** Strengthening the capacity of official food control agencies, the food industry and consumers, based on their respective roles and responsibilities, is of the utmost importance. This will require clear political commitment and support for food safety, as well as substantial investment, and demand-driven technical assistance.

Practical actions by FAO and partners to promote food safety

FAO is already working with other partners to implement practical actions to promote food safety in the region and throughout the world. This meeting is just one example of ongoing efforts

by FAO and WHO to improve food safety globally and here in the Americas and the Caribbean Region. Other actions include:

- 1) **Capacity and technical assistance.** For instance, building on past actions, FAO is currently supporting or has recently supported three regional and nine national projects, with several others under development. Two of these regional projects, one in South America and one in Central America, are strengthening the analytical activities, laboratory quality assurance and capacity building of the Interamerican Network of Food Analytical Laboratories (INFAL/RILAA). Other recent regional projects have provided Codex training for every country in the region.

FAO also recently completed two large global projects, both of which undertook extensive activities in some of the countries the region. These projects addressed the quality and safety of fresh fruits and vegetables, as well as improving coffee quality through the reduction of mold formation. Tools developed in both of these projects, as well as other useful tools developed by FAO, will be demonstrated by my FAO colleagues in this room at 17:30 today.

- 2) FAO is working with WHO, OIE and the World Bank in the **Standard and Trade Development Facility**, housed in WTO and aiming to mobilize and coordinate support for capacity building in the areas of food safety, plant and animal health.
- 3) FAO and WHO are also managing a **Trust Fund for Participation in Codex**. Many of you attended a workshop the past two days that was supported by this trust fund.
- 4) FAO, together with WHO, provide **expert scientific advice** on food safety risks to members of the Codex Alimentarius Commission.
- 5) FAO, with other agencies, has developed the **International Portal on Food Safety, Animal and Plant Health**, which offers national governments and trading partners' access to relevant official information. A regional portal for the Latin America and the Caribbean region is also under development, which will exclusively focus on food safety and animal and plant health concerns of the region. The prototype version of the system will be launched at the end of the first quarter 2006, and the site will be available in Spanish, Portuguese and English. The portal will also be demonstrated today at 17:30.

Conclusion

Many countries in the region have made great progress in improving their food safety systems and increasing the competitiveness of their food products on the international market. **These efforts need to be strengthened and expanded.**

The region has **great potential** for producing high quality food products for both domestic consumption and export around the world. However, countries must give higher priority for food safety, not only to enable the region to further improve its trading opportunities, but also to protect the health of their own consumers domestically.

Regional cooperation and information exchange at all levels can provide a means to advance this goal. FAO and WHO have jointly convened this Regional Conference on Food Safety for the Americas and the Caribbean for exactly these purposes.

We in FAO stand ready to assist your countries in the efforts to strengthen capacity to better regulate and ensure the safety of food for all your citizens.

**FAO/WHO REGIONAL CONFERENCE
ON FOOD SAFETY FOR THE AMERICAS AND THE CARIBBEAN
6-9 December 2005
Address by Dr Jørgen Schlundt, Director, Department of Food Safety,
Zoonoses and Foodborne Diseases, World Health Organization**

Honorable Ministers,
Director of FAO,
Distinguished Guests and Participants,
Fellow Colleagues from FAO and WHO,
Ladies and gentlemen,

I welcome you all on behalf of the Director-General of the World Health Organization, Dr Lee Jong-wook, to the First Regional Conference on Food Safety for the Americas and the Caribbean organized jointly by the Food and Agriculture Organization of the United Nations and the World Health Organization.

I would like to take the opportunity to first of all thank Your Excellency, and the Government of Costa Rica for having accepted to host the First Conference on Food Safety for the Americas and the Caribbean. (Mr President) we are most grateful for the efforts of your Government to ensure that this conference will be a success.

Excellencies
Ladies and Gentlemen,

Food, as a source of energy and nutrition, contributes to our general well-being. Nevertheless, food is also a vehicle for the transmission of a variety of diseases. The burden of all food-borne diseases is difficult to estimate but it is a significant one. WHO estimates that 1.8 million people die every year from diarrhoeal diseases caused by the consumption of contaminated food and water. This burden does not even include chemical hazards in food, and we know there are many. In this region of the Americas we estimate that 57 000 people die every year of food- and waterborne diarrhoeal diseases. Again we know that even more die from other hazards in food. Every week new outbreaks of food-borne disease are reported in the media. However, as important as such outbreaks might seem we should remind ourselves that these outbreaks only show us the tip of the iceberg and many more cases go unrecorded - we don't know the full extend of the problem, but we know that we can prevent it. We literally know that we can prevent the deaths of tens of thousands of people in the Americas by producing and preparing good food. And if we do so, we can also earn good money from food exports and tourism. Lets not kid ourselves: Food safety is Win-Win for everyone!! Most people just don't know - Let's use this Conference to let them know!!

In the world of today, there is a paradigm shift, meaning that food is no longer an agricultural/trade commodity only, but also a public health issue.

All the way back in 1992 the FAO/WHO International Conference on Nutrition recognized that '*access to nutritionally adequate and safe food is a right of each individual*'.

We need to help each other to ensure safe food to each individual. The food production system is no longer national. We get food from all over the world. We have to collaborate not only about the buying and selling of food but also about preventing disease. Understanding that food safety authorities can help across borders, WHO and FAO have recently launched INFOSAN, the International Food

Safety Authorities Network. During its first year, more than 140 Member States have joined the network. This interest from Member States shows that the Network is filling a need as a mechanism to share knowledge between authorities. Part of INFOSAN is the INFOSAN Emergency system which will enable timely preventive action if an international emergency situation should occur involving food. And when we talk about food safety emergencies we of course also have to include terrorist attacks as an unwanted but real possibility.

Last May the World Health Assembly, the highest governing body of the WHO, adopted the revised International Health Regulations. The International Health Regulations, or IHR, are binding rules for all Member States, originally covering the need for informing everyone about Yellow Fever, Cholera and Plague. Recognizing that global health includes many more diseases in present day society the Member States of WHO set out to revise the IHR and include all incidents of international importance. The revised IHR provides a unique framework for the containment of public health problems including the international spread of diseases while interfering minimally with world traffic and trade. The importance of the new IHR for your work as food safety regulators should not be underestimated, and I would like to remind you that these regulations will come into force in June 2007, (some countries have even suggested that they should come into force a bit earlier because of avian influenza). The INFOSAN system, which will be an integrated part of the new IHR, will be put to good use should international public health incidents involve food as a vehicle.

Making food safe will not only protect the health of the consumer but will also produce a healthy work force and increase food exports. It will thus contribute significantly to the achievement of the Millennium Development Goals, including activities aimed at poverty alleviation as well as reducing child mortality and improving food safety and sustainable food trade.

Excellencies,
Participants and Guests,

To conclude, I wish to reiterate that at WHO, and together with you at this meeting, we remain convinced that with increased dialogue among all actors we can improve the safety of the food of this world, no matter where it is produced. And by doing so we can significantly reduce the burden of disease

I wish you a fruitful meeting.

Thank you very much.

**FAO/WHO REGIONAL CONFERENCE ON FOOD SAFETY FOR THE
AMERICAS AND THE CARIBBEAN**

6–9 December 2005

Address by H.E. Rodolfo Coto, Minister of Agriculture and Livestock Production

Mrs Maria del Rocio Saenz, Minister of Health,
Mr Gilberto Barrantes, Minister of Economy, Industry and Commerce,
Mr Kraisid Tontisirin, Director of the FAO Food and Nutrition Division, Rome,
Mr Alan Bojanic, FAO Representative in Costa Rica,
Mr Jorgen Schlundt, Director of the Department of Food Safety of the World Health Organization, Washington D.C.
Mr Carlos Samayoa, PAHO/WHO Representative in Costa Rica,
Ladies and Gentlemen, members of the Diplomatic Corps accredited in our country,
Ladies and Gentlemen, members of the media,
Ladies and Gentlemen,

WELCOME TO OUR COUNTRY

- **It is a great pleasure to have you here with us.** We appreciate your presence at this ceremony and the subsequent work of the members of the delegations of countries here at this meeting to share, in an arduous period of work lasting almost one week, their knowledge and experience of food safety and quality, their achievements and the difficulties they are overcoming to obtain optimal levels of production and management of food products so that they can compete successfully on the demanding markets of countries more developed than many of ours, while at the same time offering our domestic consumers wholesome food that will help to improve their quality of life.
- **The production and trade of food products** have changed considerably in the last decade. Many mechanisms and processes have been designed and introduced to improve the efficiency of systems to control the quality and safety of products from production point to consumer.

Although the cost has been high for many of our producers, the public institutions are gradually teaming up with the private sector to implement the mechanisms that have been established to achieve the safety objectives and goals of our countries. These partnerships have been very effective in raising productivity in all links of the agroindustrial chain, in both the large and in the small and medium enterprises, and in enhancing their competitiveness and ability to remain on the local market.

- **All the agriculture and livestock institutions** of our country have moved resolutely forward towards obtaining and guaranteeing quality and safety standards, incorporating the new operating standards specified in the body of law regulating their activity, and towards strengthening the control of animal and plant health, the registration of agrochemicals, the training of agribusinesses in managing the quality and safety of their products, the training of professionals and technicians, the preparation and implementation of quality manuals, and the establishment of measures to counter bioterrorism. There is still a lot to be done but the important thing is that something is being done.
- **We must of course emphasize the support that has been given** to building a national food safety system in concrete response to one of the most important commitments contracted at the Thirteenth Inter-American Meeting, at the Ministerial Level, on Health and Agriculture – RIMSA 13 – held in 2003.

This forum, which served as a platform for the health and agriculture sectors to address the

This forum, which served as a platform for the health and agriculture sectors to address the subject of food safety and quality, provided an opportunity to declare our support to the creation and development of such systems, which is on the point of being achieved in Costa Rica through the issue of a Presidential Decree.

- **We wish to herald the Intersectoral Food Safety Commission (CIIA)**, made up of representatives of 24 public and private institutions associated with the thematic issues before this Conference, on account of its commitment in drafting the legislation that will streamline, accelerate and facilitate the coordination of intersectoral actions to ensure the safety and quality of agrifood production. We need to continue to be able to rely on the support of international organizations and governments in carrying out further modernization actions, in consolidating what has been done and in moving forward in areas that form part of our current and future plans of action.

Ladies and Gentlemen, it is an honour for Costa Rica to host your reflections on the subject of this meeting. Let me once again warmly welcome you to our country during the particularly delightful Christmas season.

Thank you.

**FAO/WHO REGIONAL CONFERENCE
ON FOOD SAFETY FOR THE AMERICAS AND THE CARIBBEAN
6-9 December 2005
Address by H.E. Maria del Rocio Saenz Madrigal, Minister of Health**

It is a pleasure to attend this inaugural ceremony of the FAO/WHO Regional Conference on Food Safety for the Americas and the Caribbean, organized in response to requests for advice on policies and actions to strengthen capacity building in areas relating to food safety in the countries of the region.

Food safety is fundamental in ensuring each individual's right to safe and wholesome food, as enshrined in the United Nations Declaration on Human Rights endorsed at the International Conference on Nutrition in Rome, 1992.

Similarly, food safety is one more initiative towards the achievement of the Millennium Development Goals, particularly those of reducing hunger and poverty, lowering child sickness and mortality, and strengthening education and sustainable development.

The World Health Organization estimates that there are some 1.2 billion episodes of diarrhoea in the world each year and attributes 2.2 million deaths to contaminated food, of which 1.8 million are of children under the age of five.

In the Americas, acute diarrhoea of bacterial or viral origin continues to be one of the main causes of sickness among all age groups and of mortality among children under the age of five, with a greater incidence among the poor, the vulnerable and the malnourished.

According to data from PAHO's INPPAZ, deaths from contaminated food in Latin America and the Caribbean can be ascribed, in descending order of causative agent, to chemicals, marine toxins, viruses and bacteria. There has been a reported increase in exposure of vulnerable groups, which include the elderly, the immunocompromised, pregnant women, children and infants, and those suffering from malnutrition.

The economic consequences of food-borne diseases and food contamination can be summarized as follows: higher medical expenditure, lower productivity of country and individuals, greater food losses, reduction in international and national food trade and a decline in tourism, the latter being of particular relevance to Costa Rica.

Food safety: a challenge for public health

Costa Rica has registered a significant fall in diarrhoea-related deaths: from 131 reported cases in 1995 to 93 in 2004, a reduction in level from 3.9% to 2.19%.

Sample investigations of 17 deaths from diarrhoea in 2001 revealed that 71% were due to shigella flexneri, ascaris lumbricoides, salmonella typhimurium, enterogenic escherichia coli, aeromonas hydrophila, rotavirus or microsporidium, while studies of 16 outbreaks in 2003 revealed that 25% were from food contamination, 18.75% from water and 56.25% indeterminate. The agents were shigella 37.5%, salmonella 18.75%, rotavirus 6.25%, escherichia coli 6.25% and entero-pathogens.

Need to regulate and control emerging and reemerging food-borne diseases

The large number of emerging and reemerging diseases is causing increasing concern, especially when these are adopted as biological weapons as in the case of botulism, as is the need to prevent many of them, as in the case of new variant spongiform encephalopathy (mad cow disease) which has caused so much economic damage in the countries of Europe. It is therefore important to improve our understanding of the effects and consequences on public health of food-borne diseases such as meningitis, septicemia, miscarriage, malnutrition and death.

National food safety policies

Costa Rica's food safety policy is enacted by various sectors, including Economy, Agriculture and Health. Its National Health Policy 2002-2006 establishes integrated intersectoral and inter-institutional processes that are geared towards ensuring the availability, equity, access and consumption of safe and nutritious foods in order to prevent diseases related to food. Its National Food and Nutrition Policy 2003-2006, which is directed by the Secretariat of National Food and Nutrition Policy (SEPAN), establishes strategies to promote the consumption of safe and nutritious food and to develop an intersectoral science-based system of food safety and quality control.

I should like, if I may, to put forward a number of recommendations for the consideration of this important FAO/WHO Regional Conference on Food Safety for the Americas and the Caribbean: 1) to create an international food safety system with components relating to regulation, surveillance, research and technology transfer; 2) to initiate international cooperation for the establishment of laboratory and training networks; 3) to determine, at international level, the reference laboratories specialized in emerging and reemerging diseases, employing principles of equity, transparency and scientific rigour; 4) to create an international legal advisory system for the modernization and strengthening of rules and regulations, with an expansion of Codex; and 5) to establish technical cooperation in the development of food safety policies.

I should also like to share with you Costa Rica's experience in having an Inter-Institutional Food Safety Commission (CIIA) and its SEPAN, which are responsible for implementing national food safety policy and which participating countries might find of considerable interest.

I am sure that the outcome of this meeting will help significantly to pool our efforts and to continue improving the national food safety systems of each participating country.

I cannot finish without first extending a heartfelt welcome to the representatives of the 35 countries with us today, to the experts of FAO and WHO and other international organizations, and to the national participants who honour us with their presence.

I wish you every success in this commendable effort to improve the quality of life of the peoples of our region.

Thank you.

**FAO/WHO REGIONAL CONFERENCE ON FOOD SAFETY FOR THE
AMERICAS AND THE CARIBBEAN**

6-9 December 2005

Address by H.E. Gilberto Barrantes, Minister of Economy, Industry and Commerce

Good morning,

Mrs Maria del Rocio Saenz, Minister of Health,
Mr Rodolfo Coto, Minister of Agriculture and Livestock,
Mrs Doris Osterlof, Minister of Foreign Trade,
Mr Kraisid Tontisirin, Director of the FAO Food and Nutrition Division based in Rome,
Mr Jorgen Schlundt, Director, World Health Organization,
Mr Alan Bojanic, FAO Representative in Costa Rica,
Mr Carlos Samayoa, Representative of the Pan-American Health Organization, WHO Regional Office in Costa Rica,
Ladies and Gentlemen, members of delegations of the countries present today,
Ladies and Gentlemen, representatives of non-governmental, regional and intergovernmental organizations,
Ladies and Gentlemen, observers from international food trade, food industry and consumer groups,
Special Guests,
Ladies and Gentlemen,

I should like first to welcome to our country the participants and speakers here today from Latin America and the Caribbean and from other parts of the world. I hope that your stay in Costa Rica will be very pleasant and productive.

I should also like to take this opportunity to thank the Food and Agriculture Organization of the United Nations and the World Health Organization for having chosen our country to hold this event.

I know this was a difficult decision for FAO and WHO as fellow countries with excellent organizational skills also offered to host the Conference, so our responsibility in hosting this event in the best possible manner is a national commitment.

And as part of this commitment and to ensure that all participants can take part in the Conference under the best possible conditions, his Excellency the President of the Republic signed an Executive Decree last September declaring this Regional Conference to be in the Public Interest.

For Costa Rica, it is highly gratifying to be hosting this important event which brings together food safety officials and experts from all over the world to discuss the implementation of measures to promote food safety in each of our countries.

The global economy has undergone an accelerated process of liberalization of trade in recent years, with the virtual elimination of barriers to the introduction of new products on individual markets.

The growing liberalization of trade in food and agricultural products benefits consumers and producers alike because of the greater variety of wholesome foods and products made available and the opportunity to earn higher earnings from trade with other markets.

However, this increasing flow of trade also heightens the possibility of food-borne diseases spreading more easily and indeed more rapidly between countries, which present risks to consumer health and economic hazards for food producers, should they have to withdraw a product from the market for reasons of safety.

The establishment of national food safety systems has therefore become a very topical and pressing issue, as countries - especially the developed countries - have sought to implement increasingly strict sanitary control measures, converting their traditional food control structures into a strong, integrated and intersectoral systems of sanitary control.

For their part, the developing countries are striving to establish stricter systems of control and, given their resource limitations, are concentrating on establishing systems of equivalence which serve to guarantee the same levels of protection, in terms of food safety, but at lower cost.

Preventing and addressing food-borne disease is not an issue exclusive to public health; it also affects production systems, national and international trade and the competitiveness of our countries, and so has a direct impact on the growth of our economies and the general welfare of our populations.

Current food safety, quality and market competitiveness requirements constitute a challenge that requires renewed criteria, creativity and a willingness to work in partnership, both in the public arena and in the private sector.

The safety of food and agricultural products is a fundamental requisite to be able to compete successfully on the global market. Our food safety systems need to be robust and reliable if we are to cater to markets that have explicit food safety requirements and if we are to place our products on the most demanding of markets and remain on those markets.

If we are to improve these conditions and generate economic growth, our countries need to focus on strengthening the small and medium food enterprises, with integrated programmes of financing, business planning and management, training and technical assistance so that, modernized, they can easily incorporate good agricultural, manufacturing and food handling practices and other recommendations issued by the international organizations.

This is a task that requires the joint action of government, the private sector, academia and consumers.

At the same time, the State should not only issue food regulations that incorporate the concepts of quality and safety but should also promote the institutional coordination of the public bodies involved, including the Ministries of Health, Agriculture, Economy and Trade, so that they are actively involved in drafting the regulations and, even more importantly, work together in ensuring their strict enforcement, so that consumers are guaranteed food that is safe.

For their part, consumers also have a lead role to play; they need to be increasingly demanding in their consumer decisions, seeking more information on the products they purchase and thereby giving added relevance to aspects such as nature, origin, production systems and processes, traditional practices and the specific characteristics of each product placed on the market.

That only leaves me to wish you a very successful Conference. I hope that you will put the lessons learnt, recommendations and agreements to the best possible use in your everyday activities for the strengthening and growth of our economies.

Finally, I should like to commend the commitment and collaboration of the officials and staff of the Ministries of Health, Agriculture and Livestock, and Foreign Trade, the country representations of

FAO and PAHO and their international organizations, the national private sector and of course the participation of all of you, the people who know all about this subject and who, in the final analysis, will determine the success of this Conference.

On behalf of the Government of Costa Rica, I hereby declare open the FAO/WHO Regional Conference on Food Safety for the Americas and the Caribbean and welcome you to Costa Rica.

Thank you.

Agenda Item 4

ANNEX 9
(AC 05/2)

**FAO/WHO Regional Conference on Food Safety
for the Americas and the Caribbean**
San José, Costa Rica, 6-9 December 2005

**NATIONAL FOOD SAFETY SYSTEMS IN THE AMERICAS
AND THE CARIBBEAN – A SITUATION ANALYSIS**
*(Prepared by the FAO Regional Office for Latin America and the Caribbean
and the FAO Subregional Office for the Caribbean)*

Introduction

1. The increasing globalization of markets, the growth of the agrifood industry, advances in science and technology and changes in consumer habits require that countries have national food safety systems that are capable of dealing with the challenges demanded by consumers and trade.
2. The availability of safe and wholesome food is the result of an integrated approach in which all players in the chain have specific responsibilities and implies the assurance of safety in all stages of production, processing, storage and distribution. Such a situation calls for the active participation of a variety of sectors, so national food safety systems should focus on establishing mechanisms of collaboration and interaction involving government, industry, academia, traders and consumers.
3. Governments' food safety policies, which need to be consistent with their aims of protecting the public and complying with international treaties, therefore have an enormous influence on the state of public health and the socio-economic situation. Hence the importance of equipping national food safety systems with updated science-based (risk analysis) legislation, that is in line with recognized standards to facilitate the honouring of commitments and international trade agreements, and that is comprehensive in perspective to cover all the links of the food chain as a single continuum ("from farm to fork").
4. Food contamination has major repercussions on public health, the national economy and trade in those products. Food-borne diseases (FBDs) constitute a widespread and growing problem of public health in the world, affecting children, pregnant women and the elderly in particular. Information from the Regional Information System for Epidemiological Surveillance of Food-Borne Diseases (SIRVETA) coordinated by the Pan-American Institute for Food Protection and Zoonoses (INPPAZ) of the World Health Organization (PAHO/WHO), although under-recorded, still reveals a total of 6 930 outbreaks of FBDs in the Americas between 1993 and 2002, with 17.8% from fish, 16.1% from water, 11.7% from red meat and 2.6% from fruits and vegetables.
5. One key feature of the Latin America and Caribbean region is that it is a major food exporter. Detailed statistics from the World Trade Organization indicate that 17.5% of the region's exports in 2003 were food products, with a value of US\$66 200 million and equivalent to 12.2% of global food exports. However, food contamination can seriously affect international trade, leading purchaser countries to reject shipments which can have serious repercussions on the economies of the producer countries. Data from the US Food and Drug Administration (FDA) report 3 645 rejections of food consignments from the region between September 2004 and September 2005, with 77% of these rejections due to food safety problems.
6. The national food safety systems of all the countries are made up of institutions of different ministries or secretariats that operate with varying problems of intra- and interinstitutional coordination

and competence, which is a reflection of the legal instruments that underpin their actions. This situation generates both duplication and absence of control and is perhaps one of the greatest challenges facing current systems. Countries have already initiated action to optimize the integration and coordination in their control systems or to create a single national governing authority, while at the same time updating and harmonizing their legislation, basing inspection and control decisions on risk analysis, and integrating all stakeholders. Existing limitations in legislation and systems of control are preventing the desired food chain approach from being applied.

7. Canada has a national food safety system that has a high degree of coordination among official institutions, a single control agency and active integration of industry and consumers.

Food legislation

8. Food legislation exists in the form of food codes, health codes, regulations with force of law and distinct laws enforced by different secretariats or ministries, mainly those for agriculture, health, the economy and tourism. These in turn issue decrees, resolutions or agreements in their respective fields of competence. Other provincial or regional institutions and local governments also collaborate with the national institutions.

9. The general problem is not a lack of laws or regulations, but rather their enforcement as they are outdated and not science-based and overlap when there is more than one implementing agency. A PAHO/WHO evaluation of food safety systems in the Americas carried out in 2003 concluded that 29 of 33 countries had food legislation that was only 45% to 59% implemented, which reflected the weakness of their juridical systems in the area of food control.

10. An important aspect affecting the adjustment of food safety systems to changing circumstances is that regulatory modifications imply changes in law or regulations with force of law. The FAO/WHO Model Food Law appears highly recommendable in this regard as it allows for distinct amendment and updating through documents or regulations that can be rapidly issued.

11. Countries have public or non-profit private regulatory institutions affiliated to the ministries of economy or trade that tasked with drafting technical standards that go beyond food standards. Standards are generally agreed by consensus, are voluntary or mandatory (technical regulations) and can be complementary to obligatory regulations or become obligatory when such regulations do not exist.

12. Codex standards, guidelines and recommendations have assumed increasing importance, largely because of the WTO Agreements on Sanitary and Phytosanitary Measures (SPS) and Technical Barriers to Trade (TBT). The countries of the region are clearly in the process of reviewing their regulations and bringing them into line with Codex standards and are being helped in this by the National Codex Committees which include representatives of the government, academic, producer and consumer sectors.

13. At subregional level, some countries belong to economic blocs such as MERCOSUR or the Central America Customs Union which have agreed and harmonized a series of technical regulations and standards based mainly on Codex criteria.

Food control and inspection

14. Responsibility for the control and inspection of food is shared by the ministries of health and agriculture whose institutions determine regulations and programmes. Other agencies and entities are also actively involved, such as local governments.

15. With regard to processed foods for the domestic market, all the countries carry out inspection visits to establishments producing, processing, packing, packaging, storing, transporting, distributing

and selling food products. These visits serve to verify adherence to national health standards and are sometimes based on risk analysis. There are also annual programmes of analytical sampling. Most countries require a health register for each production plant and line of product, while others only require a health register for the plant.

16. Import and export inspection and certification systems vary but all include inspection at ports, airports and border crossings with the active involvement of the customs services. There are sometimes operational problems because of inadequate technical capacity and infrastructure.

17. The issue of safety permits is an important mechanism used by countries for the import or export of processed foods. Each imported shipment of processed food or food additives needs to have a certificate of quality assurance issued by the officially recognized authority of the country of origin. Other countries do not require safety permits and accept imported foods on the strength of the food safety certificate issued by the competent authority of the country of origin allowing the product to be freely marketed in the home country. Checks are made in both cases to ensure compliance with national regulations.

18. Inspections of imported products are generally random, depending on the product, its origin and the history of compliance. Some countries allow unrestricted importation, with importers free to enter merchandise into the national territory and dispose of it as they please.

19. In Central America, the Customs Union is intended as a single customs territory with the free movement of goods and services, regardless of origin, especially those associated with the food trade. Agreements concluded include the mutual recognition of food safety permits for processed products.

20. The seizure or detention of foods that are unfit for human consumption, adulterated, contraband or illegal and their subsequent destruction or denaturing is provided for in the legislation of all the countries, for both locally processed and imported foods. However, not all countries have legal provisions and thus procedures for the re-exportation of detained foods.

Quality and safety assurance systems

21. Quality and safety assurance programmes serve to reduce the incidence of food-borne disease, to eliminate barriers to regional and international trade and to boost income for the agricultural and livestock sector. An important function of these programmes is to verify compliance with existing legislation and thus the use of Integrated Pest Management Programmes, Good Agricultural Practices (GAPs), Good Manufacturing Practices (GMPs), Standard Sanitary Operation Procedures (SSOPs) and the Hazard Analysis and Critical Control Point (HACCP) system.

22. The status of quality assurance systems varies from one country to another. Application of the HACCP system has focused mainly on the export sector, because of external market requirements, especially in fisheries where the system has been introduced with great success. Some countries only issue official export certificates to enterprises that have introduced the HACCP system.

23. There is less application of these systems for the domestic market, one reason being the lack of financial and technical resources for implementation, especially in small and medium enterprises. However, national authorities are clearly seeking to include these systems in regulatory provisions so that they become an integral part of the production process and protect domestic consumers.

24. Implementation of quality and safety assurance systems in individual countries represents a challenge for the traditional (and not necessarily effective) system of control and inspection based on spot checks in the production chain and laboratory testing. The traditional system will have to be adjusted and staffed with trained personnel able to audit safety management systems in the production

chain on the basis of documentation. It will also need a strong training component for producers, processors, distributors and consumers.

Laboratory services

25. National food control and safety systems also need official analytical laboratories that meet international quality standards. All the countries of the region have laboratories in public, private or academic institutions, some linked to networks, which carry out various types of analysis. Some of the public sector laboratories act as national reference laboratories while others test for the release of food safety permits.

26. In 1997, the countries of the region established the Inter-American Network for Food Analysis Laboratories (INFAL) which was tasked with promoting and assuring food safety and quality, in order to prevent food-borne disease, protect consumer health and facilitate international trade, by fostering and strengthening the development and interaction of testing laboratories within the framework of integrated national food protection programmes. FAO and INPPAZ/PAHO serve as the ex officio secretariat of INFAL.

27. Since 1997, the Codex Alimentarius Commission has been recommending that laboratories responsible for the control of food exports and imports meet the requirements of standard ISO/IEC 17025 on "General requirements for the competence of testing and calibration laboratories" and that they be accredited by an appropriate agency.

28. However, although a large majority of countries have adopted standard ISO/IEC 17025, few have accredited laboratories. Examination of laboratories belonging to INFAL in 2005 reveals that of 19 countries participating in two FAO technical cooperation projects for the "Development of an integrated system of quality assurance for food analysis laboratories", 8 have accredited official laboratories with quality systems based on standard ISO/IEC 17025, while 9 have laboratories in the process of being implemented and two are at the early stages of implementation. The main deficiencies relate to specialized human resources, infrastructure, analytical technical capacity in line with reference methodologies, absence of national networks favouring decentralization, analytical criteria that are not uniform in methodology and scarce availability of certified reference materials.

29. PAHO/WHO has provided technical cooperation for the strengthening of food analysis services through INFAL, with an emphasis on quality assurance topics such as proficiency trials and distance learning through the Internet.

Food-borne disease surveillance systems

30. Disease from contaminated food is one of the most widespread health problems in the world and is a major cause of reduced economic productivity.

31. A large number of countries have food-borne disease surveillance programmes or systems run by the health sector. These are generally defective because of a lack of resources, limited cross-sectoral coordination, an absence of monitoring of risk factors associated with outbreaks, a lack of training for health professionals, non-functional laboratories and, in particular, a limited notification of outbreaks, which results in the under-recording of cases and outbreaks. Another limitation for FDB surveillance systems is their outdated legal framework.

32. There is clearly a need to strengthen existing surveillance systems by providing them with economic and technical resources that will help optimize coordination, increase training, improve laboratory implementation and involve all sectors in the notification of outbreaks.

33. Raising consumer awareness of the basic principles of hygiene in food preparation appears to be very important given that INPPAZ/PAHO data for the period 1993-2003 indicate that 33.1% of reported outbreaks in the region were due to foods consumed at home.

34. Canada has established an FDB outbreaks surveillance system which provides national data on outbreaks, identifies associated risk factors and helps develop data-based programmes of disease control and prevention. Its Integrated Outbreak Surveillance Centre operates through the Internet to improve surveillance, facilitating notification, issuing warnings and sharing information from public health jurisdictions throughout the country. Similarly, its FDB outbreak response protocol indicates how to respond to FDB outbreaks and makes sure that all agencies are promptly notified and collaborate effectively.

Limiting factors in national control systems

35. Control and inspection systems for the domestic sector and for imported and exported foods have the following inadequacies which combine to obstruct the achievement of food safety and quality throughout the food chain:

- systems that are not integrated and that function sectorally, resulting in a lack of coordination between institutions because there is no communication and there are no clear lines of responsibilities.
- duplication and overlapping of functions at different levels, with municipal agencies and regional or provincial authorities sometimes in dispute over receipts from safety permits.
- systems that are not based on risk analysis to achieve safety objectives.
- shortage of professional staff to conduct food control and safety actions.
- lack of infrastructure and resources for the inspection and certification of food imports and exports.
- absence of training and updating in quality assurance systems and risk analysis or training programmes that fail to achieve their objectives because of budget restrictions or the absence of follow-up.
- no systematic organization of inspection and certification system procedures and an absence of manuals and protocols.
- no refresher training or assessment of international control point officials on food import and export procedures and risk analysis.
- failure to update import and export regulations and harmonize them with Codex standards.
- diversity of criteria for the inspection of food products entering and/or leaving the country.

36. In recent years, FAO has provided technical assistance through subregional and national technical cooperation projects aimed at reinforcing National Codex Committees. These projects have included the formulation of actions plans to modernize national control systems for food imports and exports.

37. Also in the field of technical cooperation, FAO and PAHO/WHO held a workshop on food control systems in 2004, in which were presented the FAO/WHO guidelines for the strengthening of national food control systems and country case studies on the development of related strategies.

Coordination of activities of all organizations involved in food safety management

38. The fragmentation of systems into separate bodies, each coordinating food safety actions within its own specific field of competence, makes it very difficult to coordinate the food control and management system. This incurs waste in effort and resources of individual programmes and their reduced effectiveness, as well as overlapping of responsibilities and functions.

39. Countries have initiated actions to optimize coordination and resolve conflicts of food safety responsibility by creating working groups and coordination bodies, such as intersectoral commissions, and producing documents that clearly define responsibilities.

40. In Canada, the main food regulation bodies are the Ministry of Health (Health Canada) and the Canadian Food Inspection Agency (CFIA). Health Canada sets the standards and policies for the nutritional quality and safety of all foods sold in the country, which involves it in research, risk assessment and the regulation and registration of pesticides and veterinary drugs. It also assesses the effectiveness of CFIA activities. CFIA is responsible for enforcing Health Canada's policies and standards and for inspecting foodstuffs, for which it designs, develops and administers risk-based inspection programmes. Both institutions have established a protocol of agreement that identifies their respective roles and responsibilities, and determines the principles determining their effective collaboration.

Capacity building and establishment of partnerships

41. National situations differ widely. Some countries are fully capable of building capacity through universities or public institutions for the training of professionals and technicians and for the training of food handlers, although they lack continuity in refresher training. Others recognize the need to strengthen their training institutions for food safety professionals and their installed capacity for food research. Resource allocation is seen as an obstacle for the building of capacity in this area.

42. Noteworthy and highly significant at international level are the food control and safety training actions of international and regional agencies and organizations, such as FAO, PAHO/WHO, the Inter-American Institute for Cooperation on Agriculture (IICA) and the Caribbean Regional Human Resource Development Program for Economic Competitiveness (CPEC). Training and skills development is sometimes given to future trainers so as to broaden the outreach of trained personnel.

43. The creation of partnerships for the ongoing training of food control officials is in its early stages. This mechanism allows communication and interaction between the public and private sectors for the benefit of consumers. Most initiatives are training in food handling for small and medium enterprises, street-food vendors and consumers, through governmental or academic institutions or NGOs.

44. In Canada, collaboration between the different levels of government is facilitated by the existence of territorial, provincial and federal food safety committees that set joint food safety priorities and facilitate the national harmonization of inspection processes. Government-industry interaction includes the supply of funds to industry for the development of food safety, quality and traceability programmes and projects covering the whole food chain.

45. The raising of consumer awareness of food safety is very important, and consumer associations are becoming increasingly involved in bodies set up to determine technical standards, in commissions appointed to review and amend regulations, and in National Codex Committees.

46. At the level of MERCOSUR, the Food Commission of the Working Subgroup on Technical Regulations and Conformity Assessment is in constant liaison with consumers.

Communication between all stakeholders

47. A degree of communication between participant bodies generally exists in countries through:

- the web pages of public and private entities, national and international consumer associations, National Codex Committees and international agencies which channel information from relevant bodies and where activity programmes, health legislation and ongoing projects and programmes can be found.

- consumer agencies.
- public sector consultations and invitations to the other consumer, academic and private sectors to discuss matters of common interest relating to food safety.

Strategies and actions to improve food safety systems

48. The availability of wholesome and safe foods as the result of an integrated approach in which all stakeholders have specific responsibilities and which can only be achieved through the interaction of government, industry and consumers. The current limitations in legislation and control systems prevent the ideal food chain approach from being applied.

49. The establishment of national food safety systems that apply an integrated food chain approach requires the implementation of government food safety policies, the updating of food legislation, the national implementation of integrated surveillance systems, the establishment of safety assurance systems in the agriculture, livestock and food industry sectors that protect local consumers, the application of risk analysis as the basis for decision-making in inspection programmes, the strengthening of analytical capacity of national control laboratories and their accreditation, and a good coordination of all institutions involved in food control.

50. Many different strategies and actions are being applied:

- The adoption of national plant and livestock health and food safety policies and national policies for specific product chains, such as meat and milk that include risk analysis and seek to enhance operating capacity.
- The definition of sectoral and multisectoral measures for the consolidation of National Codex Committees, the stricter enforcement of key food and food safety laws and the establishment of national systems with greater cross-sectoral coordination.
- The formulation of framework food safety plans to steer and direct health policy and foster the stability and sustainability of national food safety systems.
- A shift from the present multiple agency system towards the creation of single bodies able to formulate, unify and standardize national food safety policies with sufficient technical, administrative and operational autonomy.
- The harmonization of national standards with Codex standards and the request for technical assistance from international agencies such as FAO and PAHO/WHO for the strengthening of national food control systems.

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**FAO/WHO Regional Conference on Food Safety
for the Americas and the Caribbean**

San José, Costa Rica, 6-9 December 2005

**IMPROVING THE EFFECTIVENESS OF NATIONAL FOOD CONTROL SYSTEMS
IN THE AMERICAS AND THE CARIBBEAN**

A case study of Belize

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A. INTRODUCTION

As early as 1983, a joint FAO/WHO Expert Committee on Food Safety concluded in its report "The Role of Food Safety in Health and Development" that disease caused by contaminated food is one of the most widespread threats to human health, and an important cause of reduced economic productivity.¹ It is estimated that up to 30% of the population in developed countries may be affected by food-borne disease each year and the incidence in less developed countries remains largely unknown².

Food-borne disease outbreaks and food contamination has caused food safety to become a major focus of public health policy, making regulatory authorities revisit their food control systems to ensure that the programmes instituted to ensure food safety are effective and sustainable. A major driving force for the implementation of effective food safety control programmes are consumers who expect governments to operate effective food control systems and to take greater responsibility for food safety and consumer protection.³

In addition, the rapid expansion of international trade in high value food products from developing countries has been governed by a growing array of food safety and agricultural health standards developed to address various risks including those associated with microbial pathogens, pesticides, veterinary pharmaceuticals, environmental contaminants, naturally occurring toxins and the spread of plant pests and animal diseases.⁴ The increased attention to food safety and agricultural health risks stems in part from scientific advances, but it is also substantially driven by shifts in consumer demand and by a series of food safety scandals and disease outbreaks in industrialized countries, adding to the impetus for governments to institute significant institutional changes in food safety oversight and reforms⁴.

Confidence in the safety and integrity of the food supply is important to consumers. The establishment of effective and sustainable food control systems in developing countries such as Belize necessitates the adoption of strategic approaches to agricultural health, trade and food safety that require the collaboration of the public and private sectors and assistance from international agencies and institutions that have demonstrated competence in this area.

This document is intended to provide an example of one country in the Americas and the Caribbean that has worked to strengthen its national food control system. FAO and WHO have also published Guidelines for Strengthening National Food Control Systems¹ which provide advice to national authorities on strategies to strengthen food control systems. The Guidelines delineate the overarching principles of food control systems and provide examples of possible infrastructures and approaches for national systems, enabling authorities to choose the most suitable options for their food control systems.

¹ Available from: http://www.fao.org/es/ESN/food/control_FCS_en.stm

B. STRATEGY FOR IMPLEMENTING EFFECTIVE FOOD SAFETY PROGRAMMES IN BELIZE

To protect human health from food-borne diseases and contribute to sustainable development in developing countries, the following phases⁵ are suggested:

1. Development of a formal national food safety policy
2. Upgrading of food control systems
3. Improving laboratory infrastructure
4. Improving food safety education programmes
5. Strengthening programmes for surveillance, investigation and control of food-borne diseases.

The following is the Belize situation with respect to food safety and the achievement of the above stated goals:

1. Development of a formal national food safety policy

Belize formally launched a Food and Nutrition Security Policy on 20 February 2001. This policy, developed largely through the efforts of the Ministry of Agriculture, Fisheries and Cooperatives, with collaboration from the Ministry of Health, the Ministry of Human Development, and other government and non-government partners who have ratified the policy, has food safety as one of the six programme areas that make up the national policy. The Food and Nutrition Security Policy outlines key strategies that seek to ensure the sustainable supply, accessibility and use of safe, high quality, nutritious, diversified and culturally accepted foods for all Belizeans in order to improve their well-being and quality of life⁶.

The six programme areas addressed by the policy are:

1. Information, Education and Communication on Food Production, Preparation, and Nutrition
2. Diversified Food Production, Food Processing, Marketing, Storage and Credit Mobilization
3. Maternal and Child Care, School Feeding and Nutrition for the Elderly and the Indigent
4. Creation of Employment and Income Generating Opportunities at the Local Level
5. Food Safety
6. Analysis and Reform of National Policies for Food and Nutrition Security

The policy allows for the establishment of a multi-sectoral **National Food and Nutrition Security Commission** (officially formed in 2002), responsible to the Belizean Cabinet and whose role is to coordinate and advocate with all sectors of the economy and other stakeholders on national food and nutrition security matters, including the monitoring of the food and nutrition security status in the country, and to make recommendations to Cabinet for its improvement. The Commission also ensures that national initiatives are in compliance with the international commitments made such as the "International Conference on Nutrition" of 1992 and the "World Food Summit" of 1996. The Chairman of the Commission is the Minister of Agriculture, and the work of the Commission is facilitated through a national coordinator.

The food safety programme of the policy (Programme 5) supports the development of national standards for food products, adherence to national and international standards and the development of monitoring mechanisms. It also includes the education of the public in matters relating to food quality and safety. The objectives are to regulate and control the safety and quality of food products according

to the established norms of Codex Alimentarius and FAO/WHO. The programme seeks to *improve the mechanisms* for quality control and monitoring the safety of food products, to develop national standards for food labelling and safety and to disseminate information on food quality and safety to the Belizean public.⁶

The Food and Nutrition Security Commission, through stakeholder workshops and participation, has recently (May 2005) developed a 5-year work plan which forms the basis for implementation of the policy objectives, with the key entities from government, statutory bodies, non-government organizations, international agencies and the private sector identified that will take the lead in the carrying out the tasks identified in the six programme areas of the policy.

The **Belize Agricultural Health Authority (BAHA)** is a statutory body in Belize established by legislation (the Belize Agricultural Health Authority Act of 1999) under the Government of Belize “Modernization of Agricultural Health Services” project funded by the Inter-American Development Bank (IDB). The main objective for the creation of BAHA was for the enhancement of the competitiveness of Belizean agricultural products, especially in foreign markets, by strengthening the animal (including fisheries) and plant health services with increased participation of the private sector, and for the reduction of losses from diseases, and for ensuring the safety and quality of agricultural products for domestic and foreign markets. The consolidation of the functions of the plant and animal health services of the Ministry of Agriculture provided for the efficient administration of agricultural health programmes in Belize (Annex I Fig 1 BAHA Structure). BAHA is the competent authority for animal and plant health in Belize, plays a lead role in the implementation of the food safety policy objectives (Programme 5), and is increasingly being recognized nationally as well as internationally as the competent authority with respect to food safety issues in Belize. (Annex 11 Fig 2 BAHA food safety services)

2. Upgrading of food control systems

Food control is still largely under the Ministry of Health in Belize. Traditionally, the Ministry of Health, largely through the under-funded and overburdened department of public health, was responsible for the inspection of food establishments (including food processing establishments) as well as for performing meat inspection duties. With the establishment of BAHA, legislation empowered BAHA officers to regulate and establish cost recovery mechanisms in all food processing plants with respect to sanitary measures and designated BAHA as the sole authority for the regulation of Hazard Analysis and Critical Control Points (HACCP) systems in Belize. A number of recently enacted legislative actions in the form of Statutory Instruments further expanded the role of BAHA in food safety.

2.1 BAHA’s Regulatory Mandate for Food Safety

2.1.1 The BAHA ACT, 1999 (Chap 211 of the Laws of Belize)

- Regulates importation of food;
- Prescribes fees for inspection, services and treatment;
- Prescribes measures regarding the issue of sanitary and phyto-sanitary certificates;
- Prescribes procedures for carrying out risk analysis and HACCP;
- Regulates the inspection, approval and certification for all food processing plants;
- Designates the Authority (BAHA) as the sole organization responsible for inspecting food and plant processing industries for compliance with HACCP; and
- Gives designated officers powers of entry, inspection, collection of samples, and enforcement measures, including closing down of premises;
- Provides for the regulation, import and export of bio-engineered plants and animals (GMOs) in Belize.

2.1.2 Food Safety Regulations (Statutory Instrument No. 25 of 2001)

- Designates BAHA as the Competent Authority in Belize with responsibility for monitoring, inspecting, approving and controlling food safety systems in respect of all enterprises that produce or process food for export from Belize or for consumption within Belize.

2.1.3 Other relevant regulations that impact on Food Safety

- The Belize Agricultural Health Authority (Food Processing Plants) (Potable Water) (Minimum Standards) Regulations, 2001;
- The Belize Agricultural Health Authority (Fish and Fishery Products) (Inspection) Regulations, 2001;
- Belize Agricultural Health Authority (Biological Residues) Regulations, 2001;
- The Belize Agricultural Health Authority (Veterinary Drug) (Registration) Regulations, 2001;
- National standards (e.g. milk, honey, street-vended food, bottled water, fresh-meat, pasta, Good Agricultural Practices (GAP), specific vegetable standards and others).

2.1.4 Regulatory Mandate Internationally (Codex Alimentarius and SPS Agreement)

In addition to local regulations, Belize also has an international regulatory mandate through the Codex Alimentarius and the Sanitary and Phyto-sanitary Agreement (SPS Agreement) to develop food standards based on international standards that protect the health of consumers, and whose imposed sanitary measures are based on risk assessment thereby ensuring fair practices in food trade.

2.1.5 Belize compliance with Codex standards

Belize has referenced (adopted) a number of Codex standards, guidelines and codes of practice under its sanitary (food safety) legislation and through a number of national food standards which, if effectively applied, will give the consumer the necessary assurance of food quality and safety. Codex based standards, code of practices and guidelines in effect in Belize include:

- HACCP Guidelines
- General Principles of Food Hygiene
- MRLs for Certain Veterinary Drug Residues
- Labelling Standards
- Code of Hygienic Practice for Fresh Meat
- Code of Practice for Street Vended Food
- Bottled (packaged) Water Standards

2.2 Collaboration between regulatory authorities

Notwithstanding these legislative achievements, and with the exception of BAHA's major role in the regulation of the fish and fishery products processing industry, (BAHA has recently been favourably audited by the Food and Veterinary Office (FVO) of the European Union (EU) and Belize enjoys List 1 status with respect to the placing of fish and fishery products on the EU market), BAHA has not expanded to the regulation of other food processing industries as efficiently and effectively as is needed, leaving much of the regulation to the Public Health Department. Part of the reason for this has been the fact that the Ministry of Health is governed by the Food and Drugs Act (Chap 291 of the laws of Belize) and the Public Health Act (Chap 40 of the laws of Belize) which gives public health officers sanitary jurisdiction over food establishments, contributing to duplicity of roles and turf battles between BAHA food safety inspectors and Ministry of Health inspectors with regard to inspection duties. An MOU has recently been agreed upon between BAHA and the Ministry of Health where the Ministry of Health *recognizes* BAHA as the competent authority for food safety at the farm level, (on farm food

safety) and in food processing plants (including meat and poultry slaughter plants), and for the regulation of food transport. The Ministry of Health thus retains food safety responsibility at the retail level (restaurants, distributors, meat outlets, hotels, supermarkets etc). This agreement has contributed significantly to efficiency of inspection duties where the role of BAHA Inspectors and Public Health Inspectors had not been clearly defined. The Ministry of Health is currently in the process of undergoing legislative reform to update its legislation and BAHA forms part of the legal steering committee to ensure compatibility with existing agricultural health and food safety laws under taken by BAHA.

BAHA also work closely with the Public Health Department and the Bureau of Standards (the Codex Contact Point in Belize) in developing sanitary standards for the various food industries as well as working to develop hygienic standards for food vendors, particularly in the tourist industry. Sanitary measures (Good Agricultural Practices) to be employed by farmers for the production of safe fruits and vegetables are also being developed by BAHA. An area that Belize needs more capacity is in the training of new food safety inspectors/regulators and industry personnel in food safety inspection or audit procedures that reflect current risk avoidance or mitigation measures, especially in the meat and poultry sectors.

2.3 Imported food control

BAHA has quarantine officers posted at all official border and entry points to Belize. All food imported into Belize for commercial purposes has to go through an import permit process where the sanitary conditions of importation are requested in applications approved by BAHA officers. The quarantine inspectors inspect the products imported at the border points and vet all relevant documents for compliance with sanitary requirements. As these inspectors form the first line of defense in safeguarding Belize's agricultural health and food safety status, it is paramount that these officers are kept updated in requirements to be met for effective imported food control. National workshops are held regularly where these officers are updated on new developments in animal health, plant health food safety and SPS measures which is delivered by the directors of those departments in BAHA. A manual of inspection procedures, including the procedures for the collection of samples to be sent for laboratory analysis, has been developed by BAHA and distributed to all quarantine officers at the border and entry points to Belize.

3. Improving the laboratory infrastructure

A National Food Control Laboratory has been established. A 556 m² food testing laboratory has been established through the renovation of the veterinary laboratory complex in Belize City. This laboratory (Central Investigation Laboratory - CIL) is the only food testing laboratory in Belize. The lab currently has a functional staff of four technicians who are active in processing food samples taken as part of the inspection and regulatory procedures of the Food Safety Services of BAHA. The laboratory operates on a cost recovery basis, and the majority of samples processed come from the fishery sector for microbiological testing. The laboratory recently purchased residue testing equipment and has expanded the capability of the range of testing that it can offer to the various food industries. BAHA is now able to test for residues in food such as aflatoxin, Chloramphenicol, veterinary drugs, pesticides, (organophosphates and carbamates). Equipment installed at CIL includes 2 Gas Chromatographs for the detection of herbicides and pesticides, High Performance Liquid Chromatography (HPLC) for veterinary drug residues analysis, and an Atomic Absorbance Spectrophotometer (AAS) for the detection of heavy metals.

Establishing a well equipped residue lab that is able to perform more sophisticated chemical analysis gives consumers and international trading partners the confidence in the safety of food products imported into, or exported from Belize. Staff has received IDB funded and BAHA sponsored training in analytical procedures and the laboratory has enrolled in an internationally recognized quality assurance and proficiency testing programme to assure the various industries of the validity of reported results. BAHA's Central Investigation Laboratory is part of the Inter-American Network of Food Analysis

Laboratories (INFAL), which is a network of food testing laboratories in the Americas that promotes the assurance of food safety and quality in order to facilitate trade and protect human health by preventing the transmission of food-borne diseases. INFAL achieves this objective through harmonization of methods, systems development and the implementation of quality management and technical scientific cooperation among member countries⁷.

BAHA is now seeking support to build capacity through training technicians in compositional analysis procedures which will help verify labelling claims and provide Belize with nutritional testing capabilities.

4. Improving Food Safety Education Programmes

Food safety education has been done minimally in Belize. Initiatives to improve the safety of foods produced in the CARICOM region that have been implemented by international agencies and national governments have been largely focused at the regulatory level (development of standards, inspection, surveillance and monitoring etc) rather than on food safety education programmes for consumers⁸.

An objective of Programme 5 (food safety) of the Food and Nutrition Security Policy for Belize calls for the dissemination of information on food quality and safety to the Belizean public. The Public Health Department, through their weekly food handlers' clinics disseminates basic food safety information to those people seeking a food handler's certificate. This is insufficient and inadequate. The food safety programme of BAHA will need to devote a significant component of its overall programme to food safety education – utilizing a number of media and collaborative efforts, particularly with those international organizations or regulatory authorities recognized for their expertise in this area e.g., FAO and WHO/PAHO.

BAHA had an opportunity to effect such collaboration by designing and implementing a food safety education campaign in early 2005². The campaign was developed in response to the findings of a survey conducted in 2002, on food safety awareness among Belizean consumers which was sponsored and supervised by the Caribbean Food and Nutrition Institute, (CFNI). The objective of the CFNI survey was to provide information on the current food safety knowledge, attitudes and practices of household consumers in Belize and was part of a wider survey also conducted in Barbados, Jamaica and St. Vincent and the Grenadines.⁹ The results of the survey would then be used to develop comprehensive and effective food safety public education programmes.

In the Belize survey, the greatest problems identified were those associated with the misconceptions or lack of knowledge for the requirements for refrigeration of leftover meat, fish or poultry. The public's main source of information on food safety was discovered to be friends and family but other sources included news programmes on television and radio followed by educational institutions. Food labels were ranked as the sixth most important source. Overall responsibility for food safety was perceived to lie chiefly with the consumer, but it was felt that the responsibility of setting and regulating standards rested with the Ministry of Health.⁹

The purpose of the food safety campaign "Safe Food Handling Awareness Campaign 2005." conducted during the period February/June 2005 by the Belize Agricultural Health Authority was to correct wrong perceptions and promote better practices, especially among housewives and school children who, together, do most of the food handling in the Belizean home. The Food Safety Awareness Campaign, 2005 also sought to promote better food handling practices through a coordinated campaign of school visits, community forums, public service announcements on radio and TV, talk show discussions, the distribution of educational materials, posters, brochures and refrigerator magnets that Belizeans were encouraged to carry into their homes and schools.

² See Conference Room Document from Belize on this subject for more detailed information.

The Food Safety Awareness Campaign of 2005, which has been a collaborative effort between the Belize Agricultural Health Authority, (BAHA), the Ministry of Health and PAHO/CFNI, has allowed regulatory agencies responsible for food safety in Belize to address the food safety issues identified in the food safety awareness survey of 2002 by delivering key safe food handling messages to consumers through multiple media sources, some of which would otherwise be very difficult to achieve given the financial resource constraints faced by these regulatory agencies.

The consensus about the campaign is that it has been successful, with very positive responses from the public. The challenge now is developing the sustainable mechanisms that will make food safety education programmes an ongoing activity, and a key component in the delivery of effective food control systems.

In addition, BAHA will need to be kept updated in food safety issues and, along with the international community, get involved in the standard setting process by participating in relevant meetings where food safety education is current and scientifically based, such as those involving Codex Alimentarius. It is encouraging to see the FAO/WHO Trust Fund established to financially support delegates of developing countries' attendance and involvement in the international standard setting process, as launched at the Twenty-fifth (Extraordinary) Session of the Codex Alimentarius Commission.¹⁰

5. Strengthening Programmes for Surveillance, Investigation and Control of Food-borne Diseases

Food-borne disease surveillance programmes in Belize are inadequate. It is estimated that around the world almost 2 million children die annually from food or water-borne pathogens and even in developed countries up to one out of three consumers contracts disease from food-borne pathogens every year¹¹. Keeping track of the incidence of food-borne diseases requires collaborative efforts and significant resources in order to put in place effective preventative measures that will reduce the risk to public health. Belize currently lacks such an effective food-borne disease surveillance system and will require international technical cooperation from such institutions as PAHO, CAREC or CDC in order to develop a workable system that is effective. Effective surveillance is especially important in the areas of the spread of new and emerging disease such as BSE and the human form of Avian Influenza (H₅ N₁).

A major concern to public health officials is the ability to perform (and pay for) necessary laboratory testing if there is a food-borne disease outbreak or for surveillance activities related to the "public good". Since BAHA operates its food testing laboratory on a cost recovery basis, such testing will have to be funded by the Ministry of Health. But such "public good" testing can also be subsidized by funds received from industry by offering other laboratory services such as nutritional analysis for processed food or providing chemical analysis for environmental monitoring as part of industries' Environmental Compliance Agreement with the Government of Belize. Agreements similar to the MOU established with the Ministry of Health regarding the performance of inspection services by regulatory authorities in Belize will need to be established so that the proper mechanisms are in place to effect timely testing of food implicated in food-borne disease outbreaks.

Testing of human patients for food-borne disease is effected through the Ministry of Health's Central Medical Laboratory which has the capability of testing for the common *bacterial and parasitic* causes of food-borne illness - testing for food-borne disease of suspected viral etiology is virtually non-existent in Belize. In addition, proper reporting of food-borne disease by medical personnel needs to be instituted so that the regulatory personnel involved in the outbreak investigation can do the necessary traceback to the source of infection which will contribute to an effective surveillance system. BAHA has teamed up with the Ministry of Health with the support of PAHO and CAREC in developing a protocol for food-borne disease outbreak investigation which identifies the key personnel involved in such an investigation and outlines the manner in which proper reporting should flow. Although this protocol has

been drafted, it has not yet been used, so there is a need to conduct a simulation to see if the protocol is effective. Waiting for a food-borne disease outbreak to test the protocol would be folly.

C. Mechanisms for Effective Partnerships in Food Safety

1. Formation of “user groups”

One of the most effective mechanisms that BAHA has found to assist in the carrying out of its mandate for food control is via the establishment of “User Groups” i.e. industry or users of BAHA services made into consultative groups according to similar interest or commodity.

These stakeholder groups are informal but meet regularly with BAHA (and other regulatory personnel such as the Bureau of Standards and Public Health Department) to discuss regulatory issues, cost recovery options, comments on services rendered or for general problem solving purposes. The meetings also serve as a forum for training, industry or regulatory updates and discussion on market access strategies. Memoranda of Understanding (MOUs) may be established with these groups and fees for services rendered agreed upon.

User groups formed in Belize include representatives from the Fishery Industry (2 groups: aquatic animal health and fishery products processing), the Poultry Industry, Meat Processors, Fruit and Vegetables (Growers/Importers/Exporters), Dairy Industry, Bottled Water and Juices Industry, and the Tourism Industry (new).

2. Collaborate with those International organizations that have a food safety focus e.g. FAO, IICA, OIRSA, WHO/PAHO

By seeking out and collaborating with those international organizations that have a similar focus, food control agencies in an individual country can dovetail their work programme to complement/augment what food safety programmes or tasks need to be done in the country with less duplication of roles and effect conservation of scarce financial resources. Many of the food safety programs and plan of work established by BAHA has been augmented and supported by international organizations having the same focus and wanting to achieve similar goals. Partnering with these agencies avoids duplication and strengthens collaborative efforts in food safety.

3. Lobby for and provide industry funded training for regulatory personnel

In countries that have little or limited access to educational institutions or costly means of gaining continuing education or training for capacity building, food control agencies can lobby for support from those industries that will benefit from having a trained regulatory personnel. An added benefit is that training in conjunction with industry personnel provides for transparency in the execution of regulatory duties. In those instances where the food control agency is the beneficiary of external expertise training, invitation for industry to participate at a cost can provide a source of financial support to fund further training. Caution must be exercised, however, in the degree of dependence on this partnership - the regulators must always be aware of the possibility of collusion (real or perceived) when collaborating with industry.

4. Develop specific MOUs with other regulatory departments to ensure that their food safety services are budgeted and provided for

A number of services performed to protect consumers may not be able to be fully cost recovered. However, certain “public good” services can still be achieved on some cost recovery basis if food control agencies can access international financial support to affect those services or if governments can budget for them from their tax base. Where other collaborating agencies have a food safety component in their mandate (e.g. Public Health Department, Bureau of Standards, Environmental

Health, etc.), specific MOUs can be developed to ensure that funds are budgeted to provide the specific services (e.g. laboratory testing) for those departments that may not have the infrastructure or personnel to provide the services required by that department.

Conclusions

From the foregoing, it is clear that it will take much collaborative effort with our international trading partners and colleagues in the areas that have been delineated above to help ensure that consumers at home and in the global marketplace will have access to safe food irrespective of origin.

Other countries of the region may be able to benefit from the experiences of Belize in strengthening their own national food control system.

Summary

In Belize, BAHA is taking the lead in the assurance of food safety and it does this in a manner that fosters effective partnerships. The establishment of a food safety unit in BAHA with the capability of implementing cost recovery mechanisms has helped both regulatory and industry personnel to effectively deal with the food safety issues affecting international trade and consumers in Belize. To continue to protect human health from food-borne diseases and contribute to an effective food control system in Belize, BAHA will pursue sustainable development in these key areas:

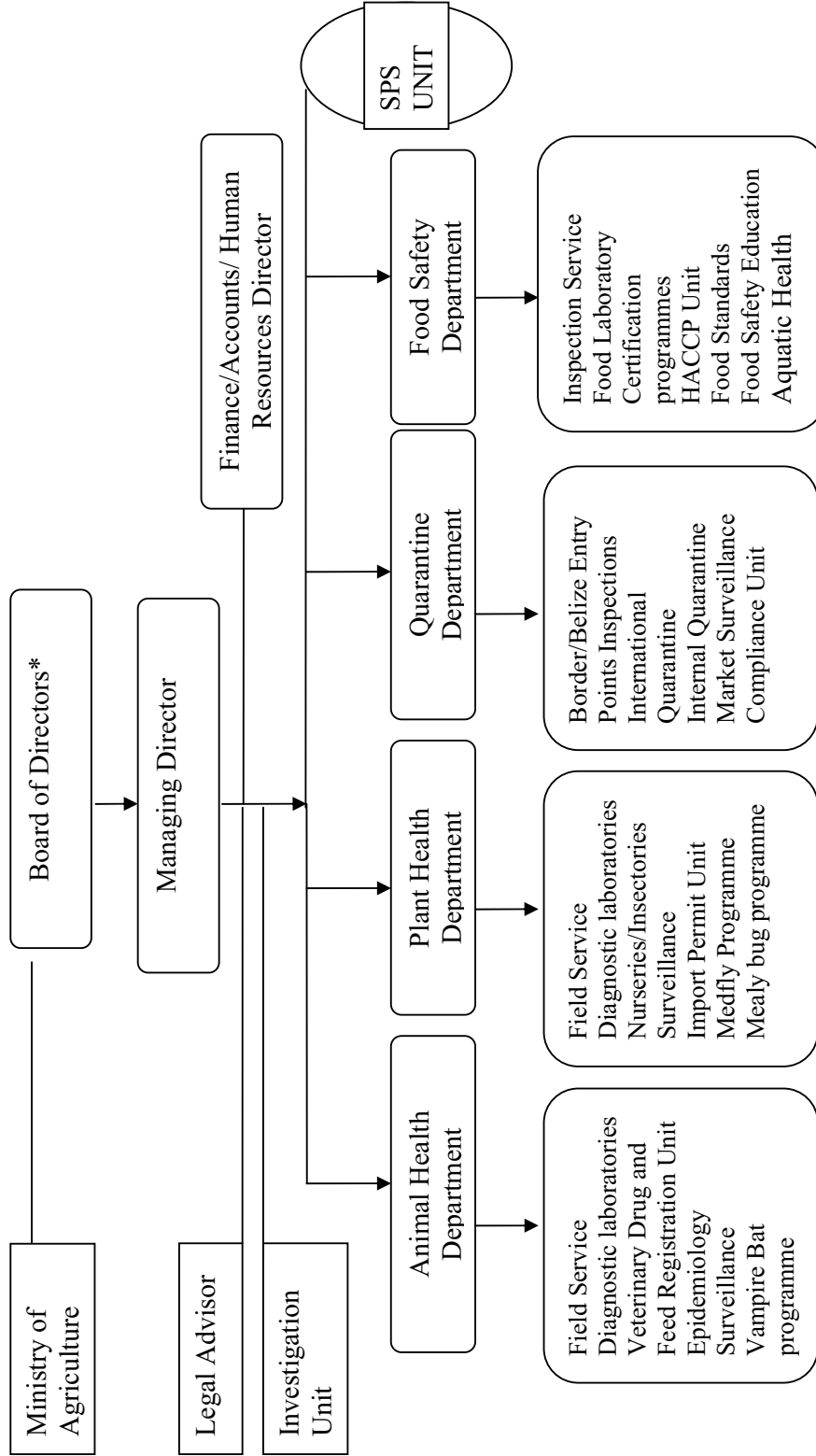
1. Continued development and implementation of the national food safety policy
2. Upgrading of food control systems
3. Improving the laboratory infrastructure and services
4. Initiating and improving food safety education programmes
5. Establishing and strengthening programmes for surveillance, investigation and control of food-borne diseases

Strategies that effect the achievement of the above stated goals will not only improve food safety for the consumer but will also provide for capacity building in BAHA and encourage a robust demand for BAHA food safety services.

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- **Board of Directors**
- Public Sector Representatives:**
 - a. Agriculture
 - b. Trade
 - c. Health
 - d. Economic (National) Development
- Private Sector Representatives:**
- Fish/aquaculture industry: 1 Director**
- Agribusiness: 4 Directors**
(Banana/citrus/sugar/livestock//Chamber of commerce and industry other agribusiness)
- Ministry of Agriculture appointed : 1 Director**
- BAHA Managing Director: 1 (no vote)**

Fig. 1 Structure of BAHIA

Goal:
 To ensure that imported and Belizean food products made available to consumers are safe and wholesome, thereby expanding the market and trade in these products, which will increase agro-processing, improve food security and safety and provide for a better socio-economic and nutritional standard of the Belizean people.

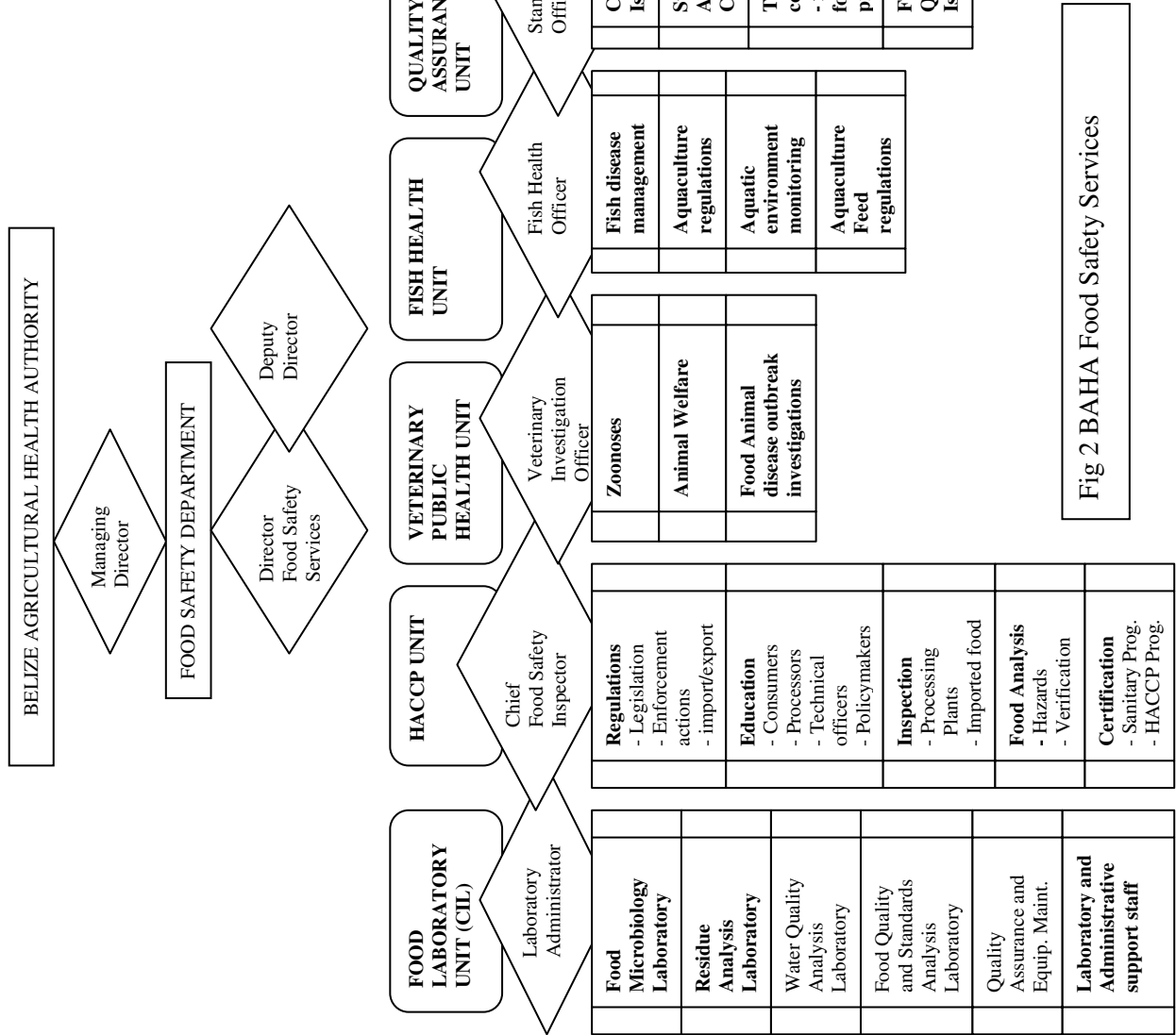


Fig 2 BAHA Food Safety Services

FAO/WHO Regional Conference on Food Safety for the Americas and the Caribbean

San José, Costa Rica, 6-9 December 2005

ASSURING FOOD SAFETY AT THE PRODUCTION/PROCESSING LEVEL *(Paper prepared by Costa Rica)*

INTRODUCTION

Achieving the safety, quality and market competitiveness of food products is a challenge requiring innovative criteria, creativity and a willingness for teamwork, in both the public and the private sector, if food-borne diseases (FBDs) are to be eliminated.

These issues cannot be addressed in isolation but need to be integrated into all the links of the chain, with a focus on production and health. Hence the need for a multifaceted approach. Food regulations are evolving to encompass the concepts of quality and safety. Consumption habits are changing, with consumers demanding greater assurance of safety and higher quality of product, but also needing more information on the products they purchase, which adds importance to the nature, origin and characteristics of each product on the market, to the way it has been produced and to associated traditions.

This concept of the food and agriculture chain calls for a redefinition of the role of the State and the private sector, with regard not only to institutions responsible for public health but also to interaction with agencies responsible for agriculture and food production, the environment, consumer protection, and even tourism and education. What is required is the interlinkage and coordination of government bodies at different levels. This is possibly one of the most difficult challenges, as it means discarding traditional paradigms of distinct function and embracing a multidisciplinary approach, and abandoning the fiefdoms and individualism that only hamper national welfare.

The food product safety is a basic requirement for success on the global market. The control of food safety in the Americas and the Caribbean is generally by different official agencies, but its regulation needs to be integrated, multidisciplinary and responsible given the complexity of the food production chain. There needs to be equivalence and transparency and a country's regulation needs to be based on solid standards.

Such harmonization will produce a fair system for all and will ensure the supply of food that is safe, wherever produced, processed or sold.

A. Application of appropriate quality assurance systems (GAP/GMP/HACCP; "good practices")

A.1 Good Agricultural Practices

Good Agricultural Practices (GAPs) are defined as all actions relating to the production, processing and transport of food products of agricultural origin that aim to assure the protection of hygiene and human health and the environment, using methods that are ecologically safer, hygienically acceptable and economically viable (SAG, 2004).

Whatever the definition given to GAPs, these should serve as a tool and not as an end. This tool should be used for the environmental, economic and social sustainability of agricultural holdings, which

should translate as the delivery of safer and more wholesome food products for the consumer. This means that we need to consider the difficulties and limitations that developing-country producers face as they seek to implement GAP programmes.

A.2 GAP experiences

Examination of countries with concrete GAP initiatives indicates the need to consider a number of important principles. Teams responsible for drawing up GAP guidelines need the active participation not only of technicians and professionals, but also of the producers who will have to implement the practices on their farms and the consumers, because of the importance of their input to the formulation of GAPs (FAO, 2004; Chapman, 2005). For example, in Colombia in 2003, the National Vocational Training Service, the National University of Colombia, the Corporación Colombia Internacional and the Colombian Agricultural Research Corporation worked together on the project "Integrated Programme of Technology Transfer for the Clean Production and the Marketing of Vegetables in the Sabana de Bogotá". This programme had a quality and GPA component, which had been designed in a two-day consultation involving students, producers and institutional researchers, who thus produced a document that reflected local reality (CCI-SENA, 2004).

The specifics of good practices are not new as protocols already exist in the government and private sectors of other countries. The important thing is to identify the GAP requirements of key trading partner countries and to define the specifications accordingly. Attention should also be paid to international standards (Codex Alimentarius). This was the strategy employed by Chile and Argentina which used the European Union's EurepGAP protocol as a point of reference for their own standards. Chile was thus able to have EurepGAP recognize the Chile-GAP protocol, which gave its exporters considerable advantages. Similarly, Argentina drew upon the United States Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables for its Resolution 510/02 on GAPs for fruits. (Portal Alimentos Argentinos).

Another factor to be considered is the agroclimatic situation of a country. The requisites of foreign standards need to be adjusted to local conditions, or discarded where not appropriate, so that the standards designed are technically sound from the agricultural and the economic perspective. Standards also need to be modified to reflect scientific and technological progress and changing consumer habits so that they respond to reality.

The cost of implementing GAPs is another important factor in their development. The current range of international GAP standards oblige producers to comply with two or three different standards and to pay for as many certifications. Discussions are under way on the proliferation of international GAP standards for fruits and vegetables that only cause unnecessary confusion and added cost to production processes (SAG, 2004).

Producers need to be given appropriate tools for successful implementation:

- The benefits of GAPs and a commitment to apply these practices should embrace all producers, regardless of their scale of production or socio-economic situation. This requires promotion and dissemination strategies at national, regional and local level.
- GAP training programmes are needed so that small producers can be included in the achievement of safety of agricultural product. Proactive training programmes have been established in most countries of the region to form teams of trained persons who can then train others and implement GAPs in their enterprises; for example, the initiatives of PROCAL in Argentina, the GAP Commission in Chile (IICA, 2002), the Safe Foods Programme (PAS) in Brazil, the actions of Corporación Colombia Internacional (CCI) and the SENA Good Agricultural Practices Programme in Colombia, and SENASICA in Mexico.

- There should be incentives for agricultural enterprises to train all their staff. Producer associations need to play a key role together with private and public training enterprises. A good example are the tax concessions granted by the Chilean Government to enterprises that request training for their staff from the National Training and Employment Service (SENCE) which is responsible for training, in this case in the rural sector (IICA, 2002).

Most countries with GAP guidelines have considered these to be voluntary.

Argentina has guides on GAP application which have become official through national resolutions. Although not mandatory, these guides serve as a national reference for implementation of this system of management. In this connection, Argentina's National Institute of Agricultural Technology (INTA) and the Mendoza Institute of Agricultural Hygiene and Quality (ISCAMen) have published a GAP manual that is based on the national standards, on those of EurepGAP and on the US Clinton Food Safety Initiative. Its National Service for the Safety and Quality of Agricultural Products (SENASA) issued Resolution 510/02 on GAPs for fruits, which was drawn up on the basis of the manual and a similar GAP guide produced by the Fundación Barrera Patagónica (FUNBAPA),.

Other examples are Resolution SAGPyA 71/1999 "Guide on Good Hygienic and Agricultural Practices for the Primary Production (growing/harvesting), Packing, Storage and Transport of Fresh Vegetables" and Resolution SENASA 510/2002 "Guide on Good Hygienic, Agricultural and Manufacturing Practices for the Primary Production (growing/harvesting), Processing, Packing, Storage and Transport of Fresh Fruits". (www.exportaSMEs.com)

In Peru, the Peruvian Institute of Asparagus and Vegetables (IPEH) has been promoting GAPs through the project "Implementation of Good Agricultural Practices and Strengthening of the Asparagus Production Chain" with support from the Inter-American Development Bank (IDB). This project promotes the implementation of GAPs on 54 asparagus farms, covering 3800 hectares, and provides specialist training to implementation outreach workers. (O'Brien and Díaz, 2004).

In Costa Rica, the agricultural sector has been keen to implement GAPs to penetrate and retain existing markets (US and Europe). The public and private sectors alike have conducted a series of training activities (melons, blackberries, roots and tubers, baby vegetables, banana and plantain, fitweed, US Bioterrorism Act) so that they can comply with the safety requirements of the Sanitation Standards Operation Procedures (SSOP) for packing and production. Production procedures include all necessary checks for a safe and wholesome product able to compete on markets and retain custom.

In July 2005, Colombia approved voluntary Technical Standard 5400 on Good Agricultural Practices for Fruits, Aromatic Culinary Herbs and Fresh Vegetables – General Requirements of the Colombian Institute of Technical Standards (ICONTEC, 2005). SENA is also developing the National GPA Programme for Agro-industry to consolidate and standardize the fruit and vegetable chain, with an emphasis on food safety, environmental protection and the safety and welfare of workers (COLCIENCIAS, sf).

A.3 Good livestock production practices

Good Livestock Production Practices (GLPP) refer to the application of existing knowledge on the use of basic natural resources in the production of safe and wholesome food and non-food livestock products to achieve economic viability and social stability.

GLPPs help meet new consumer and market demand for livestock products, with the monitoring of product quality and safety from farm to fork. There has been a considerable increase in global demand for livestock products, including meat, milk and eggs, which requires the prevention and control of diseases and contaminants in livestock products and the implementation of GLPPs.

Fundamental aspects include the quality of facilities, pest control, sanitary conditions, feed and water, animal transport, livestock registration and identification, animal welfare, working conditions, and the environmentally appropriate management of residues. These aspects have been integrated into different GLPP programmes, for example:

- Evaluation and strengthening of the system of prevention of bovine spongiform encephalitis (BSE) and the system of feed quality control in Argentina, Bolivia, Brazil, Chile, Colombia, Mexico, Paraguay, Peru and Uruguay.
- Support to the breeding and use of South American camelids in the Andean Region (Argentina, Bolivia, Chile, Ecuador, Peru).
- Development of small ruminant production (Barbados, Belize, Saint Kitts and Nevis, Trinidad and Tobago).
- Technology upgrading for animal health in Argentina.
- Establishment of a national system of beef cattle identification and registration in Chile.
- Preparation of a livestock development programme under the FTAs in Chile.
- Training in meat technology and the use of meat extenders in Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Honduras and Nicaragua.

On the normative level, some countries consider GAPs to include the livestock sector. Chile, for example, has developed technical guidelines for good practices in the breeding of pigs, beef and dairy cattle, sheep, goats, layer hens and broiler chickens (FAO, 2004). Uruguay has adopted the EurepGAP standard in its certified organic meat programme (Inciarte, 2004). Argentina is using the Eurep standards to benchmark its own animal production standards, with adjustments to reflect regional circumstances (Mietto, 2004). Paraguay is at a less advanced stage of development of GLPP standards, which still have to cover beef, dairy products, poultry and pigs (Silvero, 2004).

With regard to traceability (FAO, 2004), Uruguay has developed a system of animal identification that extends from source to slaughterhouse. Traceability programmes are being implemented from the consignment of livestock to the exit of meat from the production plant (Barros, 2004).

In Costa Rica, the Ministry of Agriculture and Livestock is working with the Regional International Organization for Plant Protection and Animal Health (RIOPPAH) in developing manuals on good practices for beekeeping, pig farming, beef and dairy farming and bio-security in broiler chicken farms.

A.4 Good manufacturing practices and hazards analysis and critical control points

The Codex Codes of Hygienic Practice, Good Manufacturing Practices (GMPs) and Hazard Analysis and Critical Control Point (HACCP) systems are useful tools for meeting these requirements and preventing FBDs at world level. Countries complying with these practices are categorized as producers of safe foods.

GMPs, understood as an assortment of general practices aimed at preventing and reducing the hazards that foods are exposed to from the procurement or production of raw materials to the final product, are viewed as one of the pillars of the HACCP.

A.4.1 Application of GMPs and the HACCP in the Americas and the Caribbean

The status of application of GMPs and the HACCP in the region can be differentiated between countries with instruments for voluntary implementation and those with instruments for mandatory implementation.

Countries with voluntary implementation include Belize, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Panama and Peru.

The governments and food industries of these countries recognize the importance of GMPs and the HACCP for ensuring the safety of food processed for human consumption and most of them are attempting to issue regulations calling for the gradual enforcement of GMPs, before moving on to the mandatory application of the HACCP. Some industries already meet the basic requisites and have developed HACCP systems to comply with international requirements. They have done this on their own initiative with government support for training and assistance from export promotion agencies.

Countries in which GMPs are obligatory and the HACCP voluntary are a minority and include Argentina, Bolivia, Canada, Colombia, Ecuador, Mexico, Paraguay, United States and Venezuela.

These countries there are formal regulations for GMPs while the HACCP is not obligatory. The main problem that exists in some of the developing countries is the inadequacy of coordination between the public and private sectors concerning the implementation and enforcement of these requirements. Some exporting industries have implemented HACCP systems to meet the requirements of the international market.

A.4.2 Examples of activities in selected countries

In Central America, a GMP technical regulation has been formulated in the framework of a Customs Union that will become official for all the countries of the region and which is currently in the process of notification to the World Trade Organization (WTO). Its application will be gradual, depending on the size of the industry, and will become fully operative within two and a half years of its entry into effect.

In Argentina, the National Food Authority has undertaken activities to achieve food safety through training, the training of trainers and advisers in food quality management, improved recommendations for small producers (starting with 23 producers in 10 provinces) and the establishment of a food control system, which is the instrument employed by the government to systematically and methodologically organize food monitoring in order to protect the health of consumers and food handlers, market transactions and the environment.

In Mexico, GMPs were made obligatory through NOM-120-ssal-1995, which applies to all groups of products that have no specific regulations. Progress in the implementation of this regulation varies according to the size and type of enterprise. The Federal Commission for Protection against Health Risks (COFEPRIS) is trying to conclude self-regulation agreements with selected industries, whereby the industries themselves will ensure that standards are met.

B. Control of food safety in small and medium enterprises (SMEs)

B.1 Application of safety assurance systems in SMEs in the field

While the main factor affecting the application of safety standards is the lack of producer education and training, other factors are:

- sociocultural (low level of education, precarious land tenure, resistance from lack of support or confidence in adopting a new production method);
- regulatory (confusion over the many existing regulations on food safety and the environment, which vary according to market); and
- economic (lack of infrastructure and financing, inappropriate technology, prices not commensurate with the effort required to implement good practices).

Countries are taking action to mitigate these limitations. In 2004, Chile's INDAP worked on its national GAP programme for small-scale agriculture (berries, honey, avocado and grapes) introducing changes in production management to take environmental, social and product quality variables into account. Public meetings jointly organized by INDAP, SAG and local municipalities were held in September to inform small producer clients of INDAP and local agro-industrialists of SAG Resolution N° 3410 which sets minimum requirements for raspberry production to comply with GAPs.

In November 2004, Chile's Cooperation Framework Agreement "More Training, Better Agriculture" was signed to train some 5 000 of the country's small farmers in 2005. The objective is to coordinate efforts and resources to implement a national training programme that will bolster small farmer competence in the administration and management of their resources.

In Neuquen, Argentina, an aromatic herbs programme is being implemented to give small producers with an alternative product and help them convert their operations. In June 2004, a draft law established the National Programme of Certification of Good Agricultural Practices (which includes GLPPs) for Small Producers, whose objectives include the promotion of an institutional system of support, the assurance of product quality and environmentally friendly farm management, the drafting of a GAP manual for small producers and their assured certification.

Mexico's Rural Alliance Programme has a food safety component providing various forms of support to producers, including small and medium producers that voluntarily apply GAPs and GLPPs on their holdings. Support includes the implementation of methodologies to minimize risks of contamination, contaminant diagnostic and analytical tests, sanitary inputs, infrastructure and equipment.

B.2 Application of safety assurance systems in SMEs in industry

The support that is given by governments of developing countries to small and medium food industries to help them implement GMPs and the HACCP varies considerably, despite the fact that SMEs account for a high percentage of total industry and have limited resources to conduct the necessary training, promotion and surveillance activities.

Support has been provided in the form of credit to selected enterprises to enable them to manage their own quality standards, including GMPs and the HACCP, as in the case of Argentina. Chile's support to SMEs has been in the form of tax concessions for enterprises receiving training in these areas. In the case of Colombia, many of the programmes are organized by the commercial sector which offers industries support, but only in the form of advice and training.

Other countries provide direct technical advice to SMEs for training and implementation of these systems by government institutions, as is the case of Costa Rica and Argentina. Costa Rica has developed programmes of training and targeted technical assistance for small and medium food industries. Between 2000 and 2002 a programme of environmental management for the agrifood cluster was developed with Canadian cooperation. Similarly, between 2000 and 2004, the policy programme organized by the Ministry of Economy, Industry and Trade with support from institutions such as the National Institute of Vocational Training, the National Centre of Food Science and Technology, the Office for the Promotion of Exports and the Chamber of the Food Industry, included more than 500 companies, many of which boosted their innovation capacity and developed export potential.

C. Safety of street foods

The sale of street food in Latin America and the Caribbean is a phenomenon that has sociocultural, economic and health implications (Costarrica and Morón 1997). It is growing rapidly because of urban expansion, socio-economic difficulties and high unemployment. Cuéllar found in 1994

(cited by Costarrica and Morón, 1997) that total street food sales represented a higher income than the recognized minimum wage, which reflects the economic significance of this activity.

The sale of street food represents a viable economic option as a source of food and employment for the populations of large urban areas. On the other hand, street food also represents a challenge for the municipal authorities which have to devise measures to regulate the use of public areas, mechanisms for vendor access to water, sanitary and waste collection services and systems of registration and control, for which costs that have not yet been quantified (Costarrica and Morón, 1997).

The unrestricted growth of this activity and its lack of regulation place a heavy burden on urban resources and impact negatively on daily life, causing traffic congestion and an accumulation of waste (FAO Technical Meeting Report, 1995).

A report presented by the Dominican Republic (2005) points to a need for safety and control regulations for street food, given that more people are eating outside the home for a variety of socio-economic reasons. The report highlights the need for tighter control over storage inadequacies and poor hygienic practices in food processing and handling.

C.1 National regulations

The regulation of street food requires two types of legal provision. The first is the need for a license to exercise this activity, which might include restrictions on the type of food sold and the place of sale. The second refers to concrete measures to protect consumers against health hazards and commercial fraud (FAO Technical Meeting Report, 1995).

There is no doubt therefore that local authorities have an important role to play in each country at the level of legislation and in their role as trainers and regulators. Yet, many countries still lack hard and fast regulations for the safety of street food (FAO Technical Meeting Report, 1995).

In the case of Costa Rica, this activity is prohibited by General Health Law N° 5395. However, some municipalities issue licenses for the sale of street food and one of the conditions is that only prepacked food can be sold. No food should therefore be prepared at point of sale but this ruling is not always respected by vendors, reflecting a lack of clarity in coordination between health authorities and municipal government. However, efforts are being made to minimize health risks to consumers and street food in the capital is being relocated to areas that meet basic conditions of health and safety and where crowding can be avoided.

A working group for the Caribbean, attended by 17 countries, was convened in October 2002 to discuss the subject of street food. The governments recognized that street food played a very important socio-economic role in terms of providing employment, extra income for women and foods that were affordable to the middle and lower economic classes. At the same time it presented an array of safety problems with regard to food handling, for which vendor monitoring, education and technical assistance programmes were required. (Dardano, 2003).

In Panama, the Sanitary Code regulates street food and an executive decree regulates the training of food handlers under the supervision of the Ministry of Health's Department of Food Protection (www.ingenieriadealimentos.com).

In Chile, the sale of street food is only allowed under the provisions of the Food Safety Regulation, with health officials and police keeping control over informal sales as part of health surveillance (www.minsalud.cl).

C.2 Sanitary aspects

The characteristics of the point of sale, the hygiene of vendors and the way street food is displayed are factors affecting the risk of food contamination. (Costarrica and Morón, 1997).

Street food is defined as food that is ready to eat. Because of its low cost and taste it has become a popular source of nutrition. In Brazil, the risk of food poisoning from bacterial contamination is heightened by the characteristics of the point of sale, the lack of infrastructure, the nature of the products sold and the lack of sanitary measures. Studies by Catanozi *et al* in Brazil in 1999 reveal the presence of pathogenic micro-organisms and high microbiological counts in different street food locations in the country.

Almeida *et al* (1996) (cited by Hanashiro *et al.* 2004) report that similar studies carried out in Latin American cities indicated a 9.4% to 56.7% frequency of faecal food contamination above established levels. *B. cereus* was higher than the safety limit in 1.7% to 8.1% of street food samples, while 1.9% to 25.2% of samples were above the limit for *S. aureus* (10^3 CFU/g). The safety of street food is therefore clearly a matter for concern not only in the Americas and the Caribbean but throughout the world. However, few countries have formulated specific, practical regulations for the street food trade (Hanashiro A., *et al.* 2004).

In 1991, Peru's street food was considered a source of dissemination of the cholera epidemic (Dawson and Costarrica, 1992). In the same year, three outbreaks of food-borne diseases were detected in Argentina and attributed to sandwiches sold in the street (Cuellar, 1994; FAO, 1991).

The application of improved technologies in the preparation and sale of street food is one of the main strategies adopted by projects to improve sanitary control. Alternatives for adopting improved technologies are to replace sales stands or to partially modify them and recommend and facilitate solutions for each defective aspect.

Both cases require the backing of an institution to provide vendors with accessible financing on favourable terms. For example, Mexico City has developed a prototype sales stand made of stainless steel, as part of an FAO project. Peru has developed two prototypes: one an integrated sales module mounted on a tricycle and made of galvanized iron and steel; the other a less complete hygienic and sanitary module designed to overcome the problems of water supply and elimination of solid waste. The integrated tricycle has been more successful because of its lower cost (Palomino, 1996).

Between 1991 and 1994, FAO provided food hygiene and control training in Latin America and the Caribbean for food handlers, national and municipal food control managers, food inspectors and laboratory analysts (Costarrica and Morón, 1997).

D. Conclusions and Recommendations

- a) The adoption, reinforcement and enforcement of Good Practices is vital for the supply of safe food that protects consumer health, is produced in an environmentally friendly manner and is profitable to producers.
- b) However, if such practices are to be widely applied, countries also need:
 - To strengthen small and medium producers through access to financing, research and the establishment of advisory systems that will facilitate the implementation of GMPs and the HACCP.
 - To raise productivity and quality through training in technical training centres and universities and at the level of basic education, and improve technology processes and transfer.

- To enforce official regulations and step up the level of government control and verification.
- To analyse their current state of street food vending and introduce necessary regulations and measures, and to raise the awareness of street food vendors and provide them with training.
- To educate consumers in food safety, which is vital if they are to understand the risks that are associated with the consumption of street food or food sold informally.
- To group the efforts of all players to achieve the above.

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**FAO/WHO Regional Conference on Food Safety
for the Americas and the Caribbean**
San José, Costa Rica, 6-9 December 2005

INTERNATIONAL AND REGIONAL COOPERATION IN FOOD SAFETY
(Prepared by FAO; PAHO/WHO¹; IICA; OIRSA)

Introduction

Food safety is an essential public health and economic issue for all countries. Microbiological and chemical contamination in food is a major cause of illnesses. Food-borne disease remains a real and formidable problem in both developed and developing countries, causing great human suffering and significant economic losses.

In addition to improving public health, effective food safety systems are also vital to maintain consumer confidence in the food system and to provide a sound regulatory foundation for domestic and international trade in food, which supports economic development. New international trade agreements developed under the World Trade Organization (WTO) have emphasized the need for regulations governing international trade in foods to be based on scientific principles. The Sanitary and Phytosanitary Agreement (SPS) permits countries to take legitimate measures to protect the life and health of consumers, animals and plants provided such measures can be justified scientifically and do not unnecessarily impede trade.

Traditional food safety systems are inadequate to cope with the complex, persistent pervasive and evolving array of food safety issues existing today. In order to effectively cope with, and respond to, the wide range of food safety challenges presently confronting countries, modern national food control systems² need to be based on 1) science, 2) a preventative approach, 3) risk analysis³, 4) a food chain approach⁴, and 5) involvement of all stakeholders.

It is therefore imperative that governments, the private/public sectors, consumers and other stakeholders work in a concerted manner in this shared responsibility of assuring food safety from farm-to-fork. Cooperation at the national, sub-regional, regional and international levels provides opportunities for synergy and maximized benefits for improved human health and economic development.

Role of FAO and WHO in assuring food safety

In response to these concerns, the 53rd World Health Assembly, through Resolution WHA 53.15, requested WHO Director-General the establishment of a global strategy for the surveillance of food-borne diseases and the reinforcement of technical cooperation in member countries regarding food

¹ Note that the names of UN agencies are always listed alphabetically, as reflected throughout this document.

² FAO and WHO have developed guidelines for implementing national food control systems, which outlines the elements of an effective, modern food control system. The guidelines are available from: www.fao.org/es/ESN/food/control_FCS_en.stm

³ More information on the implementation of risk analysis in modern food control systems is available in the FAO/WHO Food Safety Risk Analysis manual, which has been peer reviewed and will be published in early 2006.

⁴ A document (in English and Spanish) outlining FAO's proposed food chain approach is available as CRD 26.

safety and health. In response to this, WHO currently includes food safety among its main ten health priorities; consequently, the food safety programme became the Food Safety Department.

The Pan American Health Organization (PAHO), as the Regional Office of WHO for the Americas, is a catalyzer for assuring that all the people of the Americas enjoy ideal health as well as for contributing to the population well-being. In the area of food safety, it develops a technical cooperation strategic plan focused on the countries, which has been submitted and approved by inter-ministry meetings on health and agriculture as well as by PAHO Directive Council. PAHO is the only region of WHO which counts with a technical group specialized in food safety that has been working with member countries to build a new vision and actions for improving food safety, based on a change of traditional inspection services towards a systematic approach of the entire food chain.

This strategy considers the orientations of the policy given by the Pan American Commission for Food Safety – COPAIA.

In response to recommendations from its governing bodies, such as Recommendation #47 of the 27th FAO Regional Conference for Latin America and the Caribbean to *Develop technical capacities to address the safety and sanitary requirements of the food trade*, and the demonstrated needs of the region, FAO has been undertaking a number of activities, including the implementation of field projects, workshops and training courses and the development of useful tools to assist in the development of effective food control systems. These activities are often conducted jointly with WHO or other relevant organizations.

FAO is the UN agency with a mandate to raise levels of nutrition, improve agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy. Governments are increasingly realizing the importance of reducing the potential for food contamination at the source, which is often at the farm or fishery level. Accordingly, as the production of plant and animal products, as well as food processing and distribution issues are within FAO's mandate, FAO is well-placed to assist countries in implementing a food chain approach to food safety.

In order to achieve this, FAO has developed its strategy for ensuring safe and nutritious food based on an interdisciplinary approach to provide normative, policy and technical advice for implementing prevailing international norms through a mixture of regulatory and non-regulatory interventions, as appropriate, at the most outcome-effective points in the food chain. The implementation of these international norms allows countries to comply with the obligations of the SPS and WTO Technical Barriers to Trade (TBT) Agreements and also ensure national public health. The strategy addresses both formal and informal food chains and allows countries to implement elements of the strategy on a step-by-step basis according to their needs and their capacities. Implementation of the strategy therefore includes enhanced technical assistance and capacity building activities, policy advice to mitigate increased costs, and improved investment by both public and private institutions at appropriate stages in the food chain. It assigns a major role to communication and extension services in its implementation and it also foresees enhanced cooperation with other international agencies working in the same or related fields.

FACTORS WHICH LEAD TOWARDS A NEW APPROACH OF NATIONAL PROGRAMMES FOR FOOD CONTROL

Food safety requires the risk analysis from production to consumption

Traditional programmes for food control are focused on the control of the end product. For example, inspection programmes in meat plants or inspection of food transforming establishments. Currently, for competition purposes, supplies such as food additives, micro-nutrients, pesticides, and veterinary drugs, are inadequately used and they should be controlled throughout the food chain to guarantee their safe use. The last ten years have showed that traditional actions, based on well-defined

problems, are not always sufficient to face new challenges. Bovine spongiform encephalopathy (BSE) and the appearance of contaminants such as dioxin, are examples where the problem started with supplies, but the most important consequences became evident along the food chain.

As previously stated, modern food control systems must be based on risk analysis and address issues across the entire food chain. The FAO/WHO Food Safety Risk Analysis Manual further outlines the application risk analysis as a preventative and science-based approach to ensuring safe food.

Improving the risk analysis capacity

Where public health goals are not being met, the risk analysis allows evaluating options and suggesting modifications in the execution of food control systems. Today, conflict resolution based on science establishes risk analysis as the reference for decision making and highlights the importance of communicating the risk level to all stakeholders. Likewise, risk evaluation should consider an interdisciplinary team. On the other hand, sharing information among governmental agencies, academic institutions and the private sector may result in more solid competitive advantages.

Although traditional approaches (improvement of inspection and analysis systems) have proved to be quite satisfactory, the risk analysis considers susceptibility of populations in combination with low levels of exposure to potential chemical and microbiological hazards. However, further data on food consumption and concentrations of contaminants in food are necessary, particularly in poorer countries, in order to evaluate, manage and communicate those risks, including the establishment of national and international norms. Therefore, interaction with organisms dealing with food and nutritional safety are very important, as well as interactions regarding risk evaluation and management. On the other hand, diagnostic quality is crucial. Hence, FAO and PAHO have identified and linked food laboratories through the Inter American Network of Food Analysis Laboratories (INFAL). Likewise, clinical laboratories have organized themselves through PULSENET Latin America and WHO Global Programme on Salmonella Surveillance (WHO-Global Salm Surv).

As previously stated, FAO, in collaboration with WHO, has developed risk analysis manuals on food safety and in Biosecurity. Training courses and workshops have been implemented based on these manuals and more are planned for the future⁵.

Modern programmes for food control are based on articulation of public and private sectors

The vertical normative approach was the cornerstone of traditional food safety programmes. The private sector was passive, a recipient of negative and positive results from State actions. Expansion towards the entire food chain involved a redefinition of the role of the State and the private sector. The State now includes the ministries of agriculture, health, commerce, tourism and others. Some of its partners are universities and research institutes for evaluation of new technologies and trends. The private sector, as the owner of products and processes, is the most active and has the responsibility of joining to define, support and sustain food safety policies and programmes.

Assuring food safety along the entire food chain requires partnerships and education at all levels. Training is an essential element of the implementation of quality assurance systems and good practices, such as HACCP, GMPs and GHPs, and all other activities involved in producing safe food. In order to improve food safety, all those employed in food production must be thoroughly trained in their responsibilities. In particular, the management should be conscious of the risks associated with the food business and must take adequate steps to mitigate such risks. The application of Good Hygienic

⁵ More information on all FAO capacity building activities in foods safety is available from: http://www.fao.org/es/ESN/food/meetings_workshops_en.stm.

Practices using the Codex Code of Principles of Food Hygiene as well as other Codex specific guidelines for certain foods must be applied.

Public health and food safety

During the last two decades, public health authorities of the countries of the Americas have faced a substantial increase in the number of food-borne diseases. Besides, the task of estimating the occurrence of FBD with a certain degree of accuracy is really difficult since, in many countries, epidemiological surveillance systems are inadequate, occurrence is not properly recorded and only a small number of cases are reported to health services and research is performed on even a smaller number, mainly due to the limited resources of food safety and food inspection management systems.

The responsibility of supplying safe food is shared, from food suppliers to consumers, thus defining a new scope of action for food safety. Biological contaminants such as bacteria, viruses, parasites, fungi and protozoa may be transmitted to food during production or harvesting activities by means of contaminated water, inadequate use of fertilizers, bad hygiene practices, or inadequate food handling during preparation or transportation. Chemical contaminants may contaminate food along the entire food chain and include mycotoxins, dioxins, PCBs, pesticide residues, antibiotic residues, among others, which may lead to the development of antibiotic resistance, veterinary drug residues and heavy metals.

Food Safety: A wider vision

The globalization of food trade poses a transnational challenge to authorities responsible for food safety, since contaminated food from one country may cause an outbreak of disease in another. Agriculture and food industries are in the process of integration and consolidation. This consolidation, together with a growing world trade, implies that large quantities of food coming from the same source are now distributed to much distant places than before, thus creating the possibility of wider and more spread out FBD outbreaks.

In order to reply to the increasing demands for safe food and their international trade, food safety programmes should reflect an extended mandate and a wider vision. Food safety services will no longer be based on the traditional organization of human health within the Ministries of Health. A fundamental condition for national and regional initiatives regarding food safety is to recognize that it is an intersectoral issue which covers the areas of public health, agriculture, fishery, commerce, education, environment and other sectors and that cooperation between those sectors is essential. Measures should be taken to guarantee public health, trade and competitiveness should be increased, food security and tourism should be promoted, and participation, continuity and commitment regarding environmental issues should be strengthened. In order to achieve these objectives, food safety programmes should include the entire agro-food chain, from inputs for production to consumption of the end product.

ACTIONS FOR THE ESTABLISHMENT OF FOOD SAFETY TECHNICAL COOPERATION PROGRAMMES

FAO and WHO have historically worked towards improving food safety along the entire food chain. A report on their activities in capacity building and in the provision of scientific advice was presented as Agenda items 3 and 4 during the 14th Session of the Codex Coordinating Committee for Latin America and the Caribbean in December 2004⁶. Capacity building and the provision of technical assistance have been achieved through collaboration between international organizations, national governments, international and regional financial institutions and NGOs. Activities conducted include the following: 1) the evaluation of institutional structures, legislation/regulations, inspection and laboratory services, infrastructure and human resources and management systems, all for food control;

⁶ An update of FAO's capacity building activities in the region is available as CRD 32.

and 2) formulation of recommendations for improvement and training of food control officers, food control managers, food inspectors and food analysts through seminars, workshops and study tours. FAO and WHO also prepare joint training manuals and guidelines such as the Guidelines for Strengthening National Food Control Systems (previously mentioned), Food Safety Risk Analysis Manual, Codex training package, HACCP for Small and Less Developed Businesses, etc.; provide support for the establishment and strengthening of National Codex Committees; and provide policy advice and assistance in the development of regulatory frameworks. FAO/WHO have also been working together to provide technical assistance to member states in the preparation of applications to the Codex Trust Fund.

FAO and WHO work to complement each other in order to ensure effective utilization of resources. They successfully organized the two Global Fora for Food Safety Regulators in Marrakech, Morocco in 2002 and Bangkok, Thailand in 2004. Many other joint activities have been implemented as described in CAC/28 INF.5. This Regional Conference on Food Safety for the Americas and the Caribbean is another collaborative effort between the two sister organizations.

Other joint regional activities include the following: support to the FAO/WHO Coordinating Committee for Latin America and the Caribbean (CCLAC); FAO/PAHO pre-CCLAC workshops on national involvement in Codex, national food control systems and implementation of risk analysis; and cooperation in the Inter-American Network of Food Analysis Laboratories (INFAL)/Red Interamericana de Laboratorios de Análisis de Alimentos (RILAA), OIRSA, IICA and other relevant agencies are invited to attend the workshops and other activities.

In developing countries, the limited financial resources are frequently directed towards the sectors which according to the governments represent the country's more urgent priorities, such as other health problems, education, housing, sanitation, food acquisition and defense. Issues relating to food safety are not really appreciated and they are generally a low priority within public health programmes since FBDs are considered mild diseases with spontaneous remission. The fact that they have serious consequences on health as well as on trade and economy is often neglected.

The lack of adequacy of food safety services to the present environment and to new challenges is affecting the ability of countries to face the impact on public health, take advantage of opportunities of emerging markets, meet international sanitary and phytosanitary standards, and comply with international demands and agreements. This was more evident in developing countries, which, in spite of having received and allotted resources to better national systems, have not always met the desired goals.

In 2001, the Inter American Institute for Cooperation on Agriculture (IICA) estimated the effectiveness of national services in the Americas to comply with or benefit from the Sanitary and Phytosanitary Measures (SPS) Agreement was less than 40% on average; likewise, estimate institutional sustainability was around 20% on average⁷.

Similarly, in 2003 PAHO made an evaluation using the document FAO/WHO "Assuring Safety and Quality: Guidelines for Strengthening National Food Control Systems", a FAO/WHO joint publication, as reference frame. The study highlights that 18 countries have a level of development in their food safety systems ranging from 25% to 60%, with a global average of 44% and 48%, respectively. It should be noticed that such countries do not even reach an average of 50% in the conditions of the proposed system. Twelve countries have a global average of development level ranging from 58% to 81%. The study is posted on (<http://www.panalimentos.org/evaluacion/evaluacion.sia.espaniol/index.html>).

⁷ Inter American Institute for Cooperation on Agriculture (2002) "Los roles múltiples de la Sanidad Agropecuaria" ("Multiple Roles of Agricultural Health")

In 2002 and 2003, FAO's Food Quality and Standards Service developed, administered, and compiled questionnaires for capacity building in food safety from 99 participants at five pre-Codex workshops, representing at least 48 countries in Africa, Asia, Latin America, the Southwest Pacific, and the Near East. Most of the respondents work in government and have access to the Internet at work. Workshops and seminars were indicated as the most effective food safety training activities (91% of respondents) and Quality Assurance Systems/HACCP/ GHP/ GAP was the area of food safety that respondents most often listed as requiring strengthening in their country. Specific subjects requiring strengthening within each prioritization area were also recorded. The complete results of the survey are available from the FAO website at: ftp://ftp.fao.org/es/esn/food/CB_questionnaire.pdf. These evaluations provide complementary data to enable improved technical cooperation in food safety and quality.

This is partly explained by the low investment of national governments, that normally allot 5% of their national budget to agriculture and, from this amount, only 5 to 10% is allotted to agricultural health⁸. Regarding external funding, generally coming from loans, they are difficult to estimate, but they range between 0,2% and 2% of the total amount these organisms lend for agriculture⁹.

Therefore, the main tools for the countries to promote modernization of national services are technical assistance and investment projects. Traditionally, investment projects have concentrated on infrastructure such as the establishment of quarantine posts and creation of diagnostic labs, and equipment acquisition.

Discussions on the issue of technical cooperation have emerged in different international fora. On the one hand, developed countries have showed concern for the reduced impact that the technical cooperation offered by them and by cooperation agencies has had in developing and less developed countries. On the other hand, and in spite of the important number of resources and actions assigned to date, developing countries continue claiming higher cooperation and the adequate implementation of the concept of technical cooperation.

In order to provide sustainability and guarantee the success of initiatives carried out to improve the capacities inherent to services, they should be based on identification, analysis and prioritization of needs. Hence, it could be very useful for countries to count with an instrument to characterize the performance of institutional and functional capacities of services, in order to continuously monitor improvement and define strategic actions in technical cooperation. There are initiatives such as the so-called Performance, Vision and Strategy (PVS) instrument for veterinary services¹⁰ between IICA and the OIE. Besides, IICA and the Pan American Health Organization (PAHO/WHO) elaborated the PVS for food safety national services and, in a similar fashion it was elaborated for national phytosanitary protection organisms.

FAO has developed a manual on *Guidelines to Assess Capacity Building Needs in Official Food Control Systems*, as a tool to assist national governments to identify their most pressing needs in the area of food control. The manual is currently undergoing pilot testing and will be widely distributed in English, French and Spanish. FAO has also developed a Biosecurity needs assessment tool, which allows countries to evaluate their needs for implementing a holistic approach to food safety, animal and plant health. A Biosecurity Risk Analysis manual has also been developed to assist countries in utilizing risk analysis across these three sectors. Both of these Biosecurity tools have been peer reviewed and will be pilot tested and published as a complete package in early 2006¹¹.

⁸ Pomareda, C. (2001) Proposal of Hemispheric Programme for Agricultural Health and Food Safety, submitted by IICA for consideration of International Organisms for Development Funding, Bilateral Cooperation Agencies. San José-Costa Rica.

⁹ Based on on-line information available at the World Bank and the Inter American Bank for Development website, for the period 1961 to July 2005.

¹⁰ Electronic versions of the instrument in English and Spanish available at OIE (www.oie.int) and IICA (infoagro.net/salud) websites

¹¹ More information on FAO's work in the area of Biosecurity is available from www.fao.org/biosecurity/

As part of its Technical Cooperation Project (TCP) programme, FAO has implemented a number of national projects to assist the countries of the region in improving various aspects of their food control system. In addition, a number of regional projects to strengthen the national Codex committees in the region have been implemented, including Codex training courses in each of the countries of the region. FAO, at times jointly with WHO, has also conducted numerous workshops on food control systems, risk analysis, and other aspects of food safety. Through these workshops and field projects, FAO has assisted countries to conduct a SWOT (strengths, weaknesses, opportunities, and threats) analysis of their food control situation, resulting in a concrete, practical vision of their regional and national needs in food safety¹².

In this way, a set of harmonized tools is available, which helps the countries to establish the current level of performance, reach a shared vision between the public and the private sectors, establish priorities and facilitate strategic planning.

Recently, OIRSA and the member countries have elaborated a harmonized regional strategic plan and national strategic plans for the application of sanitary and phytosanitary measures corresponding to the 2006-2010 period, which integrate the actions and the economic resources necessary for the harmonization of agrosanitary and food safety measures. The execution of plans implies the participation of productive sectors related to different activities, as well as of other entities of the public and academic sector.

The participation of international cooperation in this issue involves facilitating the process of modernization and updating of national services in the countries and the region through different actions. Beginning by providing the countries with a guide of fundamental competencies the services should contemplate. Promoting the training of leaders who could generate and sustain this process of continuous improvement and adaptation to the new environment. Showing the complementary nature of the different technical areas and supporting their process of continuous knowledge. Supporting the countries in learning about and taking advantage of the SPS Agreement and helping them to recognize that the economic factor is not a limiting factor. In turn, the countries should seek the sustainability of their services and the actions they carry out to reinforce them, by means of public-private alliances.

Strengthening the epidemiological surveillance of food-borne diseases

FBD epidemiological surveillance is a key component of any system of food safety which provides fundamental information on the kind of food involved in outbreaks, human groups at risk, practices leading to contamination, development and survival of causative agents in food, and places where food is often inadequately handled. This data is essential for the design of effective management programmes; it also allows monitoring changes in FBD epidemiology and identification of new pathogens, food patterns and habits, which may represent a risk for public health. An epidemiological surveillance programme should provide the necessary information to validate the efficacy of national food controls and the rapid response to FBD outbreaks.

Epidemiological surveillance is the base to formulate national strategies for the reduction of risks related to contaminated food consumption. Early detection of recent problems posed by food, detailed and precise knowledge of the nature and the level of food-borne diseases is a previous condition for the adoption of measures aimed at lowering such levels. Therefore, the current shortage of reliable data on FBDs in most countries is the major obstacle to carry out preventative interventions based on information.

An epidemiological surveillance system integrating epidemiology and inspection services and FBD surveillance laboratories at local level will allow to associate FBDs with consumption of

¹² More information on all these activities can be found on the FAO website at: http://www.fao.org/es/ESN/food/capacity_en.stm

contaminated food. This line of action is adequately framed within the development of the concept of public health surveillance, where all international organization may interact. For example, FAO, IICA, OIRSA with their actions at the level of primary production and strengthening of food safety systems of the countries, interact with PAHO experience to strengthen epidemiological surveillance systems.

Improving the capacity for effectively managing risks with the use of preventative approaches

In food safety, inequities are dramatically marked between developed countries which have expanded their capacity to protect the population from exposure to microorganisms and chemical substances in food, and developing countries which have many priorities competing in their health agendas, and where food safety is not recognized as a crucial issue for the health of their population, especially because consumers do not see the importance of the availability of safe food. In developing countries, the consumption of artisanal food is common, there is less availability of processed food, large volumes of fresh food are commercialized in traditional markets, and food consumed outside the household is typically prepared by street-vendors. Most concerns about food safety are related to inadequate use of agricultural chemical substances, inadequate storage, lack of food inspection, absence of infrastructure such as running water and adequate refrigeration and lack of awareness regarding food safety and hygiene. The technical cooperation agenda of all the organisms working on this issue interacts promoting consumers education (WHO programme of the five keys for food safety), building capacities in the areas of good hygiene practices and hazard analysis and critical control points (FAO; PAHO, OIRSA and IICA training programmes).

Food safety in the regulatory framework of the countries

The Codex Alimentarius Commission, a joint FAO/WHO body whose secretariat is headquartered at FAO in Rome, works to establish international food standards and related texts¹³. The aim of the Codex Alimentarius Commission is to protect the health of consumers and to ensure fair practices in the food trade. The WTO SPS Agreement, which seeks to enable countries to protect human, animal or plant life or health in their country while ensuring that such standards do not act as an unjustified trade barrier, recognizes Codex standards as benchmarks for international trade. The WTO Technical Barriers to Trade (TBT) Agreement, which works to ensure that regulations, standards, testing and certification procedures for all products do not create unnecessary obstacles to trade, also refers to the use of international standards. Participation by individual countries in the work of Codex had proved difficult due to cost and capacity constraints. This greater acceptance of Codex standards, as well as the establishment of the FAO/WHO Codex Trust for Enhanced Participation in Codex, has increased the interest of countries in the activities of the Codex Alimentarius Commission. Preparation and presentation of country positions on issues often require a great deal of effort so WHO and FAO have developed a training package on the work and procedures of Codex to assist member states. Countries in the region do not only need to be physically present in Codex meetings, but they also need assistance to provide relevant data to the Codex system and to take an active part in the standard setting process. Strengthening of regional capacity building efforts in order to foster regional cohesiveness that will allow all countries of the region to have a common and more effective voice is paramount. In view of the fact that national standards are often dictated by trading partners whose standards may be too stringent, member states could consider the application of regional standards for levels of contaminants in foods.

FAO and WHO also work together through expert bodies such as the Joint FAO/WHO Expert Committee on Food Additives and Contaminants (JECFA), the Joint FAO/WHO Meeting on Pesticide Residues (JMPPR), the Joint Expert Meetings on Microbiological Risk Assessment (JEMRA) to provide scientific advice to Codex member countries.

¹³

All Codex texts, meeting agendas and reports, and other information on Codex is available from the Codex website at: www.codexalimentarius.net

AO has implemented technical cooperation projects in all countries in the South and Central American region, as well as workshops to assist countries in improving their understanding of and participation in Codex.

FAO, WHO-PAHO, IICA and OIRSA work by strengthening the participation of the countries in the elaboration of norms, guidelines and recommendations of the *Codex Alimentarius* Commission, supporting the active participation of the countries in the task of the Commission and its subsidiary organs. The Codex has elaborated many international norms on food safety, and generally the countries have used them in their national legislation. The elaboration of international norms based on health and their adoption by some countries will improve food safety both at the domestic market and at global level. In many countries, effective food control is hindered by the existence of a fragmented legislation, multiple jurisdictions and weak supervision and application. The existence of national control systems and food regulation is essential to guarantee the health of the population of the country. FAO and PAHO support the Coordinating Committee of the *Codex Alimentarius* for Latin American and the Caribbean (CCLAC) with the organization of technical workshops and supporting the development of strategies to encourage the countries of the Region for actively participating in the work of the *Codex Alimentarius*. Within the wide frame of food safety, PAHO has created the Regional Information System of Food Legislation – LEGALIM, in order to provide the countries of the region with a system whose database allows saving and processing full texts of their food legislation, updated and in force. IICA has created a database of official organisms which certify food exports by country, according to their source and degree of food processing; this information is available via the informative bulletin AGROSALUD¹⁴.

FAO has developed the International Portal on Food Safety, Animal and Plant Health (www.ipfsaph.org) in cooperation with Codex, IPPC, OIE, WHO and WTO to provide easy access to international standards and other official information from partner international agencies. The Portal also provides a view on national legislation and related texts from the EU, USA, and smaller data sets from a pilot group of developing countries (24,000 records in November 2005). The latest version includes up-to-date information on the Codex-established maximum residue limits (MRLs) for veterinary drugs and pesticides, as well as the JECFA and JMPR evaluations of these substances; navigation in English, French and Spanish; and a "help desk" for questions users may have regarding the portal.

A regional portal for the Latin America and the Caribbean region is also under development. The "Portal Regional de Inocuidad y Sanidad Agroalimentaria (PRISA)" will exclusively focus on food safety and animal and plant health concerns of the region. It will include national information on standards, regulations and legislation, notifications, organizations and contact points, as well as relevant news and events from across the region. The prototype version of the system will be launched at the end of the first quarter 2006, and the site will be available in English, Portuguese and Spanish.

Consumer Education

An especially important role of the food industry in assuring food safety is communication with consumers. The industry widely uses integrated communication including advertising, marketing and product promotion. Product labelling is another means of communication that allows the consumer to make informed decisions on products. Labels must therefore avoid making false and misleading health claims. Advertising and labelling must not only be used as one-way communication systems but must allow informed consumer feed-back to food producers and distributors.

The governments, the industry and the academic sector will share the responsibility of conceiving and applying risk analysis systems that make emphasis on risk communication. Consumers should not be passive and it is necessary to encourage them to more deeply study the questions of food safety, as governments and educational institutions usually do. This is particularly true if the new

¹⁴ infoagro.net/salud

problems are related to hygiene practices adopted at households or to other measures that may have an important function in FBD prevention.

In this regard, it is essential to promote the participation of the community so that it feels identified with the problem and incorporates desirable behaviors that contribute to food safety to its health culture. Therefore, it has been suggested that technical cooperation in social communication and education should be based on structuring of models, where the five keys for food safety proposed by WHO is a key element both for the establishment of campaigns and for educational materials; from there, a joint work of the agencies to be implemented at the level of the countries should be developed. Establishing work relationships allows the development of communication pieces with educational messages promoting adequate food handling.

Consumer groups are invited to participate in Codex activities, all relevant food safety workshops, electronic discussion forum, etc. In June 2005, FAO/WHO facilitated a meeting of consumer non-governmental organizations at which the Guidelines for Consumer Organizations to Promote National Food Safety Systems was developed. Representatives of consumer groups are invited to participate, as appropriate, in expert and technical consultations related to food safety.

CONCLUSIONS

It is imperative to strengthen the technical cooperation articulated in the field of food safety so that every country in the Region, and in other Regions, could be supported for the generation of national capacities according to the abovementioned demands.

At the same time, international organisms should act as linking and consultation centers based on promotion of updated and relevant information and effective training, for the resolution of problems. They should finally be able to facilitate bilateral and multilateral cooperation to make possible agreements, joint projects, and missions, viable through mobilization of trained human resources of the countries and, only when necessary, experts in specific areas. All this aligned with the optimization of the use of resources according to the cost/benefit analysis.

FAO, WHO-PAHO, IICA and OIRSA should support the member countries to avoid superposition and duplications and promote the implementation of national systems for food safety with a comprehensive approach including every food along the entire food chain.

Assuring food safety is a shared responsibility between all stakeholders, especially civil society, consumers and industry, that must have a common vision in order to succeed. In the Americas and the Caribbean, guaranteeing food safety involves activities conducted by several agencies and institutions whose mandates are often not clearly defined. This has resulted in fragmentation of the food control system and inefficient use of resources. Cooperation and coordination at national, subregional, regional and international levels is required to improve effectiveness and thus protection of the health of the consumer and opportunities for trade.

**FAO/WHO Regional Conference on Food Safety
for the Americas and the Caribbean**
San José, Costa Rica, 6-9 December 2005

**CAPACITY BUILDING IN THE REGULATION AND SAFETY ASSESSMENT OF
FOODS DERIVED FROM MODERN BIOTECHNOLOGY -
A CANADIAN PERSPECTIVE**
(Prepared by Canada)

Introduction

1. Modern biotechnology involves the application of techniques that overcome the natural physiological reproductive or recombinant barriers and that are not techniques used in traditional breeding and selection (e.g. recombinant DNA technology, direct injection of nucleic acids, cell fusion). Using these techniques, researchers can take a single gene from a microorganism, plant or animal cell and insert it into another microorganism, plant or animal cell to give it a desired characteristic, such as a plant that is resistant to a specific pest or disease¹.
2. Genetic modifications that can change the agronomic, production, processing or nutritional characteristics of microorganisms, plants and animals are now routinely achieved using the techniques of modern biotechnology. However, the wide variety of manipulations possible through genetic modification, and the potential for the introduction of toxic compounds, unexpected secondary effects and changes in the nutritional and toxic characteristics of the food product requires that a thorough pre-market safety assessment be undertaken.
3. Several countries have put in place requirements and procedure for the pre-market assessment of genetically modified organisms and foods derived from them. In the context of food safety, such requirements are based upon scientific principles developed through expert international consultation with agencies such as the, Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO), the Organization for Economic Co-operation and Development (OECD) and, more recently, the Joint FAO/WHO Codex Alimentarius Commission, which elaborates international food standards and guidelines.
4. In July 2003, the Codex Alimentarius Commission adopted three documents, developed by the Codex Ad Hoc Intergovernmental Task Force on Foods Derived from Biotechnology, that relate to foods derived from biotechnology. The *Principles for the Risk Analysis of Foods Derived from Modern Biotechnology*² lays out a framework for undertaking risk analysis on the safety and nutritional aspects of foods derived from biotechnology and is supported by two guidelines that describe a detailed approach to conducting the safety assessments of these foods: 1) *Guideline for the Conduct of Food Safety Assessment of Foods Derived from Recombinant-DNA Plants*³ and 2) *Guideline for the Conduct of Food Safety Assessment of Foods Produced using Recombinant-DNA Microorganisms*⁴. These internationally agreed upon documents reflect the expertise and experience of those countries, including Canada, with a history of regulating products of biotechnology. Non-governmental organizations such

¹ Cartagena Protocol on Biosafety. Available at <http://bch.biodiv.org/about/default.shtml>.

² Codex Alimentarius. Principles for the Risk Analysis of Foods Derived from Modern Biotechnology. 2003. Available at ftp://ftp.fao.org/es/esn/food/princ_gmfoods_en.pdf

³ Codex Alimentarius. Guideline for the Conduct of Food Safety Assessment of Foods Derived from Recombinant-DNA Plants. Available at ftp://ftp.fao.org/es/esn/food/guide_plants_en.pdf

⁴ Codex Alimentarius. Guideline for the Conduct of Food Safety Assessment of Foods Produced using Recombinant-DNA Microorganisms. Available at ftp://ftp.fao.org/es/esn/food/guide_mos_en.pdf.

as Greenpeace and Consumers International participated in the development of these international standards and endorsed their adoption.

5. With regard to capacity building, it is important to note that the *Codex Principles for the Risk Analysis of Foods Derived from Modern Biotechnology* states that “efforts should be made to improve the capability of regulatory authorities, particularly those of developing countries, to assess, manage and communicate risks, including enforcement, associated with foods derived from modern biotechnology or to interpret assessments undertaken by other authorities or recognized expert bodies, including access to analytical technology. In addition, capacity building for developing countries either through bilateral arrangements or with assistance of international organizations should be directed toward effective application of these principles.”

6. Over the past several years, Canada has led and participated in a number of capacity building initiatives aimed at sharing our regulatory and safety assessment experience with countries that have requested guidance in this area. Training workshops were conducted to provide regulators in these countries with information on the most recent advances in the evaluation of foods derived from biotechnology based on the experiences of countries that have conducted safety assessments of these products. The present document will focus on how these capacity building initiatives have been successful in promoting a harmonized international regulatory approach for foods derived from biotechnology and describe future work being planned in order to further our outreach efforts to different regions around the world.

A Canadian Experience in Capacity Building

7. Recent technological advances in the field of foods derived from biotechnology have been especially challenging for developing countries in assessing the potential impact on their populations. Some developing countries have shown significant interest in acquiring the technical knowledge and skills to better manage the evaluation and regulatory control of these foods. Due to the complex nature of these assessments it was felt that hands-on training workshops using actual case studies would be highly beneficial in demonstrating how the concepts and principles developed internationally can be practically applied to assessing the safety of foods derived from modern biotechnology.

8. This led to Canada developing a number of training modules on the safety assessment of foods derived from modern biotechnology. Since 1999, Canadian officials have delivered capacity building workshops to over twenty countries, providing regulators with hands-on experience in the food safety assessment of foods derived from genetically modified organisms. While the original modules were based on Health Canada's *Guidelines for the Safety Assessment of Novel Foods*⁵, more recent case studies reflect the risk analysis principles and safety assessment guidelines recently endorsed by the Codex Alimentarius Commission.

9. Basing these workshops on the internationally agreed-upon Codex principles and guidelines has given Canada the opportunity to co-deliver capacity building workshops in collaboration with other national food safety authorities, such as the Food Standards Australia New Zealand (FSANZ), the US Food and Drug Administration (USFDA), and the Health Council of the Netherlands. In addition, close collaboration with multilateral organizations such as the Association of Southeast Asian Nations, the Asia-Pacific Economic Cooperation, the International Life Sciences Institute, and the OECD, has allowed these capacity building efforts to have a regional focus by facilitating the participation of officials from several neighbouring countries in any given workshop.

10. More recently, FAO, in collaboration with WHO, has invited Canada and the OECD to work on a capacity building project. The objective of the project is to develop a standardized training package to

⁵ Health Canada. Guidelines for the Safety Assessment of Novel Foods. Available at http://www.hc-sc.gc.ca/fn-an/gmf-agm/pol/index_e.html

assist countries in implementing the internationally accepted risk analysis principles and safety assessment approach for foods derived from modern biotechnology. This project will involve training regional experts (i.e., train-the-trainer) to deliver workshops in their home countries.

Conclusions and Lessons Learned

11. The approach to the safety assessment of genetically modified (GM) foods taken by Canada is currently applied by regulatory agencies around the world in countries such as the European Union member states, Australia/New Zealand, Japan and the United States. This safety assessment process is consistent with the international standard for the safety assessment of GM foods adopted by the Codex Alimentarius Commission.

12. The safety assessment principles and criteria used by workshop participants are based on the Codex Guideline for the Conduct of Food Safety Assessment of Foods Derived from Recombinant-DNA Plants. This promotes a harmonized internationally accepted approach to the safety assessment of GM foods.

13. Greater success was achieved when training workshops were facilitated in collaboration with different regulatory organizations. Workshops co-delivered with FSANZ, USFDA and European Union regulatory authorities promoted a more consistent and predictable international assessment approach.

14. Capacity building workshops provide participants with information on the most recent advances in the evaluation of foods derived from modern biotechnology based on the experiences of countries that have conducted safety assessments of these products. Properly trained regulators can enhance the safety of foods thereby improving the health of its consumers and ensuring the safety of foods entering international trade.

15. It is apparent from these workshops that some developing countries would benefit from further assistance to establish the technical capacity to conduct safety assessments of GM food products. The development of a standardized training package by the FAO will ensure consistency and uniformity in the application of international standards and will meet a vital need for delivery of regional training programmes.

Agenda Item 9

AC 05/7

**FAO/WHO Regional Conference on Food Safety
for the Americas and the Caribbean**

San José, Costa Rica, 6-9 December 2005

**THE CONSUMER: ACTIVE PARTICIPATION
IN FOOD SAFETY COMMUNICATION***(Prepared by Consumers International)***Introduction**

Consumers International is a global federation of consumer organizations working to realize consumer rights throughout the world. Food insecurity and the assurance of food quality and safety are the most pressing problems currently facing the consumer movement. Selected indicators prompting our concern are that:

- The Food and Agriculture Organization of the United Nations (FAO) estimates that there were 53 million people living in a condition of undernourishment in Latin America in 2003.¹
- The economic and political reforms that have been introduced in the region since the 1980s have not reduced the levels of rural poverty that had previously accumulated in Latin America and the Caribbean. On the contrary, the scale and incidence of rural poverty has slightly increased in the region and most countries.² Studies indicate that *rural poverty in Latin America* worsened between 1980 and 1999, with the rural poor increasing in number from 73 to 77 million. The most vulnerable social groups are women heads of household, indigenous groups and the rural elderly and children, who cannot really be considered as consumers. A large number of rural households therefore live in a state of nutritional vulnerability.
- The absence of healthcare leads to high morbidity and mortality, which impacts on the quality of life and production capacity of individuals and can have serious repercussions on a country's development. Despite government efforts, consumer living conditions are still inadequate as a high percentage of homes lack proper water and sanitation services, which has serious implications for their health and nutritional status.
- There are also problems of safety of the food they consume, with some 5 500 outbreaks of food-borne disease in the Americas in the last five years, according to the Pan American Institute for Food Protection and Zoonoses (INPPAZ). Food sold in the street often fails to comply with food quality and safety assurance standards. Other aspects impacting negatively on consumers are the contraband of food products and misleading advertising.

Consumers International (CI) and its member organizations in the region have been working to promote the right to food as a basic right of all consumers, with food security and the assurance of food safety seen as fundamental principles. CI has worked for many years to achieve these objectives through:

- Research
- Training
- Campaigns

¹ Food and Agriculture Organization of the United Nations (FAO) 2003. *The State of Food Insecurity in the World*.

² FAO-FODEPAL, Walter Belick, *Políticas de Seguridad Alimentaria y Nutrición en América Latina*, Editora Hucitec, Sao Paolo, 2004.

- Communication and information
- The participation and representation of CI and its member organizations at the national, regional and global levels.

All these activities seek to ensure that government decisions safeguard consumer interests. These and advocacy actions are and have been crucial elements in the democratic process of government decision-making.

It is important to highlight Consumers International's reaffirmation of the centrality of wholesome and safe food to the development of the human capabilities that underpin any process of welfare or modernization. That is why CI's Office for Latin America and the Caribbean has adopted participation, representation and food safety advocacy as priority lines of action, working actively in the Pan American Commission for Food Safety (COPAIA), which is a collective effort of all Member States of the Pan American Health Organization (PAHO), in the Codex Alimentarius and, through its member organizations, in the food safety programmes of the countries of Latin America.

Consumer participation in the Pan American Commission for Food Safety (COPAIA)

The consumers' movement of Latin America and the Caribbean has been participating actively in the meetings of COPAIA and its special working groups since May 2001, when the Commission was established. Work under COPAIA has enabled CI to step up its food safety activities, to consolidate its formal relations and to work in a more coordinated manner with PAHO, in accordance with Resolution N° 134.R7 of the 134th Session of the Executive Committee held in June 2004. In practical terms, this has led to a series of regional training initiatives in food security and food safety carried out by CI-ROLAC in the Dominican Republic (September 2002), Ecuador (March 2003), Barbados (April 2004) and Colombia (August 2004), with technical cooperation from PAHO and FAO. These activities aimed to strengthen the nutritional expertise of the leaders of consumer organizations and allied associations in the countries of the region, placing an emphasis on food safety and an integrated "farm to consumer" approach, and to promote the World Health Organization's *Five keys to ensuring food safety*.

The food safety campaign initiated by CI-ROLAC "*Wholesome food, safe food: responsible consumers*" receives technical cooperation from PAHO/INPPAZ with whom it has a comprehensive work relationship from planning and development in the countries of the region.

The first phase of implementation of the pilot campaign was conducted in the first half of 2004 in Uruguay, Bolivia, Ecuador, Peru and the Dominican Republic, during which the consumer organizations of these countries intensified their actions, paying particular attention to food-borne diseases, street food and consumer participation in the Codex Alimentarius.

The second phase of implementation has been in full operation since May 2005, with the involvement of consumer organizations in Bolivia, Peru, Ecuador, Nicaragua, the Dominican Republic and Colombia. This has continued to provide training and information to consumer organizations in each country, with a focus on WHO's five keys to ensuring food safety, consumers food rights, the quality and safety of water, street food and consumer involvement in national safety programmes. Each workshop benefited from technical cooperation from the ministries of health and agriculture, PAHO, the municipalities and Consumers International, and included the active participation of civil society organizations.

The campaign web page (<http://www.panalimentos.org/consumidores/acamp.htm>) and information materials produced with technical cooperation from PAHO/INPPAZ are also fundamental tools for consumer training and information.

Selected campaign outputs:

Organizations in Peru and Bolivia act as citizen watchdogs over the sale of questionable or forbidden products failing to comply with health or Codex standards. They report the matter to the competent authorities in defense of consumer rights and have businesses modify or recall their products in protection of consumer health.

SEDEC-BOLIVIA has promoted Bolivian standard 329007 on the "Code of hygienic practices for the preparation, distribution and storage of food in hospital centres". Bolivia's Ministry of Health has issued a resolution making this code and its implementation guide mandatory for the country's healthcare sector.

ASPEC-PERU oversees the "Multidisciplinary programme for the promotion of food security and safety" which was established at the latest event to be organized under the "*Wholesome food, safe food: responsible consumers*" campaign.

FUNDECOM-DOMINICAN REPUBLIC provides the consumer delegation to COPAIA, in the same way as SEDECO-BOLIVIA and CUA-URUGUAY who attended the meeting held in Mexico in April 2005.

Consumer participation in the Codex Alimentarius

Codex Alimentarius standards have a strong potential impact in Latin America, notably because of their implications for the international trade in foodstuffs.

CI's project to strengthen the involvement of consumer organizations in Codex processes has helped raise consumer influence at national, regional and international level. Prominent achievements include the technical briefing of leaders of consumer organizations in the region, the involvement of many new consumer organizations in Codex work and the assistance given to make them more active at national and international level.

However, despite these efforts, a study conducted by CI at the end of 2002 among 17 consumer organizations in 16 countries revealed that 35.3% of organizations considered their participation in Codex work at national level to be poor or unsatisfactory while 29.4% declared it to be non-existent, making a total 64.7% unsatisfied with the level of participation granted consumers in Codex activities. A recent study by Bolivia's Consumer Education Service (SEDECO) and CI, released in August 2004, indicates that of 19 Latin American consumer organizations working in the area of food, 90% report a priority focus on foods derived from biotechnology, followed by food safety, food security and responsible production and consumption.

The same study shows that their food safety work is still not integrated; they focus primarily on Codex standards and concentrate on selected committees, such as that on food hygiene, labelling, pesticide residues and residues of veterinary drugs in foods.

The consumer organizations of the countries of the region have participated in training workshops held in the framework of national and subregional FAO technical cooperation, projects to strengthen the management of Codex Contact Points and National Codex Committees in Brazil, Chile, Argentina and Uruguay and more recently the countries of Central America, Panama and the Dominican Republic <http://www.rlc.fao.org/prior/comagric/codex/rla0065/0065.htm>, the Andean Region countries (Bolivia, Colombia, Ecuador, Peru and Venezuela), <http://www.rlc.fao.org/prior/comagric/codex/rla2904/default.htm> and Paraguay <http://www.rlc.fao.org/prior/comagric/codex/par2801/default.htm>. These projects have boosted the involvement of consumer organizations in National Codex Committees and their technical subcommittees.

Successful Codex work includes that of the Peruvian consumer organization ASPEC which was appointed to serve as technical secretariat of the committee on food labelling of its country. It has participated in international meetings such as that of the Committee on Food Hygiene. SEDECO and CODEDCO are involved in the National Codex Committee of Bolivia and various technical subcommittees. They were also in the Bolivian delegation to meetings of the Committee on Nutrition and Foods for Special Dietary Uses and the Committee on General Principles and the recent meeting of the Codex Coordinating Committee for Latin America and the Caribbean held in Buenos Aires in December 2004.

The Trust Fund set up by FAO/WHO to bolster participation in Codex, especially of developing countries, has been widely publicized by CI among consumer organizations to encourage them to lobby their governments and the Codex focal points for their rightful participation.

While progress has been made and there is now a greater involvement of consumer organizations in the work of Codex, the situation is not uniform throughout the region. Consumer participation is still manifestly inequitable and is inadequate when compared to the involvement of other players in the food chain, including at national level.

Recommendations

Consumers International and its member organizations have constantly voiced their concerns and recommendations to governments in their position papers for COPAIA, their surveys, their findings and their reports on leader training and events carried out under the "Wholesome food, safe food: responsible consumers" campaign. Important among these are that:

- Consumers should be actively involved in the establishment of national food safety policies throughout the process, from planning, through implementation, to evaluation.
- Governments should promote the formation and/or consolidation of a cross-sector national commission, including consumers and tasked with appraising its food safety programme and identifying regulatory and implementational inadequacies, so that solutions can be found for more effective programme management with priority given to the protection of consumer health.
- The need to raise the involvement of civil society in the surveillance, prevention and control of food-borne diseases and to establish mechanisms of dissemination and active consumer participation in surveillance and warning systems.
- Governments and intergovernmental agencies should work increasingly with consumer organizations in designing, promoting and implementing food safety education campaigns that emphasize the prevention of food-borne diseases and healthy consumer habits and that are especially geared towards the at-risk populations that include the poor, children, pregnant women, the elderly and persons with deficient immunity systems.
- Foods not meeting quality and safety standards and rejected on international markets should not be made available for domestic consumption. Governments should pay special attention to the control of imports, exports and foods for domestic consumption to avoid exercising double standards.
- Governments, intergovernmental organizations and cooperation agencies should be encouraged to support consumer organizations in the process of institutional consolidation, capacity building, the formulation, financing and sponsoring of food safety projects, and in promoting healthy and responsible consumption.
- Governments should promote mechanisms to ensure that consumer organizations are actively involved in the formulation and/or updating of food safety regulations.
- Consumer involvement in countries receiving inputs from the FAO/WHO Trust Fund should be monitored to enhance their participation in the formulation of Codex standards.

- Food safety policies should exist as public policies and governments should demonstrate their explicit political will to reinforce and modernize control programmes. As related government policies regrettably tend to be affected by changes in government, there is a need for public policies that will guarantee the continuity of processes, with the allocation of added technical and economic resources for these to develop effectively.

The design and/or updating of related policies – aimed at helping achieve the Millennium Development Goals within the established time frames – requires an early assurance of political support and the active participation of civil society and consumers. A dynamic technical approach needs to be applied and socio-economic aspects, such as poverty and culture, need to be taken into consideration to avoid such policies becoming barriers to the implementation of programmes to ensure the food security and food safety of the consumers of Latin America and the Caribbean.

**FAO/WHO Regional Conference on Food Safety
for the Americas and the Caribbean**
San José, Costa Rica, 6-9 December 2005

LIST OF CONFERENCE ROOM DOCUMENTS

Agenda Item	Document	Document Reference	Language
5.	Sistema nacional de inocuidad de los alimentos en Nicaragua: Análisis de la situación	CRD 1	S
5.	Informe situación nacional de la inocuidad alimentaria en Honduras	CRD 2	S
5.	Situación actual del control de la inocuidad de alimentos en Venezuela: Análisis de la situación	CRD 3	S
5.	Sistemas nacionales de inocuidad de los alimentos en las Américas y el Caribe: análisis de la situación en Costa Rica	CRD 4	S
5.	National food safety systems in the Americas and the Caribbean- a situation analysis - Guyana	CRD 5	E
5.	Situación actual de la inocuidad alimentaria – Paraguay	CRD 6	S
5.	Análisis del sistema nacional de inocuidad de alimentos - Peru	CRD 7	S
5.	Sistemas nacionales para la inocuidad de los alimentos en México – Análisis de la situación	CRD 8	S
5.	Análisis de situación de la República Argentina	CRD 9	S
5.	Diagnóstico de la situación actual en el control de la inocuidad y calidad de los alimentos en Ecuador	CRD 10	S
5.	Sistema nacional de inocuidad de los alimentos: análisis de la situación en Colombia	CRD 11	S
5.	Programa nacional de control e higiene de los alimentos - Chile	CRD 12	S
5.	The food safety regulatory system in Canada	CRD 13	E
5.	National food safety system in Antigua and Barbuda	CRD 14	E
	Red interamericana de laboratorios de análisis de alimentos - FAO/INPPAZ/OPS-OMS	CRD 15	E/S
9.	Report on campaign to increase food safety awareness among consumers in Belize	CRD 16	E
5.	Elaboración e implantación de la legislación de buenas prácticas para servicios de alimentación en Brasil	CRD 17	S
9.	Esteviosido -Paraguay	CRD 18	S
4.	Sistema de Gestión de la Inocuidad basado en el Análisis de Peligros y Puntos Críticos de Control HACCP en la Industria Alimenticia Cubana	CRD 19	S
4.	Garantía de Inocuidad en productos pesqueros en el ámbito de la producción, elaboración y procesamiento en Cuba	CRD 20	S
	Metodología para el establecimiento de límites máximos de residuos nacionales - Cuba	CRD 21	S
	Manual de Métodos de Análisis de Residuos de Plaguicidas - Cuba	CRD 22	S
	Determinación de residuos de plaguicidas en cítricos - Cuba	CRD 23	S
	Establecimiento de Términos de Carencia de Plaguicidas en Diferentes Cultivos - Cuba	CRD 24	S
8.	Evaluación de la equivalencia del proceso de elaboración de queso a la pasteurización - Honduras	CRD 25	S

Agenda Item	Document	Document Reference	Language
	FAO's strategy for a safe and nutritious food supply - FAO	CRD 26	E
	Mercados saludables y productivos – Experiencia en la incorporación de la inocuidad de alimentos en Santa Cruz de la Sierra, Bolivia - PAHO	CRD 27	S
	Informe Inocuidad Alimentaria 2005 – Organización de Programas Nacionales Integrados de Protección de Alimentos - Bolivia	CRD 28	S
	Improving the effectiveness of national food control systems in the English-speaking countries - PAHO	CRD 29	E
	Programa de mercados y restaurantes saludables de la red de municipios y comunidades saludables de Lima y Callao - propuesta de trabajo – PAHO	CRD 30	S
6.	Fresh Fruit and Vegetable Food Safety Program in Canada	CRD 31	E/S
	Capacity Building for Food Quality and Food Safety: Selected Activities in the Americas and the Caribbean of the Food and Agriculture Organization - FAO	CRD 32	E
	Actividades en inocuidad alimentario de la oficina para America Latina y el Caribe de Consumers internacional	CRD 33	S
	Strengthening the role of Caribbean consumers in food safety - PAHO	CRD 34	E
5.	Importance of Stakeholder collaboration in Canada's food safety system	CRD 35	E/S
	La Prevención de Riesgos en las Cadenas Agroalimentarias - Argentina	CRD 36	S
	Proposed PAHO/WHO Plan of Action for technical cooperation in food safety, 2006-2007	CRD 37	E/S
	Report of the WHO/PAHO Collaborating Center For Food Virology - PAHO	CRD 38	E
11.	Las repercusiones de los acuerdos comerciales multilaterales y las medidas de comercio en la inocuidad de los alimentos, la salud humana y de las plantas	CRD 39	E/S
5.	Sistemas nacionales para la inocuidad de los alimentos en las Américas y el Caribe – análisis de la situación - Bolivia	CRD 40	S
6.	Armonización y estandarización de procedimientos para el control de los alimentos y bebidas procesadas - Bolivia	CRD 41	S
7	Garantizar la inocuidad de los alimentos - Bolivia	CRD 42	S
	Actividades de extensión en el tema de inocuidad - Costa Rica	CRD 43	S
5.	Situation analysis of food safety systems in the Americas and the Caribbean – Trinidad and Tobago	CRD 44	E
5.	Análisis de situación del sistema nacional e inocuidad de los alimentos en República Dominicana	CRD 45	S
5.	Improving the effectiveness of Jamaica's food control system	CRD 46	E
	La necesidad de fortalecer los programas nacionales de monitoreo del uso de los antimicrobianos en medicina veterinaria en la región - PAHO	CRD 47	S
	Examples of risk assessments for food safety policy analysis – WHO Collaborating Centre for Risk Assessment and Hazard Identification	CRD 48	E
	Proyecto piloto – Adaptación del manual 5 claves de la OMS para la inocuidad de los alimentos en escuelas primarias de Guatemala	CRD 49	S

**REPORT OF THE FOOD SAFETY INSTITUTE OF THE AMERICAS WORKSHOP –
“Integrating Food Safety Education, Information, Communication and
Outreach in the Americas”
8 December 2005**

The Food Safety Institute of the Americas workshop on the Institute and its plans for food safety education and information in the Hemisphere began with a luncheon address by the Honorable Mark Langdale, U.S. Ambassador to Costa Rica, who appropriately reminded the group of the critical role of food safety not only in Costa Rica but across the world. The peoples of the world are unable to feed themselves, provide for their families' health or trade in food products for their economies without the careful attention to the safety of the food supply.

The workshop on 8 December 2005 was attended by participants from 25 countries in addition to representatives of many regional organizations such as FAO, PAHO, IICA and others. After opening remarks by Linda Swacina, Executive Director, of the Food Safety Institute of the Americas, the workshop began in earnest with reports on the strategic plan changes made from input throughout the countries of the Americas.

The Food Safety Institute of the Americas (FSIA) was formed in October 2004 under leadership of the USDA Food Safety and Inspection Services. FSIA has three partner institutions: University of Florida, Institute of Food and Agricultural Sciences; Miami Dade College, and Michigan State University. The vision of FSIA is to harmonize and improve food safety education and information throughout the Americas and to harmonize the adoption of food safety materials and not to do the actual training. There are already many materials available from FAO, IICA, PAHO and others. FSIA will use those and seek out all valuable materials. Another area of concern is food defense. FSIA will assist in dissemination of educational materials and linkage of programs throughout the hemisphere. This workshop provided the 1st regional planned activity outside of US. Two previous public meetings had been held in Miami with many countries attending and providing valuable changes and input. FSIA continues to invite input and active affiliation from the hemisphere's food safety regulatory community. The FSIA partner schools completed an assessment of the various needs of the countries in the hemisphere. The partner schools were challenged to use input from needs assessment to craft a strategic plan. Attendees at the workshop were asked to provide additional input and all attendees will be contacted for their specific suggestions as to how to proceed.

Attendees were provided documents on the actual survey, the amended draft FSIA strategic plan including comments, a brochure outlining the vision and objectives, as well as a Q & A document. Evaluation of the workshop will be considered in any future hemispheric sessions.

Dr Douglas Archer, former U.S. Assistant Surgeon General, now principal investigator for the FSIA project with the University of Florida, presented the amended draft strategic plan which had been written based on a needs assessment sent to the Ministries of Health and Agriculture throughout the Americas. A proposed strategic plan was developed from results of the needs assessment and presented to the group. The strategic plan stresses three key areas: health (people and economies are hurt when food safety is not paramount) commerce, and lastly a centralization of available education and information materials. The goal is to facilitate and expand the dissemination of science based food safety knowledge and education throughout the Western Hemisphere. The major themes relayed by country responses on which FSIA will focus are regulatory foundation studies and Codex Alimentarius Commission. FSIA emphasized the need to liaise with all stakeholders, collecting numerous materials already prepared from around the world. In addition to the need to develop a benchmark program for evaluation of effectiveness, FSIA wants to increase the awareness of food safety across the hemisphere through affiliated institutions. For the next year we will begin addressing a clear collective vision crafted from our hemispheric input. FSIA is all about facilitating the people in the region who are the

experts to enable them to provide the training needed. The workshop discussed the curricula/colleges for which permanent courses are needed. All participants in the assessment had identified two concise themes: 1) the need for basic food legislation and 2) promote adoption and participation in Codex. FSIA will work to establish an electronic clearing house for materials,

Dr Cathy Weir, with Michigan State University, which is a new partner school discussed the wealth of experience in providing international participation in the university's international training programs in food safety and agriculture, and led a discussion of the attendees concerning their needs. The identified needs of the region included specific needed input on food regulations, accessibility of needed information on education and training, and ability of individual countries to synergize and thus improve food safety across the hemisphere. Training at all levels is deemed necessary. Countries identified that they needed partnerships in implementing programs such as the necessary food safety training for the upcoming 2007 Cricket World Cup. Barbados has already begun training of over 4000 food handlers. Training is needed by other nations in the area. FSIA can make an important contribution to harmonization to CODEX norms. Many countries expressed needs related to export of food product. FSIA was requested to help by working with the processors in the industry in recognizing the training and certification of industries. Many identified needs for training materials for sectors such as food safety technicians for which no materials exist.

Dr Martha Roberts, UF/IFAS, presented examples of FSIA collaboration and affiliation projects and outlined how countries and universities can begin active participation and affiliation. FSIA discussions emphasized that they do not wish to compete or duplicate but to complement the actions of others such as to increasing participation in Codex across the hemisphere with close coordination with the Codex Contact Points. The involvement of academic institutions is critical to development of good training materials. FSIA will place Codex at the core of FSIA activities with food legislation development focusing on implementation of codes. FSIA has learned that across the Americas that are vast differences of opinion as to what type of curricula or information would be beneficial. The FSIA guiding principle is to complement, not duplicate hemispheric efforts in food safety education and information. FSIA will develop through cooperative partnerships simple, flexible training modules for use by the partner academic institutions throughout hemisphere focusing on implementation of codes not, just adoption, and by being a strong advocate throughout the hemisphere. Dr Rosie Newsome, Director of Science and Communication for the 22,000 member Institute of Food Technologists (IFT) provided information regarding their international educational activities and their work as an official NGO with Codex. Countries discussed what additional steps they would conduct after the workshop to advance food education. Countries expressed the need for training in future terms in codes and in training in the implementation. The 25 countries in attendance reported their efforts in food safety and their desire for future activities on food safety and zoonoses. FSIA is very pleased with the intense training of over 4000 individuals in the ServSafe based food safety training.

Dr Audrey Talley, Foreign Ag Service of the US Department of Agriculture presented a foundation for future competitiveness focusing on the need to collaborate for the future to meet our own food safety needs and our priorities. Globalization has made the world smaller and more interdependent. In addition Dr Robin Woo outlined FDA's international activities in food safety training.

FAO SIDE EVENT ON SAFETY OF FEED AND FOOD OF ANIMAL ORIGIN
8 December 2005

The side event took place on 8 December 2005. It was attended by more than 50 participants from 26 countries, of which 8 Caribbean and 18 Latin American. Its purpose was to discuss issues concerning feed and food safety and practical ways for governments, industry and producers to implement the recommendations of the recently approved *Codex Alimentarius* codes of practices for livestock products and animal feeding. During the meeting, speakers provided information on FAO activities on Veterinary Public Health (VPH) and on FAO and the private sector efforts for the implementation of the new *Codex* Codes of Practices. The meeting also aimed at identifying and defining capacity building, institutional development and training needs in the region.

Mr O. Ramírez, from the FAO Representation in Costa Rica opened the event with a welcome address and an introduction. Subsequently, the following presentations were delivered: FAO activities on VPH and capacity building for Bovine Spongiform Encephalopathy (BSE) prevention and control (M. Vargas Terán, FAO Animal Health Officer); The new *Codex Alimentarius* Codes of Practices for livestock products and animal feeding (D. Battaglia, FAO Animal Production Officer); The role and contribution of the International Dairy Federation (IDF) in promoting dairy safety and hygiene in emerging and developing countries (C. Robert, Director General IDF); The International Feed Industry Federation (IFIF): implementing the new *Codex* Code of Practice for Good Animal Feeding (S. Auman, IFIF); The role of national and regional feed industry associations (N. Chachamovitz, Vice-President Sindirações, Brazilian Feed Industry Association).

A facilitated session followed the presentations. It aimed at gathering participants' points of view on the following two questions: "What are the main limiting factors for the implementation of the *Codex* codes in your country?" and "How would you ensure that medium and small producers/enterprises could also take part in the process and implement the recommendations of those codes?". An extensive and positive discussion took place with numerous and articulated responses which took into account a wide range of aspects. They mainly indicated the need for: adequate legislation, especially on animal feed; increased concertation and coordination of all the stakeholders along the food chain and among international agencies and bodies; enhancement of information spreading and awareness building especially addressing small producers; institutional development, e.g. support to the creation of producers associations, especially for medium and small producers; training programmes for regulators and producers.