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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

WORLD HEALTH ORGANIZATION

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Agenda Item 3

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX ALIMENTARIUS COMMISSION

Twenty-fifth (Extraordinary) Session, FAO Headquarters, Rome 13-15 February 2003

CONCLUSIONS AND RECOMMENDATIONS OF THE JOINT FAO/WHO EVALUATION OF THE CODEX ALIMENTARIUS AND OTHER FAO AND WHO WORK ON FOOD STANDARDS

1. At the 49th (Extraordinary) Session of the Executive Committee in September 2001, an announcement was made that FAO and WHO had agreed in principle on a comprehensive review of the Codex programme. This announcement was welcomed by the Executive Committee. The modalities and terms of reference of the review (re-named the "Joint FAO/WHO Evaluation") were subsequently established by the respective units responsible for programme evaluation in the secretariats of the parent Organizations. In conformity with current practices for such evaluations and the express wish of the Executive Committee, the Evaluation was conducted with a strong external component in the Evaluation Team and by the convening of an independent Expert Panel. A progress report on the Evaluation was provided to the 50th Session of the Executive Committee[1].

2. The attached report of the Joint Evaluation is being submitted by the Evaluation Team and the Expert Panel to the Directors-General and the Governing Bodies of FAO and WHO, and to the Codex Alimentarius Commission. The responses of FAO Management, WHO Management and the Secretary of the Codex Alimentarius Commission are also attached. The Commission is invited to express its views on the recommendations contained therein and also to provide guidance on how the recommendations directly concerning the Commission might be implemented.

[1] ALINORM 03/3, paras. 42-43; ALINORM 03/3A, paras. 7-19.

Food and Agriculture Organization of the United Nations

World Health Organization

Report of the EVALUATION OF THE CODEX ALIMENTARIUS AND OTHER FAO AND WHO FOOD STANDARDS WORK

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15 November 2002

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Abbreviations Used in the Text

ADI	Acceptable Daily Intake
AFC	Arab Federation of Consumers
ALOP	Acceptable Level of Protection
BSE	Bovine Spongiform Encephalopathy
CAC	Codex Alimentarius Commission
CCEXEC	Codex Commission Executive Committee
CCFAC	Codex Committee on Food Additives and Contaminants
CCFH	Codex Committee on Food Hygiene
CCFL	Codex Committee on Food Labelling
CCGP	Codex Committee on General Principles
CCPR	Codex Committee on Pesticide Residues
CCRVDF	Codex Committee on Residues of Veterinary Drugs in Food Contaminants
CEPM	IPPC/Committee of Experts on Phytosanitary Measures
DANIDA	Royal Danish Ministry of Foreign Affairs
FAO	Food and Agriculture Organization of the United Nations
FOS	WHO/ Food Safety Programme
GAP	Good Agriculture Practices
GHP	Good Handling Practices
GMO	Genetically Modified Organisms
GMP	Good Manufacturing Practices
GVP	Good Veterinary Practices
HACCP	Hazard Analysis and Critical Control Point
IAEA	International Atomic Energy Agency
ICPM	IPPC/ Interim Commission on Phytosanitary Measures
IDF	International Dairy Federation
IGO	International Governmental Organizations
IIACA	Inter-American Institute for Cooperation in Agriculture
ILSI	International Life Science Institute
INGO	International Non-Governmental Organizations
INPPAZ	Pan American Centre for Food Safety in Argentina
IPPC	International Plant Protection Convention
ISO	International Organization for Standardisation
ISPM	International Standards for Phytosanitary Measures
JECFA	Joint Expert Committee on Food Additives and Contaminants
JEMRA	Joint Meetings on Microbiological Risk Assessment
JMPR	Joint Meeting on Pesticide Residues
LDC	Least Developed Countries
MERCOSUR	South American Economic Cooperation Zone
MRL	Maximum Residue Level
NGO	Non Governmental Organization
OECD	Organization for Economic Development and Cooperation
OIE	World Organization for Animal Health
PAHO	Pan American Health Organization
Quads	Quadrilateral meeting on food standards (Australia, Canada, New Zealand, USA)
RFD	Acute Reference Doses
SADC	Southern African Development Community
SMC	Standards Management Committee
SPS	WTO/ Sanitary and Phyto-Sanitary Measures
TBT	WTO/ Technical Barriers to Trade
TCP	FAO/Technical Cooperation Programme
TFFBT	Task Force on Foods Derived from Biotechnology
TRIPS	Trade Related Intellectual Property Rights
UN-ECE	United Nations Economic Commission for Europe
UNIDO	United Nations Industrial Development Organization

WFP	World Food Programme
WHA	World Health Assembly
WHO	World Health Organization
WTO	World Trade Organization

Executive Summary

Purpose and Conduct of the Evaluation

1. The evaluation was commissioned by FAO and WHO and was also designed to meet the request for a review by the Codex Alimentarius Commission. The terms of reference specify that the evaluation should provide an input into decision making on future policy, strategy and management at the level of FAO and WHO Governing Bodies and their respective secretariats and to the joint FAO-WHO Codex Alimentarius Commission. It was to make recommendations for the future relevance of standards or alternative approaches in meeting overall objectives in consumer protection, especially for health, and in fair practices for food trade. Particular attention was to be paid to the needs of developing countries. Although the evaluation concentrates on Codex, it covers all aspects of the food standards work of FAO and WHO, which includes capacity building and expert scientific advice.

2. The work of the evaluation was undertaken by an independent team advised by an independent expert panel. The evaluation team consisted of five persons, three of whom, including the team leader, were external to the two Organizations. The independent expert panel had 10 members drawn from all parts of the world and stakeholder interests. At meetings between the evaluation team and the expert panel, key issues, procedures and recommendations of the evaluation were agreed. The evaluation also benefited from the advice of the Codex Executive Committee.

3. In the conduct of the evaluation, members of the evaluation team visited 24 countries in all parts of the world and at all levels of development and also the European Commission. During these visits they held discussions with civil servants responsible for health, agriculture and food, industry, trade and standard setting and with representatives of primary producers, industry, consumers and other sections of civil society. They also had discussions with other international standard setting organizations. A questionnaire was sent to all members of Codex and non-Codex members of FAO and WHO (103 replies received of 186 sent out). A further questionnaire was sent to Codex and WHO - INGO and IGO Observers[1] (40 replies received). There were two calls for comments on the Internet, the first completely open, the second targeted to national NGOs. The evaluation team also met with key informants involved with Codex, including the Chairman and other members of the Executive Committee, Chairs of some Codex committees and staff of the Codex and the FAO and WHO secretariats. A number of background papers were used, including several prepared by members of the expert panel (see Annex 6).

Findings

4. The evaluation found that Codex food standards had a very high importance to members. They were seen as a vital component of food control systems designed to protect consumer health and for international trade in the light of the WTO -SPS and -TBT agreements[2]. Standards were regarded as a fundamental prerequisite in consumer protection but had to be looked at in the context of the total system, especially the food safety system. International standards also provide a basis for smaller and lesser developed countries' own standard setting. Codex has been most successful in establishing health-related standards where there is a clear science base.

5. Capacity building in developing countries was found to be essential for countries to protect their own citizens, to benefit from a globalizing market in food and to represent their interests effectively in Codex and WTO negotiations. Codex and FAO and WHO capacity building were found to be continuing to make a substantial contribution internationally and to individual countries.

6. In improving international food standard setting, it was found particularly important to strengthen the input of independent expert advice into Codex especially for risk assessment. The scientific quality of the advice given at present is rated highly, but backlogs exist and demands are expected to rise sharply in future.

[1] INGO - International Non-Governmental Organization; IGO - Inter-Governmental Organization.
[2] WTO - World Trade Organization; SPS - Sanitary and Phyto-sanitary Measures; TBT - Technical Barriers to Trade.

7. Based on analysis of the problems, four main areas for improvement to enhance impact were identified. Recommendations of the evaluation are designed to contribute to these:

- *greater speed in Codex and expert scientific advice;*
- *increased inclusiveness of developing member countries in the Codex standard development process, including risk assessment;*
- *Codex standards, which are of greater usefulness to Member Nations in terms of relevance to their needs and timeliness; and*
- *more effective capacity building for development of national food control systems.*

Codex Mandate and Priorities

8. The health-related demands on Codex are growing with greater consumer consciousness, the emergence of new technologies, pathogens and nutrition-related issues including supplements, functional foods and health claims. If Codex is fully to cover health risks in foods it also needs to address packaging and processing agents. Without prioritization, these would require substantial additional resources for Codex and for expert scientific advice to Codex. Prioritization is thus essential and in determining its standard setting programme, Codex should prioritize as follows:

a) standards having an impact on consumer health and safety;
b) commodity standards responding to the expressed needs of developing countries;
c) commodity standards responding to the expressed needs of developed countries; and
d) informational labelling relating to non-health and non-safety issues.

9. There is a need for a precise mandate for Codex and this should be ratified by the FAO and WHO Governing Bodies. We suggest the mandate could be:-

- *the formulation and revision of international standards for food, in collaboration with other appropriate international organizations, with priority to standards for the protection of consumer health, while taking into full account the needs of developing countries.*

Codex and the OIE and IPPC

10. The World Organization for Animal Health (OIE) deals with zoonoses and other livestock diseases transmitted through food, while the International Plant Protection Convention (IPPC) addresses all aspects of plant pests in food. Food safety increasingly addresses the food chain in a unified way, leading to increased complementarities between Codex, OIE and IPPC. Codex and OIE, in particular, should formalize their relationship and should use joint task forces as appropriate to deal with overlapping issues.

Management Structure of Codex

11. Within the overall structure of FAO and WHO, Codex should have greater independence for proposing its work programme and for the execution of that work programme, once approved by the two parent organizations. Proposals for a revised organizational structure are designed to improve business management and strengthen central management of standards development, leading to greater speed in standard setting.

12. For business management, Codex should have an Executive Board meeting twice a year. This should be smaller than the present Executive Committee, with representation from Codex observers for consumer and industry INGOs.

13. The function of ensuring much tighter management of standards development is regarded as especially important for the effectiveness of Codex. This function could be exercised by the Executive Board, but may be better executed by a Standards Management Committee. This committee would meet as required, but at least once a year. This committee would include Codex committee chairs and observers representing primary producers, industry and consumers.

14. The executive role of the secretariat should be enhanced to support the greater independence of Codex and increased efficiency and effectiveness of its operations. This requires both the expansion of the secretariat and greater seniority of its staff. Substantially increased financial resources are required for the secretariat to exercise its expanding role (initially US$ 1.4 million per biennium).

Codex Committee Structure and Working Procedures

15. Codex working methods should be streamlined, yet become more inclusive. The evaluation recommends that there be a detailed review of the present structure and distribution of responsibilities between Codex committees with a view to achieving greater consistency and focus on priorities, including emerging issues. Commodity committees will be of reducing importance and commodity (vertical) work should be handled through task forces of limited duration, rather than committees. Even in horizontal areas, no new committee should be established until the continuing need and possibilities for progress have been established in a task force. Task forces should also be used to facilitate work involving more than one committee. Regional committees need to be re-structured and given mandates more relevant and responsive to regional needs. All work in all committees and task forces should be time-bound.

16. In Codex there should be a clearer distinction between risk assessment and risk management. Codex committees should concentrate on risk management and not confuse it with assessment. Questions of assessment should be referred to scientific expert committees and/or ad hoc consultations.

17. In a major departure from the present way of working, there should be much more work between sessions with use of facilitators to consult among members and to develop re-drafts for further consideration by committees. The emphasis should shift from developing standards in committee sessions to developing standards between sessions following a consultative process with the members that also fully considers written comments. The use of facilitators and electronic working groups has the potential to foster an inclusive process of consultation for developing countries whereas the greater use of between-session working group meetings could have the reverse effect.

18. In further moves to enhance developing country involvement, as well as that of other countries, encouragement should be given to regional economic groupings and other groups of countries with common interests to develop common positions. In this context, the possibility for one country to speak in meetings on behalf of several countries should also be encouraged, as should committee co-chairs and meetings held in developing countries.

19. More between-session work and meetings held in developing countries entail increased resources of host countries. The concept of shared hosting may be introduced where no one country feels able to bear the full cost (this may also facilitate increased developing country involvement).

20. Committees should complete the process of discussion and agree on draft standards. Standards should only be submitted to the Commission for approval when there is believed to be consensus or the basis for a clear decision. All standards should be submitted for final approval at Step 5. The Commission will accept the standard, or refer the standard back to the committee to explore certain changes, or cancel or suspend work on the standard. The Commission is not a suitable venue for standard drafting and it would not itself change the standard at this final stage.

21. Decisions in committees and the Commission should wherever possible continue to be taken by consensus. There is need for agreement on a definition of consensus and the evaluation proposes "no formal objection by more than one member present at the meeting". In the case of a vote, it should only be in the Commission, and by a two-thirds majority of those present and voting.

Expert Advice and Scientific Risk Assessment

22. Expert advice to Codex needs to have greater identity and coordination and significantly increased resources and its independence and transparency need to be further reinforced within FAO/WHO. There should also be greater distinction between the function of risk assessment undertaken by experts and that of

risk management undertaken by Codex committees. At the same time, Codex needs to be able to establish priorities within an agreed budget for expert advice in line with its work programme. This budget needs to be adequate to, not only cover the inputs from JECFA, JEMRA and JMPR[3] to Codex, and also respond to priorities for more ad hoc advice, including for the new issues mentioned in paragraph 8 and for emerging issues.

23. It is recommended that FAO and WHO establish a scientific committee of eminent scientists to provide to Codex and the two Organizations, over-arching scientific advice, including on emerging challenges and to provide guidance and quality control to JECFA, JEMRA, JMPR and ad hoc committees. A joint FAO/WHO Secretary to the Scientific Committee and Coordinator for Risk Assessment and Food Safety and Health Scientific Advice should be appointed and housed in WHO. The secretariats to the existing JECFA, JEMRA and JMPR should continue as at present. WHO is recommended to markedly increase its contribution for health risk-assessment. In addition to the work on food safety assessment, FAO should strengthen its input on good manufacturing and handling practice.

24. Urgency is attached to increasing the throughput of standards for pesticides to ensure that new pesticides can be reviewed quickly and existing pesticides recommendations updated. Expansions in the work of the JECFA and JEMRA are also envisaged. The minimum necessary immediate increase in resources from FAO and WHO is estimated at US$ 2.5 million per biennium.

25. It is also recommended that the consultation requested by the Codex Alimentarius Commission on strengthening scientific support for Codex decision making now be regarded as an immediate priority. A number of points for consideration by the study and subsequent consultation are discussed in the report.

Capacity Building

26. Capacity building for food safety and health systems for domestic consumers and for trade is a major priority of developing countries. In many of these countries, domestic food safety surveillance and controls tend to be very weak.

27. The evaluation found inadequate interaction between FAO and WHO at the country level in developing food safety systems and food standards. The new funding arrangement, for which the secretariat is provided by WTO and some seed money from the World Bank, is welcomed. It is a valuable initiative to foster cooperation for capacity building in relation to standards and the SPS agreement between FAO, WHO, OIE and IPPC. The new trust fund hosted by WHO (Codex trust fund) to enable effective participation in Codex, including attendance at meetings, is also welcomed. A major joint FAO-WHO effort is now recommended to mobilize extra-budgetary funds and foster coordinated bilateral assistance in capacity building. This will help promote a more coordinated approach between WHO and FAO. In addition, FAO and WHO should urgently analyse and report back to the Codex Alimentarius Commission on how they will improve coordination and distribution of work drawing on their mutual strengths and synergies.

In Conclusion

28. We recommend early and continued action for implementation of agreed recommendations with:

- *early decisions on funding requirements and new managerial arrangements by the FAO and WHO Governing Bodies;*
- *early action by the Codex Alimentarius Commission itself to act on recommendations without loss of momentum by reference to Codex general committees; and*
- *establishment of a task force between FAO, WHO and Codex chair and vice-chairs to follow-up and monitor implementation of the evaluation recommendations.*

[3] JECFA - Joint Expert Committee on Food Additives and Contaminants; JEMRA - Joint Meetings on Microbiological Risk Assessment; JMPR - Joint Meeting on Pesticide Residues.

1. BACKGROUND AND CONDUCT OF THE EVALUATION

1. Commissioned by the Directors-General of WHO and FAO and at the request of the Codex Alimentarius Commission, a wide-ranging review of the food standards work of the two agencies was undertaken by an evaluation team of five persons, three of whom were external to the two Organizations. All team members participated in their personal capacity. The team received advice from an independent expert panel.

2. As set out in the attached terms of reference (Annex 2), the evaluation team was asked to examine issues including, but not restricted to:

- the evolving context and challenges surrounding international food standards and their relevance in ensuring food safety, consumer protection, trade and economic development;
- the expectations of governments as to the validity, acceptability and institutional mechanisms for food standard setting within Codex;
- the particular interests and expectations of developing countries and of producers, industry and civil society concerning FAO and WHO food standards work;
- the effectiveness of existing institutional arrangements, management, methods of work and resources for international food standard setting within FAO and WHO; and
- on the basis of the above, make recommendations for improvement to the food standards work of WHO, FAO and Codex.

3. The evaluation takes food standards to refer to all potential legal instruments (standards, guidelines and codes of conduct) intended for use in directives, regulations and contracts. It focuses on the process by which the needs for food standards are identified, the way they are developed in an international setting and how they are used at national level. This includes the work of Codex Alimentarius; the provision by FAO and WHO of expert scientific advice for standard setting, through formal committees (JECFA[4], JMPR[5]) and ad hoc consultations (e.g. JEMRA[6]); and the capacity building activities of the two agencies relating to food standards. The evaluation clearly recognized that FAO and WHO engage in other detailed work on food concerned with agricultural production and policies, access of people to food, and nutrition, but these were outside the specific focus of the current evaluation. The evaluation assumed a broad approach to food control systems as they relate to food standards (including the institutional structures and capacities within countries, enforcement, communication and education).

4. The evaluation took as its starting points:

- basic tenets for development captured in the Eight Millennium Development Goals. In particular Goal 1 commits to reducing hunger and Goal 8 relates to trade and commits to *"further development of an open trading and financial system that is rule-based, predictable and non-discriminatory"* and *"addresses the least developed countries' special needs"*;
- the Declaration of the World Food Summit: Five Years Later (June 2002) that reaffirmed the *"right of everyone to safe and nutritious food"*;
- the increased importance attached to global food safety as evidenced by the reinvigoration of WHO's work on diet, food safety and human nutrition (WHA 2002), the WHO Global Strategy for Food Safety endorsed by the WHO Executive Board in January 2002, and the call at the Melbourne Conference (1999) for a strengthening of WHO's role in Codex. Food safety, which encompasses food standards, is one of WHO's eleven organization-wide priorities in the General Programme of Work, 2002-2005;

[4] JECFA - Joint FAO/WHO Expert Committee on Food Additives.
[5] JMPR - Joint FAO/WHO Meeting on Pesticide Residues.
[6] JEMRA - Joint FAO/WHO Meetings on Microbiological Risk Assessment.

- that food standards work is central to FAO's priority strategies defined in its Strategic Framework 2000-2015, *"promoting, developing and reinforcing policy and regulatory frameworks for food, agriculture, forestry and fisheries"* (Strategy B);
- the Marrakech Global Forum of Food Safety Regulators which linked the use of food safety regulation to the reduction of food-borne illness and reached consensus on the need for adopting an integrated approach to food safety issues from farm to fork and on a risk-based approach in developing food safety policies (January 2002); and
- the statement by the Directors-General of WTO and WHO in the Foreword to their Organizations' joint study on WTO Agreements and Public Health that *"the multilateral trading system has a lot to contribute to increase global welfare…..In our common pursuit of sustainable human development, the WTO and WHO are important partners"*.

5. In conducting the evaluation, the evaluation team consulted widely: members of the evaluation team visited 24 countries and the European Commission, where they held discussions with civil servants responsible for health, agriculture and food, industry, trade and standard setting and with representatives of primary producers, industry, consumers and others in civil society. They also had discussions with other international standard setting organizations. A questionnaire was sent to all members of Codex and non-Codex members of FAO and WHO (103 replies received of 186 sent out). A further questionnaire was sent to Codex observers (INGOs and IGOs) and WHO observers (40 replies received). There were two calls for comments on the Internet, the first completely open, the second targeted to national NGOs (these yielded respectively 52 and 22 responses). The evaluation team also met with key informants involved with Codex, including the chairman and other members of the Executive Committee, chairs of some Codex committees and staff of the Codex secretariat. It made use of background papers prepared for the evaluation, including those of the independent expert panel, which was charged with feeding divergent and innovative ideas into the evaluation process. At several stages during the evaluation, the expert panel worked together with the evaluation team, notably in questionnaire development, clarification of the check-list for country visits and in elaboration and clarification of final recommendations.

6. In drawing up recommendations, the evaluators have attempted to be realistic with regard to the possible. At the same time, it has been felt important to put thoughts forward, which can be further explored and debated, rather than always providing an immediate basis for implementation. It is within this spirit that certain of the ideas presented depart from the current thinking in Codex and FAO and WHO.

2. OVERVIEW OF CODEX AND OTHER FAO AND WHO FOOD STANDARDS WORK

Section 2 is intended for the general reader and briefly summarises the present situation. Those familiar with Codex and FAO and WHO food standards work will not need to read this section.

7. The Codex Alimentarius Commission (CAC) was established in 1963 as an intergovernmental body by FAO and WHO. Membership is open to all Member States of FAO and WHO. There are currently 167 members and 149 International Non-Governmental Organizations (INGOs) with observer status representing producers, industry and civil society and 58 intergovernmental organizations[7]. Standards are developed through 29 subsidiary bodies consisting of regional, commodity and general committees of which 24 are active.

8. The work of the CAC, which meets in full body every two years, and its subsidiary bodies is logistically, technically and managerially supported by a small secretariat ("Codex secretariat") housed in FAO and funded jointly by FAO and WHO. The cost of regional, commodity and general committees is met in whole or in part by host countries, but also supported administratively by the Codex secretariat. Members bear the cost of their own participation in meetings.

9. Expert scientific advice to inform Codex standard making is provided by two established expert committees financed and administered jointly by FAO and WHO. JECFA is responsible for food additives, contaminants and veterinary drug residues and JMPR for pesticide residues. JEMRA is a new group, still

[7] of which 16 are UN and UN specialized agencies.

termed a 'joint expert consultation' rather than a formal committee, and is responsible for microbiological risk assessment. Other expert consultations may be set up as needed. Committees and expert consultations are administered and financed independently of Codex by FAO and WHO. JECFA and JMPR each have a joint secretary in each Organization.

10. FAO and WHO undertake capacity building separately. The Codex secretariat also cooperates with FAO and WHO for some capacity building in the form of training, workshops, etc.

11. The components of these programmes will be discussed at appropriate points within the evaluation.

12. It is important to make a definitional point early on because the terms are used throughout this report and Codex uses terms in relation to work of the Commission and subsidiary bodies and expert scientific advice differently than they are sometimes used elsewhere. Within Codex, risk analysis has three distinct components[8], risk assessment, risk management and risk communication. Broadly speaking, risk assessment is conducted by the expert committees and consultations that give scientific advice to Codex and is described as *"a scientifically-based process consisting of the following steps: (i) hazard identification; (ii) hazard characterization; (iii) exposure assessment; and (iv) risk characterization"*. This is the function of expert scientific advice to Codex. What Codex calls risk assessment is elsewhere often termed risk analysis. In this evaluation, we will use the terms as defined by Codex. Risk management is defined as *"the process, distinct from risk assessment, of weighing policy alternatives, in consultation with all interested parties, considering risk assessment and other factors relevant for the health protection of consumers and for the promotion of fair trade practices and, if needed, selecting appropriate prevention and control options"*. This is the work of the CAC and its subsidiary bodies. Finally, risk communication is defined as *"the interactive exchange of information and opinions throughout the risk analysis process……among risk assessors, risk managers, consumers, industry, the academic community and other interested parties, including the explanation of risk assessment findings and the basis of risk management decisions"*. Codex continues to refine these definitions, particularly through the Committee on General Principles (CCGP) which, at its 2002 meeting, made significant progress on the Principles of Risk Analysis to be applied within the Codex framework.

13. The evaluation notes the trend to separate science-based assessment of health risk from the risk management function (e.g. the European Food Safety Authority was established as an independent body for risk assessment distinct from risk management carried out by the European Commission). This is in line with the Codex principle of functional separation of risk assessment and risk management.

3. THE ROLES OF FOOD STANDARDS AND SOME ISSUES FOR THE EVALUATION

3.1 The Roles of Food Standards

14. Governments have an obligation to protect the health of their citizens and this includes protection against food-borne illness for which publicly-set standards are necessary. However, standards do not protect consumers unless they are enforced through a properly functioning food control system. This needs many elements—comprehensive and current legislation, food monitoring and food-borne illness surveillance, licensing and inspection (which in turn requires educated and trained staff and good laboratory facilities), not to mention political and institutional support and stability, lack of corruption, etc. In these respects, responsibility rests squarely with individual countries.

15. There are, however, costs related to the improvement of governance and manpower and investments in the public and private sector infrastructures needed to implement standards[9]. Cost implications in the implementation of standards are particularly important in developing countries and such countries may need financial assistance and training. They will also benefit from Codex principles and procedures for the recognition by countries of equivalence in food control systems.

16. It is evident that food safety cannot be isolated from other risks which, in developing countries especially, include water-related risks. Unsafe water is not only a risk in its own right, but water is used to

[8] CAC Procedural Manual p44 English version.
[9] *Sanitary and Phytosanitary Management, Compliance Strategies and Costs in Developing Countries: Project Description,* World Bank, July 2002.

irrigate, wash and process food, which can lead to cross-contamination. Thus, food safety should be viewed within the context of the entire food chain, not just the finished product, and it is important that standards are developed which focus attention in a way that is both strategic and practical on those points of greatest risk. For this to happen, surveillance of food-borne risks is a pre-requisite, as are the capacity for risk assessment and the ability to manage food safety through, among other things, enforcement targeted where there is greatest risk. Countries or regions will need better data on food-borne illness in human health. This has implications for Codex in priority setting and for FAO and WHO in capacity-building.

17. As the nature of food demand and trade have changed to meet the requirements of developed countries for variety in food products and for year-round supply of fresh fruit and vegetables, fresh fish and fish products and fresh meat, the nature of relationships between actors along the supply chain has changed. There is greater coordination and vertical integration with less open-market transactions. Associated with this change has been a move to control food quality and safety through the supply chain, often using process standards, rather than the more traditional end-product standards. Codex standards, increasingly based on risk assessment, are reflecting this change. Another implication of the supply chain approach is the interest in taking a plough to plate view of food safety which requires strong coordination between regulatory authorities within countries (e.g. agricultural and health regulators) and at the international level (e.g. between Codex, OIE and IPPC). The discussions at the Marrakech meeting of food safety regulators gave global recognition to the need for action taken throughout the food production chain and for the involvement of all stakeholders in the regulatory process. The regulators also affirmed that food safety regulations should be science-based and built on an appropriate risk assessment with implementation based on the risk analysis paradigm.

18. Globalization has seen growing levels of international trade in agricultural and food products and new food-borne hazards rapidly spread internationally. Food standards and control in another country can be as important as in one's own, which creates a demand for international standards of the type developed by Codex. Emerging pathogens (e.g. *Listeria monocytogenes, Campylobacter jejuni, Vibrio vulnificus* and virulent *Salmonella spp.)* are not responsive to many traditional food preparation and preservation practices. As these become global food safety issues they demand global solutions which include standards based on risk assessment and global surveillance.[10] At the same time, novel processing technologies are increasingly being used in response to developed country consumers' preferences for more 'natural' food (e.g. less salt and additives) and food standard setting needs to respond to the changing needs of changing technology. One of these challenges is establishing the equivalence of alternative preservation techniques based on scientific risk assessment[11]. Advances in science, including increasingly sensitive laboratory detection methods, mean that standards need frequent review and updating.

19. As well as protecting consumers' health, food standards reduce the costs of doing business (e.g. the risk of fraud and costs of finding reliable trading partners). To be useful they must be meaningful to consumers and if so, they reduce consumers' risks (of inadvertently buying inferior quality as well as unsafe food). In providing benefits to both producers and consumers, standards promote economic welfare, thus they are considered by many economists to be a pre-requisite to the operation of a well-functioning market[12]. If standards are harmonized (within or between countries), they naturally facilitate trade (domestic and international) and trade itself is generally judged to promote economic development[13].

[10] Paper prepared for expert panel by Professor K. Buckle.
[11] Buckle, *op. cit.*
[12] Reardon, T. (2000). Challenges in Fighting Rural Poverty in the Globalizing Economy of Latin America: Focus on Institutions, Markets and Projects, *FAO/CEPAL Seminar*, Santiago de Chile, 2000.
[13] Witness the Brundtland-Moore quote in Section 1.

20. As countries become richer and better educated, their consumers demand increased standards of quality and safety. This creates a possible difficulty for international harmonization of standards because it costs more for producers to meet higher standards and these costs get passed on to consumers who, in poor countries, might have other priorities (clean water, enough to eat[14]). As an international standard setting body, one of the difficulties Codex faces is balancing the different needs of consumers in developed and developing countries. The balancing of the costs and benefits of incremental increases in food safety and quality is part of the process of risk management.

21. Whereas in the past member governments of Codex were under no obligation to use Codex standards for domestic consumer protection or health, since the WTO SPS agreement of 1994, Codex has had legal status. While this does not require that all countries adopt all Codex standards, they must be able to justify non-adoption according to strictly-defined criteria. Legal recognition of Codex has given it greater relevance and importance, but has inevitably made compromise more difficult.

22. Food quality standards (by which we mean standards concerning non-health related characteristics of a product) do not need to be developed by governments, they can be agreed between trading partners and, in a world trading system increasingly dominated by multinational food retailers, there is a tendency for establishment of standards without any public involvement. Nevertheless, companies continue to find value in harmonization of quality standards by bodies like ISO (e.g. for spices) and UN-ECE for fruit and vegetables. Codex too, is involved in setting quality standards and a major issue for Codex is to decide how high a priority this should be, particularly in light of Codex limited resources and its need to set health-related standards.

3.2 Core Themes for the Evaluation

23. Work on food standards needs to maintain the strong support of developed and developing countries and major interest groups or it will gradually become marginalized and work will move elsewhere.

24. During country visits and in reviewing the responses to the questionnaire, it became very evident that developing countries feel unable to participate as effectively as they would wish in Codex, and developing country participation is recognized as a problem too, by developed and middle-income countries. Overall, 78% of respondents scored below the mid-point for the balance in involvement and influence of poorer countries in Codex. Ninety six percent of low-income countries and 87% of middle-income countries do not participate in Codex to the extent they think desirable, the overwhelming reason given being lack of financial resources.

25. Both country visits and the questionnaire indicated the major importance of capacity building for developing and some middle-income countries. They are concerned to be able to better participate in Codex but their main concerns are wider. In particular, they are concerned to be able to meet standards for export and to protect the health and ensure fair trade for their consumers. This will require a major increase in capacity building assistance and more effective use of resources. It is also essential to recognize that countries can benefit from Codex, not only by virtue of the standards it produces, but also from participating in the standard setting process. For many developing countries, this is a form of capacity building in its own right, allowing those who attend meetings (though often outside the formal meeting) to gain valuable insights into how to establish and enforce appropriate food standards. Even developed country participants cited this as a benefit of Codex.

26. Developed countries in particular are concerned that the food standards programme is too slow. Thus, 68% of questionnaire respondents from high-income countries (as defined by the World Bank) rated overall efficiency of Codex below the mid-point of a 7-point scale (where 1 corresponds to very poor and 7 to very good) compared to only 9% of low-income country respondents. For speed of operation, 90% of high-income respondents rated satisfaction below the mid-point compared to 24% from low-income countries. Codex observers (see Section 5.4) are in broad agreement with high-income countries. Similar, if

[14] Governments in poor countries also have other, perhaps higher priority, health-related concerns such as Aids, malaria and tuberculosis that demand their scarce resources.

less pronounced, dissatisfaction by developed countries is found with the speed of expert scientific advice to Codex.

27. There is some concern among developing countries that their priorities are not always reflected in the standards developed by Codex, so Codex is not as useful as it might be. Developed countries especially find that the usefulness of Codex standards would be greater if standards were produced in a timelier manner.

28. Finally it may be noted that there were significant concerns to improve the basis for science-based prioritization of health issues for standard setting and strengthened risk assessment as an input into Codex standards.

29. **Core Concerns:** The evaluation team identified four main concerns which its recommendations are intended to address. These are:

- greater speed in Codex work and the generation of expert scientific advice;
- increased inclusiveness of developing member countries in the Codex standard development process, including risk assessment;
- priority for science-based Codex standards, but also standards which are of greater usefulness to Member Nations in terms of relevance to their needs and timeliness; and
- more effective capacity building for development of national food control systems.

4. EVALUATION AND RECOMMENDATIONS FOR CODEX

4.1 The Present Scope of Codex Work and Codex Working Procedures

Section 4.1 is intended for the general reader and briefly summarizes the present situation. Those familiar with Codex and FAO and WHO food standards work will not need to read this section.

30. The Codex Alimentarius is a collection of internationally-adopted food standards presented in a uniform manner. The *Procedural Manual* of the Codex Alimentarius Commission states (p28 English version):

"The Codex Alimentarius includes standards for all principal foods whether processed, semi-processed or raw for distribution to the consumer…..The Codex Alimentarius includes provisions in respect of food hygiene, food additives, pesticide residues, contaminants, labelling and presentation, methods of analysis and sampling……Codex standards contain requirements for food aimed at ensuring for the consumer a sound, wholesome food product free from adulteration, correctly labelled and presented".

31. In practice, this means that Codex currently produces:

- food safety standards relating to maximum levels of pesticide residues, additives, contaminants (including microbiological contaminants) that can be present in foods;
- standards in the form of guidelines on processes and procedures (e.g. codes of practice, HACCP);
- labelling standards that may be health-related (e.g. allergens, nutritional labelling), for consumer fraud protection (e.g. weights and measures, date marking), or for consumer information (e.g. halal, organic labelling);
- commodity/product standards that define what a commodity is (e.g. species of sardines) or how it is made and what it may contain (e.g. cheddar cheese, corned beef); and
- quality descriptors as part of commodity standards which are often grading characteristics (e.g. colour of different types of asparagus).

32. It is worth making the point that the WTO-SPS Agreement, which applies to the first two categories of standards above, does not differentiate between standards, guidelines and other Codex recommendations[15].

33. Animal and plant health are covered by OIE and IPPC respectively; UN-ECE produces regional standards for fruit and vegetable quality descriptions that are now taken up for incorporation in Codex standards. ISO has 67 standards in food technology, concentrated on analytical methods.

4.1.1 Committee Structure[16]

34. Membership of the Codex Alimentarius Commission is open to all Member Nations and Associate Members of FAO and WHO. It currently has 167 members. The main decision-making body is the Codex Alimentarius Commission, which meets biennially in Rome and Geneva[17]. Between sessions, an Executive Committee acts on behalf of the Commission. The day-to-day work of the Commission is undertaken by a permanent secretariat of 6 professional and 7 support staff housed at FAO Headquarters in Rome within the Food and Nutrition Division.

35. The Commission elects a chairperson and three vice-chairpersons from its membership. The chairperson or, in his absence, a vice-chair, presides over meetings of the Commission and exercises such other functions as may be required to facilitate the work of the Commission. These officers are elected to serve for one ordinary session of the Commission (two years) and can hold their office for a total of two consecutive sessions.

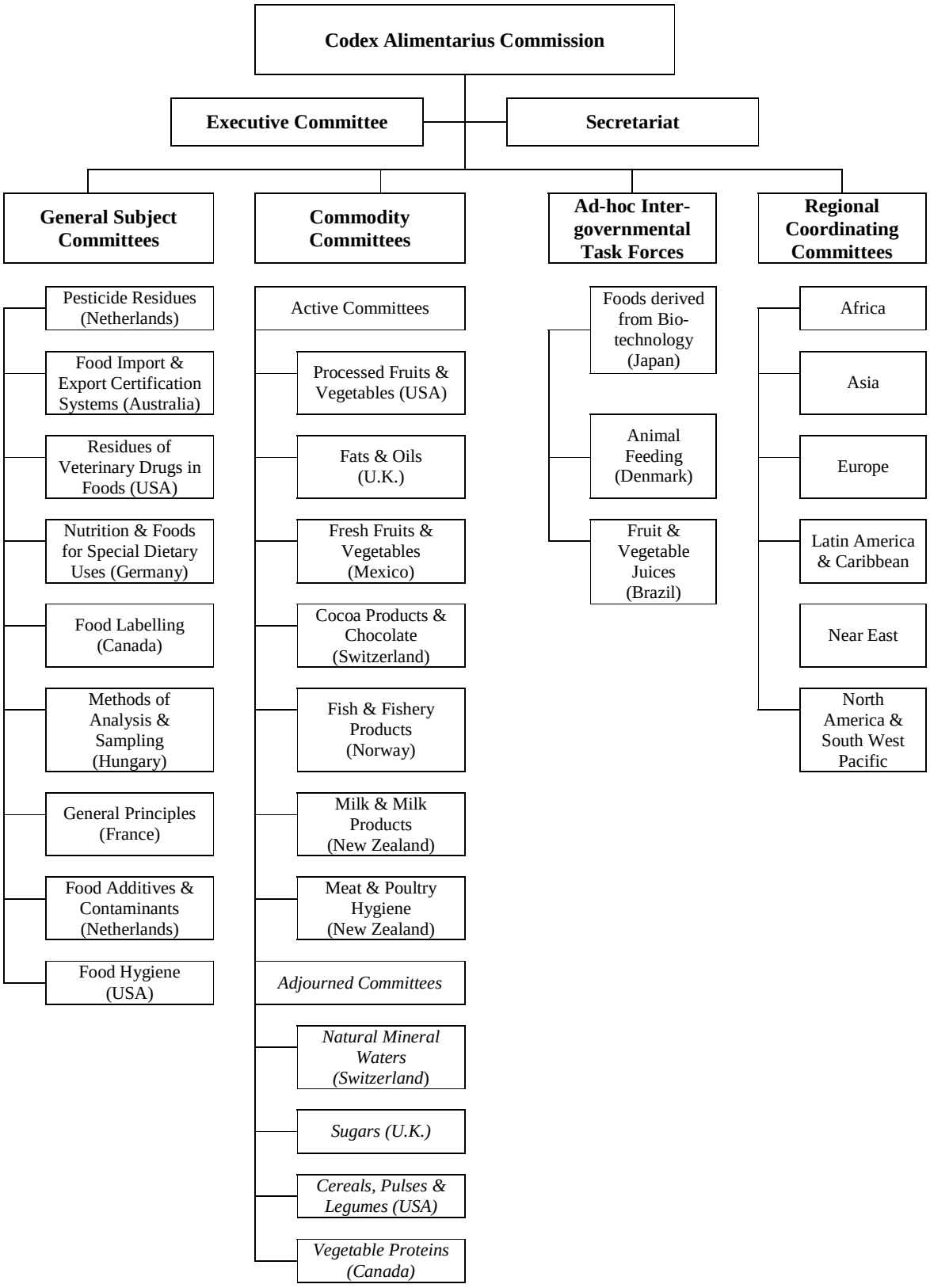
36. Between sessions, an Executive Committee acts on the Commission's behalf. The Executive Committee is composed of the chairperson and vice-chairpersons together with seven further members elected by the Commission, one each from Africa, Asia, Europe, Latin America and the Caribbean, Near East, North America, and South West Pacific.

37. Coordinators are appointed by the Commission for each of the seven geographical regions on the basis of support from a majority of the members in each region. Regional coordinators are appointed for three sessions and can retain office for a maximum of two consecutive terms. Their role is to assist and co-ordinate the work of regional coordinating committees in preparing draft standards, guidelines and recommendations for submission to the Commission. They also advise the Executive Committee and Commission of the views of members and recognized regional intergovernmental and non-governmental organizations in their region relating to matters currently under discussion. Coordinators participate in the Executive Committee as observers.

38. The elaboration of draft standards and related texts within Codex is undertaken by subsidiary bodies. Codex committees and ad hoc task forces are responsible for the preparation of draft standards for submission to the Commission, whether intended for global use or for a particular region or group of countries. There are two broad types of Codex committee. General subject ('horizontal') committees are responsible for establishing standards on general principles of food safety and consumer health protection applicable to all food commodities. Commodity committees ('vertical') are responsible for establishing standards relevant to specific commodities. Currently, there are nine general subject and 11 commodity committees. Four of the established commodity committees are currently adjourned.

[15] The WTO-TBT Agreement relates to the other three categories.
[16] The section on Existing Arrangements, Procedures and Resources draws on the Codex Procedural Manual 12th Edition and on Background Document 11a prepared for the first meeting of the evaluation's expert panel. It was prepared by Dr. S. Henson, using various Codex documents, notably the Procedural Manual.
[17] Although the rules of the Commission allow for annual meetings of the Codex Alimentarius Commission, it has held biennial meetings since 1968.

Figure 1 Organizational Structure of Codex[18]



[18] Codex Procedural Manual, inside back cover.

39. A series of coordinating committees for regions or groups of countries is responsible for general coordination of the preparation of draft standards relating to particular regions or groups of countries. Currently, there are six regional coordinating committees.

40. More recently, the Commission has looked to establish *ad hoc* intergovernmental task forces rather than Codex committees as a means to streamline the organizational structure of the Commission and enhance the efficiency with which subsidiary bodies operate. The terms of reference of *ad hoc* intergovernmental task forces are specified at the outset and limited to an immediate task. Their lifetime is pre-specified, and should not normally exceed five years. To date, three task forces have been established.

41. At each biennial meeting the Commission designates the host government for each Codex committee and *ad hoc* intergovernmental task force. The host country then nominates a chairperson. The country acting as chair of each subsidiary body is responsible for the operating costs.

42. The organizational structure of Codex is supposed to inter-link, with comparable administrative structures within each member country. The key institutional interface between Codex and a member country is the national Codex contact point. According to the Procedural Manual, the core functions of a Codex contact point[19] include acting as the link between the Codex secretariat and member countries and co-ordinating all relevant Codex activities at the national level. Desirably, the Codex contact point supports a national committee, the structure of which reflects national legislation, government administrative structures and established procedures and practices[20].

4.1.2 Standard Setting and Adoption

43. Standards are elaborated and adopted by a highly-structured 8-step procedure. In Step 1, taking into account its 'criteria for the establishment of work priorities' the Commission decides that a standard should be elaborated and which subsidiary committee or other body should do the work. In Step 2, the secretariat or committee arranges for the preparation of a 'proposed draft standard' taking into account scientific advice from expert committees (JECFA, JMPR etc) or, in the case of milk and milk products, the International Dairy Federation (IDF). In Step 3, the proposed draft is sent out for comment to members and observers and in Step 4 the committee considers the comments and may decide to amend the proposed draft standard. This proposed draft is submitted to the Codex Commission or Executive Committee at Step 5 with a view to its adoption as a draft standard, taking into account comments of members on implications of the proposed draft standard for their economic interests. Steps 6 and 7 repeat Steps 3 and 4 in a second round of consultations and amendments by the committee concerned. If adopted by the Commission at Step 8, the draft becomes a Codex standard.

44. An accelerated procedure can be employed, essentially consisting of Stages 1 to 5 at the end of which the text is adopted as a Codex standard. This is generally employed where an immediate need for a standard is identified and/or there is already broad consensus on the issue under consideration. The Commission, Executive Committee, or a subsidiary body (subject to subsequent confirmation by the Commission or Executive Committee) can invoke the accelerated procedure on the basis of a two-thirds majority of the votes cast.

4.1.3 Consensus-based Decision Making

45. The Procedural Manual states that"*the Commission shall make every effort to reach agreement on the adoption or amendment of standards by consensus. Decisions to adopt standards are taken by voting only if such efforts to reach consensus have failed*". Voting is on the basis of a simple majority of the votes cast by those present at a meeting. Though no precise definition of consensus has been adopted, legitimacy is seen to require that the Commission adopts a process of 'active consensus building' including[21] carrying out further studies in order to clarify the scientific basis of controversial issues, ensuring thorough discussion at meetings, organizing informal meetings of parties concerned where disagreements arise (with participation

[19] FAO (2001). Procedural Manual of the Codex Alimentarius Commission. 12th Edition. FAO, Rome.
[20] Of those that responded to a question in the questionnaire, two thirds (58 countries) said they have a national Codex committee, the proportion being similar across all stages of development. It could reasonably be expected that those countries which did not complete the questionnaire are less likely to have a national committee.
[21] CX/GP 00/5.

open to all interested parties and observers to ensure transparency), redefining the scope of subject matters being considered to cut out issues on which consensus cannot be reached, emphasising that matters should not be passed to the Commission until consensus has been reached. The above list of measures was elaborated by the Codex Committee on General Principles to assist chairs in consensus building. These have been endorsed by the Executive Committee and recommended for adoption by the Commission in 2003. It is still left to individual chairs and committees to use discretion.

4.1.4 Observers

46. International Non-Governmental Organizations (INGOs) and International Governmental Organizations (IGOs) may, with the approval of the Directors-General of FAO and WHO, be observers in all Codex committees except the Executive Committee.[22] They are seen to play an important role by enabling organizations that represent sections of public opinion and/or are authorities in their technical or professional fields, to represent the views of their members. In so doing, these organizations play a role in harmonizing inter-sectoral interests among the various sectoral bodies, nationally, regionally and/or globally. INGOs granted observer status are committed to cooperate in furthering the objectives of Codex, including promotion of better knowledge and understanding of its objectives.

47. Observers are entitled to:

- send a representative (with advisers) to sessions of the Codex Alimentarius Commission, Codex committees and *ad hoc* intergovernmental task forces, and may be invited to participate in other joint FAO/WHO food standards activities;
- receive all working documents and discussion papers in advance of sessions;
- circulate to the Commission, Codex committees and *ad hoc* intergovernmental task forces written comments on matters being considered by these bodies ; and
- participate in discussions at sessions when invited by the chairperson (in general, under the rules of FAO and WHO, observers are invited to make comments only after members of the body concerned have had an opportunity to speak, but a more inclusive approach is often adopted in Codex).

Observers do not have the right to vote.

48. Of 151 INGOs with observer status in February 2002, around 71% are industry bodies, 22% professional and 8% consumer/public interest.

4.1.5 Priority Setting

49. Criteria for priority setting are described in the Procedural Manual.[23] Priorities established in the Medium-Term Plan developed by the Commission to achieve its Strategic Framework 2003-2007 should be considered as well as the prospects of completing the work in a reasonable time. A number of additional criteria are given for general subjects and commodities, though these criteria are not ranked for importance. For general subjects they include: (a) consumer protection from the point of view of health and fraudulent practices; and (b) diversification of national legislations and resultant impediments to international trade (apparent or potential). For commodities they include (a) and (b) above but also the volume of production and consumption in individual countries and volume and pattern of trade between countries as well as market potential (and other issues relating to practicality and need).

4.1.6 Roles of Science and 'Other Legitimate Factors'

50. In 1995, the Commission established working principles concerning the role of science in decision-making processes and the role of 'other legitimate factors' that might be taken into account[24]. These principles emphasise that Codex standards, guidelines and recommendations should be based on scientific principles and evidence:

[22] NGOs (national or international) are also able to form part of national delegations to the Commission, subject to the invitation of their national government.
[23] p60 English version.
[24] ALINORM 95/37; FAO (2001). Procedural Manual of the Codex Alimentarius Commission. 12th Edition. FAO, Rome.

"The food standards, guidelines and other recommendations of Codex Alimentarius shall be based on the principle of sound scientific analysis and evidence, involving a thorough review of all relevant information, in order that the standards assure the quality and safety of the food supply."

51. It is also agreed that 'other legitimate factors' can be taken into account provided these relate to the health protection of consumers and/or promotion of fair trade practices:

"*When elaborating and deciding upon food standards, Codex Alimentarius will have regard, where appropriate, to other legitimate factors relevant for the health protection of consumers and for the promotion of fair practices in food trade."*

52. In defining criteria concerning the consideration of 'other legitimate factors', explicit reference is made to the provisions of the WTO-SPS and TBT Agreements. The key elements of these criteria are as follows:

- A clear distinction should be drawn between risk assessment and risk management. Any 'other legitimate factors' are to be identified as part of the risk management process and should not affect the scientific basis of the risk analysis as a whole;
- Whilst some legitimate concerns of governments may be taken into account when establishing national legislation, these may not be generally applicable or relevant world-wide. Only factors that can be established on a world-wide basis (or on a regional basis in the case of regional standards) should be taken into account in the framework of Codex;
- The consideration of 'other legitimate factors' in the elaboration of Codex standards should be documented, with a clear indication of the rationale for their integration in the draft standard;
- The integration of 'other legitimate factors' into Codex standards should not create unjustified barriers to trade; and
- Due regard should be given to the implications of integrating 'other legitimate factors' into the elaboration of Codex standards on developing countries.

There is still no precise agreement on what constitutes an 'other legitimate factor'.

53. The Commission has recognized that precaution is an element of risk analysis, but has not defined or agreed to the use of the 'precautionary principle'within the framework of Codex. The issue remains highly contentious and the Commission in 2001 adopted the position that: *"When there is evidence that a risk to human health exists but scientific data are insufficient or incomplete, the Commission should not proceed to elaborate a standard but should consider elaborating a related text, such as a code of practice, provided that such a text would be supported by the available scientific evidence"*[25]. However, WTO recognizes codes of practice as the same as standards in a legal sense, unless there is a definite statement in the text to the contrary. This compromise text remains contentious among a number of members.

4.1.7 Resources

54. Resources used for Codex and other FAO and WHO food standards work are shown in Annex 3 together with resource implications of the changes we propose. It can be seen that Codex currently has a core budget of some US$ 5 million per biennium of which FAO contributes some 80% and WHO 20%. The core budget of Codex is just over one third of total direct costs. The great bulk of the remaining two-thirds are met by the host country of Codex committees. Direct costs to countries are of the order of US$ 3.5 million per biennium.

4.2 Procedures in Other International Standard Setting Bodies

55. Evaluation team members visited other international standard setting organizations to assess whether there are lessons to be learned by Codex with respect to their procedures. In Figure 2 below, we display in tabular form the main features of the three organizations that most closely resemble Codex in their functions: ISO, OIE and IPPC.

[25] Alinorm 01/41 para. 81.

Figure 2 – Procedures in other International Standard Setting Bodies			
	International Plant Protection Convention	**International Organization for Standardization (ISO)**	**World Organization for Animal Health (OIE)**
Mandate/ objectives vis-à-vis standard setting	- Standard setting mandate is recent (1993). - The Convention creates certain rights and obligations for contracting parties including provision for the use of phytosanitary certification and provides models for this as part of the Annex of the Convention. - Produces global phytosanitary standards. - Standards are referenced under the SPS and used in national legislation	- The International Organization for Standardization (ISO) is a non-governmental organization established in 1947 of national standards bodies, one from each country. It has the mandate to develop standards in all technical fields (except electrical and electronic engineering standards). - Most standards are not used in national legislation but for labelling and contract.	- The OIE is an intergovernmental organization created by the International Agreement in 1924. - Among its various missions, the OIE is to guarantee the sanitary safety of world trade by developing sanitary rules for international trade in animals and animal products. - The OIE develops normative documents for rules that member countries can use to protect themselves from disease, without setting up unjustified sanitary barriers. - Standards are referenced under the SPS and used in national legislation.
Structure of Committees	- IPPC: has currently 117 contracting parties - The **Committee of Experts on Phytosanitary Measures (CEPM)** was set-up in 1993. The Standards Committee now supersedes it, which is a group of 20 experts (predominantly from governments). Its structure is being revised to consist of three experts for each of the seven FAO regions. It meets twice a year. - the **Interim Commission on Phytosanitary Measures (ICPM)** which is an FAO body and open to all FAO members. The commission members are governments. The ICPM will remain an "interim" body until the amendments to the Convention come into force and a permanent commission is in place.	- ISO has a **General Assembly** but its operations are governed by the **Council**, (officers and 18 elected member bodies). Council appoints the treasurer, the members of the **Technical Management Board (TMB)**, and the chairmen of **the 3 policy development committees.** - The **TMB** advises the Council. It has 14 members of which 3 currently come from developing countries. It has a key role in the management of technical work. - Technical work is highly decentralized, carried out in a hierarchy of **technical committees (or standard committees), sub-committees and working groups**. There are 2,885 technical bodies comprising 186 technical committees, and 2,699 working groups. - There are **2 small management committees** (7 members each) on finance and on strategy which report to the Council.	- In May 2002, the OIE had 162 member countries. - The Office is placed under the authority and control of an **International Committee** (IC) consisting of delegates designated by the governments of member countries who meet once a year. - The OIE is supported by elected commissions: • **Administrative Commission** • **Five Regional Commissions** • **Specialist technical Commissions (TC).** composed of 6 *elected people* (1 from each region + 1 chair) who are elected for a 3-year term by the IC. There are **4 TC** : (i) International Animal Health Code Commission; (ii) Foot and Mouth Disease and Other Epizootics Commission; (iii) Standards Commission; and (iv) Fish Diseases Commission.
Secretariat	- Set up in 1992, the secretariat is provided by FAO and charged specifically with the coordination of the work programme of the IPPC, particularly the elaboration of ISPMs.	- ISO has a strong **central secretariat** with 165 full time staff (in the year 2002) and a central budget of about US$ 20 million per year.	The day-to-day operations are managed by a **central bureau** situated in Paris, placed under the responsibility of a Director-General elected by the International Committee.

Figure 2 – Procedures in other International Standard Setting Bodies			
	International Plant Protection Convention	**International Organization for Standardization (ISO)**	**World Organization for Animal Health (OIE)**
Scientific Support	- Ad hoc international working groups are established or experts are used by the secretariat to prepare a standard. The standard draft is submitted to the SC which is itself composed of experts. - There is a FAO Regular Programme budget, which covers the costs of experts to participate in the activities of IPPC, especially working groups to draft international standards. Experts from developed countries may, however, volunteer to cover their own costs, which has in the past allowed the secretariat to make the most of limited resources.	- A working group of experts, the chairman (convenor) of which is the project leader, is set up by the technical (sub) committee for the preparation of a working draft. Successive working drafts may be considered until the working group is satisfied that it has developed the best technical solution to the problem being addressed. At this stage, the draft is forwarded to the working group's parent committee for the consensus-building phase.	Standards are prepared by elected specialist commissions and by working groups bringing together **internationally-renowned scientists**, most of whom are experts within the network of 152 collaborating centres and reference laboratories that also contribute towards other scientific objectives of the OIE.
Use of science and other legitimate factors in standard setting	The standards in general concern procedures for risk assessment and management (Pest Risk Analysis), provision of certain types of information, conducting surveillance, and other activities that may be undertaken by national plant protection organizations. Standards are very much science-based.	- Most standards concern quality and performance. Science is a secondary factor.	- Food safety standards pertain to reducing food-borne risks to human health due to hazards arising from animals. - Science-based criteria prevail entirely in standard setting. - No consideration of other legitimate factors except animal welfare *scientifically* defined.
Consensus and Voting	- Approval of standards by the ICPM is by consensus; -If there are voices in opposition, consensus is taken to be a two-thirds majority of the members present. A vote can only be taken, however, when a proposal has been presented to the ICPM on at least two occasions.	- The acceptance criteria stipulate approval by two-thirds of the ISO members that have participated actively in the standards development process, and approval by 75 % of all members that vote. Voting is postal.	- The International Committee approves the standard through consensus providing that not more than 10 members are against. There is no voting procedure.
Priority Setting	- Established by the Commission on Phytosanitary Measures in consultation with the secretariat.	- Established by the Council and the Technical Management Board.	- Established by the International Committee.

Figure 2 – Procedures in other International Standard Setting Bodies			
	International Plant Protection Convention	**International Organization for Standardization (ISO)**	**World Organization for Animal Health (OIE)**
Inclusive-ness and participation	There is a large degree of inclusiveness in the current standard setting process: (i) Suggestions to develop a standard can arise from governments, industry, NGOs and regional plant protection organizations as well as other international organizations. (ii) There are observers to the ICPM. (iii) Developing countries participate in standard setting and funds are provided for their participation.	- Some 30,000 experts participate in meetings each year drawn from industry, research institutes, government authorities, consumer bodies, and international organizations. - ISO does not have observers in addition to the country members but delegations would appear to often represent different interest groups. - ISO participation is dominated by the developed countries.	- The level of inclusiveness is relatively high because of the regional representation system with elected people from each region (5 regions + chair within the specialized committees) which ensures participation of all members systematically. Furthermore, OIE pays for the participation of many developing countries to attend the IC. - Observer organizations are all global with high participation of industry but no non-industry NGO representation.

4.3 Findings and Proposals on the Usefulness of Codex, Prioritization, Scope of Work and Mandate

4.3.1 Findings on the Usefulness of Codex

56. In the questionnaire, governments were asked in what ways Codex standards are important for their country and the results are shown in Table 1 by level of development[26]. Low- and middle-income countries find them very important in protecting the health of their consumers by ensuring safe food whether produced domestically or imported, and for trade facilitation domestically and internationally. High-income countries, with better-developed domestic food legislation and control systems, place more emphasis on Codex for export facilitation and ensuring the safety of food imports. Producer and consumer NGOs also rate Codex standards very important in all their functions.

57. The majority of countries at all stages of development claim to have adopted into their national legislations more than 60% of all types of Codex standards with the exception of those relating to methods of analysis, though for domestic legislation Codex is probably most important to developing countries and the smaller developed countries that do not have the resources to develop all their own standards. The use of Codex standards in both developed and developing countries was confirmed in the country visits.

58. During country visits it was found that exporters and importers, including the major developed countries, find that Codex standards provide a basis for negotiations in trade over quality and safety, a view shared by industry. Harmonized standards also reduce the need for diverse requirements in formulation and labelling. Codex standards are a valuable basis for the development of standards by new trading blocks such as Mercosur and SADC. WFP also uses Codex standards as a reference in specifying contracts for food aid. To be valuable though, standards have to be timely and industry and some middle-income and developed countries find the delays in Codex and in the expert committees' advice to Codex in respect of pesticides and, to a lesser extent, additives may reduce the overall relevance of the system. In the case of veterinary drugs companies are often no longer putting new products forward for consideration for a variety of reasons.

59. Turning to the type of standards appreciated by stakeholders, countries at all stages of development valued all types of Codex standards (more than 50% of respondents scoring above the mid-point on a 7-point scale) with the exception of high-income countries that attached less importance to commodity/product standards, quality descriptors, and processes and procedures. Two high-income countries visited, however, considered commodity standards important. More than 70% of countries report that residue limits, additives, hygiene and labelling standards are 'very important' (score 6 or 7 on 7-point scale). Observers are largely in agreement, according even higher importance to these same standards.

[26] Using World Bank Categories where 'Middle' combines World Bank categories 'Lower Middle' and 'Upper Middle'.

Table 1: In which ways are Codex Standards important for your Country?				
	Income Level	**Not Important* (% of respondents)**	**Medium Importance* (% of respondents)**	**Very Important* (% of respondents)**
Protect Health of Domestic Consumers	All Countries	2.0	22.0	76.0
	Low	2.9	11.1	86.0
	Middle	0	17.3	82.7
	High	5.3	52.7	42.1
Facilitate Domestic Commerce	All Countries	8.6	40.5	51.0
	Low	8.6	20.0	71.5
	Middle	2.2	44.4	53.3
	High	21.1	68.4	10.6
Facilitate Food Exports	All Countries	0	23.0	77.0
	Low	0	8.6	91.4
	Middle	0	29.6	70.5
	High	0	33.3	66.7
Ensure Safety of Food Imports	All Countries	1	16.7	82.3
	Low	0	11.4	88.6
	Middle	0	21.7	78.3
	High	4.8	14.4	80.9
*On 7-point scale, Not Important = scores of 1 or 2, Medium Importance = 3, 4 or 5 and Very Important = 6 or 7				

60. Codex is directly referenced in the WTO-SPS Agreement for health-related standards and indirectly for non-health related standards in the TBT Agreement. The latter states that countries should adopt international standards where they exist, but does not mention Codex specifically. Most of the industry representatives the team met believe that Codex should concentrate its limited resources on science-based standards and this view was supported, in the main, by the developed country governments.

4.3.2 Scope and Prioritization of Codex Work

61. In the questionnaire, we asked whether Codex work should be extended. There was near unanimity that Codex should deal with the health-related aspects of food packaging (93% of country respondents, and the view was supported by consumers. Non-consumer INGOs—mainly industry—were the only group not to support this extension of Codex work, two-thirds being opposed). Both country visits and the literature drew attention to other areas of work not mentioned in the questionnaire but potentially important for human health, that should be dealt with, including industrial processing agents and bio-agents in foods

62. As recognition grows of the importance of diet and nutrition in the prevention of chronic, non-communicable diseases, demands will be made on Codex in the future to handle these emerging challenges to protect the consumer by drawing on science-based health risk assessment and ensuring better consumer information and product labelling from a nutritional and health perspective. Likewise, increasing attention will be demanded with respect to new categories of foods for special dietary uses, expanded health claims and nutrient addition. Both this work and that on packaging and processing referred to above will require significant inputs of expert advice.

Recommendation 1: *The scope of Codex should fully cover health-related aspects of food standards. It will, therefore, need (subject to availability of resources for Codex and expert scientific advice and prioritization on the basis of expert scientific advice as to the importance of alternative risks) to :*

- *strengthen work on foods for special dietary uses, health claims and nutrient addition; and*
- *undertake new work on packaging materials; and on industrial processing agents and bio-agents in foods.*

63. Some have argued that Codex also has a role to play in guiding countries on building national food control systems based on the criteria of consumer health protection and fair practices in trade. In this report, this function is treated as part of capacity building, though the role of Codex in making recommendations with respect to priorities for capacity building activities of FAO and WHO may need clearer definition.

64. Other areas of extension of Codex's scope of work that we asked about brought split responses with developed countries opposed, usually strongly, but low- and middle-income countries strongly in favour. Industry INGOs were most strongly opposed to any extension of Codex work into new areas. These new areas were environmental issues not covered by other conventions or organizations, notifications on bio-terrorism, management of arrangements between nations for technical assistance, a disputes mechanism on detailed technical issues in trade and development of notification procedures and maintenance of a data base for new procedures, methods of analysis, etc. put in place by countries (the database is very important for developing countries and is returned to in Section 4.5 Communication).

65. Despite an overall majority in favour of each of these extensions of Codex work (with the exception of the trade disputes mechanism), without a major injection of new funds and given the very divergent views and the already very heavy workload of Codex and its secretariat, it is not recommended that Codex take on other new tasks at this time, though it should review the scope of its work every few years.

Recommendation 2: *It is recommended that Codex does not take on additional work in non-health related areas.*

66. Developing country governments consider science-based standards important, but continue to value commodity standards and would like to see the list of standards extended to products particularly relevant to them (although this was often found in country visits to apply to such concerns as pesticide MRLs handled in horizontal committees). Consumer groups in particular value the information content of labels.

67. Asked in the questionnaire to rate future priorities for Codex work, 81% of government respondents and 87% of observers accorded very high priority to strengthening the science base for health risk analysis in standard establishment in Codex's future work. There continues to be support among low- and middle-income countries for extending the coverage of commodity standards, but little enthusiasm from developed countries. Product descriptors are seen as low priority. Likewise, there was limited enthusiasm for future work on non-health related aspects of food labelling such as fair trade, animal welfare, religious and cultural labelling. There is relatively more support from governments for work on organic labelling, point of origin and quantitative ingredient declaration (QUID), though among high-income regions, Europe is more favourably disposed than is North America. Observer groups with the exception of consumers are opposed to all forms of non-health-related labelling. In assessing priorities for future work, governments and observers gave the highest proportion of 'very high priority' scores (about 80% in each case) to pesticides, veterinary drugs, additives and contaminants—all health-related, science-based issues.

Box 1: Labelling of Foods Derived from Biotechnology (GM Labelling)

The Codex Committee on Food Labelling (CCFL) first considered labelling of foods derived from biotechnology - in 1993. In 1997, the secretariat prepared guidelines, on the basis of advice from CCEXEC, and the statement on the role of science and other factors and the findings of an FAO/WHO expert consultation. The guidelines were presented as amendment to the General Labelling Standard for comments and major divergences of opinion continued. In 1998, CCFL forwarded the definitions and the provisions on allergens to CAC for adoption at Step 5 and returned the labelling requirements to Step 3. In 1999, the CAC adopted the *Proposed Draft Amendment Concerning the Labelling of Foods Obtained Through Biotechnology* (partial text) at Step 5. At the CCFL in 1999, there was debate on the requirement of labelling for foods containing *or* obtained from genetically-modified organisms (GMO). The United States stated that there was no scientific basis for systematic labelling and suggested, supported by industry IGOs, that it may be misleading to consumers. The European Union, supported by consumers advocated mandatory labelling. CCFL agreed to return the labelling provisions to Step 3 for redrafting.

At the CCFL, in 2000, "modern biotechnology" was replaced with "genetic modification/genetic engineering" throughout definitions. There was further debate over "modified" versus "engineered" (both versions were retained) and the definition of "no longer equivalent/differs significantly", which was left in square brackets. CCFL advanced the draft amendment on allergens to Step 8 for adoption at the CAC in 2001 and it was adopted. CCFL returned the definitions to Step 6. The working group presented revised labelling provisions with *either* labelling when products obtained through biotechnology differ significantly from the corresponding food *or* the declaration of the method of production for foods containing or produced from GMOs. The US, and other delegations, highlighted the implications of enforcement, methodology, economic cost and consumer perception; and that developing countries would face technical difficulties. Due to the diversity of opinions, CCFL decided to return the labelling provisions to Step 3.

At the CCFL in 2001, the central issue for definitions was the need for consistency throughout Codex[27] with the inclusion of "modern biotechnology" (Argentina, Brazil) versus use of terminology such as "genetic modification/genetic engineering" that consumers would understand (Norway, Ireland, India, Nigeria, Consumers International). Based on a compromise text, proposed by the working group, the definitions were retained and "modern biotechnology" was added. The CCFL agreed to forward the definitions to Step 8 for adoption by the CAC in 2001. However, due to the lack of consensus on the appropriate terminology for the definitions, CAC agreed to return the text to Step 6 demonstrating that the proposal to the CAC had been premature. The working group revised the labelling provisions in the form of guidelines. Argentina expressed reservation due to the implications in international trade and WTO. Some delegations indicated that Codex should give general recommendations that could be applied in all countries as a basis for international harmonization. CCFL was not able to proceed further due to time constraints and returned the text to Step 3. At the CCFL in 2002, CCFL could not reach consensus on the definitions and they returned again to Step 3.

Polarization has increased as governments incorporate labelling provisions in their national legislation. There are accusations of inflexibility, criticism of the chair and general frustration at the lack of progress. This outcome suggests that CCFL could have benefited from more focused direction from the Codex Commission. Furthermore, CCFL did not have the benefit of an expert consultation on risk management or communication. As the working group became larger, there was less efficiency and less progress. Furthermore, while the Task Force on Foods Derived from Biotechnology benefited from the Cartagena Protocol definition, it was a source of divergence for CCFL. The issue of "other factors" complicated the picture further and Principles for Risk Communication had not yet been elaborated. Due to political aspects of risk management and communication, and the current impasse, CCFL may not be able to resolve this dispute.

68. To demonstrate the difficulties that can arise with non health-related standards, one may look at biotechnology (GM) labelling. This is one of the most difficult issues Codex has addressed, where there appear to be intractable differences between country positions (see Box 1) and progress (if any) has been painfully slow. While Codex has been deliberating, many countries have introduced national legislation on GM labelling (and the market has also responded with retailers and manufacturers taking GM ingredients out of their products in countries where consumers are opposed to them).[28] This particular issue reflects a broader difficulty in international harmonization when cultural differences among countries mean that consumers have different interests and priorities.

[27] The *Ad Hoc* Intergovernmental Task Force on Foods Derived from Biotechnology (TFFBT) had taken its definition of "modern biotechnology" from the Cartagena Protocol, in accordance with its terms of reference to use established international definitions.
[28] It is conceivable that mandatory labelling could be seen as a non-tariff barrier in breach of the TBT Agreement but, in the absence of a challenge, it should be assumed that this is not the case.

69. Contrast the position for labelling with that for risk assessment of foods derived from biotechnology (Box 2). Progress on agreeing to procedures for assessing health risks proved relatively straightforward. Several explanations have been given for this success including resources put into the process, the use of a task force approach and a strong chair. However, part of the explanation is undoubtedly that the issue was one of science not culture.

Box 2: Procedures for Assessment of Health Risks from Foods Derived From Biotechnology

In 2000, the *Ad Hoc* Intergovernmental Task Force on Foods Derived from Biotechnology (TFFBT), hosted by Japan, began its four-year mandate. According to the terms of reference, TFFBT was obliged to take full account of existing work and it agreed that environmental risk was and should be addressed by other bodies such as the Cartagena Biosafety Protocol under the Convention on Biological Diversity, the International Plant Protection Convention and the Commission on Genetic Resources for Food and Agriculture. Moreover, the development, adoption, acceptance and use of Codex standards on biotechnology had to be undertaken within the international regulatory framework, resulting in the definition of "modern biotechnology" being taken from the Cartagena Protocol.

TFFBT relied on three well-funded joint FAO/WHO expert consultations (plants, allergenicity, micro organisms[29]) and three *ad hoc* working groups to develop texts (principles, plants and micro organisms (chaired by Japan); analytical methods (chaired by Germany); allergenicity (chaired by Canada)). The *Draft Principles for the Risk Analysis of Foods Derived from Modern Biotechnology* and the *Draft Guideline for the Conduct of Food Safety Assessment of Foods Derived from Recombinant-DNA Plants* have been advanced to Step 8 for adoption at the Codex Alimentarius Commission in 2003. As the safety assessment procedures for plants and micro organisms were the same, they were retained, wherever possible, for recombinant-DNA micro organisms. The *Proposed Draft Guideline for the Conduct of Food Safety Assessment of Foods Produced using Recombinant-DNA Micro organisms* has been advanced to Step 5. The *ad hoc* working group, chaired by Germany, revealed that different countries use different analytical methods for the detection or identification of foods or food ingredients derived from biotechnology and that there were no internationally validated methods available at present. The consensus on the list of validated methods of analysis, proposed by the working group, is expected to be approved at the next meeting of the Codex Committee on Methods of Analysis and Sampling in November 2002. Based on the proposals of the working group, chaired by Canada, and subsequent revisions, TFFBT agreed to advance the *Draft Annex on the Assessment of Possible Allergenicity* to Step 5 and recommended that the CAC also adopt the text at Step 8 with omission of Steps 6 and 7.

Risk assessment in the development of these texts focussed on the issue of "substantial equivalence", which, although questioned by Consumers International, was concluded to be a useful approach to risk assessment of foods derived from biotechnology (joint FAO/WHO expert consultation, 2000). Conversely, the risk management issue of "traceability" was more controversial. There was debate between the EU, who called for the inclusion of the issue in the Principles document, and the US delegations, who stated that the issue was more appropriately covered by the Codex Committee on General Principles. There was further dispute by Consumers International and Greenpeace International versus industry observers on the inclusion of "traceability". Nevertheless, TFFBT concluded that "traceability" was an important tool for the implementation and enforcement of risk management measures and, therefore, agreed on a compromise text on product tracing.

The development of these texts on principles, plants and micro organisms is an example of consensus building in a very short time period. The success of this case may be attributed to the chair who concentrated the discussion on procedures and did not allow it to move beyond science-based health considerations or to diverge from developing procedures into other aspects of potential GMO standards. The process also benefited from well-funded expert consultations and well-funded inter-meeting work of the *ad hoc* working groups. The scientific basis of risk assessment means that the established methods could be easily transferred to both the guidelines for plants and micro organisms. However, risk management remains at the abstract level due to various possible policy responses to risk assessment results, e.g. "traceability". Nonetheless, the overall success of TFFBT is undeniable and may be attributed to the restricted terms of reference, science-base of the discussion, established international definitions and methods of risk assessment, technical input resources and focus on food safety for human health.

70. For the moment, Codex does not overtly prioritize between its twin objectives of protecting consumer health and ensuring fair practices in food trade. Food safety standards perform both functions, but commodity standards, product descriptors and informational (non-health related) labelling are targeted specifically at fair trade and informed consumer choice.

[29] The proposed Joint FAO/WHO Expert Consultation on genetically modified animals has not been initiated.

71. The evaluation team believes that, given ever-increasing demands, Codex now needs to prioritize in the use of scarce resources, putting health first. Product definition remains important but a lower priority is implied for commodity standards and product quality descriptors.

72. Codex will still work on issues such as informational labelling as, in this domain, Codex has proven to be in some cases, a valuable forum for international discussion, and such discussion can lead, over a period of time, to a convergence of opinions. Within the domain of food labelling it indicates higher priority for health-related aspects such as nutritional labelling, health claims and allergens than for non-health related issues such as, country of origin, religious and cultural labelling.

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Recommendation 3*: In determining its standard-setting work programme, Codex should prioritize as follows:*
1) standards having an impact on consumer health and safety;
2) commodity standards responding to the expressed needs of developing countries;
3) commodity standards responding to the expressed needs of developed countries; and
4) informational labelling relating to non-health and non-safety issues.

73. Priorities for standards having an impact on health should be established as far as possible on the basis of scientific surveillance and assessment of health impact.

74. We are aware that the recommendation that a lower priority be placed on non-health standards comes at a time when a recent WTO TBT decision that the Codex sardine standard is the appropriate basis for national rule making has raised the profile of Codex commodity standards. We nevertheless believe that our priorities are correct given the limited resources available to Codex, the heavy and growing demands on Codex with respect to health and the possibility in many cases for alternative routes to the establishment of quality standards.

75. The remaining work on commodity standards should address, first and foremost, the need for product definition (i.e. the species of primary products and necessary analytical measures for ripeness/maturation parameters and the content specification[30] for processed products and exclude quality characteristics of size, colour, flavour, etc. which may be appropriate in national legislation). Commodity standards would only normally address health aspects which cannot be addressed through horizontal standards. In view of this, a revised and more restrictive format is desirable for Codex commodity standards.

4.3.3 A Clear Mandate for Codex

76. At the moment Codex does not have a formal mandate[31]. Rather, the Codex Alimentarius Commission and its subsidiary bodies (the Codex committees, task forces, etc.) are by statute purely advisory. Article 1 of the Statutes of the CAC states *"The Codex Alimentarius Commission shall …..... be responsible for making proposals to and be consulted by, the Directors-General of the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) on all matters pertaining to the implementation of the Joint FAO/WHO Food Standards Programme"*. Under the rules of procedure the Commission has only one clearly defined authority, the adoption of the draft of Codex standards.

77. Article 1 goes on to describe the purpose of the Joint Food Standards Programme: "

a. *protecting the health of consumers and ensuring fair practices in food trade;*
b. *promoting coordination of all food standards work undertaken by international governmental and non governmental organizations;*
c. *determining priorities and initiating and guiding the preparation of draft standards through, and with, the aid of appropriate organizations;*
d. *finalizing standards elaborated under c) above;*
e. *amending published standards, after appropriate survey in the light of developments".*

[30] and possibly, critical organoleptic/spoilage specifications.
[31] It has taken upon itself to develop a 'Strategic Vision' but has no clear mandate from its parent Organizations.

Recommendation 4: *It is important that a comprehensive and clear mandate be developed for Codex and ratified by the FAO Conference and the World Health Assembly. The mandate should be quite simple, for example:*

- *The formulation and revision of international standards for food, in collaboration with other appropriate international organizations, with priority to standards for the protection of consumer health while taking into full account the needs of developing countries.*

78. The mandate should make clear that Codex is not an addition to the work of FAO and WHO but represents the definitive voice of the two Organizations in its mandated areas.

79. Codex reports are advisory to the FAO and WHO secretariats. During country visits and discussions with members of the Codex Executive Committee the question was raised as to how Codex could ensure that those issues it felt to be of special importance could be formally brought to the attention of FAO and WHO Governing Bodies for action and through them to a wider audience in member countries.

Recommendation 5: *FAO and WHO should define how formal recommendations of Codex for consideration by FAO and WHO Governing Bodies may be brought to their attention (for example in FAO through one of the Committees of the Council).*

4.3.4 WTO and Codex

80. We have already indicated that Codex is valued because harmonized standards contribute to an open trading system that is rule-based, predictable and non-discriminatory. However, some stakeholders, particularly developed country consumer interest groups, perceive a fundamental conflict between food safety concerns addressed by CAC and the WTO objective of expansion of international food trade[32]. They argue in particular that the SPS Agreement weakens food safety regulation in order to facilitate trade and creates pressure for downward harmonization of food standards. In fact, under the SPS Agreement countries retain freedom to determine the appropriate level of protection for their citizens.

81. The SPS and TBT Agreements in fact exhort members to play a full part in international standard development and, by stipulating that SPS and TBT measures that conform to international standards are presumed consistent with the WTO Agreement, promotes the use of standards developed by Codex. Most people the evaluation team spoke to felt that the WTO Agreements had injected new impetus to Codex at a time when it was in danger of drifting into irrelevance. In the questionnaire, 90% of government respondents wanted Codex to continue to be referenced for the SPS Agreement, as do consumer and producer INGOs (Codex observers).

82. Concern has also been expressed that since the WTO, discussions within Codex have become more politicized and that there is greater representation in Codex committees by trade rather than technical specialists and that this has resulted in a slowing down of the process of setting standards in CAC. However, comparison with the pre-Uruguay Round level of standard setting activity does not show that there is actually any slowing down. Rather, the expectation of accelerated decision making has not been realized and there is frustration with the normal pace of activity. The recommendations we make concerning priorities, decision making and representation aim to reduce this problem.

83. The SPS Agreement, in making reference to the use of risk assessment in determining food health risks and in advocating the use of equivalence of SPS measures, could be argued to have encouraged Codex to intensify its work on these subjects, which in turn could be argued to benefit consumer health and, ultimately, develop country trade.

84. Despite these positive comments, exporters, particularly in developing countries, find that in practice they have to meet importing countries' standards that can be stricter than Codex standards and also vary from country to country. In part, this lack of harmonization results from the major developed countries developing their own standards more quickly than Codex. Relaxing already established standards to new

[32] Paper prepared by Dr Anwarul Hoda of the expert panel.

Codex standards would be politically difficult as it would be perceived by domestic consumers as a reduction in their level of protection (see Box 3 on Aflatoxin M_1). Faster decision-making in Codex would lessen this problem to the benefit of developing country exporters.

85. The evaluation believes that it is timely for Codex to intensify efforts to develop guidelines for what constitutes an acceptable level of protection for consumers (this was given preliminary discussion and then dropped in the Codex Committee on General Principles). We determined that few guidelines in this area have been elaborated by national governments. If Codex is able to make progress, countries will be in a better position to obtain the full benefits of the WTO-SPS Agreement. The existence of guidelines on the determination of acceptable levels of protection, agreed to by risk managers, would also make it easier for risk assessors to provide appropriate and consistent scientific advice to Codex committees.

Recommendation 6: *Codex, supported by FAO/WHO independent expert advice, should intensify efforts to develop guidelines on determination of acceptable levels of protection (ALOP) for use by risk assessors in giving scientific advice to committees and to reduce the scope of disputes in the WTO.*

4.4 Reform of Codex

86. We have indicated above that Codex is highly valued by stakeholders, both for the standards it produces and the process by which it produces them, but there are frustrations with the speed at which it operates, the ability of developing countries to participate effectively and the usefulness of standards. Also we are not writing a new system on a blank page. The recommendations of the evaluation are thus not revolutionary but designed to make the present system work better.

4.4.1 Degree of Independence of Codex

87. Although the Group of 8 at its meeting in Okinawa (2000) rejected proposals for an independent organization, there have been concerns about Codex having too little control over its own management and decision-making. These have been expressed in some country visits and led to questions in the questionnaire in which almost 60% of government respondents suggested that Codex should have somewhat more independence (a score of above the mid-point on a 7-point scale), though only 7% were in favour of a completely autonomous organization. We were told that Codex gains credibility from its location within the two Organizations, particularly with respect to health protection through its direct association with WHO. However, 90% of government respondents favoured Codex having the final decision on management of its work programme within an agreed budget (at the moment done by FAO/WHO). Consumer and producer INGOs support these views. Similarly, 57% of government respondents felt that the Codex Commission should have a 'much increased role' in making proposals for priorities and proposing a programme of work. The evaluation team supports these views.

Recommendation 7: *Codex should remain within FAO and WHO but should have more independence, authority and responsibility over priority setting and management of its work programme. FAO and WHO Governing Bodies should endorse the overall Codex programme of work and the budget on a biennial basis.*

4.4.2 Links to OIE and IPPC

88. Food safety has become a food chain issue, in that plant and animal health at the primary production level (and even animal feed) can impinge upon safety of the final food (BSE and Listeria are obvious examples). New food safety organizations (e.g. the European Food Safety Authority) appear to be responding to what may have been a fragmented approach to food safety[33] by covering the entire food chain within a single agency. Perhaps if an international system was being established from scratch, that would be the right approach now, but given the existence and widely divergent legislative bases of Codex, OIE and IPPC, developing more effective collaboration and cooperation is more realistic. Contacts between Codex

[33] Speech of David Byrne, European Commissioner for Health and Consumer Protection, to the inaugural meeting of the Management Board of EFSA, 18 September 2002.

and IPPC are facilitated by them both being housed in FAO and no overlaps were detected by the evaluation team.

89. There are gaps in standard setting that are not covered either by Codex or the OIE. The case of food safety standards relating to food-borne hazards arising from animals before slaughter is one. In this regard, the OIE Committee has recently adopted a resolution[34] clarifying the food safety mandate of the OIE (*"reduce food-borne risks to human health due to hazards arising from animals, in collaboration with appropriate international agencies"*). The resolution promotes the establishment and/or the strengthening of both formal and informal relationships with relevant international agencies, including FAO and WHO and their subsidiary bodies, including CAC. We have already recommended above that the Codex mandate reflect this.

90. We note that the Chairman of Codex and the Director-General of OIE have recently held informal discussions to identify and consider appropriate collaboration in areas of their respective competence. Mechanisms they envisaged for improving cooperation between Codex and OIE were exchange of information; cross-utilization of experts in working groups and relevant conferences; and conduct of a census to facilitate the comparison of existing OIE/Codex standards on the same subjects. Informal agreement between the two parties has not been formalized. The following areas of common interest have been identified:

- risk analysis;
- certification of exported products of animal origin and efficiency of the services in charge of certification;
- safety of animal feed;
- inspection of products of animal origin including at farm level;
- the safety of products of animal origin with regard to residues of veterinary drugs;
- thermal treatment methods for milk so as to reduce pathogens;
- application of biotechnology: vaccines, veterinary drugs and biological tests; and
- traceability of products of animal origin.

Recommendation 8: *Codex and OIE should intensify their collaboration to minimize overlaps and avoid gaps in standard setting with:*

a) delineation of work and specific modalities of collaboration should be defined by Codex and OIE within the near future and formalized in a memorandum of understanding;
b) where work is in both Organizations' interest it should be pursued through joint task forces.

Continued close collaboration between Codex and IPPC should also be maintained.

4.4.3 Findings and Recommendations for Codex Organization and Procedures

4.4.3.1 Administrative structures

91. Particularly in some developed countries that were visited, the view was expressed that Codex must be run more like a business—that at present it is overly bureaucratic and insufficiently strategic. Some wanted an executive chairman assisted by a board of directors. Others saw this as creating difficulties with respect to transparency, inclusiveness and accountability to all members.

92. A common view from country visits, particularly from high-income countries, was that the CAC meeting only every two years is a serious impediment to speedy decision making. Coupled with sometimes poor sequencing of committee meetings (including the sequencing of meetings of JECFA and JMPR to give expert scientific advice to relevant committees), long delays are built into the system. In the questionnaire, there was overwhelming support for annual meetings of the Commission—80% of government respondents

[34] Resolution n. XV, 70 GS/FR Paris, May 2002.

(100% from high-income countries and 67% from low-income countries, even though some of those had expressed concern in country visits that it would be hard for them to afford to participate in annual meetings) and 97% of observers were in favour.

93. At the same time, there are concerns with the present Executive Committee. It is said to be too large to be a strategic management board yet not sufficiently transparent (no observers) and not sufficiently representative to be allowed to consider standards. Questionnaire responses with respect to the Executive Committee were mixed—56% of countries, mostly low- and middle-income ones favoured greater power for the Executive Committee to monitor and manage the Codex work, but 48% of countries (including a majority of high-income countries and 77% of observers) were in favour of elimination of the Executive Committee and its replacement by an executive board. Observers and high-income countries were, however, opposed to the election of an executive chairman with authority over the secretariat and a strong leadership role.

94. We interpret proposals to give greater power to the Executive Committee as equivalent to the creation of an Executive Board.

Recommendation 9: *The Executive Committee should be replaced with an Executive Board, meeting every six months, charged with strategic and managerial responsibility but without the authority to consider standards. The function of the board would be to improve speed and efficiency by assisting the Commission in strategic planning, budgeting and monitoring, including:*

- *preparation of the work plan and budget and the medium-term plan;*
- *make recommendations to improve management and working procedures in Codex, including its committees and task forces; and*
- *monitor and take corrective action for the delivery of the programme of work.*

95. A possible composition of this board would be the chairman and vice-chairs, an elected representative from each region and the secretary of Codex. Two representatives each from FAO and WHO, rather than the present unlimited participation, would regularize the official standing of the two parent Organizations in a framework of greater independence for Codex. The Executive Committee has been criticized for its lack of transparency in denying access to observers, but has been wary of allowing unlimited observer access to a small committee. Limited observer participation would overcome this concern.

Recommendation 10: *The Executive Board should be small and include:*

- *2-3 observer representatives for consumers, industry and perhaps primary producers;*
- *formal participation of the Secretary of Codex and FAO and WHO.*

96. Gains in speed, efficiency and inclusiveness could be obtained by delegating a number of standard-management functions from the CAC to a more appropriate smaller body. Indeed, the Commission is recognized to be too large, unwieldy and generalist to perform this function effectively. This includes advice to the Commission on strategic planning of standards development and:

- proposal of priorities for standard revision and setting;
- examining the proposals of the Codex committees for development/revision of standards and the required supporting work to provide the independent risk assessment;
- advice on establishment and dissolution of committees and decision on initial task force establishment, including ad hoc cross-committee task forces (in areas where work falls within several committee mandates);
- monitoring progress in developing standards and advising if corrective action should be taken or work suspended due to lack of progress;
- assisting in identifying standard setting needs of developing countries; and
- examining proposed standards from Codex committees and passing them on for adoption by CAC or returning them for further development by committees.

97. One option would be for the Executive Board to carry out these functions. However, the expertise required may require different profiles than those of representatives attending the Executive Board. In ISO,

these functions are performed by a Technical Management Board, in IPPC by a Standards Committee. Given the limited representation in the proposed Executive Board and its responsibilities for work-plan and budget management, these functions could be performed in Codex by a Standards Management Committee[35].

98. The committee would need to meet as required but, at least every 12 months, and contain a balanced representation from all regions, levels of development and economic groupings as well as the secretary and observer representatives (other partner international organizations, producers, industry, trade, consumers). Many members could be Codex committee chairs and co-chairs to manage work effectively across committees. A committee of 20-30 members would appear necessary to carry out its functions at minimum cost but with an acceptable level of inclusiveness, including regional representation.

99. As well as inclusiveness, an advantage of a separate Standards Management Committee (SMC), rather than the expansion of the Executive Board's time on this function, is that the SMC's programme would be very focused with regard to standards while the board would be able to concentrate on overall strategic, institutional and work-plan issues. The tasks of the two functions require different skills. The disadvantage of the SMC would be the creation of a new committee with associated costs, but this could be offset by back-to-back meetings and some cross-membership between the committees.

Recommendation 11: *The standards development management function should receive much greater attention in Codex and should be delegated from the Commission to a smaller body. In this context, consideration should be given to the creation of a Standards Management Committee to perform functions that otherwise would need to be undertaken in the Executive Board.*

Recommendation 12: *It is desirable that the Codex Alimentarius Commission meets every year, but if the Executive Board and possibly Standards Management Committee perform their functions effectively it might be possible to reduce costs by continuing to hold meetings every two years.*

4.4.3.2 The Codex Secretariat

100. It is generally agreed that the Codex secretariat is very hard working, efficient and member-oriented. Seventy-four percent of government respondents to the questionnaire rated the efficiency of the secretariat above average, almost 47% scoring it very good, views strongly supported by observers. Respondents were in favour of a stronger role for the secretariat in analysing and making proposals for priorities and proposing a programme of work. In other words, there is support for the view expressed in the previous section that the secretariat should support a more management-oriented Executive Board.

101. However, the secretariat is by common consent already overworked and has insufficient resources to support the present activities of Codex. The situation is deteriorating as the volume of activity steadily increases and certain functions are regarded by some as being inadequately served, in particular:

- support to strategic planning and programming;
- monitoring, analysis and reporting on the work of the committees;
- substantive input into standard development; and
- communication and information to make Codex work accessible to all.

102. Management of Codex would be facilitated by the requirement on the secretariat to produce more management-oriented documents in terms of plans, functionally organized budgets and monitoring and outcome assessment reports on all Codex activities including the individual committees.

103. There is wide-spread agreement that the secretariat needs more senior staff to perform existing functions, let alone the new ones indicated above. The secretary would need to have considerable managerial experience as well as experience in international food safety affairs. We concluded that a person of the

[35] The questionnaire asked if there should be a standards committee with the power to approve standards on an interim basis. Only 48% responded yes, and it is **not** suggested by the evaluation that a standards committee should approve standards on an interim basis.

seniority required in terms of responsibility for a very major world programme would probably only be attracted at the D2 level[36]. Greater overall staff seniority is also required if more substantive support is to be provided to all Codex committee chairs.

Recommendation 13: *The Codex secretariat should be able to carry out managerial, strategic and communication functions. To attract someone of the calibre needed to provide continuing executive leadership and support in Codex and manage and motivate the enhanced secretariat, a senior person should be appointed as Executive Secretary. The overall seniority of the secretariat staff should also be raised.*

104. The role and lines of reporting of the Codex secretariat have already been considerably strengthened. Prior to January 2002, the Codex secretariat was not a clearly separate unit within FAO and the Codex secretary was an FAO staff member with responsibilities also for FAO's other food standards work. FAO's accounting systems made it difficult to provide exact reporting to WHO and the Commission on the use of funds. The Codex secretariat is now a separate service within the Food and Nutrition Division in FAO and appointments are made following joint review of candidates between FAO and WHO.

Recommendation 14: *The secretariat would better achieve the independent identity, high status and authority it needs by becoming a separate FAO unit rather than continue under the Food and Nutrition Division[37]. The secretariat would continue to report to FAO and WHO but in line with plans to give Codex more independence, the appointment of the secretary would be carried out in consultation with Codex.*

105. The secretary should be guided by the Executive Board. Despite the changes that have already taken place, the perception remains that the secretariat is too much an FAO body. To begin to remedy this perception, we believe that the secretary should more clearly report jointly to both Organizations. It has further been suggested that the secretariat would increase its joint nature if the actual employer of part of the staff was WHO, rather than FAO on behalf of both agencies. This has important symbolic advantages but would be administratively cumbersome. Whether or not this approach is adopted, job descriptions and the joint nature of appointments need to be fully transparent.

106. The secretariat is sometimes frustrated that it is constrained to use FAO service providers (18% of all FAO expenditure on printing is for Codex and 12% of translation costs) and that this sometimes limits its speed and flexibility. Consideration should be given to the secretariat having the independence over its resources to outsource work if it thinks this would improve cost effectiveness, speed and efficiency, especially for meetings outside Rome.

107. Finally, although it is believed that some redistribution of tasks could produce efficiency savings, the growing role of Codex necessitates increased resources to the secretariat. It may be possible to cover this in part through release of senior staff on secondment from countries (who must be available for an adequate period--minimum two years--if they are to make a significant contribution). This approach appears to work well in Europe, with resultant benefits to the European Commission and the Member State through the experience and new skills brought by the returning staff member at the completion of the secondment.

Recommendation 15: *As a matter of priority more human and financial resources must be put into the Codex secretariat to enable it adequately to perform existing functions and meet expanding demands.*

[36] The present Secretary is at the D1 level.
[37] Divisions in FAO are also under D2-level employees.

4.4.3.3 General Subject and Commodity Committees

108. The role of committees has changed over the past 40 years. General subject (horizontal) committees have become more important and some committees have been dismantled or become task forces. This evaluation has not looked in depth at the structure and work of individual committees, though there are recognized cases of lack of clarity and overlapping of work (e.g. traceability and equivalence).

109. In line with the priorities proposed for Codex standard setting (first health, second developing country commodity, third developed country commodity, fourth non-health related labelling), only horizontal (general subject) committees and those commodity (vertical) committees with some horizontal functions, such as fish, should have a continuing life. Other commodity work, deemed sufficiently important, should be handled through time-bound task forces established to address clearly-defined issues. With issues that involve several committees, an *ad hoc* cross-committee task force could reduce overlap and increase efficiency in work on a standard.

110. Both committees and the agendas for individual meetings should become more specialized, avoiding the need for countries to field delegations which can address at one meeting issues of commodity description, labelling and various aspects of health risk analysis. This can also lead to greater efficiency in that delegates will not become involved in subjects where they are unqualified and health-related standards will not be held up by discussion of non-health issues. Finally, it will reduce, if not eliminate, the potential for contradiction in standards between horizontal and vertical committees. Eighty percent of government respondents indicated that eliminating such inconsistencies should be accorded very high priority in the future work of Codex.

Recommendation 16: *Codex should undertake a review, including a detailed study by consultants of the work of general subject and commodity committees as soon as possible, and thereafter on a fixed schedule, with a view to rationalization where appropriate. The review should in particular examine:*

- *the existing committee mandates with a view to rationalization;*
- *any need for redistribution of tasks and responsibilities between committees; and*
- *any need to split committees.*

Also:

a) commodity work should be handled through time bound task-forces;

b) no new committee should be established even in a horizontal area of work until the possibilities for progress and the need for continuing work have been established through a task force;

c) the treatment of health issues in commodity committees should be reduced to the essential minimum and wherever possible handled through a task force with the relevant horizontal committee.

4.4.3.4 Codex Regional Structure and the Regional Committees

111. The regional committees are appreciated and attendance by low- and middle-income countries at regional coordinating committee meetings is significantly higher than at the Commission itself and some countries participate in Codex meetings only at the regional level. However, this is clearly one area of Codex where improvements need to be made if the developing country governments and NGOs are to make a more effective input into Codex.

112. The original purposes of regional committees included the creation of regional standards, but, following the Uruguay Round, these are less relevant. Although regional standards are no longer appropriate, inclusiveness and usefulness of Codex would be improved if standards of particular importance to developing countries and with an international dimension were initiated first in regional committees.

113. Regional meetings also often facilitate capacity building activities (e.g. workshops by the host country and FAO/WHO immediately before meetings). If Codex is to give advice to FAO and WHO on

capacity building priorities (as we think it should), this could usefully be an issue for committee meetings, but to do this they require greater focus on regional issues

114. However, problems have been identified with regard to the effectiveness of regional committees. They often lack clear purpose and:

- some of the regions are regarded as too large and diverse to have real opportunity to work together (Africa; Asia; Latin America and the Caribbean; and to a lesser extent Europe);
- there are inadequate resources to permit regional representatives and coordinators to work between regional meetings; and
- there is need for greater mobilization of support through Codex for the initiatives of developing regions.

Recommendation 17: *Codex should undertake a review of the mandate and work of regional committees within the next two years.*

115. In undertaking this review, the following should be considered:

- whether all the existing regional committees continue to be justified (e.g. with EU enlargement);
- clarification of their purpose and mandate (which may not need to be uniform for developed and developing country groupings);
- establishment of a flexible (ad hoc) sub-regional structure within the regions, centred on economically and geographically coherent groups including economic organizations like Mercosur and SADC. This could encourage the development of more joint work on common problems and allow for greater participation in local meetings;
- combining the roles of regional representative and regional coordinator. This person would represent the region at the Executive Board (see above). The representative/coordinator would be the secretary to the regional committee. Where this person is from a developing country, possible ways of funding expenses for carrying out coordination and promotional activities should be explored by Codex; and
- in developing regions, systematic discussion of capacity building and further combination of meetings with seminars and briefings on matters related to both trade and protection of domestic consumers.

These proposals should be considered alongside specific proposals for improved decision making below that would also enhance the regional or sub-regional voice in Codex committee meetings.

4.4.3.5 A Clearer Definition of Committee and Task Force Working Procedures

116. Many of the comments and criticisms of Codex that we heard during country visits relate to these issues. We believe that a clearer division of the work between horizontal and vertical committees will go some way to reducing overlaps between committees, streamlining and increasing efficiency in the use of scarce resources, but that much more can be done to improve the speed of committee work while at the same time promoting the inclusiveness of developing countries. This should be done by a clearer separation of risk assessment and risk management tasks, that sometimes get muddled in committees, slowing down and politicizing work; by more work between committee sessions (and thus less drafting and revision of standards in meetings); and by the use of consultants/facilitators to consult widely in moving work on between sessions.

117. Standard development should also be time-bound. In the questionnaire, 77% of country respondents and 86% of observers (including consumers) are in favour of all work being time-bound. This is already happening in the implementation of the Medium-Term Plan and we fully support this.

Recommendation 18: *All committee and task force work should be time-bound. It is proposed that no standard be permitted more than 5 years' work before decision by the Commission on whether further work is justified.*

118. **Clarification of the distinction between risk assessment and risk management:** Codex, FAO and WHO have been working to clarify this distinction. We propose a further and clearer division of risk assessment (scientific advice from expert committees and consultations) and risk management (the work of the Codex committees) which should simplify the work of Codex committees. It is our view that many of

the delays in committee work result from a discussion of risk assessment issues in Codex committees (essentially using quasi-scientific arguments to justify positions driven by other concerns). Our proposal in the section on expert advice would have the expert committees and consultations producing clear MRLs and ADIs and alternative risk management options, as requested by the risk managers.

119. If Codex is successful in developing procedures for determining acceptable levels of protection, the scientific advice given to different committees will be consistent in terms of the implied level of consumer protection. The Codex committees would then discuss management options. Any divergence from the scientific advice with regard to health risk would need to be clearly and transparently justified on the basis of other legitimate factors and any disagreement with scientific advice would result in issues being sent back to expert committees/consultations rather than be discussed by non-experts in Codex committee time. Effective communication (and trust) between risk managers and assessors is vital to the success of these proposals.

120. This is particularly the case as the demands on risk managers are increasing and they are asked to weigh the costs and benefits of any risk management option. Sometimes the costs are economic or political, but sometimes they may involve trade-offs between alternative risks, such as when a certain level of protection against a hazard would reduce the availability or make unaffordable a food of important nutritional value to a population or sub-population.

Recommendation 19: *Codex must continue to strive for a clearer separation of the risk management and risk assessment functions to ensure transparency, the usefulness of scientific advice and the speed of decision-making.*

121. **Greatly increased between committee session work:** At the moment, Codex standards are largely formulated in committee. Ninety percent of government respondents and 97% of observers favour the greater use of experts to consult widely with members in developing standards. The role of such independent expert facilitators would be to advance work between meetings. A main part of their function would be to understand dissenting views, including all written comments, and facilitate the development of consensus. This could have very positive benefits both in terms of ensuring greater inclusiveness and in speeding up work, provided facilitators have the clear function of consulting members widely and organizing small local workshops where necessary.

122. The use of between-session working groups, particularly electronic ones, can also be useful, provided that they are fully representative. Host country questionnaires show that very little of the cost of committees is for work that takes place between sessions and we believe that more such between-session work would accelerate decision-making. The between-session work for development of the standard for assessment of health risks from GMOs provides important lessons in this regard (see Box 2). However, in general, the use of facilitators who consult widely and organize local workshops is preferred to between-session working-groups because they can more fully represent all members' views.

123. Expert consultants, facilitators and working groups should be instructed to take full account of written comments. Very common complaints in country visits, particularly from government and industry, centred around the ignoring of written comments that had taken a lot of time to prepare. If not totally ignored, a written comment without a champion to push it forward at a committee meeting generally receives scant attention. Another complaint was that written comments were often tabled at meetings. We believe that for written comments to be given serious attention, they should have to meet a strict deadline prior to a committee meeting, should have a format which makes it possible for them to be taken into account by facilitators in redrafting and be concise enough to read out at meetings

124. The cost of consultants/facilitators would have to be borne by host countries. Some cost could be offset by the greater use of knowledgeable NGOs in the development of draft standards. NGOs appear willing to assist in preliminary standard development and can often contribute valuable expertise.

125. Following these recommendations, as a general rule the actual drafting of standards in committee sessions should cease. Occasional minor redrafting should make use of modern technology, including

screens with text on them. A way of making sure that the highest priority items (as defined by the Standards Management Committee or Executive Board) are addressed in a meeting is to make sure that the meeting agenda considers items in their priority order[38].

Recommendation 20: *The emphasis in Codex should switch from writing standards in meetings to developing standards through a consultative process between meetings. Much greater use should be made of consultants/facilitators to progress work between committee sessions, with the cost borne by host countries. As well as speeding up work, greater inclusiveness would be ensured by full consultation including, where appropriate, the organization of local workshops and:*

- *written comments should be fully taken into account;*
- *where between-session working groups are used they should be electronic, not generally physical meetings which are not inclusive in possible participation;*
- *greater use should be made of knowledgeable NGOs in preliminary standard development.*

Recommendation 21: Meeting reports *- Although Codex is very effective in producing and agreeing full meeting reports before the end of meetings, the trend towards action-oriented reports of meetings which focus on decisions and not discussion, should be further reinforced. Such reports facilitate a task-orientation as well as freeing up meeting time for more productive use than report writing.*

126. **Chairing of committees:** Time and again on country visits we were told that a fundamental factor in whether a committee operated effectively was the quality of the chair of the committee. Some were praised, others criticized. Although realistically, the host country will continue to make the final decision on the chair, the existence of explicit criteria for selection of chairs would be helpful and should be drawn up by Codex (80.5% of government respondents agree). There should also be a formal approval of new chairs by the Executive Board. Codex should issue and regularly update the chairperson's manual. Seminars could also usefully be organized for chairpersons to discuss and learn from each other and from facilitators, elements of good meeting practice, including time-management.

127. The Codex secretariat should have a clearer role in supporting the chairperson[39] not only as to procedure, but also as to substance and practice, including addressing issues and how progress could be made in the chairperson's pre-session brief. This will become easier if the secretariat is able to hire more senior people as we propose and if, where local capacity is present, the Codex secretariat did not always have the first line of responsibility for report drafting.

128. The Committee on Fresh Fruit and Vegetables has already introduced an assessment form for meetings which includes the performance of the chair and this could usefully be extended to all committees using a standard format and the results reported to the Commission or its designated subsidiary body.

Recommendation 22: *In order to improve the performance and ensure greater consistency among committee chairs, explicit criteria for selection of chairs should be drawn up and chairs should be confirmed by the Executive Board. More emphasis should be placed on training and assessment of chairs and the explicit role of the Codex secretariat in supporting effective chair-personship should be fully recognized.*

129. **Delegations to meetings:** Codex is reliant on member governments sending informed and appropriate delegations to committee meetings. Comments in the questionnaire and call for comments suggest that on occasion government delegations have been headed by representatives of NGOs who promote a particular interest and may block the progress of committee work. Whilst Codex cannot impinge on the rights of sovereign states, steps could be taken by Codex to tighten its checks on credentials and issue a guideline that delegation heads should clearly and formally represent the member government.

[38] CCFFV has experimented with a similar process for agenda setting.
[39] 84% of government respondents in favour of more effective secretariat support provided to chairpersons in running meetings.

4.4.3.6 The Step Procedure

130. Fifty-nine percent of government respondents are in favour of simplifying the step procedure and bringing all standards to the Commission for final approval at Step 5, but within this overall positive response high-income countries are slightly (58%) opposed, as are observers (though consumers are in favour). We believe that a clear requirement for wide written consultation by the committee developing the text (see above) would reduce concern about the negative implications of the accelerated process for consultative decision-making (a fear of some countries).

131. Associated with this proposal would be the requirement that the Commission would not have the authority to change a standard at Step 5. After it leaves the committee, the proposed standard would pass through the committee responsible for Standards Management for final review (including, for WTO purposes, the secretariat prepared review by a lawyer). It is believed that this will increase the pressure on committees to complete the negotiation process before submitting a standard to the Commission, whilst not preventing the Commission referring the standard back to the committee for further work (see also Figure 4).

Recommendation 23: *The present 8-step procedure should be simplified to a 5-step procedure for all standards. At Step 5, the Commission should not amend the standard but be required to:*

- *adopt the standard;*
- *refer the standard back to the committee to explore certain changes; or*
- *cancel or suspend work on the standard.*

4.4.3.7 Consensus Building and Decision Making

132. Codex views active consensus building as vital to the legitimacy of its standards. Governments and non-consumer observers think Codex has got it about right with respect to its capacity for broad-based international consensus. Indeed, the occasional use of simple majority voting of delegates present to adopt standards has led to some of the most controversial Codex decisions, given the narrow margins by which standards were passed[40]. The majority (62%) of government respondents opposed the greater use of voting during discussion to move work on, though 74% of observers supported voting—but not consumers. We noted previously that Codex has no definition of consensus and this can mean that cautious application of the principle can halt progress because of reservations on the part of a few countries, while a forceful chairperson may push through a 'decision' which barely has majority support. Many of those we interviewed supported the development by Codex of a clearer definition of consensus and we have noted that the Codex Committee on General Principles has proposed best practice guidelines for inclusion in the Procedural Manual.

133. Other international standard setting bodies have adopted a range of alternative definitions of consensus and procedures for decision-making in the absence of consensus. ISO uses a postal voting system for decisions that require a 75% majority, IPPC requires a 2/3 majority of members present for a standard to be adopted, while OIE has no voting procedure but defines consensus as no more than 10 members dissenting. Codex rules state that a standard can be adopted with a simple majority of those present at the Commission, but this procedure is rarely used. A major problem with voting in meetings is the exclusion of those who cannot attend the meeting, often developing countries, and any attempt to develop new procedures needs to either ensure that those wishing to attend are able to do so[41] (the Codex Trust Fund would be helpful in this respect—see Section 6.7.3 below) or to facilitate their involvement in some other way.

134. We recommend that Codex develop clear guidelines on the meaning of consensus and decision-making in the absence of consensus. In developing guidelines, it is necessary to keep in mind that there is a likely trade-off between rapid decision-making to move work on and adopt standards and the requirement for inclusiveness in decision-making.

135. We recommend that consensus be defined as 'no formal objection by more than one member at a meeting' (avoiding business being held up by a single delegate). Wherever possible, decisions should be by

[40] Hormones in beef; Mineral waters.
[41] Henson—paper for expert panel.

consensus and committee chairs should be instructed to make every effort to build consensus. Consensus building would be one of the principal tasks of the facilitators between meetings. With more committee work taking place between sessions and following wide consultation, the likelihood is reduced that delegates will be faced with standards modified in committee that they are unable to agree with because they cannot consult their governments at home to check the acceptability of the modified proposed standard.

136. If after all attempts, consensus as defined was not achieved, chairs would need to judge how far the meeting was from consensus (voting in committee sessions is generally divisive and we recommend against this). If the meeting were far from consensus, the standard should be dropped. If the meeting were close to consensus, the standard could be moved on to the Commission at Step 5 (via the Executive Board or Standards Management Committee) for decision, making clear the degree of dissent. Alternatively, balloting of views could be employed to move a standard forward at Step 5. Rather than employ a vote of those present at the committee session, we put forward the suggestion that following the committee meeting a postal ballot is held of views on the draft standard to be passed on to the Commission. A majority of those responding in each region could be required or alternatively a two-thirds overall majority. Voting by some form of postal ballot (probably electronic[42]) with reasonable time to reply would ensure that all members have an opportunity to participate. This approach would serve inclusiveness of those unable to attend and add legitimacy to the final standard[43]. A proposed standard that has passed this test before going on to the Commission would also be approved with much less discussion, but the final decision should still be made by the Commission. The disadvantages of this procedure are the additional workload on the secretariat and the fear of ill-informed votes from those who had not been involved in the development of the proposed standard (though this danger would be reduced if an accompanying text explained the proposed standard and its background).

137. Within the Commission itself decisions should also be by consensus (as defined above). Lack of consensus could lead to the standard being cancelled or sent back to the committee for one more attempt, with instructions to make use of a facilitator to consult with countries opposed to the standard with a view to reaching agreement. In some cases, the Commission might feel that, despite all attempts, complete consensus is unachievable but that members are close to consensus (only a small opposition, no major trading block opposed). A vote would then be desirable, but we strongly recommend that voting in the Commission should require at least a two-thirds majority in favour.

Recommendation 24: *Wherever possible, decisions should be made by consensus. Codex should define consensus for decision-making purposes in committees and the Commission. We propose 'no formal objection by more than one member present at the meeting'; and:*
a) committees should, as the norm, achieve consensus before passing on standards to the Commission for adoption;
b) facilitators working between meetings should help to reach consensus and should be systematically used to assist in overcoming deadlock at any stage of the standard setting process);
c) in cases of 'near-consensus', proposed standards should be passed on by committees to the Commission for consideration. A consultative postal-balloting system should be considered as a way of ensuring inclusiveness and legitimacy;
d) if no better than 'near-consensus' could be reached in the Commission, voting should take place but should require at least a two-thirds majority of those present and voting for a standard to be adopted.

4.4.3.8 Greater Influence in Codex Decision Making for Developing Countries

138. There is widespread agreement of the need for the fullest participation of members in Codex and it is considered that at present poorer countries and, to a lesser extent, those with limited importance for trade, have too little involvement and influence. Many countries outside of North America, Australasia and the European Union feel that it is difficult to make their voices heard in Codex. Governments in low-income

[42] 75% of respondents including 68% of low-income countries reported that more use of email would not be a problem for their participation.
[43] Inclusiveness could be strengthened still further if a postal ballot (consultation) formed part of the process for all standards.

countries do not always consider attendance at Codex meetings a high enough priority among many pressing demands for resources.

139. Developing countries highlighted financial resources as overwhelmingly the main barrier to their fuller participation in Codex and accorded relatively little importance to time constraints for senior staff, shortage of qualified personnel, language difficulties or visa problems.[44] We think that Codex reliance on meetings as the main way of developing standards is a contributory factor and the greater use of facilitators to consult members and of correspondence and small local workshops in the development of standards will help alleviate this problem.

140. The efforts underway in Codex to facilitate attendance at meetings by developing countries, in particular the "trust fund", are very important, but possibly more important is facilitating the enhancement of national capacity (see Section 6).

141. The Codex regional structure and committees have been discussed above and we believe that greater inclusiveness can arise through more homogeneous groupings of countries focusing on common issues. Such work allows expertise to be brought together by countries which cannot adequately tackle issues on their own. Codex does not presently accept multiple accreditation at meetings (i.e. one delegation speaking for several countries), and we recognize objections to formal multiple accreditation. Informally though, we would encourage procedures whereby groups of members coordinate their positions and communicate these to facilitators and during committee meetings (as is already done by certain groups e.g. the EU and Quads for Codex and is widespread in FAO fora). This would not extend to voting at the Commission.

Recommendation 25: *Groups of countries with common interests should be encouraged to coordinate their positions and present these as positions of the group at committee meetings.*

142. The drive within Codex has been to hold some meetings of committees in developing countries. This raises awareness of Codex in the country where the meeting is hosted (implying rotation of developing country venues can be desirable). It also facilitates attendance by neighbouring developing countries, especially if held in an airport hub, but it decreases attendance from developing countries in general. Nevertheless, we think the benefits outweigh the costs for developing countries and recommend that host countries be encouraged to further pursue this trend.

143. A previous proposal that committees have developing country vice-chairs was rejected because, as we understand it, there was concern that vice-chairs would have a second class status. We think that there should be co-chairs from the host and an associated host developing country of equal status. Each co-chair would chair the meeting in their own country, making it easier to hold meetings outside the host country.

Recommendation 26: *Committees should be encouraged to appoint co-chairs of equal status, one of which would be from a developing country. Host countries should also hold meetings in the co-chair's country.*

144. The communication on Codex matters and the development of national positions relies heavily on the Codex contact point and, where there is one, the national Codex committee. This is addressed in the case of developing countries under capacity building below. In the various country visits, we noted the importance of a strong Codex contact point and of a functional system for national consultation. We saw a number of examples of Codex contact points doing excellent work, sometimes under quite difficult circumstances. The Codex and FAO/WHO emphasis on the establishment of national committees has had benefits in involving civil society at the local level which go beyond Codex and extend to national food safety networks. In our view, the better operating national committees in developing countries have made a significant contribution to the improvement of national legislation and food control systems.

145. As documents and communication are increasingly electronic, contact points in some countries are severely disadvantaged by lack of (or sharing of) computers and difficult web access (over unreliable and

[44] They accorded slightly more importance to difficulties with electronic communication.

slow phone lines). Codex members and FAO and WHO could usefully give priority to assuring that the Codex contact point has adequate internet access and training to receive all documents and transmit responses where local infrastructure permits.

4.4.3.9 Transparency and the Participation of Non-Government Organizations in Codex.

146. Codex is considerably more open and accepting of NGOs than many comparable international standard-setting organizations. Indeed, the Commission can be presented as an example of good practice in terms of its relations with NGOs and its willingness to accept their input into its work. Further, the Commission has made efforts in recent years to enhance the participation of NGOs as observers[45]. Member countries think that Codex is 'about right' with respect to INGO involvement in Codex governance and decision making, overall inclusiveness, transparency of decision making and allowing all to have a voice in decision making.[46] Non-consumer observers are in broad agreement, but consumers answer 'too little' to several of the questions on participation. Industry observers believe consumers have slightly too much influence in Codex and industry too little; consumers believe that consumers have too little influence and industry too much. Governments think it is about right for both groups.

147. Discussions we had during country visits suggested concern over the growing numbers of observers participating in meetings and the fear that the time could come when they outnumber official delegations. Their freedom to speak also takes up considerable meeting time. We believe that Codex should not be complacent about its record of having led the way with respect to inclusiveness of INGOs. The Procedural Manual states that the Commission shall periodically review principles and procedures and consider amendments which may seem desirable. We recommend that this should be done with a view to investigating, developing and applying stricter criteria for qualifying for observer status. Codex only requires an INGO to have membership in 3 or more countries and these can be from the same geographic region. OIE by contrast requires observers to be genuinely international. Attention is also given to multiple representation of the same interest group on the same subject by several NGOs.

148. As noted above, observer representatives should be included in an Executive Board that replaces the Executive Committee where they were not permitted and would be represented in the possible Standards Management Committee.

Recommendation 27: *Codex should review its principles and procedures for observer status as required by the Procedural Manual and:*
a) should consider applying stricter criteria to ensure that observers are genuinely international. New rules should apply to existing observers as well as future 'applicants' and the credentials of Codex observers should be approved individually by the Executive Board;
b) observers should be represented on the Executive Board and the Standards Management Committee (if established).

4.4.3.10 Role and Responsibilities of Host Countries

149. Codex committees and task forces rely on host countries for their funding. This is essential to the functioning of Codex and no other mechanism would probably be able to assure this level of input into Codex's work. It is clear that while countries can mobilize substantial resources in-kind, the option is not available of seeking comparable direct funding. The host country principle is thus very valuable in assuring both resources and commitment. However, there is a price to pay for this arrangement in that:

- host country agendas can tend to dominate and Codex has in general less control over the committees including the selection of chairs;
- not all countries can provide the level of support to the committees they host which might be desirable in terms of the priority of the work and ensuring a fully inclusive and science-based output; and
- the reliance on country hosting skews Codex committees towards a limited number of developed country hosts and thus developed country influence.

[45] Henson—paper prepared for expert panel.
[46] In fact, the most common response on a 7-point scale from 1=too little to 7=too much to the questions about transparency and allowing all to have a voice is 5, suggesting that they think Codex might have gone slightly too far.

150. Many of the suggestions made in this report imply a greater input from host countries for expert inputs, consultation with members, etc. This implies that there should be a clear indication of the minimum of support considered essential from a host country and this needs to go beyond providing support for a meeting and include actively furthering the substance of the work. As not all countries will be able to meet the essential input requirement alone, the option should be available of shared hosting enabling a wider group of countries to play a role, with a rotating chairmanship and countries taking a lead on different aspects of the work.

Recommendation 28: *Clear criteria to be met in becoming a host country should be developed, including the resource requirements. Host countries should be required to commit to the minimum level of support including that for:*

- *between session work; and*
- *meetings being held in the co-chair's country;*

Shared hosting of committees could be explored by host countries as an option in meeting increased commitments.

4.5 Communication

151. There are many levels at which better communication is important. These include communication with the public at large about Codex (a little known organization), communication within Codex itself (e.g. between members and between members and the secretariat), communication of food safety risks to the public at large and communication between risk managers and assessors.

152. The Strategic Framework for Codex recognized the importance of improving communication, both within Codex (including communication between risk managers and assessors) and to civil society. Questionnaire responses by governments at all stages of development accord very high priority to communication to consumers of information on risk[47], as do consumers. Other observers accord it medium priority. The evaluation also takes note of the fact that this function is increasingly being taken up by food safety agencies with responsibility for risk assessment[48] and the evaluation believes this to be its most appropriate location. We return to this in the context of risk assessment below. Developed countries do not believe Codex should take on the task of communication on regulatory matters to civil society, developing countries etc., nor do non-consumer observers. Most appropriately, this task should reside with the risk assessment function of the FAO/WHO food standards work that is discussed in the next section. It may also be a priority for capacity building (see below).

153. Apart from the web-site, it is self-evident that Codex cannot communicate directly at the national level and will rely on working through its members. In addition to the issues specifically asked in the questionnaire, the following have been identified as potentially relevant:

- raising the profile of food safety, Codex and international food standards for decision makers;
- responding to queries from governments and IGOs;
- clearly structured and indexed documents and electronic resources with accessible and discriminating search facilities;
- provision of adequate electronic access to countries; and
- the development of an accessible and coordinated database for all standards and regulations with implications for trade in food, in particular data on national standards and their application.

154. As discussed above, the capacity of the secretariat and the guidance given to committees needs to be strengthened with respect to communication. Assistance also needs to be provided to Codex contact points and committees in developing their communication capacity.

[47] 68% score 6 or 7 on a 7-point scale.

[48] e.g. the Food Standards Agency in the UK, Agence française de sécurité des aliments in France, the European Food Safety Authority.

155. The capacity of the secretariat to respond to members' queries may need to be strengthened, but prioritization and suitable electronic information are also needed to allow the general public, national NGOs, etc. to directly locate information. Direct response to public enquiries cannot generally be a priority for the Codex secretariat.

Recommendation 29: *Resources should be put into upgrading the Codex web-site as a matter of urgency.*

156. Developing countries in particular have difficulty in discovering information on national standards of countries they wish to export to, how they are applied and what methods of analysis are used to enforce the standard. This is frequently seen as a major obstacle to trade. An international reference point and database for standards of importance for trade and food safety, especially national standards and their application, including methods of analysis would assist in meeting this need. This function has been played in a limited *ad hoc* way by the Codex secretariat and is to some extent available from WTO-SPS notifications. There is, however, no accessible and easily searchable database for existing national food standards, their application in practice and the methods of analysis and inspection applied. This could probably best be developed as a decentralized inter-linked series of databases, maintained in part by the countries themselves with common protocols, rather than a mega central database. It is possible that the facility could attract external (industrial) funding. FAO has considerable experience of this type of database, for example for plant pests in the context of the IPPC. Such a database would replace the dormant and no longer relevant acceptance and notification procedures for Codex standards.

157. It would not be essential that the database be administered by Codex, it may equally well be done within FAO. The advantage of it being linked to Codex is the possibility of taking advantage of the very significant Codex network of contact points. The Codex reputation for ensuring trade in safe food would also add to the credibility of the database.

Recommendation 30: *FAO and Codex review the possibilities for establishment of a database of national standards of importance in trade, including their application and methods of analysis.*

158. It may also be noted that Codex visibility and the recognition of its standards, especially in developing countries, would be enhanced if they were referred to on labels. The modalities for such a development could be the subject of study, noting the experience of ISO, which has relied on national standards organizations (which are permitted to use the ISO name stating on the label that the ISO standard is followed - i.e. ISO itself does not take responsibility).

4.6 Increased Resources for Codex

159. Codex currently has a core budget of some US$ 5 million per biennium. Of this total, FAO contributes approximately 80 percent and WHO 20 percent (Table 1). Members have also recently been making contributions to the secretariat staffing of almost US$ 600,000 per biennium. In addition, host countries for committees contribute approximately US$ 3.5 million in direct costs and an approximately equal amount in staff inputs in kind. The total direct costs of Codex are thus of the order of US$ 14 million per biennium (US$ 7 million per year), including hosting of regional committees and some other voluntary inputs by members. Of this total, FAO and WHO core regular budgets cover slightly over one third.

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160. It is believed that an even greater effort to produce documents which record decisions rather than background discussion would enable the present budget to absorb the immediate increase in documentation requirements implicit in the recommendations, including the establishment of a standards committee. The possible reduction in work on standards for specific foodstuffs would also assist this. However, possibly excluding documentation, there would be an increase in most other cost areas to meet the increased work load and improved procedures.

161. It is envisaged that there would be both an increase in the seniority of posts to take on the secretariat's more executive role and an expansion in the size of the secretariat to absorb the increasing workload and take up an enhanced communication function. The number of professional posts would thus be increased at the senior rather than the junior level. With changed methods of working and modern

technology, it is believed that the current support staff could work with a larger number of professionals, including professionals supplied on secondment by governments. If all recommendations were implemented with immediate effect the incremental core funding for Codex would need to increase by some US$ 1.4 million per biennium. There is also a need for increased resources from host countries, especially for between-session work.

Recommendation 31: *FAO and WHO should make a detailed calculation of the incremental cost increases for the Codex secretariat of implementing the agreed recommendations and provide the necessary increased core funding.*

5. INDEPENDENT RISK ASSESSMENT – EXPERT SCIENTIFIC INPUT TO CODEX

5.1 Existing Arrangements for Expert Advice

162. Scientific advice to Codex and to FAO and WHO on food safety has been through two long established expert committees, the Joint Expert Committee on Food Additives and Contaminants (JECFA) and the Joint Meeting on Pesticide Residues (JMPR), and various expert consultations on issues of emerging importance.

163. JECFA has been in existence since 1956, to evaluate the safety of food additives. In 1972, contaminants and naturally occurring toxicants were included, and in 1987, veterinary drug residues. It provides scientific advice to the Codex Committee on Food Additives and Contaminants (CCFAC) and the Codex Committee on Residues of Veterinary Drugs in Food (CCRVDF). For veterinary drug residues, it proposes MRLs and for additives and contaminants, acceptable daily intake (ADI).

164. JMPR has been meeting since 1963. It assesses toxicology, dietary intake and residue data to provide scientific advice to the Codex Committee on Pesticide Residues (CCPR) on maximum residue levels (MRLs) in food and feed that are likely to result from legally-permitted uses of pesticides. These estimates are the basis for establishing Codex MRLs.

165. The Joint Meeting on Microbiological Risk Assessment (JEMRA) is not a fully constituted committee but a series of consultations that began in 2000 to examine risks from microbiological hazards in foods. It provides scientific advice based on microbiological risk assessment to the Codex Committee on Food Hygiene (CCFH), and other committees such as the Codex Committee on Fish and Fisheries Products. JEMRA's aim is to assist Codex in the development of standards and guidelines and member countries to overcome problems related to microbiological hazards in foods. Codex has requested that JEMRA also become a permanent Committee, but FAO and WHO have not yet implemented the proposal.

166. FAO and WHO have convened other expert consultations on various subjects, including risk assessment of foods derived from biotechnology, animal feeding and food safety, BSE, nutrition and diet , probiotics, and ethics and food safety.

Recommendation 32: *In light of the growing importance of microbiological hazards, JEMRA should be ratified as a permanent committee and resources allocated to increase its output.*

5.2 Effectiveness of Expert Advice

167. Until recently, the arrangements for expert advice have adequately served the needs of Codex and FAO and WHO. As the basis for, and importance of, science-based risk assessment grows in food standard setting the demands for expert risk assessment will grow steadily.

168. Good scientific advice, provided in a timely manner and in a useful form, is crucial to Codex's work in setting science-based international food safety standards that are useful to its members and to timely work by FAO and WHO. Risk assessment is a vital component of standard setting and the risk assessment should enable risk managers (Codex committees) to make management decisions without also having to reopen the risk assessment discussion.

169. Independently of Codex, good and timely risk assessments are also important to countries that do not have the scientific capacity or financial resources to carry out their own risk assessments, though it is recognized that they may not always be most appropriate given their failure to incorporate developing countries' data.

170. The part of the questionnaire on expert scientific advice had a high rate of non-response, especially with respect to JEMRA which is quite new. Comments accompanying the questionnaire indicated the reason is that many did not understand the system of expert advice well enough to reply in detail. This section, therefore, also takes particular account of comments received during country visits and interviews with key informants as well as analysis of documents.

171. There are now a number of important issues surrounding the scientific advice to Codex standard setting. These include:

- do the priorities of the expert committees and consultations reflect the priorities of Codex?
- is the speed of provision of expert advice adequate for Codex's needs?
- is risk assessment efficient, well managed and adequately resourced?
- are the risk assessments providing outputs in a form that is most useful to the Codex risk managers?
- is there adequate communication between risk assessors and risk managers?
- are the experts used perceived to be fully independent?
- is the scientific advice of satisfactory scientific quality? In part this relates to the scientific methods themselves, but it also relates to the validity of the data, most notably in relation to food intake and good agricultural, veterinary and manufacturing practice outside the large developed economies; and
- is the system transparent?

5.3 Priority Setting

172. There is presently no unified priority setting across the programmes of various expert scientific committees or programming for the entirety of independent risk assessment and expert advice to Codex.

173. Inclusion of compounds on the agenda of JMPR is largely based on priority lists of the Codex Committee on Pesticide Residues (CCPR). For JECFA, the situation is more complex in that it receives requests from several Codex committees, including those on additives and contaminants (CCFAC) and veterinary drug residues (CCRVDF). It is reported that around 15 percent of the work of JECFA responds separately to FAO and WHO priorities for scientific advice and for both of these expert scientific committees, the committees and the secretariats also have an influence in deciding the feasible work-programme.

174. The establishment of priorities for the part of its work JMPR does for Codex is currently undertaken by the Priorities Working Group at the Codex Committee on Pesticide Residues (CCPR) in coordination with the Joint Secretaries to the JMPR.

175. During discussions in several OECD countries, with the Executive Committee and in written comments in the questionnaire, the view was expressed that the value of the expert scientific advice is reduced by the inability of Codex to adequately set priorities. This is especially the case with respect to advice on subjects that fall outside the remit of the formal expert scientific committees. Codex has made a number of requests to FAO and WHO for consultations in specific subjects where it needs scientific advice, often to no avail, though scientific officers report this to be largely because of inadequate budget. There are areas of increasing importance for Codex that fall outside the remit of the existing expert scientific committees (e.g. food fortification, foods for special dietary uses and packaging), yet Codex needs to be responsive to such new emerging issues. As Codex has no budget and human resource envelope in which to request expert advice, there is a natural tendency to produce inadequately prioritized lists of requirements. At the same time, it is recognized that a proportion of resources needs to be at the disposal of FAO and WHO. When new problems arise in food safety (e.g. acrylamide), FAO and WHO may be able to initially move more quickly than Codex. In line with our earlier proposal that Codex should become more independent, and to ensure that Codex is able to obtain the advice it needs, we believe that it should have much more

responsibility for setting priorities and budget allocations for its scientific advice within an overall budget agreed by FAO/WHO.

***Recommendation 33**: There should be a clear budget and human resource allocation for scientific advice and risk assessment. The major part of this allocation should be available for prioritization by Codex. A small proportion of the budget should be retained for use by FAO and WHO to meet their own needs, particularly in relation to emerging issues. FAO and WHO should make proposals for discussion at the July 2003 session of the Codex Alimentarius Commission on how this may be achieved.*

5.4 Speed and Efficiency of Advice

176. In JECFA, compounds prioritized by Codex have almost always in the past been immediately scheduled for evaluation at its next meeting. It is reportedly becoming more and more difficult to accommodate all Codex requests in a given year and JECFA is becoming overstretched. There have been cases recently when compounds in the list of Codex priorities for food additives and contaminants could not all be accommodated in one JECFA meeting (the evaluation of mycotoxins for example, took up one entire meeting). There is dissatisfaction in developed countries and industry in particular with the timeliness of advice, especially in relation to veterinary drugs (where few compounds are now submitted, this being partly attributed to slow procedures for standard setting).

177. JMPR has a significant backlog of compounds for assessment and currently CCPR has instructed that the priority list would be 50% "new" and 50% "old" pesticides[49]. Currently, JMPR is able to carry out assessments on around 10 pesticides per year for full assessment of toxicology and residues. In addition to a demand to evaluate new pesticides, there are around 250 compounds already approved and MRLs should be reviewed every ten years (25 compounds per year). If the backlog is to be reduced rather than continue to grow, 15 compounds require review for residues and 15 for toxicology each year. This is an immediate increase of over 50% in work output. In addition, following a decision on priorities by the CCPR, JMPR has not been addressing at all the new antibiotic pesticides. It can be safely stated that if JMPR is to cut the backlog and deal adequately with all new pesticides in an expeditious manner that will encourage companies to present compounds for approval it needs to increase its work output by at least 50%. Even with a dramatic change in working practices, this will demand a major increase in resources.

178. A discussion paper to the Codex Committee on Pesticide Residues (CCPR)[50] indicates that it takes from 4 to 8 years in JMPR from nomination of a compound for assessment to the adoption of a proposed MRL. During that time, the pesticide cannot be used on crops intended for export to countries that use Codex MRLs for pesticide residue enforcement. As pointed out in the document, Codex risks losing its relevance and national governments will be forced to seek remedy through bilateral arrangements or new regional organizations if procedures are not improved.

179. The discussion paper was reviewed at some length at this year's CCPR[51] that concluded"*under the increasing demands on the process and the additional complexity of the evaluations, the process has become unsustainable and without additional resources, the system will fail sooner rather than later*".

180. As well as options for improvement that would need additional resources for JMPR, the discussion document also listed six options that might lead to improvement but would not require substantial extra resources. It was agreed to explore further one of these options, using national government MRLs as interim Codex MRLs. We have heard several comments that suggest that FAO/WHO risk assessments could better reflect current thinking by the use of meta-analysis techniques[52] . Drawing on the work of others, science-

[49] A working paper prepared by the US, Australia, Brazil, Canada, Chile, NZ, SA, EC and Crop Life International for March 2002 CCPR considers, among other options for reform of JMPR, giving higher priority to new substances.
[50] Discussion Paper on Trade Vulnerabilities Arising from the Codex MRL establishment Process, CX/PR 02/11.
[51] ALINORM 03/24.
[52] A structured procedure for taking into account other risk assessments already carried out instead of starting from the beginning, as is the current procedure.

based conclusions could be reached more speedily at the international level, without jeopardizing the quality, independence and transparency of the advice.

181. In Recommendation 1, we stated that the scope of Codex should fully cover health-related aspects of food standards. It will, therefore, need to strengthen work on foods for special dietary uses, health claims and nutrient addition; and undertake new work on packaging materials; and on industrial processing agents and bio-agents in foods. Despite some possible efficiency gains that could be realized through better priority setting and management, if Codex is to be able to cope with increasing demand for risk assessment, more resources are needed. For sound, science-based decision making to be central to the Codex process, the increased funding of risk assessment is a top priority. This is especially true given that the system of relying on voluntary, unpaid experts to undertake risk assessments is coming under increased strain as more business criteria are applied within governments and academia. There is general acceptance that in the future experts will have to be paid in order to obtain independent good quality assessments in a timely manner.

Recommendation 34: *The increased funding of risk assessment is a top priority.*

182. During country visits and in the questionnaire, we explored the possibility that companies might pay to have compounds assessed by scientific committees and whether this could be done without calling the independence of the scientific advice into question. There was some support for this during country visits from industry as well as governments, though in the questionnaire around 70% of respondents are opposed, some mentioning independence as an issue. We found that it would be possible to erect 'fire-walls' to ensure the continued independence of advice. In view of (i) the need for additional resources for expert scientific advice and (ii) the practice in many countries of charging for review of commercial products, we believe that this is a matter that should be further investigated by FAO and WHO as a matter of some urgency.

5.5 Are Outputs of Risk Assessments in a Suitable form for Risk Managers?

183. JMPR provides the Codex Committee on Pesticide Residues (CCPR) with recommendations for maximum residue limits (MRLs) and dietary intake estimates that indicate whether acceptable daily intake levels (ADI) and acute reference doses (RFD) are exceeded for pesticide residues in food and JECFA should provide the Codex Committee on Veterinary Drug Residues (CCRVDF) with MRLs for residues of veterinary drugs in edible products of animals. JECFA provides the Codex Committee on Additives and Contaminants (CCFAC) with an ADI or acceptable daily intake for food additives and specifications for its identity and purity. For contaminants, it provides CCFAC with a tolerable intake level when appropriate, or a risk assessment.

184. One result of CCFAC not receiving draft standards from JECFA is that CCFAC spends a lot of time discussing risk assessment issues that rightly belong in JECFA and this slows down decision making. Box 3 gives the example of Aflatoxin M_1, where, finally, communication between CCFAC and JECFA produced scientific advice of use to CCFAC and this ultimately yielded a standard based on science--but the process took a decade. There are two important lessons to be learned:

- There is a need for communication between risk managers and assessors so that risk assessors produce advice in a form that is valuable to managers. This is a two-way process. Managers, i.e. the Codex committees, frame the request to risk assessors that leads to an output that can be incorporated into a draft standard (this may mean that assessors are asked to provide a draft standard). In the other direction, risk assessors must communicate to risk managers what is feasible. JEMRA's procedure of formally communicating with the Codex Committee on Food Hygiene at specific stages of the risk assessment process is another way to ensure the usefulness of risk assessment advice to risk managers; and

- There should be a clearer separation between risk assessment and management—matters of scientific advice should come from the former, management decisions based on that advice from the latter.

Box 3: Maximum Level for Aflatoxin M_1 in Milk

The case highlights the central role of expert science-based input, in this case JECFA. It also demonstrates that decision-making and progress occur in the absence of consensus. Nonetheless, the need for scientific input and continual disagreement over the maximum level required a decade to produce the final standard and much discussion took place in CCFAC and the CAC until the objective and scope of risk assessment advice that was requested by CCFAC became sufficiently clear for JECFA to give science-based advice.

The Committee on Food Additives and Contaminants (CCFAC) started work on elaborating a maximum level for Aflatoxin M_1 in milk in 1990. At its session in 1991, CCFAC was informed that the International Dairy Federation (IDF) had proposed a guideline maximum level of 0.05µg/kg in bulk milk. At its 1992 session, CCFAC agreed to forward a proposed draft maximum level of 0.05µg/kg for Aflatoxin M_1 in liquid milk to the Codex Commission for acceptance at Step 5 despite statements by several countries that a level of 0.5µg/kg was sufficient for consumer health protection. The proposed draft maximum level of 0.05µg/kg was adopted at Step 5 by the Commission with the understanding that a review would be undertaken of available methods of analysis and sampling and a thorough risk assessment would be considered by CCFAC before the maximum levels was forwarded for final adoption. Despite reservations again from several countries and debates in former sessions, a draft maximum level of 0.05µg/kg was forwarded to the 1999 session of the CAC for approval at Step 8. Divergences of opinions were expressed again at the Commission and, as consensus could not be reached, the draft proposal was returned to Step 6 for further consideration by CCFAC, with the understanding that information should be provided on the public health and potential economic implications of levels of aflatoxins. At CCFAC in 2000, the same arguments were repeated again and CCFAC decided to return the draft maximum level of 0.05µg/kg for Aflatoxin M_1 in milk to Step 6 for additional comments and requested JECFA to undertake a quantitative risk assessment to compare the two levels.

JECFA reported that the difference in theoretical additional risk of liver cancer between the two levels was negligible. A number of delegations cited this determination in supporting a draft maximum level of 0.5µg/kg. However, the EU stressed that 0.5µg/kg was higher than the current level and would not be acceptable to EU consumers in view of health concerns. Some delegations noted that the level of 0.05µg/kg seemed not to be achievable in some regions of the world. They also stated that a reduction in the maximum level might entail a significant reduction in the availability of milk in developing countries and would, therefore, have nutritional implications. In view of the continued lack of consensus, some delegates proposed that CCFAC discontinue consideration of Aflatoxin M_1 in milk. However, CCFAC decided to forward the draft maximum level of 0.5µg/kg for Aflatoxin M_1 in milk to the Commission in 2001 for adoption at Step 8. The EU and other delegations, including Consumers International, expressed their reservations at this decision and maintained it at the Commission in 2001. However, the draft maximum level of 0.5µg/kg was adopted. It was agreed that if and when data supporting the lower level became available, the standard would be reassessed.

5.6 Quality of Scientific Advice and Data Used

185. There is satisfaction with the scientific soundness of the criteria used by JECFA, JMPR and JEMRA. The questionnaire respondents consider it adequate to very good. On the other hand, there is widespread dissatisfaction with the geographic spread of the data used (adequate to very poor according to the questionnaire). There is inadequate inclusion of national diets in the risk assessment in particular for Asia and the Pacific where some dietary patterns are very distinct. Furthermore, data on Good Agricultural Practices (GAP), Veterinary Practices (GVP) and Manufacturing and Handling Practices (GMP and GHP) (necessary for the calculation of an MRL) are not available outside a small number of developed countries. This is a serious obstacle to developing countries feeling 'ownership' of standards finally adopted. They feel that their circumstances are given too little consideration and that standards are set at levels that are unrealistic under local conditions. Aflatoxin M_1 was almost a case in point.

186. Written responses to the questionnaire and country visits emphasized the need to ensure that developing country data are available and both FAO and WHO are supporting work in this area. This is an activity that should be expanded by both Organizations: WHO particularly with respect to food intake (there is already some data on regional diets, but these are reported to be too aggregated); FAO particularly with respect to production for a greater understanding of GAP, GMP, GVP, etc. under a range of climatic and soil conditions. Each data set does not need to be country specific, but should be for groups of countries that are reasonably homogeneous.

Recommendation 35: *A high priority for WHO and FAO is to support the collection of data covering a much wider range of diets and production processes, including the essential capacity building. Furthermore, FAO and WHO should increase their role in defining data requirements for risk assessment and guaranteeing good quality data.*

5.7 Independence of Experts

187. FAO and WHO have complementary functions in selecting members for JECFA. FAO is responsible for selecting members to deal with the development of specifications for the identity and purity of food additives and the assessment of residue levels of veterinary drugs in food. WHO is responsible for selecting members to deal with the toxicological and micro-biological evaluations of substances under consideration. Both Organizations invite members who are responsible for assessing intake.

188. With regard to JMPR, FAO is responsible for selecting members to deal with residue and analytical aspects, while WHO is responsible for selecting members to deal with the toxicological evaluations of the substances under consideration. Both assess the dietary risks of pesticides. For JEMRA, multidisciplinary experts are jointly identified and selected by FAO and WHO.

189. The role of FAO and WHO in the selection of experts is perceived by many as guaranteeing a level of independence, though there have been accusations that the experts used are from only a few countries, represent narrow scientific disciplines, represent the scientific status quo, and sometimes have close ties with industry. Following the request of the Codex Commission in 2001 to FAO and WHO, to develop recommendations on additional ways to improve the quality, quantity and timeliness of scientific advice, FAO and WHO reviewed the process in place for the selection of experts and amended procedures.

190. Now, the secretariats of JECFA, JMPR and JEMRA are producing rosters of scientists from which participants for the meetings are selected. A call for experts is disseminated widely using the FAO and WHO websites, the Codex list and other means such as scientific journals, associations, technical mailing lists. The call invites scientists with the appropriate expertise and experience to apply. The applications are reviewed by selection panels formed by FAO/WHO to determine if the applicants meet the essential requirements outlined in the calls. Those who meet the requirements are placed on the roster which is posted on the FAO and WHO websites. Through this process, scientists from all over the world are encouraged to apply, thus ensuring a wider geographical distribution of experts who are available to serve. The rosters of experts for JECFA and JMPR are reviewed every four years[53].

191. The appointment of experts also includes a Declaration of Interest provided by the selected expert, to assure the independence of the expert advice. These declarations are scrutinised by the joint secretaries who decide if the interest declared could constitute a conflict in relation to the issues to be discussed. Requirements to improve transparency and independence could also include assuring anonymity of experts working on a particular recommendation.

192. It is no longer reasonable to expect experts to work voluntarily, often outside normal working hours. Paying experts as consultants would make it easier to recruit among independent academics and institutes and also allow for strict discipline in assuring timely and appropriate assessments from the experts. During country visits, many developed countries stated that they were no longer able to release experts to JMPR and JECFA assessments during working hours and that the present situation of non-payment was unsustainable.

Recommendation 36: *Budgetary provision should be made to pay independent experts undertaking risk assessments. At the same time, strict deadlines and quality requirements should be put in place.*

5.8 Transparency

193. The committees are sometimes perceived to lack transparency, even to the extent that Codex members do not understand how the committees work, as borne out by the poor response to the questionnaire. However, those who did respond rated transparency adequate or slightly better for all three committees. This view is also held by non-consumer INGOs, but consumers find the committees very lacking in transparency and would like to be able to participate in the risk assessment process, as they are starting to do in some countries. Others are concerned about the confidentiality of data and that consumer involvement could further slow committee work. We believe that consumers and other interest groups could

[53] The rosters of experts for JEMRA has a list of 99 experts of which 18% are from developing countries. For JECFA, there are 24 experts in the roster of which 37% are from developing countries. For veterinary drug residues, there are 17 scientists in the roster of which 41% are from developing countries.

be more actively involved in discussions by experts on risk assessment procedures and protocols and in expert advice on risk management and communication. When established protocols are being applied for review of proprietary products, questions of confidentiality of data and industry confidence may be more complex.

194. The communication of risk assessments to the general public is a difficult area especially at the national level. This may take the form of summaries of risk assessments posted on the internet in simple language or it may involve something more proactive. It would require coordination with other risk assessment organizations around the world (for discussion on communication with respect to Codex see Section 4.5) [54].

5.9 A Way Forward

195. Although risk assessment has largely performed adequately in providing scientific advice to Codex given its resources, we are concerned that the demands on the system will continue to increase. In examining risk assessment, the evaluation was very aware of the continuing evolution in thinking and approaches. National authorities are increasingly bringing science-based health risk assessment under one unitary agency and separating risk assessment quite clearly from risk management.[55] Recommendations are in part designed to bring about a more unitary and coordinated approach to risk assessment for Codex and to emphasize both the division and essential communication between independent science-based risk assessment and risk management. In particular, they also aim to ensure that advice serves Codex purposes in a manner that is independent in the framework of FAO/WHO, and ensures efficiency, transparency and scientific integrity.

196. **A consultancy study and consultative meeting on expert advice:** At its session in 2001, CAC requested FAO and WHO to further strengthen the scientific support for the Codex decision-making process and specifically requested FAO and WHO *"to convene a consultation to review the status and procedures of the expert bodies and to develop recommendations for the Directors-General on additional ways to improve the quality, quantity and timeliness of scientific advice to the Commission."* Some specific suggestions made by the CAC have been implemented but it was decided by FAO and WHO to hold the consultation after the current evaluation was completed.

[54] Questionnaire responses indicated that while the majority of developing and middle-income countries felt that Codex should take on a greater role with regard to communication on risk management and regulatory matters, developed countries were not in favour of this. Country visits indicated that this was due to the difficulty of the tasks and the resource implications for Codex.

[55] Examples are found in the EU with the European Food Safety Authority, in Mexico and in France with Agence française de sécurité des aliments.

Recommendation 37: *Building on the findings of this evaluation, a consultancy study should be immediately undertaken of expert advice and risk assessment and this should be followed by an expert consultation and discussion in Codex.*

The elements to be included in the study, in line with the discussion above, should include:

a) new methods of working, including the use of meta-analysis techniques;
b) any requirement for redistribution of tasks in existing expert committees or for splitting the committees;
c) definition of the form in which risk assessments can be most usefully provided to risk managers for standard setting;
d) re-definition of basic requirements for global standards, including the minimum of essential dietary intake data for each major region and tropical performance data for GAP,GMP, GHP, etc.;
e) funding and possibilities of payment for services when reviewing proprietary products;
f) ways in which non-technical consumer representatives could contribute to the work of providing scientific advice and risk assessment;
g) best practice procedures for communication between risk assessors and managers to ensure that scientific advice is given in its most useful form; and
h) options, necessary communication expertise and resource implications of alternative risk assessment communication strategies.

197. **Scientific Committee:** We further recommend the establishment of a Scientific Committee for support and guidance on independent risk assessment within FAO and WHO. This would bring all scientific advice under one umbrella. The committee would improve the quality, relevance and timeliness of standard development and further enhance the quality of scientific advice to Codex.

Recommendation 38: *A Scientific Committee should be established by FAO/WHO.*

198. The Scientific Committee would be composed of eminent independent scientists chosen by FAO and WHO in a transparent selection process akin to that now employed for other expert scientific committees and consultations and in response to a call for expressions of interest in serving on the Scientific Committee. It would enhance the quality and relevance of risk assessment and other scientific advice, including:

- provision of advice on the relative importance of risks and identification of new and emerging risks in support of prioritization in standard setting;
- monitoring the quality of risk assessments and *ad hoc* expert consultations and recommendation of needs for new approaches;
- advising expert bodies and expert consultations on methodologies for scientific risk assessment; and
- assisting in the establishment of special consultations outside the framework of JMPR, JECFA and JEMRA.

199. **Joint Coordinator for Risk Assessment:** While the existing arrangements for secretariat support from FAO and WHO should continue to JECFA, JMPR and JEMRA, it is recommended that a Joint Coordinator of current FAO/WHO activities on food safety risk be created to coordinate scientific advice to Codex and to act as Secretary to the Science Committee. The coordinator would also be charged with ensuring transparency, speed and efficiency and relevance in the provision of scientific advice and acting as a champion for the importance of food safety within FAO and WHO.

200. In time, WHO might assume a greater share of the financial burden of risk assessment and this, together with the location of the joint coordinator in WHO should have the effect of increasing public confidence that health is being put first. It would satisfy a view often expressed in country visits that WHO should take a more prominent role within the whole area of food safety standard setting.

Recommendation 39: *We recommend that a post of Joint Coordinator be established and located in WHO. The joint secretaries of existing scientific committees would continue to be under the current units of their two Organizations.*

201. Specific tasks of the coordinator could include:

- support strategic planning for scientific advice;
- review the scope of work and risk assessment policies for scientific advice requested from expert bodies by Codex;
- support improvements in the work processes of the expert bodies (such as those suggested by an external consultant for JMPR);
- track the decision trail in the expert bodies and effectively communicate this and other risks, to risk managers and stakeholders.
- facilitate coordination and consistency in policies and approaches between FAO and WHO in the expert bodies;
- provide secretariat support to the Scientific Committee and day-to-day coordination for the expert bodies;
- assess strategies for and take responsibility for the communication strategies for scientific advice from expert committees and consultations and maintain a joint web-site; and
- develop strategies for increasing the financial resources allocated to the expert bodies, including the sourcing and management of extra-budgetary funds from new sources.

5.10 Immediate Resource Implications

202. Annex 3 discusses the resource implications of proposed changes. FAO and WHO currently finance the expert advice to Codex at a direct cost for meetings, etc. of approximately US$ 1.9 million per biennium (split 45% FAO – 55% WHO). Total costs to FAO Regular Programme including secretariat support are of the order of US$ 1.5 million per biennium (similar data is not available for WHO). Immediate incremental costs of implementing recommendations would be of the order of US$ 2.5 million per biennium.

Recommendation 40: *FAO and, in particular WHO are recommended to markedly increase their contribution to health risk assessment and expert advice to feed into Codex. In addition to the immediate direct resource requirements referred to above:*

- *WHO should develop data on health risks from food around the world to better determine priorities;*
- *FAO should develop work on good handling and manufacturing practices for additives, packaging, processing agents, etc.; and*
- *both Organizations should develop dietary data for the developing regions.*

Figure 3 - Summary of the Recommended Structure – Codex and Expert Advice on Risk Assessment
(with short description of functions for <u>new</u> bodies and posts)

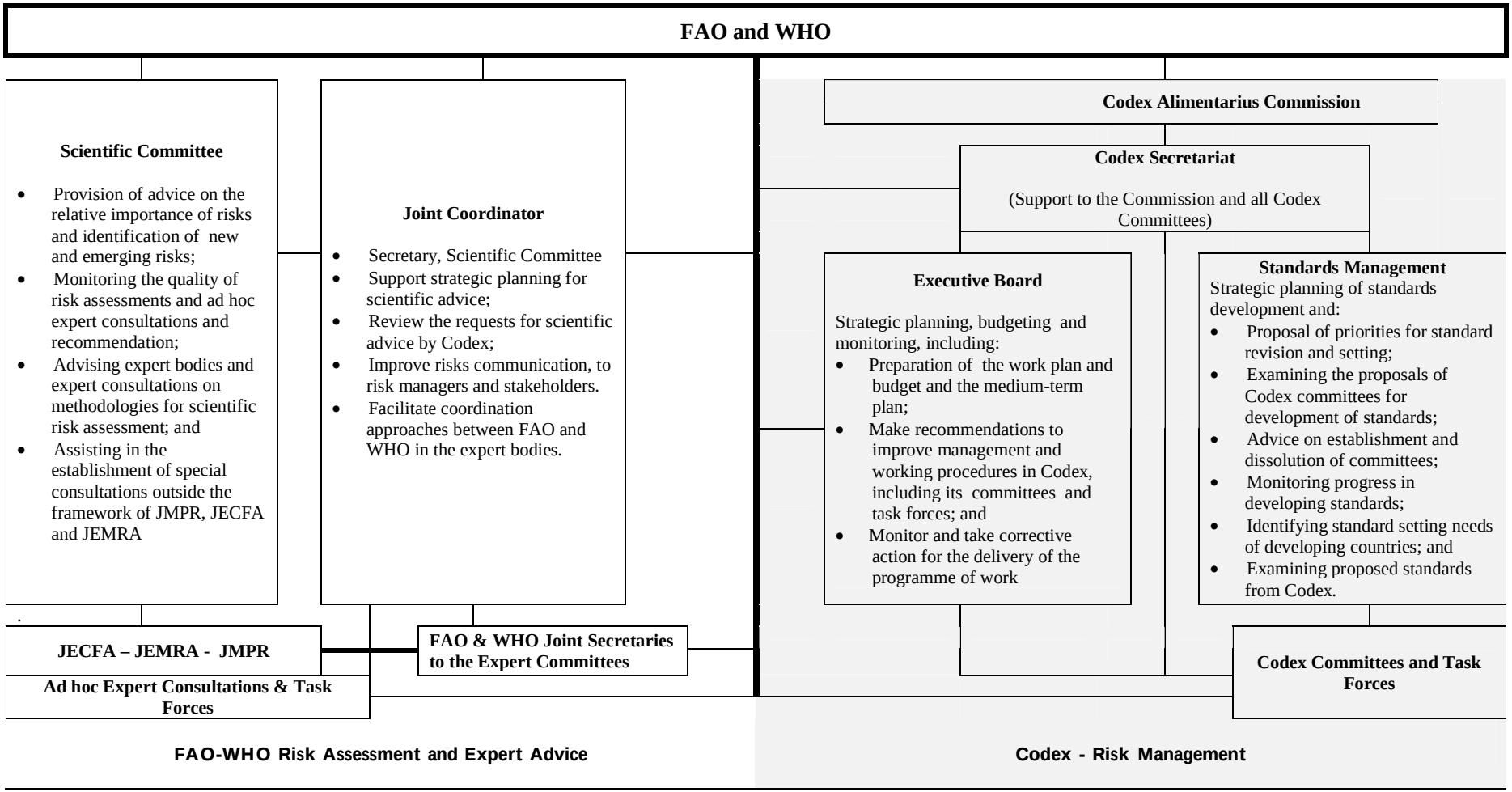

Figure 4: Progress of a Codex Standard from initiation to adoption - under the proposed new framework		Monitoring by Codex Secretariat and Standards Management Committee[56]
1	Need for new or revised standard identified by Codex committees (including regional committees), Commission, FAO-WHO, Secretariat, Scientific Committee or proposed by group of members or INGOs.	
2	Standards Management (committee) with advice from secretariat: a) sets priorities for standards development and revision based on overall priorities and criteria agreed by the Commission; b) sets a time-frame for the development of each standard; c) assigns standards work to committees and task forces - where necessary establishing task forces between several committees.	
3	Codex Alimentarius Commission confirms work-programme and makes any desired changes (this is ongoing confirmation and initiation of work does not await the Commission approval).	
4	Responsible Codex committee/task force defines requirement for expert advice and independent risk assessment to develop the standard.	
5	On the basis of committee requests Codex secretariat agrees with secretaries of JECFA, JMPR and JEMRA and with the Joint Coordinator, priorities for advice in line with the agreed budget, consulting with Codex Standards Management Committee and where appropriate the Scientific Committee.	
6	Responsible Codex committee/task force on receipt of expert advice (which may be an interactive process) develops standard within a maximum time-frame of 4 -5 years from 2 above (assignment of work) including: a) between session work to progress standard using facilitators; b) consultation with membership as a whole before finalization and at any stage where major issues arise; c) provision of six-monthly progress report to the Codex secretariat and Standards Management Committee.	
7	Responsible Codex committee/task force finalizes standard after final round of consultation with Codex membership, which establishes that there is a firm basis for adoption by the Commission.	
8	Codex secretariat: a) reviews standard, including conformity to Codex practice and review by a lawyer; b) refers any queries back to committee/task force; c) submits standard to Standards Management Committee.	
9	Standards Management Committee reviews standard and either: a) refers queries back to committee/task force; or b) submits to the Commission for decision.	
10	Standards Management Committee reviews the progress reports provided by Codex committees, together with comments of the secretariat, and in the case of standards not finalized within the stated timeframe: a) recommends cancellation or suspension of further work; or b) extends the timeframe by not more than one year (renewable year-by-year).	
11	Codex secretariat submits the standard to the Codex Alimentarius Commission in final form.	
12	Codex Alimentarius Commission decides on the standard. Either it: a) adopts the standard by consensus or 2/3 majority; b) refers the standard back to the committee to explore certain changes using a facilitator to resolve differences; or c) cancels or suspends work on the standard.	
13	The standard is published by the secretariat.	

6. FAO AND WHO CAPACITY BUILDING IN RELATION TO FOOD STANDARDS[57]

203. Capacity building, in general, has been viewed as "… *work that strengthens the ability of people, groups, communities or institutions to build structures, systems, and organizations to better achieve planned*

[56] Or Executive Board if it is decided to locate the Standards Management function there.

[57] Developing countries are those belonging to the low- and middle-income categories employed by the World Bank and in analysing the questionnaire.

goals. Capacity-building activities are designed to increase individual and organizational skills and competencies, in a manner that reflects the principles of empowerment and equality".[58]

204. FAO and WHO engage in a variety of capacity-building activities that both directly and indirectly support food safety. For the purposes of the evaluation, capacity-building activities were limited to those related to the work of Codex, standards setting and those activities which support and strengthen national food control systems. FAO and WHO capacity building relating to food standards includes all activities of the Organizations that aim at: (i) strengthening the ability of developing countries to take part fully in the global standard setting processes; (ii) sensitizing countries on issues that affect global standard setting (e.g. trade agreements); and (iii) strengthening countries' national food control systems including infrastructure, national food safety and quality strategies and policies, food legislation, food inspection services, food control laboratories, implementation of quality and safety assurance systems throughout the food chain and scientific and technical expertise with particular regard to risk assessment. This latter includes facilitating the implementation by countries of the existing international standards, recommendations or guidelines. However, it does not include other aspects of the national food safety system unrelated to standards, such as public education.

205. Within its overall mandate on health and with the Ministry of Health as its privileged partner in its member countries, WHO naturally has a prime focus on consumer protection. In addition to this, FAO also pays particular importance to the role of food standards in facilitating domestic and international trade, and more generally in the overall framework for economic development. There are many common domains of work between the two Organizations. WHO tends to have focused on capacity building for food-borne illness surveillance systems, hygiene and nutrition. FAO's capacity-building work has also covered food safety issues along the production and marketing chain of food products and the establishment of Codex focal points and committees. Although FAO works primarily with Ministries of Agriculture, for food safety it also works with Ministries of Health, Trade and Central Standards Bureaux.

206. Initiatives may take place individually or in concert with other international or regional organizations, international and regional financial institutions, national governments or NGOs. A major partner for FAO on food standards and trade is WTO and the Organization has a joint programme with the International Atomic Energy Agency (which devotes some US$ 3.7 million per biennium to food safety work). In collaboration with UNIDO, WHO applied an integrated approach to strengthening the application of quality principles to the food processing sector in seven African countries in the sub-Sahara. This included a survey of national food safety policies, legislation and administration. Training was also provided to representatives from industry, training institutes and regulatory authorities in the principles and application of HACCP.

207. A number of examples of the different types of capacity-building programmes discussed with the evaluation team during country visits are highlighted in the following sections.

6.1 Members' Needs and the Emphases of the FAO and WHO Programmes

208. One striking observation from country visits was the high importance of capacity-building activities when international trade and economic returns are at stake. For instance, the large volume of assistance in the area of HACCP in fisheries has been driven by the economic losses for exporting developing countries following non-compliance with requirements imposed by importing developed countries. This corroborates Table 1's evidence that trade facilitation is seen as the most useful function of Codex standards in low-income countries.

209. Just as economic priorities have defined the need for technical assistance in HACCP, economic necessity has affected the priority accorded to domestic food safety issues in low-income countries. Although some WHO regional strategies give high priority to food safety, WHO field officers recognize the difficulties in putting food safety on top of the list of country priorities. With limited financial and personnel resources, Ministries of Health have prioritized other initiatives such as malaria, tuberculosis and AIDS which may continue to be more important for health than food-borne illness. Anecdotal evidence from country visits, as

[58] Prof. Ruth K. Oniang'o, Background Paper prepared for the evaluation team on capacity building.

well as a review of the responses to the questionnaire, make evident, however, that there is a crucial need to improve knowledge on food-borne illnesses in developing countries and thus, for the establishment of proper surveillance systems and data bases. In questionnaire responses on priority areas for assistance, developing countries mentioned the development of surveillance of food-borne illnesses as one of the very important areas (82% of respondents). Furthermore, 53% of the least developed countries (LDCs) which have responded do not have a food-borne illness surveillance system and country visits revealed that even when they exist, the systems are often weak.

210. Other priority areas for capacity-building assistance (as per replies to the questionnaire)[59] include increased training in risk assessment as well as food safety inspections, surveillance and monitoring. This reflects areas where capacity is the weakest (again as per replies to the questionnaire) for both low- and middle-income countries, although for the latter, to a lesser extent. The greatest weaknesses that need to be addressed in capacity-building activities are in the areas of risk assessment and risk communication for both low- and middle-income countries. For low-income countries, domestic retail food inspection is also rated as very weak and in need of capacity building.

211. The development of legislation is not perceived by developing countries as a very high priority for assistance as compared to other areas. This may be because food laws are ineffective in the absence of surveillance and enforcement capability. Country visits showed how multiple jurisdictions, overlapping and outdated legislation hampered the effective regulation of food. The visits also demonstrated that LDCs need a better basis in enforceable law to tackle their immediate food safety and trade problems. This cannot be achieved by only translating Codex standards into national law. Indeed, in many countries there will be no capacity for the immediate future to enforce aspects of these standards on the domestic market. FAO and WHO assistance is important in developing enforceable law, which is also framed in such a way as to facilitate civic responsibility and public education as part of an integrated approach to assuring: improved food safety; reduced fraud; increased capacity to meet international standards for exports; and the development of domestic trade.

212. Results of the questionnaire also point out the need to involve all stakeholders (consumers, wholesalers, retailers and local processors) in support of the setting up of institutional frameworks for health surveillance, regulatory and law development and enforcement. Educating consumers, food processors and food retailers is perceived by developing countries as important to improve the health of their consumers (in addition to strengthening risk analysis). It is believed that if institutional frameworks rely only on the civil service, they will not reap the benefits of civil society ownership and will provide opportunities for corruption by civil servants and non-compliance with the law.

213. Overall, priority areas as perceived by the beneficiary countries thus confirm the relevance of capacity-building activities described below carried out by FAO and WHO. In the delivery of capacity-building assistance, there is a clear preference for receiving assistance through technical cooperation projects, including equipment, rather than *ad hoc* short-term consultancy, meetings and workshops. Projects beyond a certain scale ensure better follow-up, better targeting and therefore more sustainable outcomes.

214. At the moment, there is thus a stark contrast between developing countries' stated priorities for development assistance in food safety and the volume of voluntary contributions by developed countries which share those priorities. The reasons for this include the focus of many government aid programmes on the poorest countries and the poor within those countries. In the case of FAO (no similar data is available for WHO), the ratio of voluntary funding (trust funds) for food safety development assistance to assessed contributions (Regular Programme) is 0.1:1. The comparable ratio for the overall FAO technical programme is 1.5:1. FAO's capacity-building support is thus nearly entirely funded by its own resources.

215. Developed and medium-income countries' responses to the questionnaire indicated that many of them were prepared to increase their development assistance. Their priorities for subject matters of assistance were largely in line with the responses of the developing countries on their requirements, but there was more

[59] 82.6% and 80.5% of respondents mentioned respectively risk analysis, including data and food safety inspection, surveillance and monitoring as priority areas for assistance.

emphasis on the provision of consultancy and workshops and less on equipment. Fellowships were not a priority of the developed countries.

6.2 Policy and Institutional Arrangements in FAO and WHO

216. The different mandates and management models of FAO and WHO influence the operationalization and administration of capacity-building activities. These differences are also reflected in how the two Organizations identify and implement capacity-building assistance.

217. WHO work is focused on a set of organization-wide priorities, established in the General Programme of Work for 2002-2005, which includes food safety. The principal approaches of the WHO Global Strategy for Food Safety are: (i) strengthening surveillance systems of food-borne diseases; (ii) improving risk assessments; (iii) developing methods for assessing the safety of the products of new technologies; (iv) enhancing the scientific and public health role of WHO in Codex; (v) enhancing risk communication and advocacy; (vi) improving international and national cooperation; and (vii) strengthening capacity-building efforts in developing countries. These priorities form the basis of all work within WHO and link efforts undertaken at the Regional Offices. At the country level, consultations with the Ministry of Health, and other ministries as appropriate, help to determine what activities will be implemented to respond to the priorities of the country with respect to the priorities of WHO as a whole. Much of WHO assistance to member countries is defined within the country budget allocation. It also draws on the work of the Regional Offices and Headquarters.

218. The focal point for activities related to food safety, one of the 11 cross-cluster priorities, is the Food Safety Programme (FOS)[60] based in WHO Headquarters. Technical issues related to food safety, however, are addressed in a number of different clusters within the structure of WHO, in such areas as communicable disease surveillance, nutrition, health and environment, making pregnancy safer and health promotion. WHO and PAHO (Pan-American Health Organization) have more technical staff in country offices but these rarely have food safety expertise. A Pan-American Centre for food safety in Argentina (INPPAZ) took up its revised mandate from PAHO-WHO in 1995. The centre has 12 professionals and provides technical cooperation services in the region. PAHO also has veterinary public health advisors who handle food safety based in sub-regions. Elsewhere, for example in the Eastern Mediterranean and in Southern Europe, WHO Regional Offices have food safety advisers.

219. FAO defines its priorities at corporate level through a strategic framework and its broad programmes through rolling medium-term plans. Assistance to member countries is very much country demand driven and carried out predominantly through projects including its Technical Cooperation Programme funds (TCP)[61]. FAO has expertise located in its Headquarters that provides technical assistance to member countries. Staff is located in the Food and Nutrition Division and also in the Agriculture and Fisheries Departments which collaborate through an Inter-Departmental Working Group on Biosecurity. Experts are also located in the joint FAO/IAEA Division. The Food and Nutrition Division is supported by out-posted nutrition officers in Regional/Sub-regional Offices where the other departments also have outposted officers. However, FAO's assistance to member countries is hampered by its limited staff in the field. Country offices have no technical staff. There are two officers dealing with the whole range of nutrition and food safety work in each of the developing regions, except the Near East and North Africa which has one, as does Central and Eastern Europe. These officers lack the broad range of specialized technical expertise that exists at Headquarters. At present, demands from member countries for technical assistance on food safety matters far exceed the capacity to deliver.

220. The Food and Nutrition Division takes the lead on food safety and quality matters. The focus of its work is on the harmonization of food control regulations with Codex standards and active support to national policies, instruments and mechanisms for the use and application of international food standards, national food quality and safety assurance systems and programmes. The Fisheries Department, through its programme on consumption, safety and quality of fish products, is also involved in capacity building, though with a more narrow focus. It assists countries with the implementation of quality and safety assurance

[60] FOS is a unit in the Protection of the Human Environment Department, which is part of the Sustainable Development and Healthy Environments cluster.
[61] Financed with assessed contributions.

systems, integrating HACCP, risk assessment and cost-effectiveness. The programme relies on a Danish-funded project[62] for its training activities and much of its advisory services. FAO also supports capacity building through its contribution to joint work with the International Atomic Energy Agency (IAEA). The joint IAEA/FAO Food and Environmental Sub-programme[63] assists national food and consumer protection authorities to implement Codex standards for food irradiation and for food contaminants by using nuclear and related biotechnological analytical methods and has a laboratory training facility.

6.3 FAO Capacity-building Activities

6.3.1 Volume of FAO's Work Related to Capacity Building

221. FAO's contribution to capacity building for food safety amounted to some US$ 29 million over the 1996-2001 period. This included Regular Programme activities (training, workshops, consultations, advisory missions and publications) as well as projects.

6.3.2 Training and Workshops

222. Training and workshops relating to food control is by far the largest activity carried out by FAO Headquarters and Regional Offices. Another major area of capacity building has been risk assessment. Numerous training programmes and workshops have been carried out on HACCP, especially by the Fisheries Department. The positive impact of such a work is highlighted in Box 4 below through the example of the regional project FAO/DANIDA Inter-regional Training Project on Fish Technology and Quality Assurance.

223. In 1999-2001, FAO formulated and implemented an Umbrella Programme for Training on Uruguay Round and Future Negotiations on Agriculture. The first phase of the programme included the implementation of 14 sub-regional training courses[64]. The programme was co-financed by FAO, the European Union and several donor countries. The project aimed at improving understanding of existing WTO agreements to enable countries to participate more fully in the negotiation process and debate issues of special concern to the region. Topics which were covered during training included various Uruguay Round agreements concerning agriculture, such as SPS and TBT measures, and Trade Related Intellectual Property Rights. A Resource Manual on Multilateral Trade Negotiations on Agriculture was prepared by FAO, including the harmonization of international scientifically-based and risk-assessed standards through Codex. Training, workshops and meetings relating to Codex, risk assessment and trade have also been conducted by FAO jointly with WHO and PAHO.

224. Training and workshops relating to the development of national Codex committees and focal points have primarily been national activities. Their objectives were to promote awareness among key players in food safety standards and food control, on the role, functions and activities of Codex. Reports and country visits indicated the usefulness of such workshops in raising awareness of the need for a multi-sectoral approach to food control.

225. Training, workshops and publications have also been financed by the International Life Science Institute (ILSI)[65]. While providing substantial financial support, activities supported by ILSI are not part of the planned Regular Programme of FAO and thus not necessarily always part of the Organization's strategic priorities.

226. Training and workshops are primarily targeted at government officers, though those relating to the national Codex committee generally also involve the private sector and representatives from civil society. Participants in workshops relating to food control, safety and quality assurance (including HACCP) are

[62] FAO/DANIDA *Inter-regional Training Project on Fish Technology and Quality Assurance.*
[63] IAEA activities are implemented through research networks, technical cooperation projects and training courses, and in close collaboration with FAO's Plant Production and Protection (AGP), Agricultural Support Systems (AGS) and Food and Nutrition (ESN) Divisions, with WHO, ITC and with the FAO/IAEA/WHO International Consultative Group on Food Irradiation (ICGFI). They include the operation of a FAO/IAEA Training and Reference Centre for Food and Pesticide Control (TRC) and support activities from the FAO/IAEA Agricultural and Biotechnology Laboratory, Seibersdorf.
[64] Conducted in Africa (4 courses); Asia (3 courses); Near East (2 courses); Europe (2 courses); and Latin America (3 courses).
[65] Private institute funded by food industries.

usually more targeted (food inspectors, food processors) and industry has been very much associated with capacity-building activities.

227. It is recognized that, in general, training and workshops would have a greater effect if they were followed up by more in-depth and targeted training and formed part of a capacity-building strategy. General training contributes to awareness raising on key aspects of food safety and the food control chain. However, in the absence of close follow-up, they remain insufficient to effectively build capacity in these areas.

6.3.3 FAO Project Activities

228. The food safety projects funded from FAO's assessed contributions under the Organization's TCP account for 5% of the total TCP which is substantial and in line with the proportion of resources allocated to food safety in the technical programmes of the Organization. Besides building up capacity on HACCP methodology, projects reflect a trend towards a more holistic approach. They typically involve technical support to the development of institutional frameworks for food law (and regulation), the strengthening of inspection and analytical capacities (law and regulation enforcement), as well as upgrading facilities (law and regulation implementation). A number of projects are also aimed at strengthening the national Codex committee through training and the provision of equipment.

229. The more holistic approach and reduced emphasis on laboratories reflect the findings of a previous evaluation of FAO-TCPs in food safety.[66] This evaluation considered projects ongoing from 1992 to 1996. The evaluation found that the great majority of projects responded to a priority need. Fifty-eight percent of projects had good design and implementation. Projects were overly standardized in their approach and there had been excessive attention to laboratories and laboratory equipment where this was not necessarily a priority. There were reservations on the effectiveness of some study tours and these tours were found to have been most useful when they took place within the region. Consultants were of good quality and recommendations were realistic and implementable. Overall, 44% of projects were found to be contributing to a good sustainable impact and 46% were satisfactory in this regard.

230. During country visits, the evaluation team discussed FAO and WHO work in capacity building. FAO projects were judged to have been useful and appropriate to the problems. Their sustainable impact was found to be very dependent on the stability of the national institutional framework, upon which they had limited impacts in their relatively short duration. For example, while knowledge was effectively transferred in one Latin American country, the objective of strengthening the Codex focal point and national committee was not achieved due to institutional changes. In an Asian country, FAO assistance had helped establish an ongoing capacity for export certification but this needed to be better integrated with other similar government programmes. The impacts from FAO's work were constrained as the Organization had to rely almost exclusively on its own TCP funds which can only cover small projects with a maximum duration of two years.

[66] Evaluation of TCP Projects on Food Quality Control FAO Programme Evaluation Report 1998-99.

Box 4: HACCP in the Fishery Industry

In the early 1990s, quality control and safety assurance became a major issue in international trade in fishery products, mainly due to increased public health concerns (in importing countries). Following the introduction of new stringent requirements, fish imports from several developing countries to developed countries were restricted or stopped. The impact of these measures was severe in the seafood industry of exporting countries, resulting in loss of employment and loss of foreign exchange earnings of several hundred million US dollars.

FAO has been associated with the introduction of HACCP in the fishery industry since the development of the concept, providing training and dissemination of information on quality assurance issues. This includes the introduction of HACCP in countries wishing to export to major world markets, as well as training in basic concepts of good manufacturing practices and in plant hygiene and quality assurance. Activities have been conducted through several phases of an FAO/DANIDA Inter-regional Training Project on Fish Technology and Quality Assurance. An evaluation concluded positively on the effects and impact of the project on capacity building. This was due to two key factors: (i) the deliberate training of trainers, including the development of specific curricula for each group, and systematic post-workshop follow-up; and (ii) combining theoretical and practical aspects in its training package (for example combining basic training on hygiene and fish handling/processing with the development of information packages on aspects such as health legislation).

6.4 WHO Capacity-building Activities

6.4.1 Volume of WHO's Work Related to Capacity Building

231. WHO has emphasized its normative role in food safety which includes collaborating in the international standard setting process and the facilitation of risk assessments. The recent Codex paper prepared on capacity building[67] shows the importance of FAO's assistance for capacity building in relation to standards compared to the rather few WHO initiatives reported. This is particularly true for the Africa and Asia Regions. It is only recently that WHO made integrated food safety one of the 11 priorities of the Organization. With the approval of food safety as a priority, the volume of assistance is now steadily increasing.

6.4.2 Regional Strategies and Workshops

232. Historically, capacity-building activities in food safety focused primarily on hazards in food and were the responsibilities of such areas as nutrition and veterinary programmes. Within the past three years, the focus for activities, however, has changed and the WHO Global Strategy for Food Safety addresses the broader concept of risk along the entire food production chain.

233. WHO regions are starting to develop regional food safety strategies, including such components as advocacy, adoption of modern, comprehensive food laws, regulations and standards, active Codex participation and an integrated multi-sectoral government framework. Related workshops on "Operational Plans for Food Safety" then bring inspectors together (e.g. 15 countries to Manila in 2000).

234. In the West Pacific Region, 20 countries have been involved in strategy development and in the Southeast Asia Region, this has been reflected in changes at national level, for example in India, where the Codex contact point has worked with WHO to make Codex a focus of food safety in the Ministry of Health and Family Welfare. The result has been a progressive increase in WHO funding in successive biennia for food safety in India, from US$ 239,000 in 1998-99 to US$ 525,000 in 2002-03. Bangladesh was the recipient of a number of food safety related technical training initiatives for government, health professionals, food industry and community leaders. WHO has also collaborated with Bangladesh in the development of a vision for food safety in the country.

235. In the WHO Eastern Mediterranean Region, the regional action plan launched an initiative to develop country profiles which identify gaps and areas for collaboration among national partners in food safety and food control within a country. In recognition of the need for updated and comprehensive national food laws, a manual providing guidelines for developing food legislation for food control systems in the region is also being prepared.

[67] Secretariat of the CAC, Report on Capacity Building for Food Standards and Regulations, October 2002.

236. In Africa, the WHO Regional Office is undertaking a regional analysis on food safety and hygiene to assist in the development of action plans and strategic interventions at country level. In Tanzania and Nigeria, under the Healthy Markets initiative, support and training have been provided for city market inspectors and street vendors in safe food handling practices. The WHO Regional Office for Africa is replicating and expanding the scope of the Healthy Markets initiative to other countries. The strengthening of food-borne illness surveillance in Mozambique and Tanzania is also being supported in the region.

237. In Latin American countries, a WHO-PAHO Centre for Food Safety (INPPAZ) and PAHO[68] are developing a network of national reference laboratories and cooperate with IICA[69] in management training

238. The concentration of technical advice on food safety system management, inspection systems and HACCP are appropriate to needs. Efforts are now being made to strengthen food-borne illness surveillance, a key element if food safety systems are to be better targeted on problems.

6.5 Extent of WHO and FAO Collaboration on Capacity Building

239. As mentioned above, WHO and FAO collaboration at country level has been hampered to a certain extent by the different modalities of the two Organizations in assistance to their member countries. Overall, it is recognized that there is a lack of collaboration between FAO and WHO on capacity building relating to food safety, in particular at the country level. Nevertheless, WHO and FAO collaborated on a number of initiatives, such as the national workshops held in South Pacific countries on food safety and Codex Alimentarius.[70]

240. A major recent joint activity has been the FAO-WHO Global Forum of Food Safety Regulators in Marrakech (January 2002) which brought together food safety regulators from every region of the world to discuss and share experiences on food safety issues. The discussions demonstrated a global recognition that actions need to be taken throughout the food production chain from farm and fishing boat to the consumer. Participants agreed that there was an urgent need to develop national capacity, especially in developing countries to assure the safety of the food supply to their populations.

241. The extent of the collaboration between the two Organizations has been most important in the past few years in the Near East and Mediterranean Region. Joint regional workshops held in the past two years have included:

- FAO/WHO/ILSI Regional Workshop on Risk Analysis: Exposure Assessment;
- AFC[71]/WHO/FAO Inter-country Workshop on Emerging Food Safety Issues and Consumer Protection;
- FAO/IAEA/WHO Regional Training Workshop on Development of Quality Assurance for Mycotoxin Analysis.

6.6 Financing Capacity Building for Food Safety: Global Initiatives

242. As highlighted in the previous sections, capacity building on food safety and in particular in relation to food standards have been largely funded by Regular Programme funds (assessed contributions) of the two Organizations. Capacity building through Regular Programme funding implies severe limits on the extent of support. It also reduces institutional impact when a short-term project modality is employed and makes it difficult to apply the holistic approach now adopted by the two Organizations, which requires comprehensive

[68] The Pan-American Health Organization (PAHO) is an independent inter-governmental organization for human health in the Americas which functions also as the WHO Regional Office for the Americas.
[69] The Inter-American Institute for Cooperation on Agriculture (IICA) is an independent inter-governmental organization for agriculture in the Americas.
[70] FAO and WHO held a workshop on "National Codex Committee and Establishment of National Plan of Action for Food Safety" at Loloata Island Resort (Boroko, Port Moresby), Papua New Guinea from 12-15 June 2001 through collaborative action. The workshop was funded through WHO and FAO Regular Programmes and the Government of New Zealand. A workshop on "Food Safety and Codex Alimentarius" was held at Majuro, Marshall Islands from 3-5 July 2001 through collaborative action by FAO and WHO. The workshop was funded through WHO and FAO Regular Programmes.
[71] Arab Federation of Consumers.

support, rather than isolated actions along the food chain. Several global initiatives from FAO and WHO or jointly with other international organizations, are currently under way to address this resource gap.

6.6.1 FAO/WHO Trust Fund

243. At its session in 2002, the Codex Executive Committee approved a proposal for the creation of a 12-year trust fund to enhance the participation in Codex work (both quantitative and qualitative) of relevant experts from developing countries and countries in transition and to build national capacity. The fund is located in WHO and financed through voluntary contributions.

244. The focal point for the project is Codex. Its first priority is to facilitate attendance at meetings. It is further intended to strengthen the capacity of countries to build strong and compatible food control systems. This will firstly be through collegial exchanges, knowledge transfer and professional development at Codex meetings and associated seminars.

245. It will also strive to ensure that experts in all the countries of the world and at the regional level understand the current goals and objectives of Codex, and can identify the country-specific information and data necessary to effectively participate in Codex activities. In addition, the trust fund should provide pilot funding to enable a number of countries to develop effective proposals and information for Codex consideration, and prepare papers that can be tabled to allow for the incorporation of issues, data and experience from the developing countries into the food standards-setting process.

246. The team strongly supports this initiative and cites the need to clearly elaborate a fair and transparent process for selection of those to be supported to attend meetings. It is also recommended that a mechanism to ensure follow-up be implemented so that those who utilize the trust fund to participate in Codex activities, share their expertise with other interested stakeholders. In order to be truly effective in capacity building, the criteria for supporting participation in meetings must be tied clearly to the individual's capacity to enhance the capacity at national level.

6.6.2 Global Facility for Capacity Building in Sanitary and Phyto-Sanitary Measures

247. WTO, the World Bank, FAO, WHO and OIE have launched an inter-agency global facility/ framework for capacity building in sanitary and phytosanitary measures, with seed money from the World Bank and administered by WTO. The facility will assist developing countries, in particular least developed countries, and countries with economies in transition in the development or improvement of national food safety, animal and plant health systems that will lead to: (i) protection of food safety and animal and plant life and health, including, where appropriate, the extension of the protection to environmental protection; and (ii) increase trade opportunities.

248. The initiative includes four main components: (i) enhancing scientific and technical expertise (science-based risk assessments); (ii) enhancing participation in the work of international standards setting bodies (through establishment of national correspondent committees); (iii) development of tools (including a set of manuals, guidelines and resource materials); and (iv) development of an information system (joint bio-security information system that provides access to official national and international regulatory information and documentation). The location of the fund in WTO indicates an overall orientation towards trade.

6.6.3 FAO Trust Funds for Food Safety

249. FAO has two global trust funds which contain a food safety component:

(i) The *FAO Trust Fund for Food Security and Food Safety* was established by FAO as a source of demand-driven funding to supplement the present trust funds, which support key components of the Organization's Field Programme. The initial funding target is of US$ 500 million. The projects to be funded from this trust fund will assist Member Governments in initiating, strengthening, accelerating and expanding activities in the following two areas: (a) food security; and (b) emergency prevention of transboundary pests and diseases of animals and plants.

(ii) The *FAO Integrated Programme for Building Capacity for Biotechnology, Food Quality and Safety, and Phyto- and Zoosanitary Standards.* The food safety component of this programme valued at US$56.5 million covers such areas as: guidance for decision makers, regulatory and legal aspects, institutional strengthening at regional and national levels, human resource development, improvement of laboratory capabilities, and management of food control programmes.

6.7 Areas for Improvement

6.7.1 Improved In-Country Coordination by FAO and WHO

250. Based on our country visits, it appears that, with the notable exception of the Americas, collaboration and consultation between FAO and WHO at the national level is only occasional. Assistance to countries is not coordinated and is not part of an overall strategic approach or integrated into a multi-agency comprehensive framework.

251. While it is difficult to envisage a fully joint FAO-WHO programme of capacity building at central or regional levels[72], coordination between the two agencies at the country level can certainly be enhanced and is essential to avoid overlapping and inconsistencies[73]. Firstly, there should be more systematic consultation and communication in the field between the two Organizations on all matters relating to food safety (including food standards). Secondly, better coordination can be achieved, among other things, through the joint promotion of integrated national strategies for food safety. Because of their respective relationships with technical ministries, FAO and WHO could help ensure better collaboration between ministries in the country and promote an inter-sectoral approach to food safety and food control as well as to Codex. As WHO often has more technical expertise continuing in-country than does FAO, consultation between the two Organizations could help FAO short-term project assistance to be more effective for the country, both in its design and follow-up.

252. Efficiency gains could also be achieved by a clearer delineation of areas of responsibility. Although there are areas in which both agencies have good track records – such as street foods and the link to nutrition communication and education - it would be desirable to decide a lead agency in each area of work, based on mandate and past performance.

Recommendation 41: *It is recommended that the two Organizations agree on principles for coordination and delineation of responsibilities for capacity building and ensure that these principles are communicated to regional and national offices. The Codex Alimentarius Commission should be informed on progress on this agreement at its July 2003 session.*

6.7.2 New Challenges

253. With changing capacities and challenges facing the countries, FAO and WHO assistance also needs to evolve. Particular areas which became apparent to the team during country visits included the:

- food standards development activities of regional economic groupings, especially those for the poorer countries such as SADC;
- assistance countries require in developing the necessary data for Codex (and national standards) including dietary intake data and capacity to carry out GAP and GMP trials; and as discussed above,
- establishment of cost-effective systems to determine where the risks from food-borne illness lie and prioritize the response.

254. Perhaps as important as new topics requiring attention are new ways of working with the private sector and civil society which will, for example, strengthen:

- exporters' capacity to meet importers' requirements; and

[72] WHO and FAO have completely different regional structures.
[73] WHO's Country Cooperation Strategy may help in this regard.

- consumer and industry capability to participate in and monitor implementation of food safety regulations nationally, participate in education campaigns, etc.

6.7.3 Mobilizing Funds for Capacity Building

255. As mentioned above, responding to increasing demands from developing countries and countries in transition for capacity building on food safety will require more emphasis of the respective field programmes of the Organizations, in particular WHO, on food safety issues. Considering the already stretched Regular Programme resources, this will be achieved in a sustainable manner only with funding support outside FAO and WHO Regular Programme budgets which can be more substantial and of longer duration for institutional change. Global initiatives previously reported certainly go in that direction. A major effort will have to be made to mobilize donor funds for FAO and WHO joint and individual work to build food safety capacity in developing countries.

Recommendation 42: *With a view to mobilizing funds for capacity building, it is recommended to further expand the existing FAO/WHO Codex trust fund in line with its wider objectives into a major multi-donor trust fund for capacity-building of national systems, with flexible arrangements to allow donors who wish to do so to earmark funds for a particular purpose. This will have to be done against clear delineation of capacity-building responsibilities between the two Organizations.*

6.8 The Role of Codex in Capacity Building

256. Codex can play an important role in capacity building in several specific ways. Increasing participation of developing countries (e.g., through the trust fund) contributes to increased exchange of information and knowledge among participating countries. Codex can also have a key role in defining priorities for capacity development to participate in Codex and apply Codex standards and in encouraging bilateral assistance.

7. IN CONCLUSION

257. This evaluation is forward looking. Codex and its two parent Organizations must continue to look forward - matching the accelerating pace in national developments in science particularly as it relates to: food and health; institutional developments; and changing perceptions of need for human economic and social development, trade and protection of consumers. The dynamism of the food production, processing and distribution sectors is also a major force for change. Continued review will thus be necessary and periodic in-depth evaluation must become institutionalized.

258. The time horizon we envision for achieving the recommendations in this report range from the immediate to the Codex Commission meeting in 2003. For the immediate future, we recommend early and continued action for implementation of agreed recommendations with:

- early decisions on funding requirements and new managerial arrangements by FAO and WHO Governing Bodies;
- early action by the Codex Alimentarius Commission itself to act on recommendations, without loss of momentum by reference to Codex general subject committees;
- a major effort to mobilize resources and increase appropriate capacity building in developing countries, especially the poorest countries; and
- establishment of a task force between FAO, WHO and Codex chair and vice-chairs to follow up and monitor implementation of the evaluation recommendations.

Contribution of the Recommendations to the Four Key Objectives of the Evaluation

Figure 5: Major Recommendations	**Objective 1: Greater Speed in standard decision making/ Objective 2: Increased inclusiveness of developing member countries in the standard development process/ Objective 3: Standards which are of increasing usefulness/ Objective 4: Capacity building for developing countries**				
	1	**2**	**3**	**4**	**Prime Responsibility**
Codex					
Recommendation 1: The scope of Codex should fully cover health-related aspects of food standards, including work on foods for special dietary uses, health claims and nutrient addition; and new work on packaging materials; and on industrial processing agents in foods.			■		**Codex**
Recommendation 2: Codex should not take on additional work in non-health related areas.	■		■		**Codex**
Recommendation 3: Priorities for standards: 1. consumer health and safety; 2. commodity for developing countries; 3. commodity for developed countries; 4. informational labelling relating to non-health and non-safety issues.	■		■		**Codex**
Recommendation 4: A clear mandate should be developed for Codex and ratified by the FAO Conference and the WHA.	■	■	■	■	**FAO/WHO**
Recommendation 5: FAO and WHO should define how formal recommendations of Codex for consideration by FAO and WHO Governing Bodies may be brought to their attention.	■	■	■	■	**FAO/WHO**
Recommendation 6: Develop guidelines on acceptable levels of protection for use by risk assessors in giving scientific advice to committees and to reduce the scope of disputes in WTO.	■		■		**Codex**
Recommendation 7: Codex should remain housed in FAO and WHO but should have more independence, authority and responsibility over priority setting and management of its work programme.	■		■		**FAO/WHO**
Recommendation 8: Collaboration with OIE should be formalized and strengthened. There should be continued collaboration with IPPC.	■		■		**Codex / OIE**
Recommendation 9: The Executive Committee should be replaced by an Executive Board with more strategic and managerial responsibility but without the authority to consider standards.	■				**Codex FAO/WHO**
Recommendation 10: The Executive Board should be small and include: 2-3 observer representatives for consumers, industry and perhaps primary producers; formal participation of the Secretary of Codex and FAO and WHO.	■				**Codex**
Recommendation 11: Standards Management function should be strengthened and performed either by a new Standard Management Committee or alternatively by the Executive Board.	■		■		**Codex**
Recommendation 12: It is desirable for the Codex Alimentarius Commission to meet every year, but if the Executive Board and Standards Management Committee perform their functions effectively, it might be possible to reduce costs by continuing to hold meetings every two years.	■		■		**Codex**
Recommendation 13: The secretariat should have more executive functions and a more senior staff.	■	■	■	■	**FAO/WHO**
Recommendation 14: The secretariat should become a separate unit in FAO, rather than continue under the Food and Nutrition Division. It should report to FAO and WHO and in line with plans to give Codex more independence, the appointment of the Secretary should be carried out in consultation with Codex.	■		■		**FAO/WHO**
Recommendation 15: Increase resources for the secretariat.	■	■	■	■	**FAO/WHO**
Recommendation 16: Review the work of the Codex committees with a view to rationalization and use time-bound task forces; reduce consideration of health issues in commodity committees/task forces to the essential minimum.	■		■		**Codex**

Figure 5: Major Recommendations	**Objective 1: Greater Speed in standard decision making/ Objective 2: Increased inclusiveness of developing member countries in the standard development process/ Objective 3: Standards which are of increasing usefulness/ Objective 4: Capacity building for developing countries**				
	1	**2**	**3**	**4**	**Prime Responsibility**
Recommendation 17: Review the mandate and role of regional committees within the next 2 years.		■	■	■	**Codex**
Recommendation 18: All committee and task force work should be time-bound.	■		■		**Codex**
Recommendation 19: Make a clearer separation of the risk management and risk assessment functions.	■		■		**Codex FAO/WHO**
Recommendation 20: Develop standards primarily through in-between session work using facilitators.	■	■		■	**Codex**
Recommendation 21: Meeting reports should be action-oriented focusing on decisions.	■				**Codex**
Recommendation 22: Criteria should be applied for selection of chairs and they should be trained and assessed.	■		■		**Codex**
Recommendation 23: The present 8-step procedure should be simplified to a 5-step procedure for all standards.	■		■		**Codex**
Recommendation 24: Consensus should be the norm and a clear definition developed of consensus. Where voting is used it should only be in the Commission and be a 2/3 majority.	■	■			**Codex**
Recommendation 25: Groups of countries with common interests should be encouraged to coordinate their positions and present these as positions of the group at committee meetings.	■	■		■	**Codex Regional Committees**
Recommendation 26: Co-chairs should be appointed of equal status, one of which would be from a developing country.		■		■	**Codex/ Host Countries**
Recommendation 27: Ensure genuine representation of observers in Codex (through stricter criteria) + representation of observers in the Executive Board and Standards Management Committee.			■		**Codex**
Recommendation 28: Increase host country support: (i) increased between-session work; and (ii) meeting being held in the co-chair's country.		■		■	**Codex/ Host countries**
Recommendation 29: Increase resources for upgrading the Codex web-site as a matter of urgency.			■	■	**FAO/WHO**
Recommendation 30: Establish a database of national standards of importance in trade, including their application and methods of analysis.			■	■	**FAO/WHO**
Recommendation 31: FAO and WHO should make a detailed calculation of the incremental cost increases for the Codex secretariat of implementing the agreed recommendations and provide the necessary increased core funding.	■	■	■	■	**FAO/WHO**
Risk Assessment and expert Advice					
Recommendation 32: JEMRA to be ratified as a permanent committee.			■		**FAO/WHO**
Recommendation 33: There should be a clear budget and human resource allocation for scientific advice and risk assessment. A small proportion of the budget should be retained for use by FAO and WHO to meet their own needs and the remainder clearly available for work on the priorities of Codex. FAO and WHO should make proposals for discussion at the July 2003 Commission session.	■		■		**FAO/WHO**
Recommendation 34: The increased funding of risk assessment is a top priority.	■		■		**FAO/WHO**
Recommendation 35: FAO and WHO should support the collection of data covering a wider range of diets and production processes.		■	■	■	**FAO/WHO**
Recommendation 36: Budgetary provision should be made to pay independent experts undertaking risk assessments. At the same time, strict deadlines and quality requirements should be put in place.	■		■		**FAO/WHO**

Figure 5: Major Recommendations	**Objective 1: Greater Speed in standard decision making/ Objective 2: Increased inclusiveness of developing member countries in the standard development process/ Objective 3: Standards which are of increasing usefulness/ Objective 4: Capacity building for developing countries**				
	1	**2**	**3**	**4**	**Prime Responsibility**
Recommendation 37: Building on the findings of this evaluation a consultancy study should be immediately undertaken of expert advice and risk assessment and this should be followed by an expert consultation and discussion in Codex.					**FAO/WHO**
Recommendation 38: Establish a Scientific Committee to support expert advice and risk assessment.					**FAO/WHO**
Recommendation 39: Establish a joint Coordinator for FAO and WHO scientific advisory activities.					**FAO/WHO**
Recommendation 40: FAO and, in particular, WHO are recommended to markedly increase their contribution to health risk assessment and expert advice to feed into Codex.					**FAO/WHO**
Capacity Building					
Recommendation 41: The two Organizations should agree on principles for coordination and delineation of responsibilities with regard to capacity building and report to the Commission in July 2003					**FAO/WHO**
Recommendation 42: Expand the existing FAO/WHO Codex trust fund in line with its wider objectives into a major multi-donor trust fund, with flexible arrangements.					**FAO/WHO**

Annex 1: Members of the Evaluation Team and Expert Panel

Evaluation Team:

Team Leader:
Professor Bruce Traill Ph.D. (UK), Professor and Head of Department of Agricultural and Food Economics, University of Reading, UK.

Members:
Rachel Bedouin, FAO Evaluation Officer, FAO, Rome, Italy.

Katharine Gourlie (Canada), Former Director-General of the Consumer Products Branch in Industry Canada, and currently independent consultant in food safety and consumer matters.

Jerri Husch Ph.D., WHO Management Officer, WHO, Geneva, Switzerland.

Alicia Lustre Ph.D. (Philippines), Director of the Food Development Centre of the Philippine Department of Agriculture.

The Expert Panel:[74]

Chairperson:
Professor Alejandro Cravioto M.D., Ph.D. (Mexico), Dean Faculty of Medicine, Universidad Nacional Autonoma de Mexico.

Members:
Irina du Bois (Switzerland), Vice President, Head of Regulatory Affairs and Environment, Nestec Ltd.

Professor Ken Buckle Ph.D. (Australia), Professor and Associate Dean, International Development, Faculty of Science, University of New South Wales, President of the International Academy of Food Science and Technology.

Dilma Scala Gelli (Brazil), Chief, Food Microbiology Laboratory, Instituto Adolfo Lutz Public Health Laboratory, State of San Paulo.

Spencer Henson Ph.D. (U.K.), Associate Professor, Department of Agricultural Economics and Business, and Department of Consumer Studies, University of Guelph.

Professor Anwarul Hoda (India), Fellow Indian Council for Research on International Economic Relations, former WTO Deputy Director-General.

Liu Xiumei M.D. (China), Professor and Director, Department of Microbiology and Natural Toxins, Chinese Centre for Disease Control and Prevention.

Diane McCrea (UK), Independent consultant on food and consumer affairs, consultant to Consumers International on Codex matters.

Professor Ruth K. Oniang'o Ph.D. (Kenya), Former Professor of Food Science and Nutrition, Jomo Kenyatta University of Agriculture and Technology and currently independent consultant.

Kaye Wachsmuth Ph.D. (USA), Former deputy administrator for the Office of Public Health and Science in the Food Safety and Inspection Service, USA, and Chairperson of the Codex Committee on Food Hygiene.

[74] Abderrahmane Hilali, Ph.D. (Morocco), Chief of the "Direction de la Protection des Végétaux, des Contrôles Techniques et la Répression des Fraudes", was appointed to the panel but in the event was unable to attend.

Annex 2: Working Terms of Reference

Purpose of the Evaluation

The Codex Alimentarius Commission, WHO and FAO secretariats and the FAO and WHO Governing Bodies have now all called from varying perspectives for an in-depth independent evaluation of the Codex Alimentarius Commission and the FAO-WHO work for the establishment of international food standards, guidelines and codes of practice. FAO is committed, at the request of the Programme Committee, to providing an independent evaluation of the Organization's work in food standards (conducted in line with the Organization's standard evaluation practices) to its Governing Bodies for May 2003. WHO is committed, at the request of the World Health Assembly 2000, to examine the FAO/WHO working relations with a view to increase WHO involvement in Codex, as well as support the inclusion of health considerations in international food trade. At its Forty-ninth (extraordinary) session in September 2001, the Executive Committee of the Codex Alimentarius Commission stated in para. 42 "*The Executive Committee welcomed this initiative (comprehensive review of the Joint FAO/WHO Food Standards Programme), including the proposal for an external component to the review process*."

The evaluation is thus designed to provide an input into decision making on future policy, strategy and management at the level of the FAO and WHO Governing Bodies and their respective secretariats and to the joint FAO-WHO Codex Alimentarius Commission. The evaluation will address, in all their dimensions, the global requirements for food standards for the protection of consumer health, development of international[75] and domestic trade and related ethical considerations. In so doing, the evaluation will examine the respective requirements of producers, industry, traders, consumers and regulators.

The evaluation will provide recommendations and considerations for the future on the relevance of standards or alternative approaches in meeting the overall objectives in consumer protection, in particular for health risks and in ensuring fair practices for food trade. It will also provide alternatives for consideration in meeting future world requirements for food standards which provide the desired benefits in adequately satisfying the needs of both developing and developed countries and food importers and exporters at reasonable direct and indirect cost. The evaluation is thus formative, basing considerations for the future on an examination of past performance, current and emerging challenges and innovative ideas.

Coverage of the Evaluation

The evaluation will examine issues including, but not restricted to:

a) The evolving context and challenges, including:
   - i) the relevance and adequacy of standards as instruments for:
     - prevention of food-borne diseases and other health risks;
     - food safety risk management;
     - consumer protection;
     - trade and economic development;
     - production practice.
   - ii) the expectations of different groups of countries, at official government level, as to standards in imports and exports and for domestic trade, particularly as regards the validity and acceptability of standards:
     - science base;
     - level of risk and inclusion of precautionary approaches;
     - ease of verification and clarity as a reference point in trade;
     - labelling and comparability of descriptors (e.g. in organic food);
     - ethical and cultural considerations; and
     - comprehensivity and degree of generalization.
   - iii) the expectations of different groups of countries, at official government level, as to institutional mechanisms for standard setting including:
     - the structure and procedures of the Codex Alimentarius Commission and its subsidiary bodies;

[75] including concessional transactions.

- the technical and administrative support given to the work of the Commission by FAO and WHO, including secretariat and expert committees;
- possibilities and limitations for participation in the decision making processes;
- direct and indirect costs and ways of covering them.

iv) the particular interests of developing countries, as regards:
- assistance to implement standards;
- participation in the standard setting process.

v) the expectations of producers, industry and civil society and their likely impact on international standard setting; and

vi) the institutional relationships between related standard-setting bodies such as the IPPC, and OIE.

b) The effectiveness of the existing arrangements in meeting the requirements identified above. Efforts will be made to benchmark and compare the methods of work and approaches with those of other standard setting bodies. Areas to be covered include the overall adequacy of the:

i) response by FAO and WHO;

ii) existing standards and significant lacuna in the architecture for international trade (quality, coverage, ease of application, etc.);

iii) adequacy of standards as a model for national standard setting for domestic commerce;

iv) adequacy of institutional arrangements, including an examination of independence, conflict of interest and responsiveness to members, and:
- the structure of the Codex Alimentarius Commission and its subsidiary bodies;
- the methods of work of the Codex Alimentarius Commission (including authority to propose changes in the statutes, rules and traditions of procedure);
- the structure and management of the Codex secretariat;
- the structure of advisory committees and panels;
- whether the same arrangements can adequately and efficiently satisfy the needs of standards for trade and the needs of developing countries in establishing domestic standards;
- participation of countries in the process;
- participation of non-governmental stakeholders;
- efficiency and effectiveness with respect to all aspects (science, communication, ethics, policy, governance and politics) of the committee structures, procedures and secretariat arrangements;
- assistance to developing countries by FAO, WHO and through other partners;
- relationships to other international bodies setting standards and responsible for regulatory frameworks and to WTO.

c) Issues for the future based on the above analysis, innovative forward thinking and also examining any potential advantages from:

i) potentially quite different approaches to those at present in place for:
- consumer protection (especially for health) and economic development through clarity in international and domestic trade;
- standard setting at both domestic and international levels; and
- alternative institutional and/or funding arrangements.

ii) the implications for developing countries if food standards setting for international trade were allowed to become the preserve of the developed countries and main trading nations;

iii) mobilization of adequate support for developing country capacity building and participation in the standard setting processes.

Arrangements for Management and Conduct of the Evaluation

Management of the evaluation: To ensure its independence, the evaluation will be managed jointly by the evaluation units of FAO and WHO. They will consult with the concerned technical units in WHO and FAO on all substantive matters, including selection of evaluation consultants and the independent expert panel members. The technical units of FAO and WHO will also be used by the evaluation managers for technical inputs and can communicate concerns, ideas and questions to the evaluation team and the independent expert panel through the evaluation managers.

The evaluation team: The evaluation team will carry out the core work of the evaluation in line with the terms of reference and will consist of a core of five persons who can draw flexibly on technical resource persons (subject to budget):

a) a senior fully independent team leader with a policy background and firm understanding of the issues agreed by FAO and WHO;
b) two independent technical consultants, representative of major stakeholders in foods standards - appointed one by FAO and one by WHO; and
c) one senior representative of the FAO Evaluation Service and one senior representative of WHO evaluation.

Independent expert panel: The independent expert panel will review terms of reference and the initial workplan for the evaluation, suggesting any changes it considers desirable and raising questions and issues which it considers should receive particular attention in the evaluation. The expert panel will in particular be looked to for innovative and divergent ideas that can be examined during the course of the evaluation. The independent expert panel will reconvene and together with other peer reviewers consider and make comments on the preliminary report of the evaluation team. The evaluation team will then make whatever adjustments they consider desirable. The expert panel will also prepare its own report commenting on the findings of the evaluation and making such additional or divergent recommendations as it sees fit. During the course of the evaluation the expert panel will be informed of progress and the evaluation team may refer any queries they wish to the panel. The panel through its chairman and the FAO/WHO evaluation management may refer additional ideas to the team during the course of the evaluation through virtual discussion.

The independent expert panel will have a fully independent chairman selected in agreement between FAO and WHO. The panel membership will additionally include eight[76] external and independent experts selected for their knowledge in areas relevant to food standards and their ability to think innovatively on the future role of food standards and Codex in the global food system. The eight independent members will be nominated, four each by FAO and WHO, based on agreed criteria. The composition of the panel will be multi-disciplinary, geographically representative, gender-balanced and diverse in view point including the following: food safety control; public health; international food trade; food standards; consumer rights; food safety research; risk communication; and international collaboration and development.

Other consultation and review: The evaluation management will refer the terms of reference and the draft report of the evaluation to wider group for comment. This group which may also be used as a resource for information and consultation by the evaluation team will include the chairman and three vice-chairpersons of Codex and at least one representative from industry and consumers[77].

Reporting: The preliminary draft report of the evaluation will be submitted to the secretariats of WHO and FAO, to the independent expert panel and to a wider group of peer reviewers as indicated above for their comments. In the light of these comments the evaluation team will make whatever changes it sees fit. The findings of the independent expert panel and any additional recommendations they wish to make will be submitted together with the report of the evaluation team to the Directors-General of FAO and WHO and will be presented together with the evaluation team report and the two secretariat responses to the Governing Bodies of FAO and WHO and to the Codex Alimentarius Commission in 2003.

[76] later increased to nine.
[77] Representatives of industry and consumers were not eventually added as they had been included as members of the expert panel.

Annex 3: Resource Use and Resource Requirements for Food standards Work

1. Some detail is provided on the present resource picture to facilitate discussions by FAO, WHO and Codex itself on the possibilities for implementation of the recommendations in this report.

Codex Resources

Table 1 Codex Budget and Expenditures-US$ (000)	**1996-97**		**1998-99**		**2000-01**	
FAO and WHO Contributions	Budget	Expenditure	Budget	Expenditure	Budget	Expenditure
Codex - total	**4,620.0**	**4,609.0**	**4,516.0**	**4,381.0**	**4,732.7**	**4,371.2**
Of which FAO	*3,688.0*	*3,677.0*	*3,547.0*	*3,430.0*	*3,763.7*	*3,463.7*
Of which WHO	*932.0*	*932.0*	*969.0*	*951.0*	*969.0*	*907.5*
Extra budgetary support directly to the Codex Secretariat						
Japan GCP/INT/712/JPN				126.3		252.00
France GCP/INT/025/FRA				54.2		108.30
Korea, Rep of GCPA/INT/013/ROK						227.80
Note: Codex budgetary information was published for the above years in ALINORM 97/5; ALINORM99/5 and ALINORM 01/5. In ALINORM 01/5 it was stated that activities which were not strictly Codex were transferred for 2002-03 from the Codex budget to the relevant FAO programme entities "*Quality Control and Consumer Protection and Food Safety Assessment*", i.e. mainly country specific activities and *ad hoc* expert consultations. To bring the accounts into meaningful sequence and reflect the actual Codex work. The FAO budget and expenditures have been adjusted downwards by US$ 881,000 in 1996-97 and 1998-99 and by US$ 316,480 in 2000-01.						

2. Codex currently has a core budget of some US$ 5 million per biennium. There was under expenditure in 2000-01 principally due to staff vacancies. Of this total, FAO contributes approximately 80 percent and WHO 20 percent (Table 1). This core budget compares with an ISO core budget of approximately US$ 40 million per biennium. Members have also recently been making contributions to the secretariat staffing of almost US$ 600,000 per biennium (Table 1). In addition, host countries for committees contribute approximately US$ 3.5 million in direct costs and an approximately equal amount in staff inputs in kind (excluding regional committees) – Table 2. The total direct costs of Codex are thus of the order of US$ 14 million per biennium (US$ 7 million per year), including hosting of regional committees and some other voluntary inputs by members. Of this total, FAO and WHO core regular budgets cover slightly over one third.

3. As can be seen in Table 2, the average cost per session to the host countries for the horizontal and general committees is greater than for commodity and product committees, although the picture in use of staff is less consistent. This is partly explained by the fact that sessions are more likely to be every year with the horizontal than the commodity committees. Costs also appear to have been rising steeply, although data on this is inconsistent.

4. The very great majority of host country resources go to costs of meetings. There is believed to be considerable potential to alter this balance with shorter meetings and a greater reliance on between-session work, especially small local meetings and use of consultants for drafting and consultation with members in the small local regional meetings and electronically. Nevertheless, with the increased holding of meetings in third countries and the continued increase in the complexity and volume of the standard setting task for horizontal and general committees, costs are expected to continue to rise. On the other hand, for the commodity and product committees they should reduce in line with the recommendations. Absorption of increased costs may be possible through shared hosting. There may also be possibilities to reduce the burden on individual countries through splitting the work of some of the horizontal committees or establishing task forces under them hosted elsewhere[78]. The use of subsidiary task forces would be less likely to increase coordination problems.

[78] Examples of possible splits or subsidiary task forces are 1) Nutrition and Foods for Special Dietary Uses; 2) Food Additives and Contaminants, which handles additives contaminants and mycotoxins; and the large volumes of diverse work under 3) Food Labelling and 4) General Principles.

Table 2 Costs of Hosting Codex Committees and Task Forces for the two year period 2000-2001 (excludes Regional Committees)		Direct Costs US$ (000)	Person Months	
			Professional Staff	Support Staff
Total cost of Committees and Task Forces to Host Governments 2001-2		**3,493.6**	**233**	**286**
Averages Per Committee				
Commodity and Product Committees				
Average cost per Committee 2000-2001		109.3	13.3	8.4
of which	*Between Session work and preparatory meetings*	*3.1*	*7.3*	*3.4*
	Meetings	*106.2*	*6.0*	*5.0*
	Documents	*24.6*		
	Interpretation	*33.8*		
	Other including facilities	*47.8*		
Average cost per meeting session 2000-2001		61.2	9.3	6.1
of which	*Between Session work and preparatory meetings*	*2.1*	*4.8*	*2.3*
	Meetings	*59.1*	*4.5*	*3.8*
	Documents	*13.7*		
	Interpretation	*18.8*		
	Other including facilities	*26.6*		
Horizontal and General Committees				
Average cost per Committee 2000-2001		245.2	10.5	19.3
of which	*Between Session work and preparatory meetings*	*8.6*	*6.2*	*6.2*
	Meetings	*236.6*	*4.3*	*13.1*
	Documents	*47.3*		
	Interpretation	*50.8*		
	Other including facilities	*138.5*		
Average cost per meeting session 2000-2001		134.9	5.6	10.2
of which	*Between Session work and preparatory meetings*	*4.8*	*3.3*	*3.2*
	Meetings	*130.1*	*2.3*	*7.0*
	Documents	*26.0*		
	Interpretation	*28.0*		
	Other including facilities	*76.1*		

5. Table 3 shows the percentage breakdown in the Codex core budget by object of expenditure and Table 4 by area of work. The two largest items of expenditure are staff (43% - rising to over 50% if consultants are included) and documents (23%). The evaluation found during the country visits that all those talked to felt that the Codex secretariat was over-stretched and very few saw possibilities for economy by redistribution of work. The evaluation team reviewed the distribution of tasks within the secretariat and found very limited scope for increasing staff efficiency. Improvements in communication technology could allow some reduction in the proportions of staff time spent on the information function, dealing with *ad hoc* requests, despatch of documents, etc. This currently absorbs 18% of professional and 25% of support staff's time. However, there will be an overall increase in the total resource requirements for the expanded information function envisaged in this evaluation (see below).

Table 3 Codex Distribution of Resource Use by Object of Expenditure	1996-97	1998-99	2000-01
Staff	46.0%	45.2%	43.2%
of which professional			*25.7%*
of which GS			*17.5%*
Consultants etc.	15.7%	14.0%	7.7%
Meetings (interpreters, etc.)	6.9%	2.5%	12.9%
Documents	19.5%	24.8%	23.4%
Travel of staff and participants	10.6%	7.8%	11.7%
Other operating expenses	1.3%	5.6%	1.2%
	100.0%	**100.0%**	**100.0%**

Table 4 Distribution of Codex Secretariat Regular Budget Expenditures by Area of Work	Percentage (%) of Expenditure			
	% of Non Staff	% of Prof. Staff	% of Support. Staff	% of Total
All Support to Committees and Standards Work	**88.7%**	**73%**	**73%**	**82%**
Commission and executive Committee	11.3%			
Regional committees & coordination	25.7%			
Policies and Procedures (CCGP)	2.1%			
Subtotal food standards work	49.6%			
General standards for food labelling an nutrition	*3.5%*			
Food safety standards	*15.4%*			
Standards for specific foodstuffs	*7.9%*			
Standards for food inspection, testing and certification	*3.9%*			
Final text dissemination	*19.1%*	*6%*	*8%*	*14%*
Information on Codex	**9.3%**	**18%**	**25%**	**14%**
Coordination and support to UN system (FAO-WHO), WTO and other standards bodies	**2.0%**	**9%**	**2%**	**4%**
	100.0%	100%	100%	100%

6. **Increase in resource requirements for Codex:** It is also believed that an even greater effort to produce documents which record decisions rather than background discussion would enable the present budget to absorb the immediate increase in documentation requirements implicit in the recommendations, including the establishment of a standards committee and a scientific committee. The possible reduction in work on standards for specific foodstuffs and reductions in Codex committee time and documentation due to the production of draft standards by scientist in the expert committees would also assist this. However, possibly excluding documentation, there would be an increase in most other cost areas to meet the increased work load and improved procedures.

7. The Codex secretariat currently has the following posts:

- Professionals (6) of which 1 D1, 1 P5, 2 P4s 1 P3 and 1 P2;
- General Service (7) of which 1 G5, 3 G4s and 3 G3s.

8. It is envisaged that there would be both an increase in the seniority of posts to take on the secretariat's more executive role and an expansion in the size of the secretariat to absorb the increasing workload and take up an enhanced communication function. The number of professional posts would thus be increased at the senior rather than the junior level. With changed methods of working and modern technology, it is believed that the current GS staff could support a larger number of professionals, including professionals supplied on secondment by governments. Table 5 summarizes possible incremental costs in the Codex secretariat and in the additional bodies and meetings of Codex. If all recommendations were implemented with immediate effect the incremental core funding for Codex would need to increase by some US$ 1.4 million per biennium.

Table 5 Indicative Estimates of Incremental Costs for Codex per biennium		US$ (000)
Grand Total		**1,390**
Increase Commission meetings to one per year - no absorption of additional document costs		**450**
Standards Committee (once per year – 4 days) – additional document costs absorbed		**146**
of which	*meeting costs*	*95*
	travel of developing country participants (20)	*51*
Executive Committee/Executive Board (twice per year – 2 days) incremental to ExCom		**22**
of which	*meeting costs – additional document costs absorbed*	*22*
	travel of developing country participants	*no incremental*
Secretariat		**794**
of which	*D2 Executive Secretary*	*292*
	P5 Senior Officer	*252*
	Resources to support improved communication function	*100*
	Additional consultancy to support standard development, legal review etc	*150*

Independent Risk Assessment and Expert Advice

9. Table 6 summarizes the direct costs of expert meetings for risk assessment, etc. in 2000-2001. It can be seen that WHO absorbs slightly more than 50 percent of costs (largely from extra-budgetary sources) but FAO makes a substantial contribution also to JEMRA (micro-biological risk assessment). As FAO also provides joint secretaries and provides for publication in the official languages, its overall contribution is in excess of 50%.

Table 6 Direct Costs of Expert Meetings in 2000-01 (US$ 000)	**FAO**		**WHO**		**Total Expenditure**
	Expenditure	% of Total	Expenditure	% of Total	
Microbiological Risk Assessment JEMRA (3 meetings)	180	38.5%	287	61.5%	467
Expert Consultations on biotechnology (3 meetings)	172	51.5%	162	48.5%	334
JECFA (4 meetings)	319	40.5%	469	59.5%	788
JMPR (2 meetings)	190	60.9%	122	39.1%	312
Total	**861**	**45.3%**	**1,040**	**54.7%**	**1,901**

10. **Increased resources for expert bodies and expert advice:** The importance of expanding and placing this work on much firmer financial footing has been discussed above. It is not possible to provide firm estimates of cost increases but Table 7 provides estimates of the orders of magnitude. Immediate incremental costs would be of the order of US$ 2.5 million per biennium. Although it is believed that some revenue could be raised from industry, this would not be immediate and would probably be absorbed entirely by providing a quicker and more adequate service.

Table 7 Indicative Estimates of Incremental Costs For Expert Advice per biennium (with no significant changes in working practice)		US$ (000)
Grand Total		**2,455**
Coordinator (P5) with secretary, travel and small consultancy budget Geneva		**490**
Scientific Committee meeting once per year (3 days)		**142**
of which	*meeting costs*	*96*
	travel of developing country members	*46*
	documents	*(absorbed)*
Microbiological Risk Assessment JEMRA (50% increase)		**310**
of which	*meetings including documents*	*235*
	consultants	*75*
JECFA*		**300**
of which	*payment of retainers to consultants*	*200*
	other	*100*
JMPR*		**712**
of which	*doubling work with no change in practice*	*312*
	payment of retainers to consultants	*300*
	other	*100*
Other Expert Advice (an initial doubling of direct and consultancy costs is assumed)		**500**

FAO and WHO Support for Food Standards Work

11. Table 8 summarizes the total costs of FAO support to food standards and directly related food safety work, which totals US$ 17-18 million per biennium of which some US$ 15 million comes from the assessed contributions of Member States (Regular Programme). The food safety related work under the technical programmes absorbs approximately 3.6% of the total technical programme regular budget. Approximately 4.7% of the work under the Organization's TCP from Regular Programme funds is food safety related. Codex accounts for 28% of the FAO Regular Programme expenditure on food safety related work; risk assessment and expert consultations account for a further 10% and various forms of capacity building the remaining 62%. Similar data is not available for WHO.

12. It is significant that FAO's contribution to capacity building from Regular Programme funds exceeds by a factor of 7 the contribution from voluntary contributions. The ratio for food safety related work of extra-budgetary technical cooperation funds to Regular Programme funds for the technical programme is 0.1:1 as compared with a ratio of 1:1.5 by which the extra-budgetary field programme exceeds the Regular Programme for the technical programmes of FAO as a whole.

Table 8 FAO Support for Food Standards and Related Work	**1996-97**	**1998-99**	**2000-01**
Approximate total (including extra-budgetary voluntary and IAEA)	18,345	18,407	17,652
Support from Regular Programme (assessed contributions of members) – US$ (000)	15,450	15,512	14,757
Percentage Breakdown by Purpose – Regular Programme			
Support to Codex			**28%**
Risk Assessment and expert consultation			**10%**
Of which: - JMPR			*3%*
- JECFA			*4%*
- JEMRA			*2%*
- Other			*2%*
Capacity building			**62%**
Of which: Support to other Codex related work including national Codex Committees			*9%*
Strengthening food control and consumer protection institutions (general)			*9%*
Joint work with IAEA			*7%*
Fish standards (HACCP)			*2%*
Food import and export (WTO - capacity development)			*5%*
FAO Technical Cooperation Programme (TCP)			*29%*

Capacity Development Activities from Other Sources of Funds for food standards and associated work (approximate figures only) US$ (000)	**US$ (000)**	
	Total 1996-2001	**Average per biennium**
Total	**8,686**	**2,895**
of which: Total extra-budgetary	3,767	1,256
▪ Funds in trust from member countries (general)	*767*	*256*
▪ Funds in trust from member countries (fish)	*3,000*	*1,000*
IAEA funds operated with support from the IAEA/FAO joint Division	4,919	1,639

Note: The higher overall expenditures in 1996-97 and 1998-99 are due to increased special support during that biennium on capacity development for WTO and other fluctuations in the demand-driven TCP programme

Annex 4: Summary of Analysis of Questionnaires

Introduction

The following tables are derived from the analysis of replies to three questionnaires:

(i) Member Countries questionnaire sent to all Codex members and member states of FAO and WHO not in membership of Codex;
(ii) Observers questionnaire sent to all Codex observers and to all WHO observers not in membership of Codex; and
(iii) Questionnaire to national organizations which was available on the Codex website for completion by interested national organizations and was sent to their members by some Codex observers.

- From Questionnaire to Member Countries:

Table 1: Definitions of categories (groupings used for analysis)
Table 2: Number of respondents and non-respondents by GNI per caput and size of economy
Table 3: Number of respondents and non-respondents to member countries questionnaire by Codex region
Table 4: Importance to countries of different types of Codex standard
Table 5: Overall assessment of Codex and level of satisfaction
Table 6: Percentage of adoption of Codex standards by countries
Table 7: Importance of the committees to countries
Table 8: Strengths and weaknesses of Codex - satisfaction with establishment of priorities
Table 9: Strengths and weaknesses of Codex - satisfaction with efficiency
Table 10: Strengths and weaknesses of Codex - satisfaction with accountability and governance
Table 11: Strengths and weaknesses of Codex - satisfaction with level of inclusiveness and transparency
Table 12: Extension of Codex mandate and functions
Table 13: Priorities to be given to the future work of Codex
Table 14: Possible changes in Codex organization and management
Table 15: Possible changes in standard setting
Table 16: Improving standard setting processes and the working of committees
Table 17: Priority to different types of capacity building work on food standards by FAO and WHO
Table 18: Countries' priorities among different subject matters of required assistance
Table 19: Countries' preferences among different types of requested assistance
Table 20: Most important sources of food-borne illness reported by countries

- From Questionnaire to Observers:

Table 21: Importance to observers of different types of Codex standard
Table 22: Strengths and weaknesses of Codex - satisfaction with establishment of priorities
Table 23: Strengths and weaknesses of Codex - satisfaction with efficiency
Table 24: Strengths and weaknesses of Codex - satisfaction with accountability and governance
Table 25: Strengths and weaknesses of Codex - satisfaction with the level of inclusiveness and transparency
Table 26: Overall assessment of expert advice and support to Codex
Table 27: Overall assessment of JECFA
Table 28: Overall assessment of JMPR
Table 29: Overall assessment of JEMRA

- From Questionnaire to National Organizations :

Table 30: Overall assessment of expert advice and support to Codex
Table 31: Overall assessment of Codex work

The data was analysed using SPSS 10.1. Descriptive statistics (frequencies and percentages) were generated by the following key categories: Region, Respondent, Income, Gross National Income (GNI), Food Export, Food Import, Food Trade, National Population, Urban Population. Definitions of categories are presented in

the Table A. Data from the member country questionnaires are presented in the tables below by level of income. More detailed tables will be being made available on the Codex website.

Chi-square tests (crosstabs) were run to test the hypothesis that the row and column variables are independent, without indicating strength or direction of the relationship. Pearson chi-square, likelihood-ratio chi-square, and linear-by-linear association chi-square were displayed. Significant relationships between response to the questionnaire and category were identified at the 0.05 level. Cluster analysis was employed to explore any significant groupings among the categories not self-evident from the data (none were found).

In addition all written comments were compiled and reviewed by members of the evaluation team.

Table 1: Definitions of Categories (groupings used for analysis)

Category	Low	Medium	High
Level of Income/GNI per caput World Bank	Low	Lower Middle and Upper Middle	High
Size of the population (Million)	0-4,9	5-80	80+
Size of the Economy GNI (US$ Million)	200-3,999	4,000 – 85,000	85,000 +
Level of Food Trade (Import + Export in % GNI)	0-39	40 –119	120+
Level of Food Import (Import in % of GNI)	0-19	20-79	80+
Level of Food Export (export in % of GNI)	0-29	30-99	100+

Analysis of the Responses by Member Countries

Table 2: Number of Respondents and Non-Respondents by GNI Per Caput and Size of Economy

	Number of Respondents			Number of Non Respondents			Total
Level of income – GNI per caput	Low	Medium	High	Low	Medium	High	
	35	47	21	30	40	13	186
Size of the Economy (GNI)*	US$ M. 200 – 3,999	US$ M. 4,000 – 85,000	US$ 85,000 +	US$ M. 200 – 3,999	US$ M. 4,000 – 85,000	US$ 85,000 +	
	27	45	31	40	23	8	174*

*for 12 countries of non respondents size of economy information not available

Table 3: Number of Respondents and Non Respondents to Member Countries Questionnaire by Codex Region

	Africa	Asia	Latin America& Caribbean	Near East & North Africa	Europe	North America	South West Pacific	Total
Number of Respondents	28	16	20	11	22	2	4	103
Number of non Respondents	17	6	13	8	27	-	12	83
Total	45	22	33	19	49	2	16	186

Question	Countries	% of Respondents' opinions						
		Low			Appropriate			High
Table 4 - Importance to countries of different types of Codex standard								
Commodity/ product standards	Low income		2.9		2.9	20.6	17.6	55.9
	Medium income		2.2	2.2	13.3	15.6	31.1	35.6
	High income		9.5	9.5	19.0	28.6	23.8	9.5
	Total		**4.0**	**3.0**	**11.0**	**20.0**	**25.0**	**37.0**
Residue limits	Low income					11.4	28.6	60.0
	Medium income		2.2	4.3	6.5	8.7	28.3	50.0
	High income				4.8	14.3	52.4	28.6
	Total		**1.0**	**2.0**	**3.9**	**10.8**	**33.3**	**49.0**
Additives	Low income		2.9		2.9	8.6	28.6	57.1
	Medium income			8.7	2.2	10.9	19.6	58.7
	High income	4.8			9.5	23.8	38.1	23.8
	Total	**1.0**	**1.0**	**3.9**	**3.9**	**12.7**	**26.5**	**51.0**
Hygiene	Low income		2.9		2.9	11.4	22.9	60.0
	Medium income		2.2	6.5	4.3	6.5	19.6	60.9
	High income				4.8	19.0	42.9	33.3
	Total		**2.0**	**2.9**	**3.9**	**10.8**	**25.5**	**54.9**
Labelling	Low income				5.9	20.6	26.5	47.1
	Medium income			2.2	6.5	17.4	32.6	41.3
	High income			5.0	5.0	25.0	35.0	30.0
	Total			**2.0**	**6.0**	**20.0**	**31.0**	**41.0**
Quality descriptors	Low income		3.0	6.1	15.2	12.1	15.2	48.5
	Medium income	4.4	2.2	13.3	6.7	31.1	17.8	24.4
	High income	9.5	19.0	14.3	19.0	14.3	19.0	4.8
	Total	**4.0**	**6.1**	**11.1**	**12.1**	**21.2**	**17.2**	**28.3**
Processes and procedures	Low income			6.1	15.2	15.2	21.2	42.4
	Medium income		2.2	8.9	15.6	15.6	22.2	35.6
	High income			5.0	50.0	20.0	20.0	5.0
	Total		**1.0**	**7.1**	**22.4**	**16.3**	**21.4**	**31.6**

Question	Countries	% of Respondents' opinions						
		Low		Appropriate				High
Table 5 - Overall assessment of Codex and level of satisfaction								
Transparency of Codex work	Low income			12.1	24.2	15.2	30.3	18.2
	Medium income		4.4	6.7	33.3	33.3	11.1	11.1
	High income			19.0	28.6	28.6	19.0	4.8
	Total		**2.0**	**11.1**	**29.3**	**26.3**	**19.2**	**12.1**
Inclusiveness of Codex ways of working	Low income		3.1	15.6	18.8	37.5	15.6	9.4
	Medium income		9.3	18.6	34.9	16.3	14.0	7.0
	High income		5.0	10.0	35.0	35.0	5.0	10.0
	Total		**6.3**	**15.8**	**29.5**	**27.4**	**12.6**	**8.4**
Application of science based principles on Codex work	Low income			3.0	15.2	21.2	24.2	36.4
	Medium income		2.3	9.1	11.4	38.6	25.0	13.6
	High income			20.0	30.0	30.0	20.0	
	Total		**1.0**	**9.3**	**16.5**	**30.9**	**23.7**	**18.6**
Application of risk analysis in Codex work	Low income		9.1	9.1		42.4	15.2	24.2
	Medium income		13.6	9.1	11.4	25.0	27.3	13.6
	High income		5.0	10.0	50.0	25.0		10.0
	Total		**10.3**	**9.3**	**15.5**	**30.9**	**17.5**	**16.5**
Account taken of factors other than health in standard setting	Low income		3.2	6.5	25.8	29.0	9.7	25.8
	Medium income	6.8	4.5	15.9	15.9	31.8	18.2	6.8
	High income		11.1	27.8	38.9	11.1	11.1	
	Total	**3.2**	**5.4**	**15.1**	**23.7**	**26.9**	**14.0**	**11.8**

Question	Countries	% of Respondents' opinions						
		Low		Appropriate				High
Efficiency of Codex	Low income		3.1	6.3	15.6	34.4	12.5	28.1
	Medium income		9.3	4.7	30.2	34.9	14.0	7.0
	High income		36.8	31.6	21.1	5.3	5.3	
	Total		**12.8**	**10.6**	**23.4**	**28.7**	**11.7**	**12.8**
Overall standard of management by FAO	Low income				10.0	40.0	26.7	23.3
	Medium income		5.1	2.6	20.5	41.0	17.9	12.8
	High income		5.0	10.0	30.0	30.0	25.0	
	Total		**3.4**	**3.4**	**19.1**	**38.2**	**22.5**	**13.5**
Overall standard of management by WHO	Low income	3.7	3.7	3.7	22.2	29.6	14.8	22.2
	Medium income		12.8	10.3	23.1	28.2	17.9	7.7
	High income		20.0	35.0	35.0	5.0	5.0	
	Total	**1.2**	**11.6**	**14.0**	**25.6**	**23.3**	**14.0**	**10.5**
Overall adequacy of financial resources	Low income	12.5	20.8	25.0	8.3	29.2	4.2	
	Medium income	10.3	23.1	17.9	17.9	23.1	2.6	5.1
	High income		40.0	20.0	30.0	10.0		
	Total	**8.4**	**26.5**	**20.5**	**18.1**	**21.7**	**2.4**	**2.4**

Table 6 - Percentage of adoption of Codex standards by countries		**0-20%**	**21-40%**	**41-60%**	**61-80%**	**81-100%**
Micro-biological	Low income	17.9	7.1	3.6	21.4	50.0
	Medium income	31.7	7.3	14.6	22.0	24.4
	High income	8.3	25.0	25.0	25.0	16.7
	Total	**23.5**	**9.9**	**12.3**	**22.2**	**32.1**
Pesticides	Low income	20.7		13.8	31.0	34.5
	Medium income	17.1	14.6	12.2	14.6	41.5
	High income	23.1		15.4	38.5	23.1
	Total	**19.3**	**7.2**	**13.3**	**24.1**	**36.1**
Veterinary drugs	Low income	38.5		7.7	19.2	34.6
	Medium income	21.1	10.5	18.4	15.8	34.2
	High income	15.4		23.1	30.8	30.8
	Total	**26.0**	**5.2**	**15.6**	**19.5**	**33.8**
Contaminants	Low income	23.3		13.3	13.3	50.0
	Medium income	19.0	7.1	9.5	21.4	42.9
	High income	15.4	7.7	15.4	38.5	23.1
	Total	**20.0**	**4.7**	**11.8**	**21.2**	**42.4**
Additives	Low income	20.7	6.9	3.4	24.1	44.8
	Medium income	14.3	4.8	14.3	26.2	40.5
	High income	8.3	8.3	25.0	41.7	16.7
	Total	**15.7**	**6.0**	**12.0**	**27.7**	**38.6**
Labeling	Low income	12.9	6.5	6.5	29.0	45.2
	Medium income	11.6	2.3	11.6	41.9	32.6
	High income	8.3	8.3	8.3	50.0	25.0
	Total	**11.6**	**4.7**	**9.3**	**38.4**	**36.0**
Commodity/product	Low income	10.3	17.2	13.8	37.9	20.7
	Medium income	9.5	11.9	26.2	31.0	21.4
	High income	16.7	8.3	33.3	16.7	25.0
	Total	**10.8**	**13.3**	**22.9**	**31.3**	**21.7**
Inspection and certification	Low income	14.8	22.2	7.4	25.9	29.6
	Medium income	19.0	4.8	26.2	31.0	19.0
	High income	16.7		25.0	41.7	16.7
	Total	**17.3**	**9.9**	**19.8**	**30.9**	**22.2**

Question	Countries	% of Respondents' opinions						
		Low		Appropriate				High
Methods of analysis and sampling	Low income			24.1	6.9	17.2	24.1	27.6
	Medium income			23.3	14.0	30.2	14.0	18.6
	High income			16.7	8.3	41.7	16.7	16.7
	Total			**22.6**	**10.7**	**27.4**	**17.9**	**21.4**
Table 7 - Importance of the (main) Committees to countries								
Codex Alimentarius Commission	Low income			5.0			30.0	65.0
	Medium income	3.0		3.0		12.1	21.2	60.6
	High income					5.3	21.1	73.7
	Total	**1.4**		**2.8**		**6.9**	**23.6**	**65.3**
Regional Coordinating Committee for respective region	Low income	4.3				13.0	13.0	69.6
	Medium income	2.9		8.8		8.8	20.6	58.8
	High income			19.0	19.0	23.8	14.3	23.8
	Total	**2.6**		**9.0**	**5.1**	**14.1**	**16.7**	**52.6**
Table 8 - Strengths and weaknesses of Codex - satisfaction with establishment of priorities								
Overall satisfaction with establishment of priorities	Low income		4.0		24.0	28.0	32.0	12.0
	Medium income		2.6	5.1	41.0	30.8	15.4	5.1
	High income			20.0	55.0	25.0		
	Total		**2.4**	**7.1**	**39.3**	**28.6**	**16.7**	**6.0**
Table 9 - Strengths and weaknesses of Codex - satisfaction with efficiency								
Overall satisfaction with efficiency	Low income			4.2	37.5	20.8	20.8	16.7
	Medium income	3.1	6.3	12.5	28.1	34.4	15.6	
	High income		10.5	42.1	42.1	5.3		
	Total	**1.3**	**5.3**	**17.3**	**34.7**	**22.7**	**13.3**	**5.3**
Table 10 - Strengths and weaknesses of Codex - satisfaction with accountability and governance								
Overall satisfaction with accountability and governance	Low income				22.7	50.0	18.2	9.1
	Medium income			17.6	29.4	35.3	17.6	
	High income		11.1	16.7	44.4	27.8		
	Total		**2.7**	**12.2**	**31.1**	**37.8**	**13.5**	**2.7**
Table 11 - Strengths and weaknesses of Codex - satisfaction with level of inclusiveness and transparency								
Overall satisfaction with inclusiveness	Low income		5.3	15.8	26.3	36.8	10.5	5.3
	Medium income			18.8	43.8	31.3	6.3	
	High income			10.5	57.9	31.6		
	Total		**1.4**	**15.7**	**42.9**	**32.9**	**5.7**	**1.4**
Thoroughness of discussion before decision-making	Low income		3.7	3.7	14.8	66.7	7.4	3.7
	Medium income		5.7	8.6	25.7	42.9	14.3	2.9
	High income			15.0	50.0	30.0	5.0	
	Total		**3.7**	**8.5**	**28.0**	**47.6**	**9.8**	**2.4**
Capacity for broad-based international consensus	Low income		3.7	22.2	11.1	55.6	3.7	3.7
	Medium income	2.9	14.3	11.4	34.3	31.4	2.9	2.9
	High income		5.0	20.0	60.0	10.0	5.0	
	Total	**1.2**	**8.5**	**17.1**	**32.9**	**34.1**	**3.7**	**2.4**
Ease with which information is available to all	Low income		3.7	11.1	33.3	51.9		
	Medium income		5.6	11.1	33.3	47.2	2.8	
	High income		5.0	20.0	20.0	50.0	5.0	
	Total		**4.8**	**13.3**	**30.1**	**49.4**	**2.4**	
Transparency of decision-making	Low income		12.0	4.0	28.0	52.0	4.0	
	Medium income		5.3	13.2	28.9	47.4	5.3	
	High income		5.0	20.0	30.0	45.0		
	Total		**7.2**	**12.0**	**28.9**	**48.2**	**3.6**	

Question	Countries	% of Respondents' opinions						
		Low			Appropriate			High
Allowing all to have a voice in decision-making	Low income		12.0	8.0	24.0	48.0	4.0	4.0
	Medium income		11.4	8.6	22.9	48.6	8.6	
	High income			15.0	40.0	40.0	5.0	
	Total		**8.8**	**10.0**	**27.5**	**46.3**	**6.3**	**1.3**
Balance in involvement and influence of major trading nations	Low income	4.5		4.5	9.1	18.2	31.8	31.8
	Medium income		2.9		11.4	37.1	17.1	31.4
	High income				40.0	20.0	30.0	10.0
	Total	**1.3**	**1.3**	**1.3**	**18.2**	**27.3**	**24.7**	**26.0**
Balance in involvement and influence of countries with limited trade	Low income	10.5	5.3	31.6	36.8	15.8		
	Medium income	3.0	30.3	21.2	30.3	15.2		
	High income		27.8	27.8	27.8	5.6	11.1	
	Total	**4.3**	**22.9**	**25.7**	**31.4**	**12.9**	**2.9**	
Balance in involvement and influence of poorer countries	Low income	17.4	43.5	30.4	8.7			
	Medium income	17.6	38.2	26.5	8.8	5.9	2.9	
	High income	5.3	52.6	31.6	5.3		5.3	
	Total	**14.5**	**43.4**	**28.9**	**7.9**	**2.6**	**2.6**	
Balance and involvement and influence of industry	Low income		4.3	8.7	30.4	34.8	8.7	13.0
	Medium income	5.6		16.7	13.9	41.7	16.7	5.6
	High income				45.0	35.0	20.0	
	Total	**2.5**	**1.3**	**10.1**	**26.6**	**38.0**	**15.2**	**6.3**
Involvement and influence of consumers	Low income		3.8	7.7	26.9	42.3	15.4	3.8
	Medium income	2.8	8.3	22.2	22.2	36.1	2.8	5.6
	High income		25.0	25.0	40.0	5.0	5.0	
	Total	**1.2**	**11.0**	**18.3**	**28.0**	**30.5**	**7.3**	**3.7**
Balance in involvement and influence of agriculture and fishery producers	Low income		12.0	4.0	24.0	40.0	16.0	4.0
	Medium income	2.9	14.3	22.9	22.9	34.3	2.9	
	High income		20.0	25.0	35.0	15.0	5.0	
	Total	**1.3**	**15.0**	**17.5**	**26.3**	**31.3**	**7.5**	**1.3**

		YES	NO
Table 12 – Extension of Codex mandate and functions			
National capacity building for food standards	Low income	75.0	25.0
	Medium income	70.3	29.7
	High income	10.0	90.0
	Total	**57.6**	**42.4**
Management of independent expert advice. including expert committees	Low income	55.0	45.0
	Medium income	69.7	30.3
	High income	21.1	78.9
	Total	**52.8**	**47.2**
Communication to civil society. etc. on regulatory matters for food	Low income	84.6	15.4
	Medium income	74.4	25.6
	High income	31.6	68.4
	Total	**67.9**	**32.1**
Procedures for handling notification on major food-borne disease outbreaks	Low income	69.2	30.8
	Medium income	73.7	26.3
	High income	27.8	72.2
	Total	**62.2**	**37.8**
Environmental issues in food. which are not fully handled by others	Low income	87.5	12.5
	Medium income	70.7	29.3
	High income	42.1	57.9
	Total	**69.0**	**31.0**

Question	Income group	YES	NO
Health related aspects of food packaging	Low income	92.3	7.7
	Medium income	97.6	2.2
	High income	85.0	15.0
	Total	**93.2**	**6.8**
Procedures for handling notification on food bio-terrorism?	Low income	83.3	16.7
	Medium income	55.6	44.4
	High income	16.7	83.3
	Total	**55.1**	**44.9**
Arrangements between members for technical assistance	Low income	88.9	11.1
	Medium income	83.3	16.7
	High income	22.2	77.8
	Total	**72.4**	**27.6**
Definition of a disputes mechanism on detailed technical issues on trade	Low income	65.4	34.6
	Medium income	53.8	46.2
	High income	15.0	85.0
	Total	**48.2**	**51.8**
Notification and up-dating of a database for new procedures etc. put in place by others	Low income	83.3	16.7
	Medium income	76.9	23.1
	High income	31.6	68.4
	Total	**68.3**	**31.7**

		Low			Appropriate			High
Table 13 - Priorities to be given to the future work of Codex								
Strengthening the science base for health risk analysis in standard setting	Low income			3.1	6.3	9.4	21.9	59.4
	Medium income				2.3	9.1	43.2	45.5
	High income				14.3	19.0	33.3	33.3
	Total			**1.0**	**6.2**	**11.3**	**34.0**	**47.4**
Facilitating trade	Low income		6.7	3.3	6.7	16.7	23.3	43.3
	Medium income		4.5	6.8	6.8	22.7	40.9	18.2
	High income		4.8	23.8	23.8	14.3	23.8	9.5
	Total		**5.3**	**9.5**	**10.5**	**18.9**	**31.6**	**24.2**
Supporting fair trade practices	Low income				13.3	20.0	30.0	36.7
	Medium income	2.3	4.5	4.5	9.1	27.3	34.1	18.2
	High income		4.8		23.8	47.6	14.3	9.5
	Total	**1.1**	**3.2**	**2.1**	**13.7**	**29.5**	**28.4**	**22.1**
Nutrition information	Low income		6.7		10.0	20.0	36.7	26.7
	Medium income		2.3	2.3	4.5	18.2	43.2	29.5
	High income		23.8	4.8	23.8	23.8	14.3	9.5
	Total		**8.4**	**2.1**	**10.5**	**20.0**	**34.7**	**24.2**
Consumer information on risk	Low income				10.7	14.3	28.6	46.4
	Medium income		4.5	2.3	4.5	11.4	40.9	36.4
	High income		25.0	10.0	15.0	10.0	20.0	20.0
	Total		**7.6**	**3.3**	**8.7**	**12.0**	**32.6**	**35.9**
Ensuring existing standards are fully up to date and continuously updated	Low income			3.3		10.0	40.0	46.7
	Medium income			2.3		9.1	50.0	38.6
	High income				9.5	19.0	52.4	19.0
	Total			**2.1**	**2.1**	**11.6**	**47.4**	**36.8**
Assuring full consistencies between existing standards	Low income					16.1	35.5	45.2
	Medium income			3.2	2.3	16.3	34.9	44.2
	High income			2.3	14.3	4.8	52.4	28.6
	Total			**2.1**	**4.2**	**13.7**	**38.9**	**41.1**

Question	Countries	% of Respondents' opinions						
		Low			Appropriate			High
Rapidly responding to needs for new standards in response to new challenges	Low income			3.1	3.1	3.1	46.9	43.8
	Medium income			2.2		13.3	44.4	40.0
	High income				4.8	9.5	71.4	14.3
	Total			**2.0**	**2.0**	**9.2**	**51.0**	**35.7**
Extending coverage of commodity/product standards to other product groups	Low income			9.4	9.4	15.6	37.5	28.1
	Medium income		2.4	2.4	11.9	26.2	42.9	14.3
	High income	9.5	19.0	19.0	33.3	19.0		
	Total	**2.1**	**5.3**	**8.4**	**15.8**	**21.1**	**31.6**	**15.8**
Standards for total quality management throughout the food chain	Low income		9.7	6.5	6.5	3.2	41.9	32.3
	Medium income	6.8	6.8	4.5	6.8	11.4	36.4	27.3
	High income	10.5	15.8	10.5	21.1	15.8	21.1	5.3
	Total	**5.3**	**9.6**	**6.4**	**9.6**	**9.6**	**35.1**	**24.5**
Overall priority of horizontal standards	Low income			10.0		15.0	25.0	50.0
	Medium income					20.7	48.3	31.0
	High income				11.1	27.8	33.3	27.8
	Total			**3.0**	**3.0**	**20.9**	**37.3**	**35.8**
Overall priority of labeling standards	Low income			7.4	3.7	14.8	33.3	40.7
	Medium income				2.8	27.8	36.1	33.3
	High income				15.0	20.0	40.0	25.0
	Total			**2.4**	**6.0**	**21.7**	**36.1**	**33.7**
Product descriptors (standards for product description to facilitate trade)	Low income	3.4	13.8	6.9	3.4	27.6	10.3	34.5
	Medium income	4.7	7.0	16.3	18.6	23.3	18.6	11.6
	High income	16.7	33.3	11.1	27.8		5.6	5.6
	Total	**6.7**	**14.4**	**12.2**	**15.6**	**20.0**	**13.3**	**17.8**
Table 14 - Possible changes in Codex organization and management								
Codex be more closely integrated into FAO/WHO or have more autonomy	Low income	4.0		4.0	32.0	48.0		12.0
	Medium income		8.1	5.4	21.6	43.2	16.2	5.4
	High income			5.0	10.0	55.0	25.0	5.0
	Total	**1.2**	**3.7**	**4.9**	**22.0**	**47.6**	**13.4**	**7.3**
					YES		**NO**	
CAC have final decision on work programme within agreed budget	Low income				84.2		15.8	
	Medium income				93.9		6.1	
	High income				89.5		10.5	
	Total				**90.1**		**9.9**	
		Low			**Appropriate**			**High**
Greater or lesser role for Codex Secretariat in priority setting and plan of work	Low income				34.6	30.8	19.2	15.4
	Medium income	3.0	3.0	3.0	15.2	39.4	24.2	12.1
	High income		10.0		35.0	35.0	20.0	
	Total	**1.3**	**3.8**	**1.3**	**26.6**	**35.4**	**21.5**	**10.1**
Greater or lesser role for FAO in priority setting and plan of work	Low income			16.0	20.0	44.0	4.0	16.0
	Medium income		3.0	18.2	24.2	30.3	21.2	3.0
	High income		10.5	47.4	26.3	5.3	10.5	
	Total		**3.9**	**24.7**	**23.4**	**28.6**	**13.0**	**6.5**
Greater or lesser role for WHO in priority setting and plan of work	Low income		3.8	11.5	19.2	38.5	7.7	19.2
	Medium income		6.1	18.2	24.2	27.3	15.2	9.1
	High income		10.5	21.1	5.3	42.1	21.1	
	Total		**6.4**	**16.7**	**17.9**	**34.6**	**14.1**	**10.3**
Greater or lesser role for Codex Commission in priority setting etc.	Low income				8.3	25.0	33.3	33.3
	Medium income			3.0	12.1	36.4	33.3	15.2
	High income				15.0	25.0	50.0	10.0
	Total			**1.3**	**11.7**	**29.9**	**37.7**	**19.5**
Greater or lesser role for individual Codex Commissions in priority setting etc.	Low income				19.2	42.3	26.9	11.5
	Medium income			2.9	8.8	32.4	44.1	11.8
	High income				40.0	40.0	15.0	5.0
	Total			**1.3**	**20.0**	**37.5**	**31.3**	**10.0**

Question	Income group							
					YES		NO	
More power to Executive Committee to monitor and manage Codex work and Secretariat	Low income				65.2		34.8	
	Medium income				74.2		25.8	
	High income				15.8		84.2	
	Total				**56.2**		**43.8**	
Election of an executive chairman	Low income				68.4		31.6	
	Medium income				56.7		43.3	
	High income				17.6		82.4	
	Total				**50.0**		**50.0**	
Eliminate Executive Committee and replace by smaller elected board meeting frequently	Low income				41.2		58.8	
	Medium income				46.2		53.8	
	High income				55.6		44.4	
	Total				**47.5**		**52.5**	
		Low			**Appropriate**			**High**
INGOs more or less involved in Codex governance and decision-making	Low income	4.2	4.2	16.7	25.0	25.0	20.8	4.2
	Medium income		5.1	20.5	23.1	17.9	30.8	2.6
	High income		5.3	10.5	68.4	10.5	5.3	
	Total	**1.2**	**4.9**	**17.1**	**34.1**	**18.3**	**22.0**	**2.4**
Table 15 - Possible changes in standard setting								
Greater legal recognition for Codex?	Low income	3.7		3.7	7.4	44.4	22.2	18.5
	Medium income		2.6	2.6	25.6	35.9	20.5	12.8
	High income		5.0	5.0	70.0	15.0		5.0
	Total	**1.2**	**2.3**	**3.5**	**30.2**	**33.7**	**16.3**	**12.8**
					YES		**NO**	
Should Codex cease to be a reference for WTO SPS?	Low income				9.4		90.6	
	Medium income				12.2		87.8	
	High income				5.0		95.0	
	Total				**9.7**		**90.3**	
Table 16 - Improving Standard Setting Processes and the working of committees: should								
All work be time bound?	Low income				77.8		22.2	
	Medium income				83.3		16.7	
	High income				60.0		40.0	
	Total				**76.4**		**23.6**	
There be a standards committee with power to approve standards on an interim basis?	Low income				52.0		48.0	
	Medium income				58.5		41.5	
	High income				21.1		78.9	
	Total				**48.2**		**51.8**	
There be annual meetings of the Commission?	Low income				66.7		33.3	
	Medium income				78.9		21.1	
	High income				100.0			
	Total				**80.2**		**19.8**	
Be standards in final form presented to the Commission at Step 5?	Low income				69.6		30.4	
	Medium income				60.6		39.4	
	High income				42.1		57.9	
	Total				**58.7**		**41.3**	
There be a greater flexibility in the process for arriving at a standard?	Low income				95.5		4.5	
	Medium income				84.6		15.4	
	High income				68.8		31.3	
	Total				**84.4**		**15.6**	
More use be made of experts to consult widely with members in developing standards?	Low income				88.9		11.1	
	Medium income				95.1		4.9	
	High income				78.9		21.1	
	Total				**89.7**		**10.3**	

Question	Income group	YES	NO
There be more resort to vote/show of hands during discussion to move work on	Low income	33.3	66.7
	Medium income	48.6	51.4
	High income	25.0	75.0
	Total	**38.2**	**61.8**
Criteria be developed to improve the selection of chairpersons?	Low income	85.7	14.3
	Medium income	86.1	13.9
	High income	65.0	35.0
	Total	**80.5**	**19.5**
Improved guidance/training for chairpersons be established?	Low income	85.7	14.3
	Medium income	86.1	13.9
	High income	80.0	20.0
	Total	**84.4**	**15.6**
More effective Secretariat support to chairpersons in running meetings?	Low income	100.0	
	Medium income	77.8	22.2
	High income	61.1	38.9
	Total	**79.7**	**20.3**
Could NG stakeholders undertake preliminary standard development work?	Low income	84.6	15.4
	Medium income	78.0	22.0
	High income	47.4	52.6
	Total	**73.3**	**26.7**

		Low		**Appropriate**				**High**
Overall usefulness to Codex	Low income			4.2	12.5	33.3	25.0	25.0
	Medium income			3.0	12.1	51.5	24.2	9.1
	High income				5.0	25.0	50.0	20.0
	Total			**2.6**	**10.4**	**39.0**	**31.2**	**16.9**
Overall efficiency	Low income			8.3	25.0	33.3	8.3	25.0
	Medium income			6.3	25.0	50.0	12.5	6.3
	High income			25.0	35.0	25.0	10.0	5.0
	Total			**11.8**	**27.6**	**38.2**	**10.5**	**11.8**
Overall standard of management by FAO	Low income			4.8	14.3	57.1	14.3	9.5
	Medium income		3.3	3.3	23.3	46.7	16.7	6.7
	High income			5.3	63.2	26.3	5.3	
	Total		**1.4**	**4.3**	**31.4**	**44.3**	**12.9**	**5.7**
Overall standard of management by WHO	Low income		9.5	14.3	14.3	47.6	9.5	4.8
	Medium income		3.4	6.9	27.6	44.8	10.3	6.9
	High income			10.5	47.4	42.1		
	Total		**4.3**	**10.1**	**29.0**	**44.9**	**7.2**	**4.3**
Overall adequacy of financial resources	Low income		12.5	31.3	25.0	25.0	6.3	
	Medium income	4.0	16.0	20.0	20.0	32.0		8.0
	High income	5.9	35.3	41.2	17.6			
	Total	**3.4**	**20.7**	**29.3**	**20.7**	**20.7**	**1.7**	**3.4**
Influence on priorities by Codex members	Low income		5.3	15.8	47.4	31.6		
	Medium income		9.7	32.3	29.0	22.6	3.2	3.2
	High income		10.0	15.0	60.0	15.0		
	Total		**8.6**	**22.9**	**42.9**	**22.9**	**1.4**	**1.4**
Influence on priorities by FAO	Low income	5.3		10.5	47.4	36.8		
	Medium income		3.2	16.1	41.9	29.0	6.5	3.2
	High income			16.7	61.1	11.1	11.1	
	Total	**1.5**	**1.5**	**14.7**	**48.5**	**26.5**	**5.9**	**1.5**

Question	Countries	% of Respondents' opinions						
		Low			Appropriate			High
Influence on priorities by WHO	Low income	10.5	5.3	15.8	42.1	26.3		
	Medium income		6.5	19.4	38.7	25.8	6.5	3.2
	High income		5.6	27.8	61.1		5.6	
	Total	**2.9**	**5.9**	**20.6**	**45.6**	**19.1**	**4.4**	**1.5**
Table 17 - Priority to different types of capacity building work on food standard by FAO and WHO								
Conduct of meetings for exchange of experience and learning	Low income			6.1	12.1	27.3	27.3	27.3
	Medium income		4.8	9.5	7.1	11.9	35.7	31.0
	High income			5.9	17.6	29.4	29.4	17.6
	Total		**2.2**	**7.6**	**10.9**	**20.7**	**31.5**	**27.2**
Provision of handbooks. teaching materials. etc.	Low income				8.6	17.1	37.1	37.1
	Medium income			4.8	16.7	14.3	33.3	31.0
	High income				22.2	16.7	44.4	16.7
	Total			**2.1**	**14.7**	**15.8**	**36.8**	**30.5**
Provision of training	Low income		2.9		5.9	17.6	20.6	52.9
	Medium income		2.4	4.8	11.9	14.3	26.2	40.5
	High income		5.6		22.2	16.7	38.9	16.7
	Total		**3.2**	**2.1**	**11.7**	**16.0**	**26.6**	**40.4**
Provision of direct technical assistance to countries	Low income		2.9	2.9	2.9	11.8	20.6	58.8
	Medium income			7.1	9.5	14.3	33.3	35.7
	High income		5.6	5.6	16.7	11.1	38.9	22.2
	Total		**2.1**	**5.3**	**8.5**	**12.8**	**29.8**	**41.5**
Assistance to attend Codex meetings	Low income	2.9		5.9	2.9	11.8	20.6	55.9
	Medium income	2.4	9.5	4.8	4.8	11.9	16.7	50.0
	High income	5.6			11.1	16.7	50.0	16.7
	Total	**3.2**	**4.3**	**4.3**	**5.3**	**12.8**	**24.5**	**45.7**
Table 18 - Countries' priorities among different subject matters of required assistance								
Development of legislation	Low income	6.3	9.4		18.8	18.8	3.1	43.8
	Medium income	4.8	11.9	2.4	11.9	14.3	21.4	33.3
Risk analysis. including data	Low income				3.3	10.0	20.0	66.7
	Medium income				4.9	9.8	26.8	58.5
Development of food safety inspection. surveillance and monitoring	Low income		3.0	3.0		9.1	15.2	69.7
	Medium income	2.4		2.4	2.4	14.3	26.2	52.4
Development of communication and information dissemination to the public	Low income				3.2	19.4	22.6	54.8
	Medium income	2.4		2.4	7.1	23.8	23.8	40.5
Table 19 - Countries' preferences among different types of requested assistance								
Technical cooperation projects	Low income		2.9		2.9	8.8	14.7	70.6
	Medium income		2.6		12.8	7.7	30.8	46.2
Ad-hoc consultancy advice	Low income	3.4		6.9	31.0	13.8	31.0	13.8
	Medium income		10.3	7.7	10.3	12.8	35.9	23.1
Fellowships	Low income		3.1		12.5	9.4	25.0	50.0
	Medium income		2.4	4.9	4.9	12.2	36.6	39.0
Provision of equipment	Low income				9.1	6.1	15.2	69.7
	Medium income			7.3		17.1	36.6	39.0
Conduct of meetings and workshops	Low income		6.5		6.5	35.5	16.1	35.5
	Medium income			2.4	9.8	17.1	39.0	31.7

Table 20 - Most important sources of food-borne illness reported by countries. by the origin of the problem (proportion of countries)		
Contamination/ infection at harvest	Low income	36.9
	Medium income	17.6
	High income	31.3
	Total	**26**
Contamination/ infection introduced during marketing	Low income	45
	Medium income	42.8
	High income	12.5
	Total	**36.7**
Contamination/ infection during processing	Low income	50
	Medium income	34.3
	High income	31.3
	Total	**38**
Contamination/ infection in the household (food storage and preparation)	Low income	44.4
	Medium income	70.6
	High income	37.6
	Total	**55.9**

Summary Analysis of Observer's Responses

Question	**Countries**	**% of Respondents' opinions**						
		Low			**Appropriate**			**High**
Table 21 - Importance to observers of different types of Codex standard								
Commodity/ product standards	Agriculture and industry organisations	4.2	4.2	8.3	4.2	8.3	12.5	58.3
	Codex professional association					40.0	20.0	40.0
	Consumers International			100.0				
	Inter-governmental organisation		33.3					66.7
	WHO professional organisation			33.3		33.3		33.3
	Total	**2.8**	**5.6**	**11.1**	**2.8**	**13.9**	**11.1**	**52.8**
Residue limits	Agriculture and industry organisations					8.3	12.5	79.2
	Codex professional association						20.0	80.0
	Consumers International						100.0	
	Inter-governmental organisation						33.3	33.3
	WHO professional organisation					33.3		33.3
	Total					**8.3**	**16.7**	**69.4**
Additives	Agriculture and industry organisations					4.0	8.0	88.0
	Codex professional association				20.0		20.0	60.0
	Consumers International						100.0	
	Inter-governmental organisation			33.3			33.3	33.3
	WHO professional organisation	33.3					33.3	33.3
	Total	**2.7**		**2.7**	**2.7**	**2.7**	**16.2**	**73.0**
Hygiene	Agriculture and industry organisations		4.2		8.3	4.2	8.3	75.0
	Codex professional association						20.0	80.0
	Consumers International							100.0
	Inter-governmental organisation					25.0	25.0	50.0
	WHO professional organisation	33.3						66.7
	Total	**2.7**	**2.7**		**5.4**	**5.4**	**10.8**	**73.0**

Question	Countries	% of Respondents' opinions						
		Low		Appropriate				High
Labelling	Agriculture and industry organisations			4.0	8.0	4.0	4.0	80.0
	Codex professional association			20.0			40.0	40.0
	Consumers International							100.0
	Inter-governmental organisation					25.0	25.0	50.0
	WHO professional organisation					50.0		50.0
	Total			**5.4**	**5.4**	**8.1**	**10.8**	**70.3**
Quality descriptors	Agriculture and industry organisations	8.0	60.0	8.0	8.0	4.0	4.0	8.0
	Codex professional association			20.0	20.0	40.0		20.0
	Consumers International						100.0	
	Inter-governmental organisation		50.0					50.0
	WHO professional organisation			33.3		33.3	33.3	
	Total	**5.6**	**44.4**	**11.1**	**8.3**	**11.1**	**8.3**	**11.1**
Processes and procedures	Agriculture and industry organisations		4.0	68.0	4.0	8.0	12.0	4.0
	Codex professional association			40.0		20.0		40.0
	Consumers International							100.0
	Inter-governmental organisation					25.0	25.0	50.0
	WHO professional organisation		33.3		33.3			33.3
	Total		**5.3**	**50.0**	**5.3**	**10.5**	**10.5**	**18.4**
Table 22 - Strengths and weaknesses of Codex - satisfaction with establishment of priorities								
Overall satisfaction	Agriculture and industry organisations		4.3	4.3	82.6	8.7		
	Codex professional association				25		75	
	Consumers International			100.0				
	Inter-governmental organisation			20.0	40.0	40.0		
	WHO professional organisation		50.0			50.0		
	Total		**5.7**	**8.6**	**62.9**	**14.3**	**8.6**	
Table 23 - Strengths and weaknesses of Codex - satisfaction with efficiency								
Overall satisfaction	Agriculture and industry organisations		17.4	4.3	69.6	8.7		
	Codex professional association			50.0	25.0	25.0		
	Consumers International		100.0					
	Inter-governmental organisation				75.0	25.0		
	WHO professional organisation		100.0					
	Total		**18.2**	**9.1**	**60.6**	**12.1**		
Table 24 - Strengths and weaknesses of Codex - satisfaction with accountability and governance								
Overall satisfaction	Agriculture and industry organisations			4.2	12.5	83.3		
	Codex professional association			33.3		33.3	33.3	
	Consumers International		100.0					
	Inter-governmental organisation			66.7	33.3			
	WHO professional organisation			100.0				
	Total		**3.1**	**15.6**	**12.5**	**65.5**	**3.1**	
Table 25 - Strengths and weaknesses of Codex - satisfaction with the level of inclusiveness and transparency								
Overall satisfaction	Agriculture and industry organisations				16.7	83.3		
	Codex professional association				75.0	25.0		
	Consumers International		100.0					
	Inter-governmental organisation			25.0	25.0	50.0		
	WHO professional organisation		100.0					
	Total		**5.9**	**2.9**	**23.5**	**67.6**		

Table 26 - Overall assessment of Expert Advice and Support to Codex								
Overall usefulness to Codex	Agriculture and industry organisations					8.0	88.0	4.0
	Codex professional association					40.0	40.0	20.0
	Consumers International						100.0	
	Inter-governmental organisation			25.0		25.0	50.0	
	WHO professional organisation			50.0			50.0	
	Total			**5.4**		**13.5**	**75.7**	**5.4**

Question	Countries	% of Respondents' opinions						
		Low			Appropriate			High
Table 27 - Overall assessment of JECFA								
Overall performance	Agriculture and industry organisations				4.5	4.5	90.9	
	Codex professional association					100.0		
	Consumers International							
	Inter-governmental organisation							
	WHO professional organisation							
	Total				**3.8**	**19.2**	**76.9**	
Table 28 - Overall assessment of JMPR								
Overall performance (85.4 of non-response)	Agriculture and industry organisations				50.0		50.0	
	Codex professional association				75.0			25.0
	Consumers International							
	Inter-governmental organisation							
	WHO professional organisation							
	Total				**66.7**		**16.7**	**16.7**
Table 29 - Overall assessment of JEMRA								
Overall performance	Agriculture and industry organisations							
	Codex professional association				66.7		33.3	
	Consumers International							
	Inter-governmental organisation				100.0			
	WHO professional organisation							
	Total				**75.0**		**25.0**	

Summary of Responses of national organizations

Question	Type of National Organisation	% of Respondents' opinions						
		Low			Appropriate			High
Table 30 - Overall assessment of Expert Advice and Support to Codex								
Overall usefulness of Codex	Consumers		60.0			40.0		
	Industry			7.7	7.7		61.5	23.1
	Other						100.0	
	Total		**15.8**	**5.3**	**5.3**	**10.5**	**47.4**	**15.8**
Overall efficiency	Consumers		60.0		40.0			
	Industry			30.8	15.4	30.8	7.7	
	Other			100.0				
	Total		**15.8**	**26.3**	**10.5**	**21.1**	**5.3**	
Table 31 - Overall assessment of Codex work								
Transparency of Codex work	Consumers	28.6	28.6					
	Industry		7.7	7.7	53.8	28.6		14.3
	Other			50.0	50.0	7.7	15.4	7.7
	Total	**9.1**	**13.6**	**9.1**	**36.4**	**13.6**	**9.1**	**9.1**
Inclusiveness of Codex ways of work	Consumers	28.6	28.6			28.6		14.3
	Industry		15.4	23.1	7.7	46.2	7.7	
	Other			50.0		50.0		
	Total	**9.1**	**18.2**	**18.2**	**4.5**	**40.9**	**4.5**	**4.5**

Question	Type of National Organisation	% of Respondents' opinions						
		Low				Appropriate		High
Application of science-based principles in Codex	Consumers	28.6	28.6			42.9		
	Industry		7.7	38.5	7.7	15.4	23.1	7.7
	Other			50.0		50.0		
	Total	**9.1**	**13.6**	**27.3**	**4.5**	**27.3**	**13.6**	**4.5**
Application of risk analysis in Codex work	Consumers	40.0		20.0				
	Industry		12.5	12.5	12.5	25.0	25.0	12.5
	Other					100.0		
	Total	**14.3**	**7.1**	**14.3**	**7.1**	**35.7**	**14.3**	**7.1**
Account taken of factors other than health in standards	Consumers	33.3	33.3			33.3		
	Industry	12.5	12.5			62.5	12.5	
	Other				100.0			
	Total	**20.0**	**20.0**		**6.7**	**46.7**	**6.7**	
Efficiency of Codex	Consumers		20.0	20.0		60.0		
	Industry		15.4	38.5	30.8	7.7	7.7	
	Other			100.0				
	Total		**15.0**	**40.0**	**20.0**	**20.0**	**5.0**	

Annex 5: Countries and International Organizations Visited

The European Commission and 24 countries were visited, as follows: Argentina, Australia, Bangladesh, Canada, Costa Rica, Côte d'Ivoire, Egypt, Fiji, France, Jordan, Hungary, India, Indonesia, Japan, Mexico, Mozambique, Netherlands, Philippines, Senegal, South Africa, Switzerland, Tanzania, Thailand and USA.

Criteria employed in selecting the sample of countries to visit included balance in geographical regions; income level; size of population, size of the economy and importance of food exports. It would also have been desirable to include food-borne illness status but there was no reliable data on this aspect. Other criteria employed included: activity and level of interest in Codex, including hosting of Codex committees; receipt of and potential to provide technical assistance/capacity building; logistics including coincidence with meetings which would enable the team to consult with a wider group; and the presence of other organizations and FAO and WHO Regional Offices (which also needed to be visited).

Summary of Characteristics of the Sample Selected for Country Visits

Country and Geographical Region	**Grouping by Level of Income** (GNI per Capita World Bank Method[79])	**Size of the Population (million)[80]**	**Size of the Economy (GNI) (US$ million) [81]**	**Importance of Food Exports (Level of export % of GNI)[82]**
Africa				
Côte d'Ivoire	Low	Medium - 16	Medium - 9,591	High – 15.4 %
Mozambique	Low	Medium - 18	Low - 3,746	Medium – 4.0 %
Senegal	Low	Medium - 10	Medium - 4,714	Medium – 8.0 %
South Africa	Medium	Medium - 43	High - 129,171	Low – 1.6 %
Tanzania	Low	Medium - 34	Medium - 9,013	Low – 2.1 %
Americas				
Argentina	Medium	Medium - 37	High - 276,228	Medium – 3 %
Canada	High	Medium - 31	High - 649,829	Low – 2 %
Costa Rica	Medium	Low - 4	Medium - 14,510	Medium – 9 %
Mexico	Medium	High - 98	High - 497,025	Low - 1.4 %
USA	High	High - 282	High - 9,601,505	Low - 0.5 %
Other significant aspects: Argentina: Site of INPPAZ – Pan American Centre for Food Safety; Canada Host to Codex Committee on Food Labelling; Costa Rica: Site of IIACA; Mexico: Host to Codex Committee on Fresh Fruits and Vegetables; USA: Host to Codex Committees on Food Hygiene, Processed Fruit and Vegetables and Residues of Veterinary Drugs in Foods and site of PAHO.				
Asia and Pacific				
Australia	High	Medium - 19	High - 388,252	Medium - 3.1 %
Bangladesh	Low	High - 131	Medium - 47,864	Low - 0.8 %
Fiji	Medium	Low - 1	Low – 1,480	High – 11.7%
India	Low	High – 1,016	High - 454,800	Low - 0.9 %
Indonesia	Low	High - 210	High - 119,871	Medium - 3.8 %
Japan	High	High - 127	High - 4,519,067	Low - 0.04 %
Philippines	Medium	Medium - 76	Medium - 78,778	Low - 2.2 %
Thailand	Medium	Medium - 61	High - 121,602	Medium - 7.7 %
Other significant aspects: Australia: Host to Codex Committee on Food Import and Export Certification and Inspection Systems and President of Consumers International; Japan: Host to Codex inter-governmental task force on foods derived from biotechnology; India: Site of WHO regional office; Philippines: Site of WHO Regional Office; Thailand: Site of FAO Regional Office and residence of former Chairperson of Codex				
Europe				
France	High	Medium - 59	High - 1,438,293	Low - 2.2 %
Hungary	Medium	Medium - 10	Medium - 47,249	Medium - 4.1 %
Netherlands	High	Medium - 16	High - 397,544	Medium - 5.0 %

[79] World Bank Categories, Data WB as of 6 August 2002.
[80] World Bank Data as of 6 August 2002.
[81] World Bank Data as of 6 August 2002.
[82] Calculated on the basis of FAO data for food exports and WB data for GNI.

Country and Geographical Region	**Grouping by Level of Income** (GNI per Capita World Bank Method[79])	**Size of the Population (million)[80]**	**Size of the Economy (GNI) (US$ million) [81]**	**Importance of Food Exports (Level of export % of GNI)[82]**
Switzerland	High	Medium - 7.2	High - 273,829	Low - 0.5 %
Other significant aspects: France: Host to Codex Committee on General Principles, Site of OECD and OIE; Hungary: Host to Codex Committee on Methods of Analysis and Sampling, site of FAO Sub-regional Office; Netherlands: Host to Codex Committee on Food Additives and Contaminants and Committee on Pesticide Residues; Switzerland: Host to Codex Committee on Cocoa Products and Chocolate, Site of ISO, UNCTAD, UN-ECE, WTC and WTO.				
Near East and North Africa				
Egypt	Medium	Medium - 64	High - 95,380	Low - 0.3 %
Jordan	Medium	Low – 5	Medium - 8,360	Low - 2.1 %
Other significant aspects: Egypt site of FAO and WHO Regional Offices				

International Governmental Organizations Visited		
ASEAN	Association of South-East Asian Nations – Group on Food Standard	
EC	European Commission	Brussels, Belgium
IICA	Inter-American Institute for Cooperation in Agriculture	Costa Rica
IPPC	International Plant Protection Convention Secretariat	Rome –FAO, Italy
ISO	International Organization for Standardization	Geneva, Switzerland
ITC	International Trade Centre	Geneva, Switzerland
OECD	Organization for Economic Cooperation and Development	Paris, France
OIE	World Organization for Animal Health (Office international des épizooties)	Paris, France
PAHO	Pan-American Health Organization	Washington, USA
UNCTAD	United Nations Conference on Trade and Development	Geneva, Switzerland
UN-ECE	United Nations Economic Commission for Europe	Geneva, Switzerland
WTO	World Trade Organization	Geneva, Switzerland

Annex 6: Bibliography of Major Documents Prepared and Consulted for the Evaluation

Documents of Codex and the Papers Produced by the Independent Expert Panel for the Evaluation

Professor Ken Buckle and Dr Kaye Wachsmuth, Emerging Issues in Food Safety

Irina du Bois, Some reflections about Codex Standards

Dr Dilma Gelli, Regional Input to Codex

Dr Spencer Henson, Inclusiveness of Member States in the Codex Alimentarius Commission and Related Institutions

Dr Spencer Henson, Decision-Making

Dr Spencer Henson, Participation of Non-Governmental Organizations

Professor Anwarul Hoda, TBT Agreement and Codex

Professor Anwarul Hoda, SPS Agreement and Codex

Dr Xiumei Liu, China and Codex

Professor Ruth Oniang'o, Capacity Building on Food Safety and Quality Standards

Dr. Kaye Wachsmuth, Public Health and Food Safety

Other Confidential Case Studies Prepared for the Evaluation

Confidential case studies were developed on the work for the following standards:

- Products of Biotechnology (GMOs) – Labelling and Procedures for Assessment of Health Risks
- Aflatoxin M_1 in milk
- Hormones in beef
- HACCP
- Organic Products

Other Important Documents Consulted for the Evaluation

Crossley S.J., Consultant's Report – Review of the Working Procedures of the Joint FAO/WHO Meeting on Pesticide Residues (JMPR) FAO unpublished February 2002.

FAO The Strategic Framework for FAO 2000-2015, FAO, Rome 1999.

FAO/WHO Report of the International Conference on International Food Trade Beyond 2000: Science-based Decisions, Harmonization, Equivalence and Mutual Recognition, Melbourne, Australia. October 1999.

FAO Medium-Term Plan 2004-09, FAO, Rome 2002.

FAO/WHO Global Forum of Food Safety Regulators – Proceedings of the Forum Marrakech, Morocco, January 2002.

FAO/WHO Pan-European Conference on Food Safety and Quality – Final Report, Budapest, Hungary February 2002.

Henson, S., Preibisch, K. and Masakure O., Review of developing country needs and involvement in international standard setting bodies – Centre for Food Economics Research, University of Reading, UK, February 2001.

Herwig, Alexia, Legal and institutional aspects in the negotiation of a Codex Alimentarius convention, Zeitschrift für das gesamte Lebensmittelrecht, 2/2001.

New Zealand Ministry of Health and Ministry of Agriculture – New Zealand's Involvement in the Codex Alimentarius Commission: Strategic Objectives and Future Directions, June 2001 ISBN 0-478-07956-7.

OECD Ad Hoc Group on Food Safety – Overview of National Food Safety Systems and Activities and Compendium SG/ADHOC/FS(2000)5/FINAL and ANN/FINAL (90749 & 91037).

Post, L.D., The effectiveness of the international food safety regime – draft Department of Political Science, university of California, Berkley, 2002.

Reardon, T., Challenges in Fighting Rural Poverty in the Globalizing Economy of Latin America: Focus on Institutions, Markets and Projects, FAO/CEPAL Seminar, Santiago de Chile, 2000.

Stanton, Grechen H., Senior Counsellor and Secretary, SPS Committee, WTO Codex and International Trade (unpublished speech 2002).

Tejada, A.M., Hermann, J.L., Vaagt, G. and Crossley, S., The Principles and Working Procedures of the Joint FAO-WHO Meeting on Pesticide Residues (JMPR): Updates and new paradigm, FAO electronic, 2002.

Annex 7: Methodology of the Evaluation

I. Introduction

The evaluation worked through a wide consultative process, including the following methods:

Assessment of Stakeholder Views:
i) questionnaires to various groups of stakeholders (governments, observers, national organizations and general public);
ii) 24 country visits and visits of international organizations by members of the evaluation team;
iii) interviews with key informants.

Study of written material: In addition, the evaluation team made the study of published and other written materials (see Annex 6), as well as some specially prepared case studies of standards[83]. The independent expert panel representing a range of disciplines and interest groups provided advice and intellectual inputs, including papers[84].

Discussion and analysis: The members of the team met altogether at different stages of the evaluation and conducted joint analysis, using various techniques (SWOT, brainstorming etc.). The underlying framework for analysis was that of means-ends: - The end being the objectives of Codex, FAO and WHO to assure cost-effective protection of all consumers' health from food-borne risks and to assure that standards for consumer protection do not pose unjustified barriers to trade in food; - The means being Codex and the programmes of FAO and WHO which were examined inter-alia for their relevance, efficiency and effectiveness in working for those objectives.

These activities were designed to provide insight into the Codex Alimentarius Commission (including its subsidiary bodies) and FAO and WHO work in food standards, and included the examination of:

- current structure, functions and technical capacities;
- stakeholders' perceptions; and
- views of what future actions are required to strengthen capacities and improve efficiency.

In arriving at findings and recommendations, we as evaluators sought to provide maximum utility to Codex, FAO and WHO. We were concerned to place viable ideas for strengthening food standards work at management's disposal. It is in this spirit that the team has made full recommendations where it believes it has adequate evidence and analysis. Where this was not the case, sometimes suggestions have been made to be further explored. In all cases, operationalization will require detailed work by the concerned managements.

II. Questionnaires and Public Call for Comments

Formal questionnaires were sent to various groups of stakeholders:
- countries that are all Codex members and member states of FAO and WHO not in membership of Codex;
- Codex observers and all WHO observers not in membership of Codex; and
- national organizations for which the questionnaire was available on the Codex website for completion by interested national organizations and was sent to their members by some Codex observers. The latter was a follow-up to an initial public call for comments, which elicited 52 replies from individuals and organizations.

[83] For case studies, see Bibliography Annex 6.

[84] For papers, see Bibliography Annex 6.

The most extensive questionnaire was the one addressed to member countries. The questionnaire included questions on Codex (importance, relevance, assessment), expert advice to Codex, technical cooperation and capacity building, as well as on country information relating to food safety.

Annex 4 summarizes key aspects of the analysis of replies to these three questionnaires, including the number of respondents and non-respondents as well as the types of statistical analysis made on the data. Members of the evaluation team also reviewed all written comments.

III. Visits to Countries and International Organizations

Twenty-four countries were visited. The countries were selected using a formalized set of criteria. The countries and international organizations visited are summarized in Annex 5.

In country visits, the evaluation team conducted structured interviews based on an agreed indicative list of questions covering aspects of food health and the relationships of standards to health and trade. The initial country visits provided an input into the design of the questionnaire and subsequent visits were designed to provide case studies of more in-depth information than was available from country questionnaires responses and to:

- obtain the views of countries which might not have fully completed the questionnaire (usually developing countries);
- discuss with national non-governmental stakeholders (agricultural and fisheries producers, food processors, agricultural input supply business, consumers);
- provide the opportunity to explore a wider range of issues that might have arisen impromptu and had not been foreseen in the questionnaire;
- understand the nuances underlying national positions;
- review any FAO or WHO capacity building activities; and also
- hold discussions with FAO and WHO offices.

All information from country visits was treated as fully confidential

In addition to FAO and WHO, other international organizations setting standards and those concerned with the application of standards in trade were visited to assess lessons which could be useful for Codex and also to examine any areas where harmonization and complementarities in work could be improved. International NGOs with observer status in Codex were also visited in Brussels and Washington.

IV. Interview with Key Informants (in addition to country visits)

At various steps in the evaluation, the team had the opportunity to conduct interviews with key informants. The latter included:

- the chair, vice-chairs and previous chair of the Commission and some Codex committees;
- the members the Codex Executive Committee;
- the Codex Secretariat and its staff;
- JECFA and JMPR secretariats;
- FAO and WHO staff involved with Codex and capacity building at Headquarters; and
- staff from FAO and WHO Regional Offices.