The Codex system: the Codex Alimentarius Commission and how it works

The Codex Alimentarius Commission was born of necessity. Its carefully crafted Statutes and Rules of Procedure ensure that it pursues its clearly defined objectives in a disciplined, dispassionate and scientific way.

Codex Alimentarius on the Internet:
www.codexalimentarius.net

THE COMMISSION

The Eleventh Session of the FAO Conference in 1961 and the Sixteenth World Health Assembly in 1963 both passed resolutions to establish the Codex Alimentarius Commission. The two bodies also adopted the Statutes and Rules of Procedure for the Commission.

The Statutes provide the legal basis for the Commission's work and formally reflect the concepts behind and reasons for its establishment. Article 1 of the Statutes provides the Commission with its purposes, terms of reference and

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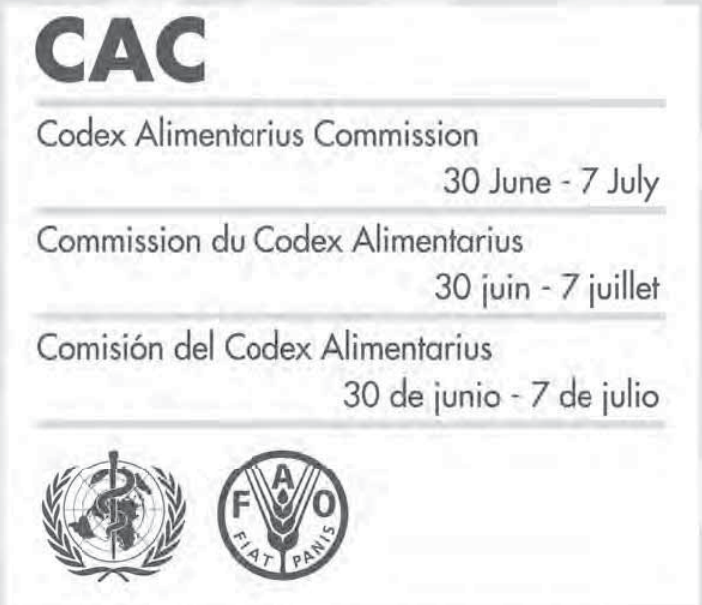


objectives. Article 2 defines eligibility for membership of the Commission, which is open to all Member Nations and Associate Members of FAO and WHO. In August 2006, 99 percent of the world's population were represented in the Commission through 174 member countries and one Member Organization (European Community).

The Rules of Procedure of the Codex Alimentarius Commission describe and formalize working procedures appropriate to an intergovernmental body. They provide for:

- conditions of membership of the Commission;
- appointment of Commission officers, including the chairperson, three vice-chairpersons, regional coordinators and a secretary, and prescribe their responsibilities;
- establishment of an Executive Committee to meet between Commission sessions, to act on behalf of the Commission as its executive organ;
- frequency and operation of Commission sessions;
- nature of agendas for Commission sessions;
- voting procedures;
- observers;
- preparation of Commission records and reports;
- establishment of subsidiary bodies;
- procedures to be adopted in the elaboration of standards;
- allocation of a budget and estimates of expenditure; and
- languages used by the Commission.

Representation. The Commission is truly an international body. Since it was formed, there have been *chairpersons* from Canada, France, Germany, Hungary, Indonesia, Mexico, the Netherlands, Sweden, Switzerland, Thailand, the United Kingdom and the United States of America. *Vice-chairpersons* have been drawn from Australia, Canada, Costa Rica, Denmark, France, Ghana, Hungary, Indonesia, Iraq, Japan, Kenya, Mexico, the Netherlands, New Zealand, Nigeria, Norway, Poland, Senegal, the Sudan, Switzerland, Thailand, the United Kingdom, the United Republic of Tanzania and the United States of America.

Statutes of the Codex Alimentarius Commission

ARTICLE 1

The Codex Alimentarius Commission shall ... be responsible for making proposals to, and shall 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, the purpose of which is:

(a) protecting the health of consumers and ensuring fair practices in the 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 and, after acceptance by governments, publishing them in a Codex Alimentarius either as regional or worldwide standards, together with international standards already finalized by other bodies under (b) above, wherever this is practicable;
(e) amending published standards, after appropriate survey in the light of developments.

The purposes or objectives embraced by Article 1 resulted from a long process of fashioning and refining. Based on a deep insight into and understanding of events that led to the Commission's establishment, they encapsulate the intentions of the Commission's founders.

Regional representatives to the Commission have been provided by the Governments of Argentina, Australia, Belgium, Brazil, Cameroon, Canada, Cuba, the former Czechoslovakia, Egypt, France, Germany, Ghana, India, Kenya, Malaysia, the Netherlands, New Zealand, the Philippines, Poland, the Republic of Korea, Senegal, Thailand, Tunisia, the former Union of Soviet Socialist Republics, the United Kingdom and the United States of America.

The Commission normally meets every two years, alternately at FAO headquarters in Rome and at WHO headquarters in Geneva, although on occasion it may meet more frequently or in special or extraordinary sessions. Plenary sessions are attended by as many as 600 people. Representation at sessions is on a country basis. National delegations are led by senior officials appointed by their governments. Delegations may, and often do, include representatives of industry, consumers' organizations and academic institutes. Countries that are not yet members of the Commission sometimes attend in an observer capacity.

A number of international governmental organizations and international NGOs also attend in an observer capacity. Although they are "observers", the tradition of the Codex Alimentarius Commission allows such organizations to put forward their points of view at every stage except in the final decision, which is the exclusive prerogative of member governments.

To facilitate continuous contact with member countries, the Commission, in collaboration with national governments, has established country *Codex Contact Points*, and many member countries have *National Codex Committees* to coordinate activities nationally.

Interest in Codex Alimentarius activities has been growing steadily since the Commission began, and the increasing involvement of developing countries in its work has been a highlight of the progress made, as well as a vindication of the foresight shown by the founders of the Commission.

THE COMMISSION'S OPERATIONS

Compiling the Codex Alimentarius

As stated in Article 1 of the Commission's Statutes, one of the principal purposes of the Commission is the preparation of food standards and their publication in the Codex Alimentarius.

The legal base for the Commission's operations and the procedures it is required to follow are published in the *Procedural Manual of the Codex Alimentarius Commission.* Like all other aspects of the Commission's work, the procedures for preparing standards are well defined, open and transparent. In essence they involve:

- The *submission of a proposal* for a standard to be developed by a national government or a subsidiary committee of the Commission. This is usually followed by a discussion paper that outlines what the proposed standard is expected to achieve, and then a project proposal that indicates the time frame for the work and its relative priority.
- A *decision by the Commission or the Executive Committee that a standard be developed* as proposed. "Criteria for the Establishment of Work Priorities" exist to assist the Commission or Executive Committee in their decision-making and in selecting the subsidiary body to be responsible for steering the standard through its development. If necessary, a new subsidiary body – usually a specialized task force – may be created.
- The preparation of a *proposed draft standard* is arranged by the Commission Secretariat and *circulated to member governments* for comment.
- Comments are considered by the subsidiary body that has been allocated responsibility for the

development of the proposed draft standard, and this subsidiary body may present the text to the Commission as a *draft standard*. The draft may also be referred to the Codex Committees responsible for labelling, hygiene, additives, contaminants or methods of analysis for endorsement of any special advice in these areas.

- Most standards take a number of years to develop. Once adopted by the Commission, a *Codex standard* is added to the Codex Alimentarius.

Revising and adapting: keeping the Codex Alimentarius up to date

The Commission and its subsidiary bodies are committed to keeping the Codex standards and related texts up to date to ensure that they are consistent with current scientific knowledge and with the needs of the member countries. Most countries now require less-prescriptive standards – especially for commodities – than those developed in the 1970s and 1980s. The Commission keeps abreast of these changes, and it has been consolidating its many older, detailed standards into new, more general standards. The benefits of this approach are that it allows wider coverage and allows for innovation in the development of new food products. Of course, the scientific basis for consumer protection is maintained and strengthened by this process of review and renewal.

The procedure for revision or consolidation follows that used for the initial preparation of standards.

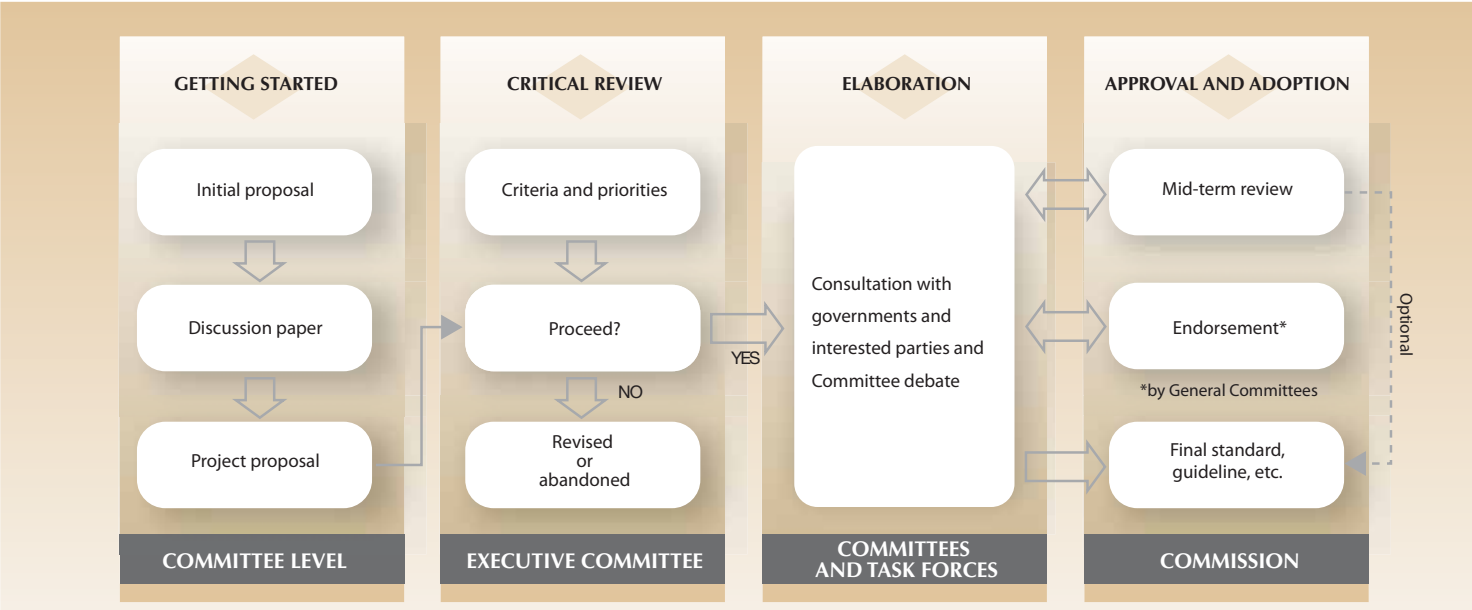
SUBSIDIARY BODIES

Under its Rules of Procedure, the Commission is empowered to establish two kinds of subsidiary body:

- *Codex Committees*, which prepare draft standards for submission to the Commission;
- *Coordinating Committees*, through which regions or groups of countries coordinate food standards activities in the region, including the development of regional standards.

A feature of the committee system is that, with few exceptions, each committee is hosted by a member country, which is chiefly responsible for the cost of

THE CODEX STANDARDS PROCESS



The Codex step procedure

Before a decision is made to undertake the development of a new standard or other text, a project proposal is prepared and discussed at Committee level.

STEP 1

The project proposal is reviewed by the Executive Committee and compared against the criteria and priorities established by the Commission.

STEPS 2, 3 AND 4

A draft text is prepared (Step 2) and circulated to member countries and all interested parties for comment (Step 3). The draft and the comments are reviewed at Committee level (Step 4) and, if necessary, a new draft is prepared.

STEP 5

The Commission reviews the progress made and agrees that the draft should go to finalization. After this stage, the draft is also endorsed by the relevant General Subject Committees so that it is consistent with Codex general standards.*

STEPS 6 AND 7

The approved draft is sent again to governments and interested parties for comment and finalized by the relevant Committee. The draft is submitted to the Commission for adoption.

STEP 8

Following a final round of comments, the Commission adopts the draft as a formal Codex text. The standard, guideline or other text is then published by the Codex Secretariat.

*** Sometimes the text is considered to be ready for final adoption at this stage – often called Step 5/8.**

the committee's maintenance and administration and for providing its chairperson. The designation of host countries for the committees is a standing item on the agenda for the Commission.

General Subject Committees

These Committees are so called because their work has relevance for all Commodity Committees and, because this work applies across the board to all commodity standards, General Subject Committees are sometimes referred to as "horizontal committees". General Subject Committees develop all-embracing concepts and principles applying to foods in general, specific foods or groups of foods; endorse or review relevant provisions in Codex commodity standards; and, based on the advice of expert scientific bodies, develop major recommendations pertaining to consumers' health and safety.

The Committee on General Principles advises the Commission on such basic matters as definitions, the Rules of Procedure, rules and working procedures for the establishment and operation of Codex Committees and Task Forces, relations with other organizations and the general principles that underlie the preparation of all Codex standards, codes of practice and other texts.

Six of the General Subject Committees have the responsibility of ensuring that specific provisions in Codex commodity standards are in conformity with the Commission's main general standards and guidelines in their particular areas of competence. They are:

- Committee on Food Additives
- Committee on Contaminants in Foods
- Committee on Food Hygiene
- Committee on Food Labelling
- Committee on Methods of Analysis and Sampling
- Committee on Nutrition and Foods for Special Dietary Uses

These Committees may also develop standards, maximum limits for additives and contaminants, codes of practice or other guidelines for either general

application or in specific cases where the development of a complete commodity standard is not required. For example, the Committee on Food Hygiene has developed a Code of Hygienic Practice for Spices and Dried Aromatic Plants, and the Committee on Food Additives and Contaminants (divided into two committees in 2006) has developed a Standard for Maximum Levels of Lead in Foods. The Committees on Food Labelling and on Nutrition and Foods for Special Dietary Uses have worked together to prepare the Codex Guidelines on Nutrition Claims.

The Committee on Pesticide Residues and the Committee on Residues of Veterinary Drugs in Foods prepare MRLs for these two categories of chemicals used in agricultural production. The MRLs are based on scientific advice regarding the safety of the residues that remain after the substances are used in accordance with defined good agricultural or veterinary practices.

The Committee on Food Import and Export Inspection and Certification Systems deals with the application of standards to foods moving in international trade, in particular to the regulatory measures applied by governments to assure their trading partners that foods and their production systems are correctly regulated to protect consumers against food-borne hazards and deceptive marketing practices. The guidelines developed by the Committee include advice on how governments should respond to emergencies in the food safety system, including channels of communication to the public and to other governments by means of the International Food Safety Authorities Network (INFOSAN) emergency information system operated by WHO.

Commodity Committees

The responsibility for developing standards for specific foods or classes of food lies with the Commodity Committees. In order to distinguish them from the "horizontal committees" and recognize their exclusive responsibilities, they are often referred to as "vertical committees". Commodity Committees convene as necessary and go into recess or are abolished when the Commission decides their work has been completed. New Committees may be established on an ad hoc basis to cover specific needs for the development of new standards. There are currently five Commodity Committees that meet regularly:

- Committee on Fats and Oils
- Committee on Fish and Fishery Products
- Committee on Fresh Fruits and Vegetables
- Committee on Milk and Milk Products
- Committee on Processed Fruits and Vegetables

The following Commodity Committees work through correspondence or are in recess:

- Committee on Cereals, Pulses and Legumes
- Committee on Cocoa Products and Chocolate
- Committee on Meat Hygiene
- Committee on Natural Mineral Waters
- Committee on Sugars
- Committee on Vegetable Proteins

Host countries convene meetings of Codex subsidiary bodies at intervals of between one and two years, according to need. Attendance at some Codex Committees is almost as large as that drawn by a plenary session of the Commission.

Ad hoc Intergovernmental Task Forces

In 1999, the Commission realized that its rather inflexible committee structure was not able to cope with the demand for standards and guidelines across an ever-widening range of subjects. It decided to create a third type of subsidiary body called a Codex ad hoc Intergovernmental Task Force, which is a Codex Committee with very limited terms of reference established for a fixed period of time.

To date the Commission has established the following ad hoc Intergovernmental

Task Forces:

- Task Force on Animal Feeding, 1999–2004
- Task Force on Foods Derived from Biotechnology, 1999–2003 and 2005–2009
- Task Force on Fruit and Vegetable Juices, 1999–2005
- Task Force on the Handling and Processing of Quick Frozen Foods, 2006-
- Task Force on Antimicrobial Resistance, 2006-

Coordinating Committees

Coordinating Committees play an invaluable role in ensuring that the work of the Commission is responsive to regional interests and to the concerns of developing countries. They normally meet at two-year intervals, with a good representation from the countries of their respective regions. Meeting reports are submitted to and discussed by the Commission. The country that chairs the Coordinating Committee is also the Regional Coordinator for the region concerned.

These Committees have no standing host countries. Meetings are hosted by countries of a region on an ad hoc basis and in agreement with the Commission. There are six Coordinating Committees, one each for the following regions:

- Africa
- Asia
- Europe
- Latin America and the Caribbean
- Near East
- North America and the Southwest Pacific

CODEX ADMINISTRATION

The Secretary of the Codex Alimentarius Commission is appointed jointly by the Directors-General of FAO and WHO following an open worldwide search for qualified candidates. The Secretary is supported by a small staff of professional and technical officers. The Secretariat is based at FAO headquarters in Rome.

Commission and Executive Committee meetings are administered and serviced entirely by the Rome-based staff. Preparation for these meetings is a formidable task that involves, among myriad other things, the compilation of agenda item papers and the responsibility for logistical arrangements. The preparation of Commission meeting reports is a demanding task in itself, as the report of each meeting must be cleared by participants before its closing. Furthermore, many hours of intense activity are required to ensure that all necessary follow-up is carried out after each meeting.

Many subsidiary committees are hosted, financially maintained and serviced by member governments, while the Commission Secretariat coordinates the activities and oversees the operations of these committees. The Secretariat collaborates with subsidiary committee staff in host countries to decide timing and venues for meetings, issue invitations to member countries, finalize agendas and papers, arrange the recording of meeting proceedings as well as the preparation and distribution of meeting reports and ensure that meeting decisions are acted on. There may be as many as 20 Codex committee meetings in any 12-month period.

APPLYING CODEX STANDARDS

The harmonization of food standards is generally viewed as contributing to the protection of consumer health and to the fullest possible facilitation of international trade. For this reason, the Uruguay Round Agreements on the Application of Sanitary and Phytosanitary Measures and on Technical Barriers to Trade (SPS and TBT Agreements) both encourage the international harmonization of food standards.

While the growing world interest in all

Codex activities clearly indicates global acceptance of the Codex philosophy – embracing harmonization, consumer protection and facilitation of international trade – in practice it is difficult for many countries to accept Codex standards in the statutory sense. Differing legal formats and administrative systems, varying political systems and sometimes the influence of national attitudes and concepts of sovereign rights impede the progress of harmonization and deter the acceptance of Codex standards.

Despite these difficulties, however, the process of harmonization is gaining impetus by virtue of the strong international desire to facilitate trade and the desire of consumers around the world to have access to safe and nutritious foods. An increasing number of countries are aligning their national food standards, or parts of them (especially those relating to safety), with those of the Codex Alimentarius. This is particularly so in the case of additives, contaminants and residues, i.e. the invisibles.

Codex and science

The first Statement of Principle Concerning the Role of Science in the Codex Decision-Making Process and the Extent to Which Other Factors are Taken into Account says, "The food standards, guidelines and other recommendations of the Codex Alimentarius shall be based on the principle of sound scientific analysis …".

Codex Alimentarius on the Internet:
www.codexalimentarius.net

SCIENTIFIC PRINCIPLES FOR STANDARDS-SETTING

From the very beginning, the Codex Alimentarius has been a science-based activity. Experts and specialists in a wide range of disciplines have contributed to every aspect of the code to ensure that its standards withstand the most rigorous scientific scrutiny. It is fair to say that the work of the Codex Alimentarius Commission, together with that of FAO and WHO in their supportive roles, has provided a focal point for food-related scientific research and investigation, and the Commission itself has become an important international medium for the

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exchange of scientific information about food.

In 1995, the Commission adopted four Statements of Principle Concerning the Role of Science in the Codex Decision-Making Process and the Extent to Which Other Factors are Taken into Account. These principles were supplemented by Statements of Principle Relating to the Role of Food Safety Risk Assessment (1997) and by Criteria for the Consideration of the Other Factors Referred to in the Second Statement of Principle (2001).

A comprehensive statement of Working Principles for Risk Analysis in food safety and health was adopted by the Commission in 2003 and incorporated into the *Procedural Manual of the Codex Alimentarius Commission*.

EXPERT COMMITTEES AND CONSULTATIONS

The Codex Alimentarius has stimulated activity in the fields of food chemistry, food technology, food microbiology, mycology, and pesticide and veterinary drug residues. Much work is carried out in the form of collaborative studies among individual scientists, laboratories, institutes and universities and joint FAO/WHO expert committees and consultations.

FAO and WHO expert meetings are independent of the Commission (and the Commission's subsidiary bodies), although their output contributes significantly to the scientific credibility of the Commission's work. The principle of ensuring the independence of scientific advice from practical realities of risk management has been followed by Codex from the earliest days.

The main principles of developing scientific advice are:

- *Excellence:* use of internationally recognized expertise, supported by the creation of a platform for global scientific discussions based on best practices in elaborating guidance;
- *Independence:* Experts contribute in their own capacity and not on behalf of a government or institution; they are required to declare possible conflicts of interest;
- *Transparency:* procedures and methods to ensure all interested

Recent joint FAO/WHO expert meetings and consultations

1995

- **Application of risk analysis to food standards issues**

1996

- **Biotechnology and food safety**

1997

- **Application of risk management to food safety**
- **Food consumption and exposure assessment of chemicals**

1998

- **Role of government agencies in assessing HACCP**
- **Application of risk communication to food standards and safety matters**

2000

- **Safety aspects of genetically modified foods of plant origin**

2001

- **Evaluation of the allergenicity of genetically modified foods**

2002

- **Acrylamide**

2003

- **Safety aspects of genetically modified foods from animals, including fish**

2004

- **Biotoxins in molluscan bivalves**

parties understand the processes for the development of scientific advice and have access to the reports, safety assessments and evaluations, and other basic information; and

- *Universality:* A broad base of scientific data is critical for the elaboration of international standards-setting activities. Therefore, institutions and all interested parties throughout the world are invited to make data available.

The membership of expert consultations is of critical importance. The credibility and acceptability of any conclusions and recommendations depend to a very large degree on the objectivity, scientific skill and overall competence of the members who formulate them.

For this reason, great care is taken in the selection of experts invited to participate. Those selected must be pre-eminent in their specialty, have the highest respect of their scientific peers, and be impartial and indisputably objective in their judgement. They are appointed in their own personal right – not as government representatives or as spokespeople for organizations – and their inputs are theirs alone. Experts are invited through a "call for experts" to be considered in the selection process and inclusion on rosters as appropriate. Scientists from all parts of the world are encouraged to apply.

Some experts, especially those on continuing committees, remain members for long periods and thereby develop an invaluable institutional memory. A large amount of scientifically based food data have been generated by expert meetings convened and serviced jointly by FAO and WHO.

Two such groups, the *Joint FAO/WHO Meetings on Pesticide Residues* (JMPR) and the *Joint FAO/WHO Expert Committee on Food Additives* (JECFA), have for many years produced internationally acclaimed data that are widely used by governments, industry and research centres. Their input into the work of the Codex Commission is of fundamental importance, and the publications resulting from their

Main FAO/WHO expert bodies

The *Joint FAO/WHO Expert Committee on Food Additives (JECFA)* was established in 1955 to consider chemical, toxicological and other aspects of contaminants and residues of veterinary drugs in foods for human consumption. The Codex Committee on Food Additives, the Codex Committee on Contaminants in Foods and the Codex Committee on Residues of Veterinary Drugs in Foods identify food additives, contaminants and veterinary drug residues that should receive priority evaluation and refer them to JECFA for assessment before incorporating them into Codex standards.

***Joint FAO/WHO Meetings on Pesticide Residues (JMPR)* began in 1963 following a decision that the Codex Alimentarius Commission should recommend maximum residue limits (MRLs) for pesticide and environmental contaminants in specific food products to ensure the safety of foods containing residues. It was also decided that JMPR should recommend methods of sampling and analysis. There is close cooperation between JMPR and the Codex Committee on Pesticide Residues (CCPR). CCPR identifies those substances requiring priority evaluation. After JMPR evaluation, CCPR discusses the recommended MRLs and, if they are acceptable, forwards them to the Commission for adoption as Codex MRLs.**

***Joint FAO/WHO Expert Meetings on Microbiological Risk Assessment (JEMRA)* began work in 2000 to develop and provide advice to the Codex Alimentarius Commission on microbiological aspects of food safety. In addition to providing risk assessments, JEMRA develops guidance on related areas such as data collection and the application of risk assessment. JEMRA works most closely with the Codex Committee on Food Hygiene, but has also provided advice to other Codex committees, such as the Committee on Fish and Fishery Products.**

activities are acclaimed international references. The safety assessments and evaluations performed by JECFA, like those performed by JMPR, are based on the best scientific information available, comprising inputs from many authoritative sources.

JEMRA, the *Joint FAO/WHO Expert Meetings on Microbiological Risk Assessment*, began its work in 2000. JEMRA aims to optimize the use of microbiological risk assessment as the scientific basis for risk management decisions that address microbiological hazards in foods. Its assessments and other advice contribute to the development of Codex standards, codes of hygienic practice and other guidelines in the area of food hygiene and provide the scientific basis for this work.

One of the strengths of the Codex and FAO and WHO relationship in scientific matters is its flexibility. In recent years, FAO and WHO have held expert scientific consultations on a broad range of matters. Not all of these have resulted in the development of new Codex standards, as sometimes the best way of managing food safety risks is determined to be through other means. FAO and WHO also provide advice on how alternative means of risk management can be brought about.

FAO and WHO are not the only sources of scientific excellence on which Codex depends. Codex encourages other scientifically based intergovernmental organizations to contribute to the joint FAO and WHO scientific system. The International Atomic Energy Agency (IAEA) provides advice and support on levels of radionuclide contamination in foods and on food irradiation. The World Organisation for Animal Health (OIE) provides advice on animal health, on animal diseases affecting humans and on the linkages between animal health and food safety.

Codex and consumers

From their beginnings, FAO and WHO have promoted the improvement of quality and safety standards applied to food. The highest priority of the Codex Alimentarius Commission is to protect the health of consumers and ensure fair practices in the food trade.

Codex Alimentarius on the Internet:
www.codexalimentarius.net

COMMITMENT IN THE INTEREST OF CONSUMERS

Since its inception, the Codex Alimentarius Commission, together with its subsidiary committees, has given top priority to the protection and interests of consumers in the formulation of food standards and related activities.

Other United Nations (UN) bodies have also recognized the importance of consumer protection and, in 1985, a UN General Assembly Resolution gave rise to the *Guidelines for consumer protection*, published in 1986. These guidelines identify food as one of three priority areas that are of essential concern to the

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health of consumers, and the document specifically identifies the Codex Alimentarius as the reference point for consumer protection with regard to food.

Two relevant conferences held early in the 1990s were: the 1991 FAO/WHO Conference on Food Standards, Chemicals in Food and Food Trade (held in cooperation with GATT), which recommended continuing and strengthened consumer participation in food-related decision-making at national and international levels; and the 1992 FAO/WHO International Conference on Nutrition, which recommended that consumers be protected through improved food quality and safety, and outlined measures to accomplish that recommendation.

Furthermore, in 1993, FAO held an expert consultation on the Integration of Consumer Interests in Food Control.

FOOD COMMODITY AND GENERAL STANDARDS

Both Codex subsidiary bodies and the Commission give the highest priority to consumer interests in the formulation of commodity and general standards. The adopted format for standards reflects the emphasis that Codex places on ensuring that consumers receive products that are of a minimum acceptable quality, are safe and do not present a health hazard. Format provisions for commodity standards, including the *name of the standard*, its *scope*, *description*, *weights and measures* and *labelling*, are intended to ensure that the consumer is not misled and to induce confidence that the food item purchased is what the label says it is. The provision covering *essential composition and quality factors* ensures that the consumer will not receive a product below a minimum acceptable standard. The provisions concerning *food additives and contaminants* and *hygiene* are aimed at protecting the health of consumers.

The Codex Alimentarius contains more than 200 standards in the prescribed format for individual foods or groups of foods. In addition, it includes the General Standard for the Labelling of Prepackaged Foods, the General Guidelines on Claims and the Guidelines on Nutrition Labelling, all of which are aimed at ensuring honest practices in the sale of food while also providing guidance to consumers in their choice of products.

Other general standards for *food hygiene*, *food additives*, *contaminants* and *toxins* in food and for *irradiated foods* are of pre-eminent importance in protecting consumers' health, and they are valued widely for this purpose.

Similarly, *MRLs for pesticides and veterinary drugs* and *maximum limits for food additives and contaminants* have been established to ensure that consumers are not exposed to unsafe levels of hazardous materials.

Purpose of the Codex Guidelines on Nutrition Labelling

To ensure that nutrition labelling is effective:

"In providing the consumer with information about a food so that a wise choice of food can be made ..."

GENERAL PRINCIPLES, GUIDELINES AND RECOMMENDED CODES OF PRACTICE

Instruments such as principles and codes have been developed for the express purpose of protecting the health of consumers against food-borne hazards. For example, *general principles* have been developed for the use of food additives, food import and export inspection and certification and the addition of essential nutrients to foods.

The Codex Alimentarius contains wide-ranging *guidelines* for the protection of consumers, including such diverse

Food quality and safety

The 1993 FAO Expert Consultation on the Integration of Consumer Interests in Food Control identified the following issues as being of particular concern to consumers:

- *Standards.* **Consumers feel that they do not always get fair value for their money. They are discontented with food that spoils or fails to meet expectations in taste, aroma and palatability.**
- *Nutritional quality.* **In many developing countries, adulteration deprives consumers of nutritional value. In developed countries, consumers are dissatisfied with inadequate nutrient information on labels.**
- *Food control processes.* **While consumers are aware that food control regulations exist, they are not convinced that they are applied effectively. Some food producers and distributors feel that they can ignore the law with impunity.**
- *Information.* **Consumers believe that government and industry do not provide enough information to enable them to make an informed choice. Very often, labels on food do not carry adequate, easy-to-read information. Information from government, industry and other sources is often not clear or may be conflicting.**
- *Environmental contamination.* **Consumers' concern has grown rapidly over possible environmental contamination of the food supply during the various stages of production, harvesting, processing, storage and distribution. They lack confidence in the ability of food control services to provide the necessary protection.**
- *Irradiation and biotechnology.* **Consumers feel that some processes using new technology are unsafe because they have not been adequately evaluated. Reliable information about newer technologies is not always available.**

subjects as the Establishment and Application of Microbiological Criteria for Foods and Levels for Radionuclides in Foods Following Accidental Nuclear Contamination for Use in International Trade.

It also contains *codes of practice*, most of which are codes of hygienic practice providing guidance on the production of food that is safe and suitable for consumption – in other words, their purpose is to protect the health of consumers. The Recommended International Code of Practice – General Principles of Food Hygiene applies to all foods. It is particularly important in protecting consumers because it lays a firm foundation for food safety and follows the food chain from primary production through to final consumption, highlighting the key hygiene controls required at each stage.

NEW AREAS: ANIMAL FEED AND FOODS DERIVED FROM BIOTECHNOLOGY

Consumer concerns in the wake of the bovine spongiform encephalopathy (BSE), or "mad cow", crisis of the early 1990s led Codex to take up the question of the safety of feed for food-producing animals. The Commission went even further than responding to the immediate crisis, and the resulting Code of Practice on Good Animal Feeding takes into account all relevant aspects of animal health and the environment in order to minimize risks to consumers' health. It applies to the production and use of all materials destined for animal feed and feed ingredients at all levels, whether produced industrially or on a farm. It also includes grazing or free-range feeding, forage crop production and aquaculture.

The Codex Principles for the Risk Analysis of Foods Derived from Modern Biotechnology were developed on the basis of a pre-market safety evaluation of these foods on a case-by-case basis.

The Principles provide for post-market monitoring of potential consumer health effects and nutritional effects, as appropriate. Two detailed guidelines on the conduct of safety assessments, one for foods from DNA-modified plants and the other for foods from DNA-modified micro-organisms, include consideration of both intended and unintended effects of the genetic modification and an assessment of possible allergenicity.

CONSUMERS' PARTICIPATION

Since its beginning, the Commission has welcomed the participation of consumers, whose organizations have been represented at its sessions since 1965.

The involvement of consumers in the Commission's work has been the subject of explicit discussions within the Commission. Consumers' participation in decision-making in relation to food standards and the Joint FAO/WHO Food Standards Programme, for instance, was an item on the agenda of the Twentieth Session of the Codex Alimentarius Commission, when it was agreed that it is necessary to continue working in close cooperation with consumers' organizations.

Because of its international nature, the Commission is aware that it can only go part of the way towards involving consumers in its food standardization and related work. Therefore, the Twentieth Session of the Commission invited governments to involve consumers more effectively in the decision-making process at the national level:

> *"The Commission has continued to involve consumer interests in its work while recognizing that it is at the national level that consumers can make their most valuable and effective input."*

INFORMATION

The Codex Alimentarius Secretariat disseminates Codex documents to international consumers' organizations and provides information on request. It also distributes all Commission documents and those of its subsidiary committees to Codex Contact Points in member countries. This is done in the expectation that they will be forwarded to nationally based consumers' organizations for comment as required. All of these documents are publicly available on the Codex Web site.

Codex and the international food trade

According to FAO trade statistics, the value of trade in agricultural products exceeded US$500 billion in 2003 – an all-time record.

Codex Alimentarius on the Internet:
www.codexalimentarius.net

The officials and experts who laid the foundations and determined the direction taken by activities of the Joint FAO/WHO Food Standards Programme and the Codex Alimentarius Commission were first and foremost concerned with protecting the health of consumers and ensuring fair practices in the food trade.

They felt that, if all countries harmonized their food laws and adopted internationally agreed standards, such issues would be dealt with naturally. Through harmonization, they envisaged fewer barriers to trade and freer movement of food products among countries, which would be to the benefit of farmers and their families and would

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The General Principles of the Codex Alimentarius state:

"The publication of the Codex Alimentarius is intended to guide and promote the elaboration and establishment of definitions and requirements for foods to assist in their harmonization and in doing so to facilitate international trade."

also help to reduce hunger and poverty. The founders concluded that the Codex Alimentarius would resolve many of the difficulties that were impeding freedom of trade, a view that is reflected in Purpose of the Codex Alimentarius, described in the General Principles.

A principal concern of national governments is that food imported from other countries should be safe and not jeopardize the health of consumers or pose a threat to the health and safety of their animal and plant populations. Consequently, governments of importing countries have introduced mandatory laws and regulations to eliminate or minimize such threats. In the area of food, animal and plant control, these measures could be conducive to the creation of barriers to intercountry food trade.

THE URUGUAY ROUND AND WORLD FOOD TRADE

The Uruguay Round Agreements represent a milestone in the multilateral trading system because, for the first time, they incorporated agriculture and food under operationally effective rules and disciplines.

Country participants in the round of negotiations recognized that measures ostensibly adopted by national governments to protect the health of their consumers, animals and plants could become disguised barriers to trade as well as being discriminatory. Consequently, the SPS and TBT Agreements were included among the Multilateral Agreements on Trade in Goods, annexed to the 1994 Marrakesh Agreement, which established the World Trade Organization.

SPS Agreement: Agreement on the Application of Sanitary and Phytosanitary Measures
TBT Agreement: Agreement on Technical Barriers to Trade

Article 2.2 of the SPS Agreement states:

"Members shall ensure that any sanitary and phytosanitary measure is applied only to the extent necessary to protect human, animal or plant life or health, is based on scientific principles and is not maintained without sufficient scientific evidence ...".

Article 3.1 of the SPS Agreement states:

"To harmonize sanitary and phytosanitary measures on as wide a basis as possible, Members shall base their sanitary and phytosanitary measures on international standards, guidelines or recommendations, where they exist, except as otherwise provided for in this Agreement."

Article 2.6 of the TBT Agreement states:

"With a view to harmonizing technical regulations on as wide a basis as possible, Members shall play a full part, within the limits of their resources, in the preparation by appropriate international standardizing bodies of international standards for products for which they have either adopted, or expect to adopt, technical regulations."

The SPS Agreement acknowledges that governments have the right to take sanitary and phytosanitary measures necessary for the protection of human health. However, the Agreement requires them to apply those measures only to the extent required to protect human health. It does not permit member governments to discriminate by applying different

requirements to different countries where the same or similar conditions prevail, unless there is sufficient scientific justification for doing so.

The TBT Agreement seeks to ensure that technical regulations and standards, including packaging, marking and labelling requirements, and analytical procedures for assessing conformity with technical regulations and standards do not create unnecessary obstacles to trade.

It is noteworthy that the SPS and TBT Agreements both acknowledge the importance of harmonizing standards internationally so as to minimize or eliminate the risk of sanitary, phytosanitary and other technical standards becoming barriers to trade.

In its pursuance of harmonization, with regard to food safety, the SPS Agreement has identified and chosen the standards, guidelines and recommendations established by the Codex Alimentarius Commission for food additives, veterinary drug and pesticide residues, contaminants, methods of analysis and sampling, and codes and guidelines of hygienic practice. This means that Codex standards are considered scientifically justified and are accepted as the benchmarks against which national measures and regulations are evaluated.

Considerable interest in the Commission's activities has been stimulated by the specific recognition of Codex standards, guidelines and recommendations within the SPS Agreement, as well as the importance assumed by Codex standards in the Technical Regulations and Standards provisions contained in Article 2 of the TBT Agreement. Consequently, attendance at Codex meetings, especially by developing countries, has markedly increased. This is a welcome development, particularly as both Agreements direct members, within the limits of their resources, "to play a full part" in the work of international standards organizations and their subsidiaries.

The adoption of Codex standards as scientifically justified norms for the purpose of the SPS and TBT Agreements is of immense significance. The standards have become an integral part of the legal framework within which international trade is being facilitated through harmonization. Already, they have been used as the benchmark in international trade disputes, and it is expected that they will be used increasingly in this regard.

CODEX AND OTHER TRADE AGREEMENTS

The Uruguay Round Agreements allow groups of member countries to enter into trade agreements among themselves for the purpose of liberalizing trade. The North American Free Trade Agreement (NAFTA) between Canada, Mexico and the United States of America is such an agreement. Argentina, Brazil, Paraguay and Uruguay have signed the Treaty of Asunción, establishing the Southern Common Market (MERCOSUR). In Asia and the Pacific, economic cooperation arrangements have been formalized under Asia-Pacific Economic Cooperation (APEC). All three regional groupings have adopted measures consistent with

Codex is quoted in trade agreements

Codex and its work have been quoted in many bilateral and plurilateral trade agreements, including:

- **Mexico–Bolivia, 1995**
- **Baltic Area Free Trade Agreement, 1996**
- **Chile–Mexico, 1997**
- **Bulgaria–Turkey, 1998**
- **Central America–Chile, 1999**
- **Association of Southeast Asian Nations (ASEAN), 2000**
- **Turkey–Bosnia and Herzegovina, 2002**
- **Australia–Thailand, 2005**
- **United States of America–Australia, 2005**

principles embraced by the Uruguay Round Agreements and that relate to Codex standards.

NAFTA includes two ancillary agreements dealing with sanitary and phytosanitary measures and technical barriers to trade. With regard to food safety measures, Codex standards are cited as basic requirements to be met by the three member countries in terms of the health and safety aspects of food products.

MERCOSUR's Food Commission has recommended a range of Codex standards for adoption by member countries and is using other Codex standards as points of reference in continuing deliberations.

APEC has drafted a Mutual Recognition Arrangement on Conformity Assessment of Foods and Food Products. This calls for consistency with the requirements of the SPS and TBT Agreements as well as with Codex standards, including the recommendations of the Codex Committee on Food Import and Export Inspection and Certification Systems.

Reference to the Codex Alimentarius occurs in many bilateral and plurilateral trade agreements in addition to those quoted above. European Union directives, as well, frequently refer to the Codex Alimentarius as the basis for their requirements.

More than Codex: FAO, WHO and wider partnerships

FAO and WHO complement the Commission's activities significantly in a number of practical ways. FAO and WHO help developing countries to apply Codex standards and strengthen national food control systems and take advantage of international food trade opportunities. One of the most important contributions of FAO and WHO to the Commission's work is to provide scientific advice, especially risk assessments, developed by expert committees and consultations. This is described in detail in the chapter on "Codex and science".

Codex Alimentarius on the Internet:
www.codexalimentarius.net

BUILDING NATIONAL CAPACITIES

To adopt Codex standards, countries require an adequate food law, as well as a technical and administrative infrastructure with the capacity to implement it and ensure compliance. For many years, FAO and WHO have been providing assistance to developing countries to enable them to take full advantage of the Commission's work. This effort has been enhanced to a considerable degree by financial and technical support from industrialized countries and international funding institutions.

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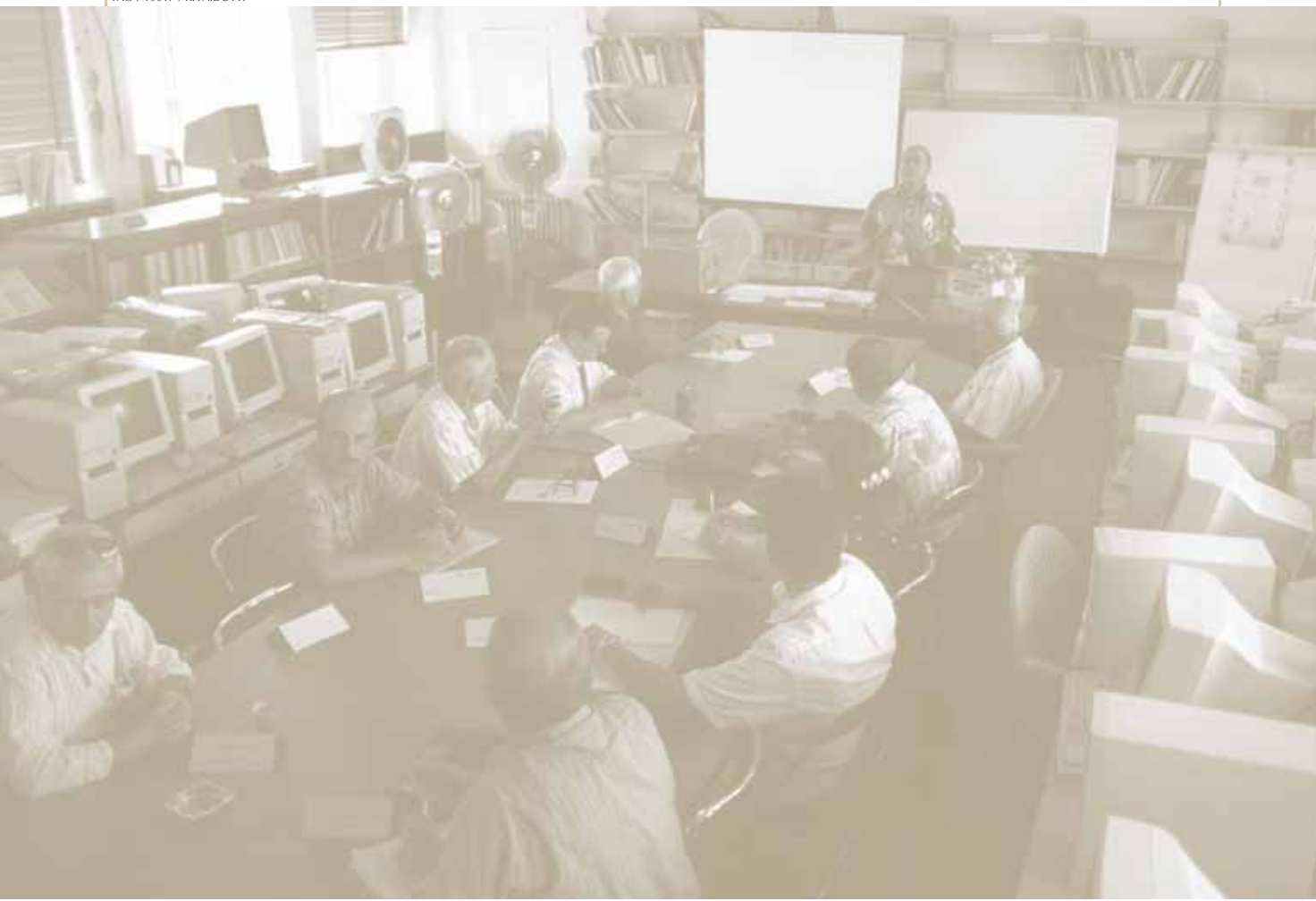

Technical assistance
Assistance given to developing countries has included:

- establishing and strengthening national food control systems, including the formulation and revision of food legislation (acts and regulations) and food standards in accordance with Codex standards;
- helping with the establishment and strengthening of food control agencies, as well as with training in the necessary technical and administrative skills to ensure their effective operation;
- strengthening laboratory analysis and food inspection capabilities;
- conducting workshops and training courses, not only for transferring information, knowledge and skills associated with food control, but also to increase awareness of the Codex Alimentarius and activities carried out by the Commission;
- providing training in all aspects of food control associated with protecting the health of consumers and ensuring honest practices in the sale of food;
- extending guidance on matters directly related to Codex activities, such as safety assessment of food produced using biotechnology;
- developing and publishing manuals and texts that are associated with food quality control and that provide recommendations for the development and operation of food quality and safety systems;
- developing and publishing training manuals on food inspection and quality and safety assurance, particularly with respect to the application of the HACCP system in the food-processing industry.

Standards and Trade Development Facility
Based at the headquarters of WTO, the Standards and Trade Development Facility is a global programme for capacity-building and technical assistance in sanitary and phytosanitary (SPS) matters related to trade. It was established in 2001 when the Executive Heads of FAO, OIE, the World Bank, WHO and WTO issued a joint communiqué committing the institutions to exploring new technical and financial mechanisms for coordination and resource mobilization to assist developing countries in the establishment and implementation of appropriate measures.

The Facility is both a financing and a coordinating mechanism. It provides grant financing for developing countries seeking to comply with international SPS standards and hence gain or maintain market access. It also provides a forum for dialogue on SPS technical assistance issues among its five partner organizations and interested donors.

The Facility aims to:

- act as a reference point for good practice by implementing demonstration projects with innovative approaches;
- address longer-term issues of capacity and compliance, rather than involve itself in short-term, policy-driven "firefighting" projects; and
- offer technical expertise and experience to developing countries in this highly technical area.

FAO/WHO Trust Fund for participation in Codex
Launched in 2003 by the Directors-General of FAO and WHO, the Trust Fund is seeking US$40 million over a 12-year period to help developing countries and countries in transition to increase their participation in the vital work of the Commission. Increased participation will be achieved by: helping regulators and food experts from all areas of the world to participate in international standards-setting work in the framework of Codex; and enhancing their capacity to help establish effective food safety and quality standards and fair practices in the food trade, both in the framework of the Codex Alimentarius and in their own countries. In 2004, its first year of operation, the Trust Fund helped experts from more

than 90 developing countries to attend and participate in the Codex standards-setting process. The Trust Fund is based at the headquarters of WHO.

SHARING INFORMATION

Access to information about food standards and food regulatory requirements is critical in today's world. Governments and traders need to know the requirements of their trading partners; consumers and the media have the right to have access to a safety assessment of potential hazards in the food supply; and everyone needs to know how to respond correctly in an emergency situation when something in the system "goes wrong".

Fortunately, the Internet allows rapid access to all types of information about regulatory matters concerning food. However, sometimes the information available is excessive, inconsistent or of doubtful quality. The international organizations associated with Codex have therefore combined their efforts to provide easy access to authoritative information on food standards and related matters.

International Portal on Food Safety, Animal and Plant Health

International information in the Portal has been included through collaboration with OIE, WHO, WTO and the Secretariat of the UN Convention on Biological Diversity (CBD), as well as the Secretariats of the International Plant Protection Convention (IPPC) and the Codex Alimentarius Commission. The system integrates content from FAO's database of national legislation, FAOLEX.

Access is also available through the Portal to the databases of the United States Department of Agriculture, the United States Food and Drug Administration, the Health and Consumer Protection Directorate-General of the European Commission and the regulations of several other countries. The list of contributors continues to grow.

Types of information available through the Portal are:

- official national standards and regulations;
- national scientific evaluations and risk assessments;
- notifications of new or pending laws and regulations;
- Codex standards, guidelines and MRLs;
- risk assessments and safety evaluations carried out by FAO and WHO expert committees and consultations.

The Portal is managed by FAO on behalf of all of the participating agencies.

International Food Safety Authorities Network

INFOSAN promotes the exchange of food safety information among food safety authorities at national and international levels. A food safety emergency network is an integral part of INFOSAN and will implement the emergency information exchange system recommended by the Codex Alimentarius Commission in its Guideline on the Exchange of Information in Food Control Emergency Situations. WHO maintains a list of food safety emergency contact points and envisages the strengthening of information exchange between national authorities in the case of international health emergencies. These include emergencies where food is the vehicle causing serious international public health risks. INFOSAN is managed by WHO.

Regional conferences and global fora on food safety

The Global Fora of Food Safety Regulators provide the opportunity for food safety regulators from all regions of the world to meet together to consider, discuss and share experiences on food safety issues that are of concern to everyone. The Fora are dedicated to sharing experiences in the management of food safety. FAO and WHO also convene regional food safety conferences that allow a more detailed analysis of

food safety problems in the light of regional practices and cultures.

Two sessions of the Global Fora have been organized by FAO and WHO – the first in Marrakesh, Morocco, in January 2002, and the second in Bangkok, Thailand, in October 2004. The series of regional food safety conferences spanned the period 2002 to 2005. The proceedings and other information on both the Fora and the regional conferences are available from the Fora's Web site.

Some useful Web sites

- **Food and Agriculture Organization of the United Nations (FAO): www.fao.org**
- **World Health Organization (WHO): www.who.int**
- **World Trade Organization (WTO): www.wto.org**
- **Standards and Trade Development Facility: www.standardsfacility.org**
- **Codex Trust Fund: www.who.int/foodsafety/codex/trustfund/en/**
- **International Portal on Food Safety, Animal and Plant Health: www.ipfsaph.org**
- **International Food Safety Authorities Network (INFOSAN): www.who.int/foodsafety/fs_management/infosan/en/**
- **Global Fora of Food Safety Regulators: www.foodsafetyforum.org**

Codex and the future

It is difficult to imagine a world without the Codex Alimentarius. It has been said that if Codex did not exist, somebody would have to invent it. Consumer demand, recognition by WTO, the growing attendance at Codex meetings and the greater involvement of developing countries all point to a long and active life for the Commission.

Codex Alimentarius on the Internet:
www.codexalimentarius.net

Codex activities of the future will differ considerably from what they have been until now. Scientific developments in fields relating to food, changing attitudes of consumers, new approaches to food control, changing perceptions of government and food industry responsibilities and changing food quality and safety concepts will present the Commission with new challenges and, conceivably, the need for new standards and new types of standards.

The consumer protection and food safety elements of the Codex Alimentarius, which are the domain of the "horizontal

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committees", have become very important for consumers and trading partners, while the compositional or "recipe" elements of individual commodity standards do not attract as much interest as before. At present, interest in the quality aspects of Codex standards remains, although the importance attributed to such issues in the future will depend on community attitudes and demands.

The application of biotechnology to food processing and production of raw food materials is currently under scrutiny by the Commission, which is continually examining new concepts and systems associated with food safety and the protection of consumers against health hazards. These topical matters provide some insight into the direction that the Commission's activities are likely to take in the future.

The Codex system is changing, too. We can expect to see major changes in the traditional committee structure with much more involvement of developing countries as host countries of newly designed Codex committees and task forces. This is an exciting development.

Whatever happens, it would be fair to claim that the Codex Alimentarius' contribution to the betterment of humankind is one of the finer and more extraordinary achievements of the twentieth century – and is set to continue into the twenty-first.

Codex on the Internet

www.codexalimentarius.net

For up-to-date information on:

- **Codex meetings and reports**
- **Standards and other recommendations**
- **Statutes and procedures**

Abbreviations

APEC
Asia-Pacific Economic Cooperation

ASEAN
Association of Southeast Asian Nations

CBD
Convention on Biological Diversity

DNA
deoxyribonucleic acid

FAO
Food and Agriculture Organization of the United Nations

GATT
General Agreement on Tariffs and Trade

HACCP
Hazard Analysis and Critical Control Point

IAEA
International Atomic Energy Agency

INFOSAN
International Food Safety Authorities Network

IPPC
International Plant Protection Convention

JECFA
Joint FAO/WHO Expert Committee on Food Additives

JEMRA
Joint FAO/WHO Expert Meetings on Microbiological Risk Assessment

JMPR
Joint FAO/WHO Meetings on Pesticide Residues

MERCOSUR
Southern Common Market

MRL
maximum residue limit

NAFTA
North American Free Trade Agreement

NGO
non-governmental organization

OECD
Organisation for Economic Co-operation and Development

OIE
World Organisation for Animal Health

SPS Agreement
Agreement on the Application of Sanitary and Phytosanitary Measures

TBT Agreement
Agreement on Technical Barriers to Trade

UN
United Nations

UNECE
United Nations Economic Commission for Europe

WHO
World Health Organization

WTO
World Trade Organization

www.**codex**alimentarius.net

The Codex Alimentarius is a collection of international food standards that have been adopted by the Codex Alimentarius Commission. Codex standards cover all the main foods, whether processed, semi-processed or raw. In addition, materials used in the further processing of food products are included to the extent necessary for achieving the principal objectives of the code – protecting the health of consumers and facilitating fair practices in the food trade.

Codex provisions concern the hygienic and nutritional quality of food, including microbiological norms, food additives, pesticide and veterinary drug residues, contaminants, labelling and presentation, and methods of sampling and risk analysis.

As well as individual standards, advisory codes of practice, guidelines and other recommended measures form an important part of the overall food code.

The Codex Alimentarius can safely claim to be the most important international reference point in matters concerning food quality. Its creation, moreover, has generated food-related scientific research and greatly increased the world community's awareness of the vital issues at stake – food quality, safety and public health.

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