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PREFACE

The Codex Alimentarius, or the food code, has become the global reference point for consumers, food producers and processors, national food control agencies and the international food trade. The code has had an enormous impact on the thinking of food producers and processors as well as on the awareness of the end users – the consumers. Its influence extends to every continent, and its contribution to the protection of public health and fair practices in the food trade is immeasurable.

The Codex Alimentarius system presents a unique opportunity for all countries to join the international community in formulating and harmonizing food standards and ensuring their global implementation. It also allows them a role in the development of codes governing hygienic processing practices and recommendations relating to compliance with those standards.

The significance of the food code for consumer health protection was underscored in 1985 by the United Nations Resolution 39/248, whereby guidelines were adopted for use in the elaboration and reinforcement of consumer protection policies. The guidelines advise that “When formulating national policies and plans with regard to food, Governments should take into account the need of all consumers for food security and should support and, as far as possible, adopt standards from the ... Codex Alimentarius or, in their absence, other generally accepted international food standards”.

The Codex Alimentarius has relevance to the international food trade. With respect to the ever-increasing global market, in particular, the advantages of having universally uniform food standards for the protection of consumers are self-evident. It is not surprising, therefore, that the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) and the Agreement on Technical Barriers to Trade (TBT Agreement) both encourage the international harmonization of food standards. Products of the Uruguay Round of multinational trade negotiations, these Agreements cite international standards, guidelines and recommendations as the preferred measures for facilitating international trade in food. As such, Codex standards have become the benchmarks against which national food measures and regulations are evaluated within the legal parameters of the World Trade Organization (WTO) Agreements.

This booklet was first published in 1999 to foster a wider understanding of the evolving food code and of the activities carried out by the Codex Alimentarius Commission – the body responsible for compiling the standards, codes of practice, guidelines and recommendations that constitute the Codex Alimentarius. Since the first publication there have been many changes to the way in which the Codex works. A new edition of this popular booklet is therefore timely and necessary for understanding the Codex Alimentarius in the twenty-first century.

The Codex achievement



Since the first steps were taken in 1961 to establish a Codex Alimentarius, the Codex Alimentarius Commission – the body charged with developing a food code – has drawn world attention to the field of food quality and safety. Now, for almost 50 years, all important aspects of food pertaining to the protection of consumer health and fair practices in the food trade have come under the Commission's scrutiny.

Codex Alimentarius on the Internet:
www.codexalimentarius.net

A SINGLE INTERNATIONAL REFERENCE POINT

The best traditions of the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) have encouraged food-related scientific and technological research as well as discussion. In doing so, they have lifted the world community's awareness of food safety and related issues to unprecedented heights. The Codex Alimentarius Commission, established by the two Organizations in the 1960s, has become the single most



important international reference point for developments associated with food standards.

GREATER GLOBAL AND NATIONAL AWARENESS

Throughout much of the world, an increasing number of consumers and governments are becoming aware of food quality and safety issues and are realizing the need to be selective about the foods people eat. It is now common for consumers to demand that their governments take legislative action to ensure that only safe food of acceptable quality is sold and that the risk of food-borne health hazards is minimized. It is fair to say that, through its elaboration of Codex standards and its consideration of all related issues, the Codex Alimentarius Commission has helped significantly to put food as an entity on political agendas. In fact, governments are extremely conscious of the political consequences to be expected should they fail to heed consumers' concerns regarding the food they eat.

INCREASED CONSUMER PROTECTION

The Codex Alimentarius Commission has been supported in its work by the now universally accepted maxim that people have the right to expect their food to be safe, of good quality and suitable for consumption. Food-borne illnesses are at best unpleasant – at worst they can be fatal. But there are other consequences. Outbreaks of food-borne illness can damage trade and tourism and can lead to loss of earnings, unemployment and litigation. Poor-quality food can destroy the commercial credibility of suppliers, both nationally and internationally, while food spoilage is wasteful and costly and can adversely affect trade and consumer confidence.

The positive effect of the Commission's work has also been enhanced by the declarations produced by international conferences and meetings that have,

Fostering consumer protection worldwide

1985

United Nations General Assembly
Guidelines for consumer protection

Stated that:

"When formulating national policies and plans with regard to food, Governments should take into account the need of all consumers for food security and should support and, as far as possible, adopt standards from the Food and Agriculture Organization's ... and the World Health Organization's Codex Alimentarius ...".

1991

FAO/WHO Conference on Food Standards,
Chemicals in Food and Food Trade
(in cooperation with GATT)

Agreed that:

"...The process of harmonizing national food regulations to bring them into line with international standards and recommendations was an urgent one, which needed to be accelerated ..."

and that:

"Provisions essential for consumer protection (health, safety of food, etc.) should be the focus of emphasis in Codex standards ...".

1992

FAO/WHO International Conference
on Nutrition

Recognized that:

"Access to nutritionally adequate and safe food is a right of each individual."

and that:

"Food regulations ... should fully take into account the recommended international standards of the Codex Alimentarius Commission."

1995

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

Formally recognized:

International standards, guidelines and recommendations, including the Codex Alimentarius, as reference points for facilitating international trade and resolving trade disputes in international law.

1996

FAO World Food Summit

Committed itself to:

“Implement policies aimed at ... improving physical and economic access by all, at all times, to sufficient, nutritionally adequate and safe food and its effective utilization.”

and to:

“Apply measures, in conformity with the Agreement on the Application of Sanitary and Phytosanitary Measures and other relevant international agreements, that ensure the quality and safety of food supply ... ”.

2000

Fifty-Third World Health Assembly

Recognized:

“The importance of the standards, guidelines and other recommendations of the Codex Alimentarius Commission for protecting the health of consumers and assuring fair trading practices ...”

and urged Member States to:

“Participate actively in activities in the emerging area of food safety risk analysis.”

2002

World Food Summit: five years later

Stated:

“We reaffirm the important role of Codex Alimentarius ... to provide effective, science-based, internationally accepted standards of food safety ... as well as to facilitate international food and agricultural trade.”

2004

Second FAO/WHO Global Forum of Food Safety Regulators

Affirmed:

“The Codex system provides an important opportunity for countries to work together to develop international standards in a representative manner. ... Developing countries would benefit from greater use of basic Codex texts when building their food control systems.”

themselves, been influenced by the Commission’s activities. Over the past 20 years, national representatives to the United Nations General Assembly, the FAO/WHO Conference on Food Standards, Chemicals in Food and Food Trade (held in cooperation with the General Agreement on Tariffs and Trade [GATT]), the FAO/WHO International Conference on Nutrition, the FAO World Food Summit and the WHO World Health Assembly have either encouraged or committed their countries to adopt measures ensuring the safety and quality of foods. The Global Fora of Food Safety Regulators have noted that the Codex system provides an important opportunity for countries to work together to develop international standards in a representative manner.

BROAD COMMUNITY INVOLVEMENT

The role of the Codex Alimentarius Commission has evolved with the development of the Codex itself. The task of creating a food code is immense and, because of continuing research and product development, virtually endless. The finalization of food standards and their compilation into a code that is credible and authoritative requires extensive consultation as well as the collection and evaluation of information, followed up by confirmation of final results and sometimes objective compromise to satisfy differing sound, scientifically based views.

Creating standards that at once protect consumers, ensure fair practices in the sale of food and facilitate trade is a process that involves specialists in numerous food-related scientific disciplines, together with consumers’ organizations, production and processing industries, food control administrators and traders. As more people become involved in the formulation of standards and as the Codex Alimentarius – including related codes and recommendations – covers further ground, so the Commission’s activities are becoming better known and its influence strengthened and widened.



SCIENTIFICALLY SOUND STANDARDS

While the Codex Alimentarius as it stands is a remarkable achievement, it would be quite wrong to see it as the only product of the Codex Alimentarius Commission, although it is the most important.

Resulting from the creation of the Codex, another major accomplishment has been to sensitize the global community to the danger of food hazards as well as to the importance of food quality and hence to the need for food standards.

By providing an international focal point and forum for informed dialogue on issues relevant to food, the Codex Alimentarius Commission fulfils a crucial role. In support of its work on food standards and codes of practice, it generates reputable texts for the management of food safety and consumer protection based on the work of the best-informed individuals and organizations concerned with food and related fields. Countries have responded by introducing long-overdue food legislation and Codex-based standards and by establishing or strengthening food control agencies to monitor compliance with such regulations.

EVALUATING THE OUTCOME

After 40 years of Codex operations, FAO and WHO decided to undertake a formal evaluation of the Codex programme in 2002. An independent evaluation team conducted over 20 country visits and sought information from an open call for public comment on the Internet. A group of independent experts representing all stakeholders was formed, and detailed questionnaires were sent to all member governments and observer organizations.

The results were enlightening and mostly positive. The evaluation found Codex food standards to be given very high importance by members. Codex standards were considered a vital component in promoting food control systems designed to protect consumer health, including issues related to

international trade and the SPS and TBT Agreements of WTO. The full report of the evaluation can be found on the Codex Web site.

As part of the evaluation, governments were asked in what ways Codex standards were important for their countries. Low- and middle-income countries found 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, placed more emphasis on the Codex for export facilitation and ensuring the safety of food imports. Producer and consumer non-governmental organizations (NGOs) also rated Codex standards as very important in all their functions.

Nevertheless, the evaluation found that there were four main areas for improvement:

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

The Codex Alimentarius Commission, FAO, WHO and their partners are currently implementing the findings of the evaluation.

The evaluation confirmed that the Codex Alimentarius now has such a well-established reputation as an international reference that it has become customary for health authorities, government food control officials, manufacturers, scientists and consumer advocates to ask first of all: What does the Codex Alimentarius have to say? – a notable achievement indeed.

Origins of the Codex Alimentarius



The Codex Alimentarius is the product of a long evolutionary process involving a wide cross-section of the global community. Many people representing many interests and disciplines have been involved in the process, and it is not unreasonable to suppose that, as long as the need perceived by those people remains, so the Codex Alimentarius will remain.

Codex Alimentarius on the Internet:
www.codexalimentarius.net

ANCIENT TIMES

Evidence from the earliest historical writings indicates that governing authorities were already then concerned with codifying rules to protect consumers from dishonest practices in the sale of food. Assyrian tablets described the method to be used in determining the correct weights and measures for food grains, and Egyptian scrolls prescribed the labelling to be applied to certain foods. In ancient Athens, beer and wines were inspected for purity and soundness, and the Romans had a well-organized state food control system to protect consumers



from fraud or bad produce. In Europe during the Middle Ages, individual countries passed laws concerning the quality and safety of eggs, sausages, cheese, beer, wine and bread. Some of these ancient statutes still exist today.

A SCIENTIFIC BASE

The second half of the nineteenth century saw the first general food laws adopted and basic food control systems put in place to monitor compliance. During the same period, food chemistry came to be recognized as a reputable discipline, and the determination of the “purity” of a food was primarily based on the chemical parameters of simple food composition. When harmful industrial chemicals were used to disguise the true colour or nature of food, the concept of “adulteration” was extended to include the use of hazardous chemicals in food. Science had begun providing tools with which to disclose dishonest practices in the sale of food and to distinguish between safe and unsafe edible products.

INTERNATIONAL DEVELOPMENTS

In the Austro-Hungarian Empire between 1897 and 1911, a collection of standards and product descriptions for

Report of the First Meeting of the Joint FAO/WHO Expert Committee on Nutrition, 1950 – *an extract*

“Food regulations in different countries are often conflicting and contradictory. Legislation governing preservation, nomenclature and acceptable food standards often varies widely from country to country. New legislation not based on scientific knowledge is often introduced, and little account may be taken of nutritional principles in formulating regulations.”

Milestones in the evolution of food standards

ANCIENT TIMES

- Attempts are made by early civilizations to codify foods

EARLY 1800s

- Canning is invented

MID-1800s

- Bananas are first shipped to Europe from the tropics

1800s

- The first general food laws are adopted and enforcement agencies established
- Food chemistry gains credibility, and reliable methods are developed to test for food adulteration

LATE 1800s

- A new era of long-distance food transportation is ushered in by the first international shipments of frozen meat from Australia and New Zealand to the United Kingdom

EARLY 1900s

- Food trade associations attempt to facilitate world trade through the use of harmonized standards

1903

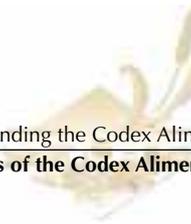
- The International Dairy Federation (IDF) develops international standards for milk and milk products. (IDF was later to be an important catalyst in the conception of the Codex Alimentarius Commission)

1945

- FAO is founded, with responsibilities covering nutrition and associated international food standards

1948

- WHO is founded, with responsibilities covering human health and, in



particular, a mandate to establish food standards

1949

- Argentina proposes a regional Latin American food code, *Código Latinoamericano de Alimentos*

1950

- Joint FAO/WHO expert meetings begin on nutrition, food additives and related areas

1953

- WHO's highest governing body, the World Health Assembly, states that the widening use of chemicals in the food industry presents a new public health problem that needs attention

1954–1958

- Austria actively pursues the creation of a regional food code, the *Codex Alimentarius Europaeus*, or European Codex Alimentarius

1960

- The first FAO Regional Conference for Europe endorses the desirability of international – as distinct from regional – agreement on minimum food standards and invites the Organization's Director-General to submit proposals for a joint FAO/WHO programme on food standards to the FAO Conference

1961

- The Council of the Codex Alimentarius Europaeus adopts a resolution proposing that its work on food standards be taken over by FAO and WHO

1961

- With the support of WHO, the United Nations Economic Commission for Europe (UNECE), the Organisation for Economic Co-operation and Development (OECD) and the Council of the Codex Alimentarius Europaeus, the FAO Conference establishes the Codex Alimentarius and resolves to

create an international food standards programme

1961

- The FAO Conference decides to establish a Codex Alimentarius Commission and requests an early endorsement by WHO of a joint FAO/WHO food standards programme

1962

- The Joint FAO/WHO Food Standards Conference requests that the Codex Alimentarius Commission implement a joint FAO/WHO food standards programme and create the Codex Alimentarius

1963

- Recognizing the importance of WHO's role in all health aspects of food and considering its mandate to establish food standards, the World Health Assembly approves establishment of the Joint FAO/WHO Food Standards Programme and adopts the Statutes of the Codex Alimentarius Commission

a wide variety of foods was developed as the *Codex Alimentarius Austriacus*. Although lacking legal force, it was used as a reference by the courts to determine standards of identity for specific foods. The present-day Codex Alimentarius draws its name from the Austrian code.

TRADE CONCERNS

The different sets of standards arising from the spontaneous and independent development of food laws and standards by different countries inevitably gave rise to trade barriers that were of increasing concern to food traders in the early twentieth century. Trade associations that were formed as a reaction to such barriers pressured governments to harmonize their various food standards so as to facilitate

trade in safe foods of a defined quality. The International Dairy Federation (IDF), founded in 1903, was one such association. Its work on standards for milk and milk products later provided a catalyst in the establishment of the Codex Alimentarius Commission and in the setting of its procedures for elaborating standards.

When FAO and WHO were founded in the late 1940s, there was heightened international concern about the direction being taken in the field of food regulation. Countries were acting independently and there was little, if any, consultation among them with a view to harmonization. This situation is reflected in the observations of international meetings of the time.

CONSUMERS' CONCERNS

In the 1940s, rapid progress was made in food science and technology. With the advent of more sensitive analytical tools, knowledge about the nature of food, its quality and associated health hazards also grew quickly. There was intense interest in food microbiology, food chemistry and associated disciplines, and new discoveries were considered newsworthy. Articles about food at all levels flourished,

and consumers were bombarded with messages in popular magazines, in the tabloid press and on the radio. Some were correct, some incorrect – but all were intended to absorb interest, and many were overly sensational.

Despite the questionable quality of some of the information disseminated, however, the outcome was an increase in the public's food consciousness and, consequently, knowledge about food safety gradually grew.

At the same time, as more and more information about food and related matters became available, there was greater apprehension on the part of consumers. Whereas, previously, consumers' concerns had extended only as far as the "visibles" – underweight contents, size variations, misleading labelling and poor quality – they now embraced a fear of the "invisibles", i.e. health hazards that could not be seen, smelled or tasted, such as micro-organisms, pesticide residues, environmental contaminants and food additives. With the blossoming of well-organized and informed consumers' groups, both internationally and nationally, there was growing pressure on governments worldwide to protect communities from poor-quality and hazardous foods.

The problem of food additives

In 1955, the Joint FAO/WHO Expert Committee on Nutrition recorded that:

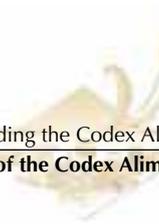
"... the increasing, and sometimes insufficiently controlled, use of food additives has become a matter of public and administrative concern."

The Committee also noted that the means of solving problems arising from the use of food additives may differ from country to country and stated that this fact:

"... must in itself occasion concern, since the existence of widely differing control measures may well form an undesirable deterrent to international trade."

A DESIRE FOR LEADERSHIP

Food regulators, traders, consumers and experts were looking increasingly to FAO and WHO for leadership in unravelling the skein of food regulations that were impeding trade and providing mostly inadequate protection for consumers. In 1953, the governing body of WHO, the World Health Assembly, stated that the widening use of chemicals in food presented a new public health problem, and it was proposed that the two Organizations should conduct relevant studies. One such study identified the use of food additives as a critical factor.



As a result, FAO and WHO convened the first joint FAO/WHO Conference on Food Additives in 1955. That Conference led to the creation of the Joint FAO/WHO Expert Committee on Food Additives (JECFA), which, after more than 50 years, still meets regularly. JECFA's work continues to be of fundamental importance to the Codex Commission's deliberations on standards and guidelines for food additives, contaminants and residues of veterinary drugs in foods. It has served as a model for many other FAO and WHO expert bodies, and for similar scientific advisory bodies at the national level or where countries have joined together in regional economic groupings.

INTEGRATING NON-GOVERNMENTAL ACTIVITIES

While FAO and WHO furthered their involvement in food-related matters, a variety of committees set up by international NGOs also began working in earnest on standards for food commodities. In time, the work of those NGO committees was either assumed by, or continued jointly with, the appropriate Codex Alimentarius Commodity Committees and, in some cases, the non-governmental committees themselves became Codex committees.

INTERNATIONAL CONSULTATION AND COOPERATION

Two landmark years in the foundation of the Codex Alimentarius were 1960 and 1961. In October 1960, the first FAO Regional Conference for Europe crystallized a widely held view when it recognized:

"[t]he desirability of international agreement on minimum food standards and related questions (including labelling requirements, methods of analysis, etc.) ... as an important means of protecting the consumer's health,

of ensuring quality and of reducing trade barriers, particularly in the rapidly integrating market of Europe".

The Conference also felt that:

"... coordination of the growing number of food standards programmes undertaken by many organizations presented a particular problem".

Within four months of the regional conference, FAO entered into discussions with WHO, the United Nations Economic Commission for Europe (UNECE), the Organisation for Economic Co-operation and Development (OECD) and the Council of the Codex Alimentarius Europaeus with proposals that would lead to the establishment of an international food standards programme.

In November 1961, the Eleventh Session of the FAO Conference passed a resolution to set up the Codex Alimentarius Commission.

In May 1963, the Sixteenth World Health Assembly approved the establishment of the Joint FAO/WHO Food Standards Programme and adopted the Statutes of the Codex Alimentarius Commission.

What is the Codex Alimentarius?



Simply stated, the Codex Alimentarius is a collection of standards, codes of practice, guidelines and other recommendations. Some of these texts are very general, and some are very specific. Some deal with detailed requirements related to a food or group of foods; others deal with the operation and management of production processes or the operation of government regulatory systems for food safety and consumer protection.

Codex Alimentarius on the Internet:
www.codexalimentarius.net

STANDARDS, CODES OF PRACTICE, GUIDELINES AND OTHER RECOMMENDATIONS

Codex standards usually relate to product characteristics and may deal with all government-regulated characteristics appropriate to the commodity, or only one characteristic. Maximum residue limits (MRLs) for residues of pesticides or veterinary drugs in foods are examples of standards dealing with only one characteristic. There are *Codex general standards* for food additives and contaminants and toxins in foods that contain both general and commodity-



specific provisions. The Codex General Standard for the Labelling of Prepackaged Foods covers all foods in this category. Because standards relate to product characteristics, they can be applied wherever the products are traded.

Codex methods of analysis and sampling, including those for contaminants and residues of pesticides and veterinary drugs in foods, are also considered Codex standards.

Codex codes of practice – including codes of hygienic practice – define the production, processing, manufacturing, transport and storage practices for individual foods or groups of foods that are considered essential to ensure the safety and suitability of food for consumption. For food hygiene, the basic text is the Codex General Principles of Food Hygiene, which introduces the use of the Hazard Analysis and Critical Control Point (HACCP) food safety management system. A code of practice on the control of the use of veterinary drugs provides general guidance in this area.

Codex guidelines fall into two categories:

- principles that set out policy in certain key areas; and
- guidelines for the interpretation of these principles or for the interpretation of the provisions of the Codex general standards.

In the cases of food additives, contaminants, food hygiene and meat hygiene, the basic principles governing the regulation of these matters are built into the relevant standards and codes of practice.

There are free-standing *Codex principles* covering:

- addition of essential nutrients to foods;
- food import and export inspection and certification;
- establishment and application of microbiological criteria for foods;
- conduct of microbiological risk assessment;
- risk analysis of foods derived from modern biotechnology.

The Codex scorecard*

- Commodity standards – 202
- Commodity-related guidelines and codes of practice – 38
- General standards and guidelines on food labelling – 7
- General codes and guidelines on food hygiene – 5
- Guidelines on food safety risk assessment – 5
- Standards, codes and guidelines on contaminants in foods – 14
- Standards, guidelines and other recommendations on sampling, analysis, inspection and certification procedures – 22
- Maximum limits for pesticide residues – 2 579, covering 213 pesticides
- Food additives provisions – 683, covering 222 food additives
- Maximum limits for veterinary drugs in foods – 377, covering 44 veterinary drugs

*Status as of 1 July 2005

Interpretative Codex guidelines include those for food labelling, especially the regulation of claims made on the label. This group includes guidelines for nutrition and health claims; conditions for production, marketing and labelling of organic foods; and foods claimed to be “halal”. There are several guidelines that interpret the provisions of the Codex Principles for Food Import and Export Inspection and Certification, and guidelines on the conduct of safety assessments of foods from DNA-modified plants and micro-organisms.

COMMODITY STANDARDS

By far the largest number of specific standards in the Codex Alimentarius is the group called “commodity standards”. The major commodities included in the Codex are:

- cereals, pulses (legumes) and derived products including vegetable proteins
- fats and oils and related products
- fish and fishery products
- fresh fruits and vegetables
- processed and quick-frozen fruits and vegetables
- fruit juices
- meat and meat products; soups and broths
- milk and milk products
- sugars, cocoa products and chocolate and other miscellaneous products

Commodity standards tend to follow a fixed format set out in the *Procedural Manual of the Codex Alimentarius Commission*. The format consists of the following categories of information:

- *Scope* includes the name of the food to which the standard applies and, in most cases, the purpose for which the commodity will be used.
- *Description* includes a definition of the product or products covered with an indication, where appropriate, of the raw materials from which they are derived.
- *Essential composition* includes information on the composition and identity characteristics of the commodity, as well as any compulsory and optional ingredients.
- *Food additives* contains the names of the additives and the maximum amount permitted to be added to the food. Food additives must be cleared by FAO and WHO for their safety, and the use of food additives must be consistent with the Codex General Standard for Food Additives.
- *Contaminants* contains limits for contaminants that may occur in the product(s) covered by the standard. These limits are based on the scientific advice of FAO and WHO and must be consistent with the Codex General Standard for Contaminants and Toxins in Foods. Where appropriate, reference is also made to the Codex Maximum Limits

for pesticide residues and for residues of veterinary drugs in foods.

- *Hygiene* makes reference to relevant Codex Codes of Hygienic Practice for the commodity concerned. In almost all cases it is required that the product shall be free from pathogenic micro-organisms or any toxins or other poisonous or deleterious substances in amounts that represent a hazard to health.
- *Weights and measures* contains provisions such as fill of the container and the drained weight of the commodity.
- *Labelling* includes provisions on the name of the food and any special requirements to ensure that the consumer is not deceived or misled about the nature of the food. These provisions must be consistent with the Codex General Standard for the Labelling of Prepackaged Foods. Requirements for the listing of ingredients and date-marking are specified.
- *Methods of analysis and sampling* contains a list of the test methods needed to ensure that the commodity conforms to the requirements of the standard. References are made to internationally recognized test methods that meet the Commission's criteria for accuracy, precision, etc.

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

CAC

Codex Alimentarius Commission

30 June - 7 July

Commission du Codex Alimentarius

30 juin - 7 juillet

Comisión del Codex Alimentarius

30 de junio - 7 de julio



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 2005, membership comprised 171 countries, representing 98 percent of the world's population. The European Community is a Member Organization.

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,

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.

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.

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.

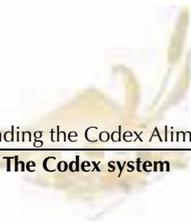
THE COMMISSION'S OPERATIONS

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

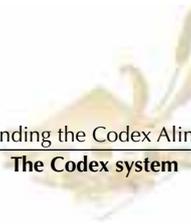
These Committees are so called because their work has relevance for all Commodity Committees and, because this work applies across the board to all commodity standards, General Subject Committees are sometimes referred to as "horizontal committees". General Subject Committees develop all-embracing concepts 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.

Five 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 and Contaminants
- 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 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

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

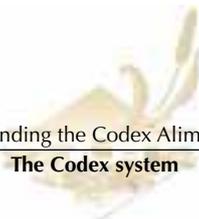
formidable task that involves, among myriad other things, the compilation of agenda item papers and the responsibility for logistical arrangements. The preparation of Commission meeting reports is a demanding task in itself, as the report of each meeting must be cleared by participants before its closing. 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

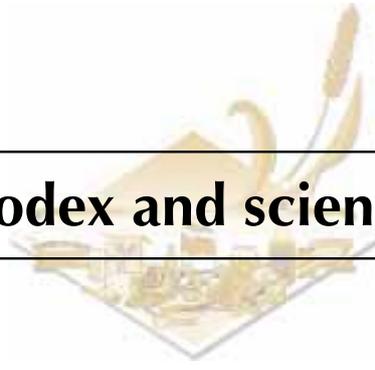


in the statutory sense. Differing legal formats and administrative systems, varying political systems and sometimes the influence of national attitudes and concepts of sovereign rights impede the progress of harmonization and deter the acceptance of Codex standards.

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



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;

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

- *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

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 and Contaminants 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.

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 speciality, 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

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



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

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 ...”

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.

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





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

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.”

among the Multilateral Agreements on Trade in Goods, annexed to the 1994 Marrakesh Agreement, which established the World Trade Organization.

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

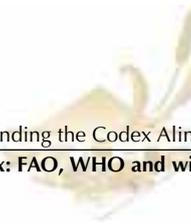
FAO and WHO complement the Commission's activities significantly in a number of practical ways. FAO and WHO help developing countries to apply Codex standards and strengthen national food control systems and take advantage of international food trade opportunities. One of the most important contributions 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.





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



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

Codex on the Internet

www.codexalimentarius.net

For up-to-date information on:

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

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.



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