codex alimentarius commission

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

WORLD HEALTH ORGANIZATION

JOINT OFFICE: Viale delle Terme di Caracalla 00100 ROME Tel.: +39(06)57051 Telex: 625825-625853 FAO I E-mail: Codex@fao.org Facsimile: +39(06)5705.4593

Agenda Item 7(a) **CX/ASIA 99/7**
September 1999

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COORDINATING COMMITTEE FOR ASIA

Twelfth Session
Chiang Mai, Thailand, 23 - 26 November 1999

INFORMATION AND REPORTS ON FOOD CONTROL AND FOOD SAFETY ISSUES INCLUDING ACCEPTANCE OF CODEX STANDARDS

REPORTS ON FAO AND WHO ACTIVITIES IN THE REGION

(Prepared by FAO and WHO)

A. SELECTED JOINT FAO/WHO ACTIVITIES

1. JOINT FAO/WHO EXPERT CONSULTATION ON THE APPLICATION OF RISK COMMUNICATION TO FOOD STANDARDS AND SAFETY MATTERS (Rome, 2-6 February 1998)

This was the third and final Joint FAO/WHO Consultation covering the three elements of food safety risk analysis, namely risk assessment, risk management and risk communication. The Consultation defined risk communication as, "the exchange of information and opinions concerning risk and risk-related factors among risk assessors, risk managers, consumers and other interested parties." The Consultation identified elements of effective risk communication and recommended guiding principles. It further outlined barriers to communication both within the risk analysis process itself and the Codex process, as well as barriers to communication in all contexts. It then went on to summarize general requirements for effective risk communication and strategies to be considered for risk communication in both non-crisis and crisis situations. Recommendations were made in broad areas concerning risk communication and its application.

2. JOINT FAO/WHO EXPERT CONSULTATION ON HUMAN VITAMIN AND MINERAL REQUIREMENTS (Bangkok, 21-30 September 1998)

A Joint FAO/WHO Expert Consultation on Human Vitamin and Mineral Requirements was held in Bangkok, in September 1998, to complete the review and update our knowledge on human vitamin and mineral requirements. This information, along with recommendations from other recent expert consultations on nutrients, will be used in developing a new edition of the Handbook on Human Nutrient Requirements. The report of the Bangkok consultation and the new edition of the Handbook are currently under preparation.

3. FAO/WHO/UNEP THIRD INTERNATIONAL CONFERENCE ON MYCOTOXINS (Tunis, 3-6 March 1999)

The Third International Conference on Mycotoxins was organized jointly by FAO, WHO and UNEP, and was held in Tunis, Tunisia from 3 to 6 March 1999. Thirty-eight countries and ten International Organizations participated at this conference which served as a forum for the exchange of scientific and technical information, and provided relevant information to government officials responsible for policy-making and administering controls, so that prevention and control regulations and programmes could be

harmonized. The conference insisted that countries take note of the risk assessment methodologies that have been developed by international organizations, so that their safety and health requisites would be transparent and scientifically justified. In addition, the integrated mycotoxin control programmes should reflect HACCP principles. The conference also pointed out that regulation and control should concentrate on the principal sources of contamination to maximize returns from limited available resources.

4. JOINT FAO/WHO EXPERT CONSULTATION ON RISK ASSESSMENT OF MICROBIOLOGICAL HAZARDS IN FOODS (Geneva, 15-19 March 1999)

This consultation convened in response to the request from the 22nd Session of the Codex Alimentarius Commission (CAC) and the 45th Session of the Executive Committee to provide advice on the development of an international strategy and supporting mechanisms for risk assessment of microbiological hazards in foods. The consultation concluded that there was a critical need for technical advice on risk assessment of microbiological hazards in food to meet the needs of national governments, the food industry, the scientific community, trade organisations and international consumers groups. The Consultation recommended that FAO and WHO establish a series of meetings of experts to provide the required advice in response to specific requests from Member Countries through FAO, WHO and the CAC. The scope of the meetings of experts should include: review and interpretation of existing microbiological risk assessments, advice on how risk assessments conducted at national level can be applied to international issues and guidance on microbiological risk assessment practices. The 32nd session of the CCFH was invited to discuss the report of the Consultation in order to propose areas to be considered by FAO and WHO in a future meeting(s) of experts. Experts from Japan and Thailand participated in the Consultation.. The report of this consultation has been published and is available on the FAO web site at http://www.fao.org/WAICENT/FAOINFO/ECONOMIC/ESN/hazard/hazard.htm or http://www.who.int/fst/mbriskassess/consultation99/index.htm.

5. JOINT FAO/WHO EXPERT COMMITTEE ON FOOD ADDITIVES (JECFA)[1]

Since the 11th Session of the Committee four meetings of JECFA have been held. The 50th (Rome, February 1998) and 52nd meetings (Rome, February 1999) assessed the safety of residues of 29 veterinary drugs: 17 at the 50th meeting and 12 at the 52nd meeting. Among them, a total of 8 substances were evaluated for the first time.

The 51st meeting (Geneva, June 1998) and 53rd meeting (Rome, June 1999) reviewed a total of 500 food additives, including 435 flavouring agents, and three contaminants, lead, methylmercury and zearalenone. The 53rd meeting also considered allergenicity of peanut and soya bean oils.

6. JOINT FAO/WHO MEETING ON PESTICIDE RESIDUE (JMPR)[2]

Two meeting were held since the last session of the Committee: in Rome in September 1998 and 1999. A total of 45 pesticides were assessed, of which 21 were reviewed toxicologically and 37 for estimation of maximum residue limits. Of these, 2 were new compounds and 28 were pesticides that were undergoing evaluation under the periodic review programme of the Codex Committee on Pesticide Residues.

---

1 "Summary and Conclusions" of JECFA meetings are available for download at:
http://www.fao.org/WAICENT/FAOINFO/ECONOMIC/ESN/jecfa/jecfa.htm
http://www.who.int/pcs/JECFA/jecfa.htm

2 Reports (1991-) and Residue Monographs (1997-), and future agendas of JMPR are available for download at:
http://www.fao.org/WAICENT/FAOINFO/AGRICULT/AGP/AGPP/Pesticid/Default.htm

B. SELECTED FAO ACTIVITIES

1. FAO GLOBAL ACTIVITIES

1.1 Joint FAO/IAEA Expert Consultation on Validation of Analytical Methods for Food Control (Vienna, 2-4 December 1997)

The identification of appropriate and reliable analytical methods by which compliance with international standards can be determined, is an integral part of decision-making in a risk analysis framework. Validation procedures normally involve extensive collaborative studies in accordance with international protocols, but such procedures are often either impractical or not feasible. The Consultation reviewed existing validation schemes and identified requirements for validation of analytical methods in the areas of veterinary drug and pesticide residues, food additives and environmental contaminants in food. Alternative approaches to methods validation were recommended which would be practical and cost effective, and which would consider time and human resource constraints while satisfying the high analytical quality requirements of both Codex and national food control regulatory programmes.

1.2 FAO Expert Consultation on Trade Impact of *Listeria* in Fish Products (Amherst, USA., 17-20 May 1999)

The consultation was convened in response to concerns regarding the impact in the fishery sector of zero-tolerance policy for *Listeria monocytogens* in foods. The Consultation documented the current scientific knowledge concerning the risks of listeriosis in relation to fishery products in order to identify the risk contributing and risk mitigation factors. The Consultation recommended that for the purpose of setting standards it should be accepted that it is not possible to produce certain fisheries products consistently free of *L. monocytogens,* and reviewed measures for the prevention and control of this micro-organism in foods. The Consultation also recommended that food quality and safety assurance systems based on good hygienic practices and HACCP principles be developed and implemented to reduce the potential of colonisation. The Consultation proposed a decision tree for establishing criteria for *L. monocytogens* in food in international trade and recommended that microbiological criteria for this organism should be harmonised, risk-based and only used on ready-to-eat foods capable of supporting its grow. Experts from Thailand and India participated in the Consultation. The report of the consultation is available on the FAO web site at
http://www.fao.org/WAICENT/FAOINFO/ECONOMIC/ESN/listeria/listeria.htm.

1.3 Third International Food Data Conference (Rome, 5-7 July 1999)

The conference was organized by the Food and Agriculture Organization of the United Nations in cooperation with the European Cooperation and Research Action on Food Consumption and Composition Data, the United Nations University, the International Union of Nutritional Sciences and the Italian National Institute of Nutrition, Rome. The aim of the conference was to discuss basic subjects, current issues and future directions in generating, compiling, disseminating and using food composition data. Issues related to data quality assessment, sampling and nutritional quality were discussed and recommendations made. Through the Conference, members of the food composition scientific/technical community gained an appreciation of how food composition activities fit in with the work of Codex Alimentarius and with FAO's other food quality and safety programmes. Several of the Conference's recommendations aim at improving synergies between food composition activities and food quality and safety activities.

1.4 FAO International Conference on International Food Trade Beyond 2000 (Melbourne, 11-15 October 1999)

The conference will address how food quality and safety issues affect trade, health and development at both domestic and international levels. Pointing the way from 2000 onwards, it will take into account recommendations of the 1991 FAO/WHO conference, current needs in the field of food trade, the Uruguay Round Agreements and the forthcoming round of WTO negotiations. The Conference should generate coherent recommendations on scientifically based approaches to promoting better-quality and safer foods in domestic and international trade.

1.5 FAO/IAEA/AOAC/IUPAC International Workshop on Principles and Practices of Method Validation (Budapest, 4-6 November 1999)

This workshop will provide a forum for presenting research results and exchanging experiences and practical solutions related to the "in-house method validation of analytical methods" in general; and specifically the validation of methods for the analysis of pesticide residues, veterinary drug residues and mycotoxins. Recommendations agreed upon at the workshop will be submitted to the Codex secretariat, international standard organisations and accreditation bodies for their consideration.

2. FAO REGIONAL ACTIVITIES

FAO has carried out many activities in Asia, through its Regular Programme as well as its Field Programme, in providing technical assistance and guidance to member countries to improve food quality and safety and to implement the recommendations of the Codex Alimentarius.

FAO Technical Cooperation Programme Projects

FAO Technical Cooperation Programme (TCP) projects on various aspects of food control have been or are being implemented in Thailand, India and Viet Nam.

The project in Thailand, “Improving Food Control Infrastructure” aims at upgrading the management of food control programmes incorporating risk analysis principles as well as updating technical capacity in food inspection and food analytical services.

The project in India, “Manpower Development in Food Quality and Safety” aims to develop training capacity in food safety and quality control within the Export Inspection Agencies (EIAs) and in the Indian food processing Industry, emphasising the application of Good Manufacturing Practice, Good Hygienic Practice and Hazard Analysis Critical Control Point (HACCP). The final output of the project will be to provide an India-wide pool of 80 trainers on application of the Codex Recommended International Code of Practice, General Principles of Food Hygiene and the application of the HACCP system; the capacity of the Export Inspection Council strengthened, and 300 top management food industry and food trade representatives sensitised on relevant food control issues. To implement the project and reach the overall objective a series of interrelated activities have been conducted in Cochin, and Calcutta and will be also implemented in Bombay and Madras. To complement the training activities in India, the project also includes 2 study tours for 4 officials of the EIAs trained in the accurate interpretation of food import requirements of USA, Canada and EC and in the auditing of production activities of the Indian food processing industry to ensure product compliance with statutory requirements of those countries and a TCDT activity between India and Thailand.

On request of the Government of India FAO provided the services of an expert on quality assurance of food control laboratories to the Food Analysis & Research Center (FRAC), New Delhi, from 26 January –24 February 1999. The consultant provided advice, guidance and training to the management and staff of the FRAC laboratory in order to strength its role as a reference laboratory on contaminants and pesticide residues.

The Project in Viet Nam “Developing Food Export Inspection and Certification Systems” aims to support Viet Nam’s food export trade by assisting in the establishment of an efficient, well managed export inspection and certification system for food based on internationally-accepted principles. TCP project proposals for strengthening national Codex structures in Cambodia and India are currently under review.

Other TCP projects dealing with safety and quality of fish and fishery products are also being implemented in the following Asian countries: Bangladesh, Laos, Philippines and Sri Lanka.

Workshops

A number of workshops dealing with various aspects of food quality and safety were jointly organised by FAO and the International Life Sciences Institute (ILSI) and implemented in the Region. Two of these were regional workshops on science-based harmonisation of food quality and safety measures. The first was for the countries of the South Asian Association for Regional Cooperation (SAARC) and

was held in India from 21-23 September 1998. The second of the workshops covered the Southeast Asian countries, including China and Mongolia, and was held in Thailand on 24-25 August 1999. Joint FAO/ILSI workshops on risk analysis were carried out in Malaysia and China in November 1998. An FAO/ILSI Workshop on Food Safety and Human Health: Food Additives and Contaminants was held in Thailand in November 1998.

FAO co-organized or participate in several workshops and seminars in the Region related to Codex and the WTO's SPS/TBT Agreements. One example is the WTO Seminar on the Application of sanitary and Phytosanitary Measures held in Manila, the Philippines, from 30 June to 3 July 1998.
FAO also held a national workshop on the administration of the National Codex Committee in the Philippines in May 1999.

A Round Table meeting was held in Bangladesh to discuss the consequences of the Uruguay Round Agreements for Bangladesh Agriculture. The Round Table was organised under a project supported by the United Nations Development Programme (UNDP) and technically executed by FAO.

FAO's Fisheries Division has organised workshops and other training activities on HACCP and HACCP-based systems in the fishery industry. Emphasis has been placed on the urgent need of developing countries to upgrade their fishery industries to comply with health and sanitary regulations in force in major markets and all relevant Codex standards and recommendations. Most of the training activities were funded by the GCP/INT/609/DEN: FAO/DANIDA Inter-regional Training Project on Fish Technology and Quality Assurance.

An FAO regional seminar on Street Food Development will be held at the FAO Regional Office for Asia and the Pacific in Thailand from September 29 to October 1, 1999. This meeting will serve as an important forum for the countries of the region to share experiences concerning street food control systems established in their countries and improvements achieved since the last regional meeting on this topic which was held in Calcutta in December 1996.The meeting should facilitate regional collaboration in solving problems facing the street food sector.

C. SELECTED WHO ACTIVITIES

1. WHO GLOBAL ACTIVITIES[3]

1.1 GEMS/Food

In collaboration with the US Food and Drug Administration, the Global Environment Monitoring System/Food Contamination Monitoring and Assessment Programme GEMS/Food convened the first International Total Diet Study Workshop, 26 July to 6 August in Kansas City, USA. The workshop was attended by 23 participants representing 8 Asian countries. (WHO/SDE/PHE/FOS/99.9)

GEMS/Food issued a risk assessment of infant exposure to certain organochlorine contaminants from breast milk based on the results of its international dietary survey (WHO/FSF/FOS/98.4). In addition, GEMS/Food has published the results of its Analytical Quality Assurance Study on Cadmium, lead and Mercury conducted in 1997 (WHO/FSF/FOS/98.6). In cooperation with Germany and New Zealand, GEMS/Food has developed the Operating Program for Analytical Laboratories (OPAL) which is intended to assist countries in the collection and retrieval of data on food contaminants. Associated with this, GEMS/Food has also developed procedures for the electronic reporting of data to the GEMS/Food database.

1.2 Antimicrobial Resistance

WHO consultation on the use of antimicrobials issued a report entitled "use of quinolones in food animals and potential impact on human health"(WHO/EMC/ZDI/98.12). Use of quinolones in livestock has been identified as a particular area of concern because of the significance of this group of antimicrobials for the treatment of a broad range of infections in humans including gastrointestinal infections caused by zoonotic bacteria transmitted to humans via the food chain

[3] Most of the documents referred in the paper are available from: http://www.who.int/fst/index.htm,

1.3 Cholera outbreak and importation ban

When cholera broke out in 1997 in Eastern Africa, a number of countries in Europe and elsewhere again prohibited the importation of certain foodstuffs from these cholera-affected countries, as had been the case in 1992 with regard to Latin America. As a consequence, the WHO Director-General issued a Note Verbale on Cholera and international trade in food production in February 1998 and drew attention to the following:

> *"Food produced under good manufacturing practices poses only a negligible risk of cholera transmission. Consequently, WHO believes that food import restrictions, based on the sole fact that cholera is epidemic or endemic in a country, are not justified."*

1.4 Disinfection of fruits and vegetables

WHO, jointly with FAO and in collaboration with the National Sanitation Foundation International, prepared a document entitled "Surface decontamination of fruits and vegetables eaten raw: A review" (WHO/FSF/FOS/98.2). The document reviews current practices with regard to disinfection of fruits and vegetables. It also provides a review of hazards, which are associated with fruits and vegetables, and the efficacy of different disinfection methods on those hazards.

1.5 Regulatory Assessment of the HACCP System

The Joint FAO/WHO Consultation on the Role of Government Agencies in Assessing HACCP produced a report entitled "Guidance on Regulatory Assessment of HACCP" (WHO/FSF/FOS/98.5). As the implementation of the HACCP system progresses in the food industry, the traditional role of food control authorities, especially that of food inspectors, is changing. This is particularly the case in countries where the application of the HACCP system is mandatory. The report provides government agencies with guidance on activities considered essential for government agencies to carry out and on how to perform these activities adequately.

1.6 HACCP in Small and/or Less Developed Businesses

WHO, in collaboration with the Ministry of Health, Welfare and Sports of the Netherlands, convened a Consultation on the Development of a Strategy for the Implementation of HACCP in Small and/or Less Developed Businesses (SLDBs). The SLDBs represent a large proportion of food enterprises and are responsible for a large share of human food consumption. Many of them lack an adequate food safety management programme and have experienced difficulties in applying the HACCP system as described in the Codex Guidelines on the subject. The Consultation therefore addressed the problems encountered when implementing HACCP in SLDBs in the developing as well as the industrialized countries. It also reviewed the benefits and barriers to the implementation of HACCP in SLDBs and developed recommendations on ways to overcome these. (WHO/SDE/PHE/FOS/99.7)

1.7 HACCP Training Manual

WHO, jointly with the Industry Council for Development (ICD), produced a HACCP manual entitled "HACCP Principles and Practice". The manual includes 250 transparencies with teacher's notes for training in HACCP principles, and is targeted for food inspectors as well as personnel in food industry. The manual will be available in late 1999.

1.8 Food Safety for Nutritionists

A WHO/ICD Course on Food Safety for Nutritionists is organized annually, as part of the M.Sc. Programme carried out by the South Asian Ministers of Education Organization (SEAMEO) in collaboration with the German Technical Cooperation Agency (GTZ), in Indonesia. The objectives of the training courses are to promote the understanding of food safety and to enable participants to effectively reduce or prevent foodborne diseases. The training courses are open to all candidates desiring to be trained in food safety. A training package entitled "Food Safety for Nutritionists" is made available to the participants of the course. The duration of each course is 2-3 weeks.

1.9 Healthy Cities/Healthy Marketplaces

Under the auspices of the WHO Healthy Cities Programme, WHO is developing guidance to assist governments and municipalities to improve the safety of food sold in urban marketplaces. The Healthy Marketplaces approach works by directly involving market participants and other stakeholders in improving food-handling and infrastructure to promote food safety. Pilot Healthy Marketplaces projects have been or will be initiated in several WHO Member Countries.

2. WHO REGIONAL ACTIVITIES

2.1 South - East Asian Region

The WHO/SEARO office sees that the following situation prevails in the Region:
(1) foodborne diseases are common in most of the countries; (2) microbial contamination of food and water causes a large rate of morbidity and mortality through diarrhoea; and (3) the use of chemicals in agriculture and food processing is increasing.

The strategic objectives of the Office are to: (1) assist Member States in developing national policies and programmes in food safety and improve the national capacity for monitoring, assessing and controlling food safety; and (2) provide training in foodborne disease surveillance and control as well as in analytical methods for food contamination; consumer education and information dissemination.

A Regional Consultation on the Development of a Strategic Plan for Food Safety in the SEARO Region was convened in October 1998. It recommended Member States to develop a 10-point strategy for food safety improvement that covered food safety policies, food legislation, food control and inspection, analytical capability, epidemiological system, establishing working relationships with the food industry and trade, establishing working relationships with food service providers and retailers, establishing effective relationships with consumers, education and training in food safety and research in food safety.

In India, training courses for “Food Analysts/Chemists in Analysis of Mineral Water” were held in the Central Food Laboratory in Calcutta to show modern methods of analysis of mineral water in order to ensure food safety and quality. A study on the plastic material for packaging of food articles, a survey on the quantity of pesticide residues in food production, and a study on the current usage level of permitted and non-permitted colours and dietary intake of colours were undertaken.

In Myanmar, training courses on methods of analysis of mycotoxins, heavy metals, food preservatives, and free fatty acid in edible oils were conducted, as well as a course on research work in food pathogens, such as bacillus cereus and campylobacter.

In Indonesia, a “Master Plan for Food Control and Pilot Management Information Systems in Food Safety” was elaborated, as well as “Food Sanitation Training Modules for Street-Food Handlers”. Training courses for food inspectors and small-scale food industries were also held.

In Sri Lanka, a survey of the dietary habits was conducted to determine food consumption patterns. A workshop was held to update the existing food consumption table with nutritional values of cooked foods. A training course for awareness-building in food safety and hygiene was also convened.

2.2 Western Pacific Region

The food safety activities of the WHO Regional Office for the Western Pacific have been largely directed to the improvement and strengthening of the countries’ food safety and food and waterborne disease surveillance control programmes. Given the nature of the meeting, this report refers only to activities conducted in Codex Asia countries.

Support was provided to China and the Lao People’s Democratic Republic for national workshops and training courses for food safety staff. WHO also provided financial support for overseas training of staff from China, the Lao People’s Democratic Republic, the Republic of Korea, Malaysia, Mongolia, Singapore and Viet Nam in foodborne disease surveillance, food hygiene and food import control systems. Participants from three countries (Cambodia, Mongolia, and Viet Nam) also received support to attend international conferences on food safety held in Canada, Australia, the Netherlands and the USA.

A consultant visited the Republic of Korea to advise on safe delivery of meals for the elderly in home care, institutions and hospitals. The consultant conducted a workshop on nutrition and food safety counselling in the Republic of Korea which was also supported by WHO.

Logistical support for the national food safety programmes in the form of supplies and equipment was provided to China and Viet Nam. Information/Education/Communication (IEC) materials were translated, printed and distributed and teaching aids were developed in Laos with WHO support.

In Mongolia, WHO helped in the implementation of Codex Alimentarius Standards and in the development of guidelines and methodologies for food safety control as well as information systems. Technical support was provided in the application of HACCP and other food safety control methods and in the improvement of food safety laboratory capabilities and methods of food analysis. The Healthy Marketplaces project was introduced in Mongolia to improve the safety of foods sold in marketplaces.

Substantial funds were injected into the food safety programme in Viet Nam. The activities included a review of progress towards the establishment of a national plan for food safety (including essential elements of food legislation and inspection), workshops on contaminant monitoring and review of food acts, regulations and standards. A comprehensive manual on food inspection, incorporating the elements of HACCP and Codex principles specific to the needs of Viet Nam, has been developed by the University of Western Sydney at Hawkesbury, a WHO Collaborating Centre. Technical support on quality assurance in analysis, including the development of a manual, was also provided to Viet Nam. To further improve the management of the programme, 15 Vietnamese fellows were trained in China and Malaysia in food inspection, technical quality control, food testing laboratory and food quality assurance.

The Healthy Marketplaces project was also introduced in Cambodia, Lao PDR and China, in addition to Mongolia and Viet Nam. This initiative focuses on promoting the safety of food supplies from production to consumption, by an integrated approach, involving several sectors, including governments, producers, traders and consumers.

Food and water surveillance schemes are being promoted, particularly in Cambodia, Lao PDR, Mongolia and Viet Nam. A manual on the inspection of premises developed by a consultant is currently being reviewed, to be improved and made available to other countries.

Countries are becoming more aware of food safety problems. However, despite national food safety authorities' efforts to promote food safety and enforce regulations, foodborne disease outbreaks are still frequent. Residues of pesticides and other chemical contaminants excessively or improperly used in food production and processing are the cause of increasing concern, as is food contamination with biological agents, such as trematode-infested fish produced in sewage-fed ponds.