



**JOINT FAO/WHO FOOD STANDARDS PROGRAMME
COMMITTEE OF THE CODEX ALIMENTARIUS COMMISSION**

33rd Session

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**OTHER MATTERS ARISING FROM FAO AND WHO
(Prepared by FAO and WHO)**

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PART I: OUTCOMES OF RECENT FAO/WHO EXPERT MEETINGS

1. The scientific advice provided by FAO and WHO through JECFA, JEMRA, JMPR and *ad hoc* expert meetings remains a high priority for FAO and WHO and continues to cover a broad range of relevant issues.
2. The results of meetings held from April 2009 to April 2010 are summarized below.

Summary of scientific advice provided by FAO and WHO from April 2009 to April 2010

Activity	Joint FAO/WHO Expert Meeting on <i>Campylobacter</i> and <i>Salmonella</i> in chicken meat (Rome, Italy, 4–8 May 2009)
Purpose	The 40 th Session of the Codex Committee on Food Hygiene (CCFH) requested FAO and WHO to review and assess the scientific basis for all potential control measures for <i>Salmonella</i> and <i>Campylobacter</i> in chicken meat all along the chain to facilitate the ongoing development of the draft Codex Guidelines for the Control of <i>Campylobacter</i> and <i>Salmonella</i> in Chicken Meat and evaluate the potential to develop a web-based tool to assess the impact of potential interventions.
Outputs	<p>The meeting carried out an independent assessment and review of all available scientific information on control measures for <i>Campylobacter</i> and <i>Salmonella</i> at relevant stages of the broiler supply chain, including the control measures described in the draft guidelines as prepared by the CCFH Working Group to date, as well as interventions that had not been included. For every step of the production chain, an attempt was made to evaluate the interventions in quantitative terms i.e. according to their likely effects in reducing the prevalence and/or concentration of the hazard in each case. Particular attention was given to the likely outcome of hazard reduction in a commercial setting. For this purpose, the Experts drew upon all available and documented data and evidence in support of the interventions described. The feasibility of developing a web-based risk-management decision-support tool to demonstrate in a simplified manner the relative effects of different control measures, either alone or in combination, on hazard reduction and consequently relative levels of foodborne illness was considered to be an appropriate next step. This would enable countries to evaluate combinations of control measures available within their processing systems using a risk-based approach.</p> <p>The meeting report was made available to the Codex Working Group developing the Guidelines for the Control of <i>Campylobacter</i> and <i>Salmonella</i> in Chicken Meat which met in Brazil in September and was presented to the 41st session of the CCFH. It is also available at FAO (ftp://ftp.fao.org/ag/agn/jemra/MRA1911Nov09.pdf) and WHO (http://www.who.int/foodsafety/publications/micro/mra19/en/index.html) websites. The demonstrations of the web-based decision support tool were also made on three occasions in advance of the CCFH as well as during the CCFH.</p>
Activity	Joint FAO/WHO Expert Consultation on the Risks and Benefits of Fish Consumption (Rome, Italy, 25-29 January, 2010)
Purpose	The meeting reviewed recent scientific literature covering the risks of the contaminants methylmercury (MeHg) and dioxins and dioxin-like PCBs (DLCs) in fish, and the benefits of fish consumption as well as data on nutrient and contaminant levels in a range of fish species, in order to prepare risk-benefit assessments for specific end-points of benefits and risks and including sensitive groups of the population. The output is intended to provide guidance to national food safety authorities and the Codex Alimentarius Commission in their work on managing risks taking into account the existing data on the benefits of eating fish.
Outputs	<p>The conclusions of the meeting were as follows:</p> <ul style="list-style-type: none"> • Consumption of fish provides energy, protein, and a range of essential nutrients, including the long-chain n-3 poly unsaturated fatty acids (LC n-3 PUFAs). • Eating fish is part of the cultural traditions of many peoples and in some populations is a major source of food and essential nutrients. • Among the general adult population, consumption of fish, particularly oily fish, lowers the risk of coronary heart disease (CHD) mortality. There is absence of probable or convincing evidence of CHD risks of MeHg. Potential cancer risks of DLCs are well below established CHD benefits.

	<ul style="list-style-type: none"> • Among women of childbearing age, considering benefits of LC n-3 PUFA's vs. risks of MeHg: fish consumption lowers the risk of suboptimal neurodevelopment in their offspring compared to not eating fish in most circumstances evaluated. • At levels of maternal DLC intake (from fish and other dietary sources) that do not exceed the provisional tolerable monthly intake (PTMI) of 70 picograms/kg bodyweight/month established by JECFA, the neurodevelopmental risk is negligible. At levels of maternal DLC intake (from fish and other dietary sources) that exceed the PTMI, neurodevelopmental risk may no longer be negligible. • Among infants, young children and adolescents, the data available was insufficient to derive a quantitative framework of health risks and benefits of eating fish. However, healthy dietary patterns that include fish established early in life influence dietary habits and health during adult life. <p>The report will be published by FAO and WHO and an executive summary is in preparation and will be published on the websites of both organizations.</p>
Activity	72nd Joint FAO/WHO Expert Committee on Food Additives (Rome, Italy, 16–25 February 2010)
Purpose	The present meeting was devoted to (a) elaborate further principles for evaluating the health risk of food contaminants and (b) evaluate six food contaminants, acrylamide, arsenic, deoxynivalenol (DON) and its acetylated metabolites, furan, inorganic mercury and perchlorate.
Outputs	<p>JECFA made recommendations in relation to human health regarding the food contaminants listed above.</p> <p>For acrylamide, the new toxicological and epidemiological data as well as dietary exposure estimates have not changed significantly, hence the Margins of exposure are still a cause for health concern.</p> <p>For arsenic, the inorganic arsenic lower limit on the benchmark dose for a 0.5% increased incidence of lung cancer (BMDL_{0.5}) determined from epidemiological studies was 3.0 µg/kg bw per day and therefore the existing Provisional Tolerable Weekly Intake (PTWI) was withdrawn as it was no longer considered appropriate.</p> <p>For DON, a group Provisional Tolerable Maximal Dietary Intake (PTMDI) of 1 µg/kg bw for DON and its acetylated derivatives and a group Acute Reference Dose (ARfD) of 8 µg/kg bw for DON and its acetylated derivatives were established. Mean estimates of national exposure to DON were below the group PMTDI.</p> <p>For furan, it was concluded that the margins of exposure indicate a human health concern for a carcinogenic compound that might act via a deoxyribonucleic acid (DNA)-reactive genotoxic metabolite.</p> <p>For inorganic mercury, a new PTWI of 4 µg/kg bw was established applicable to dietary exposure to total mercury from foods other than fish and shellfish. The previous PTWI of 5 µg/kg bw for total mercury was withdrawn. For dietary exposure to mercury from fish and shellfish the previously established PTWI for methyl mercury should be applied. The upper limits of estimates of average dietary exposure to total mercury from foods other than fish and shellfish for adults (1 µg/kg bw per week) and for children (4 µg/kg bw per week) were at or below the PTWI.</p> <p>For perchlorate, a PMTDI of 0.01 mg/kg bw was established. The estimated dietary exposures from food and drinking water of 0.7 µg/kg bw per day (high) and 0.1 µg/kg bw per day (mean) were well below the PMTDI.</p> <p>In addition, deliberations and recommendations were made in relation to Modelling of dose–response data and Dietary exposure estimates in epidemiological studies.</p> <p>The meeting results will be presented to the 4th Session of the Codex Committee on Contaminants in Foods and the report and monographs will be published by FAO and WHO.</p>

	The summary and conclusions are available at: FAO (http://www.fao.org/ag/agn/agns/jecfa/JECFA72%20Summary%20Version%2016%20%20Mar%20FINAL%20rev%20(2).pdf) and WHO (http://www.who.int/foodsafety/chem/summary72_rev.pdf) websites.
Activity	Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and the WHO Core Assessment Group on Pesticide Residues (JMPR) (Geneva, Switzerland, 16-25 September 2009)
Purpose	On-going programme on the risk assessment of pesticide residues in food, feed and drinking water and the identification of maximum residue levels when used according to good agricultural practice. The Joint Meeting assessed 25 pesticides, as requested by the Codex Committee on Pesticide Residues.
Outputs	The meeting established ADIs and ARfDs, estimated MRLs and recommended them for consideration by the CCPR, and estimated STMR and highest residue (HR) level as a basis for estimating dietary intakes. The outcome will be presented and discussed at the 42 nd Session of the Codex Committee on Pesticide Residues. The Report of the meeting and the Evaluations for residues are available at: FAO (www.fao.org/agriculture/crops/core-themes/theme/pests/pm/jmpr/jmpr-meet/en/) and WHO (www.who.int/ipcs/food/jmpr/summaries/en/index.html) websites.

3. The Committee is **invited** to note the information described above and provide comments about the usefulness of the advice provided through these meetings. To facilitate the transfer and uptake of the relevant scientific advice by Codex, the FAO/WHO Secretariats of these activities make every effort to attend Codex working groups and Codex committee meetings. FAO and WHO would like to thank all those who supported the programme of work to provide the above mentioned scientific advice and in particular the various experts from around the world and the donors who contributed financially and in kind to the programme either through or outside the Global Initiative for Food-related Scientific Advice (GIFSA).

Relevant publications

4. In addition to the above, FAO and WHO are continuously working on a range of activities which support, expand on and follow-up on specific expert meetings. Such activities include:

a) Updating the principles and methods of chemicals risk assessment:

The Joint FAO/WHO project to update principles and methods for the risk assessment of chemicals in food is in preparation for publication as new Environmental Health Criteria document No. 240, replacing the previous EHC 70 and 104. The work has been finalised in November 2009. The publication is in press and will be available at <http://www.who.int/ipcs/food/principles/en/index.html>.

b) JEMRA publications and tools:

JEMRA has recently revisited the ranking of fresh produce commodities in terms of their global food safety concern that was first undertaken in 2007 (report of that ranking exercise is available at www.fao.org/ag/agn/agns/files/FFV_2007_Final.pdf) and is updating the ranking based on the availability of new information. A report of this work is currently under preparation and will be made available at www.fao.org/ag/agn/agns/jemra_riskassessment_freshproduce_en.asp.

JEMRA has recently issued guidelines for Risk Characterization of Microbiological Hazards in Foods. These guidelines are being published as number 17 in the FAO/WHO Microbiological Risk Assessment Series and are available at: FAO (www.fao.org/ag/agn/agns/jemra_guidelines_risk_en.asp) and WHO (<http://www.who.int/foodsafety/publications/micro/mra17/en/index.html>) websites.

c) JECFA publications:

Report of the 71st JECFA - Evaluation of certain food additives. WHO TRS 957, WHO 2010.

Toxicological monographs of the 71st JECFA - Safety evaluation of certain food additives. WHO FAS 62, 2010.

Compendium of Food Additive Specifications, 71st JECFA meeting. FAO JECFA Monographs 7, 2009.

These and other JECFA publications are available on the FAO (www.fao.org/ag/agn/jecfa/works_en.stm) and WHO (www.who.int/ipcs/publications/jecfa/en/) websites.

d) JMPR publications:

Pesticide residues in food - 2007 Evaluations. Part II - Toxicological. World Health Organization, 2009.

Pesticide residues in food - 2009. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and WHO the Core Assessment Group. FAO Plant Production and Protection Paper, 196, 2009.

Pesticide residues in food 2009: Evaluations Part I – Residues. FAO Plant Production and Protection Paper 198.

The FAO Manual on the submission and evaluation of pesticide residues data for the estimation of maximum residue levels in food and feed (second edition). FAO Plant Production and Protection Paper 197.

These publications are available on the FAO (www.fao.org/ag/AGP/AGPP/Pesticid/Default.htm) and WHO (www.who.int/ipcs/publications/jmpr/en/) websites.

e) The report of a Joint FAO/WHO Expert Meeting on Fats and Fatty Acids in Human Nutrition is currently being finalized and will be published in early 2010.

f) The report of the Joint FAO/WHO Expert Meeting on the risks and benefits of the use of chlorine-containing disinfectants in food production and food processing has been finalized and are available at: FAO (<http://www.fao.org/ag/agn/agns/files/Active%20Chlorine%20Report%20Version%20Final%20December%202009.pdf>) and WHO (http://www.who.int/ipcs/food/active_chlorine/en/index.html) websites.

Relevant meetings

5. In the light of uncertainties about the possibility of adverse human health effects at low doses of Bisphenol A, especially on reproduction, the nervous system and on behavioural development, and considering the relatively higher exposure of very young children compared with adults, FAO and WHO will jointly organise in November 2010 an *ad hoc* expert meeting to assess the safety of Bisphenol A. This work is supported by Health Canada, the National Institute of Environmental Health Sciences, the US-FDA and by EFSA Information on the project and the calls are available on the FAO and WHO websites at: http://www.fao.org/ag/agn/agns/chemicals_en.asp and <http://www.who.int/foodsafety/chem/chemicals/bisphenol/en/>.

6. The Secretariat of JECFA at FAO and WHO has issued a call for data and any other pertinent information related to the **depletion of residues of ractopamine** in pig tissues. This is in response to the request of the 32nd Codex Alimentarius Commission to FAO and WHO to undertake a review of new data on residues of ractopamine in pig tissues, a summary of which was submitted to the eighteenth session of the Codex Committee on Residues of Veterinary Drugs in Food by China. The data will be evaluated by JECFA experts and the results forwarded to 33rd Session of the Codex Alimentarius Commission. The call can be accessed at: www.fao.org/ag/agn/agns/jecfa/JECFA%20Ractopamine%20Call%20for%20data.pdf

7. FAO implemented an international conference on **Agricultural biotechnologies in developing countries**: Options and opportunities in crops, forestry, livestock, fisheries and agro-industry to face the challenges of food insecurity and climate change (ABDC-10) on 1- 4 March 2010 in Guadalajara, Mexico. Further information and relevant documents including final report are available at: <http://www.fao.org/biotech/abdc/en/>.

8. The 73rd meeting of JECFA will be convened on 8-17 June 2010 in Geneva, Switzerland and will be dedicated to **food additives and contaminants**. The tentative agenda and the call for data can be accessed at: www.fao.org/ag/agn/agns/jecfa/JECFA73_call_FINAL.pdf and www.who.int/ipcs/food/jecfa/data/en/index.html.

9. JEMRA will convene a meeting on 10 - 14 May 2010 in Rome, Italy to review the **web-based tools** to support a) decision making on the control of *Salmonella* and *Campylobacter* in poultry and b) assessment of the impact of microbiological sampling plans that are currently under development. Following this review, the tools will be finalised and will be made publically available by the end of 2010.

10. JEMRA has issued a call for data and experts relating to ***Vibrio* spp. in seafood, testing methods and control measures** to contribute to the work on the development of tools to facilitate the implementation of the draft Guidelines on the Application of General Principles on Food Hygiene for the Control of Pathogenic *Vibrio* Species in Seafood. A meeting on this issue will be convened in September 2010.
11. **FAO, together with CAPES and EMBRAPA in Brazil will implement a conference on Nanotechnology in the food and agriculture sectors** in San Carlos, Brazil on 20 - 25 June 2010. New and emerging applications of nanotechnologies in food and agriculture and issues related to their use will be the focus of this Conference. In addition to exploring relevant scientific and technological advances, the Conference will also seek to highlight areas of research with the greatest potential to benefit society. For more information, visit www.nanoagri2010.com or contact food-quality@fao.org.
12. The 2010 JMPR will be convened on 21-30 September 2010 in Rome, Italy, and will evaluate the safety of 20 **pesticides**. The tentative agenda will be posted under www.fao.org/agriculture/crops/core-themes/theme/pests/pm/jmpr/jmpr-meet/en/.

PART II Other related initiatives underway in FAO and WHO

13. **Joint FAO/WHO Expert Meetings on Nutrition.** As informed at the 31st Session of the Codex Committee on Nutrition and Food for Special Dietary Uses (CCNFSDU), FAO and WHO are proposing to establish a new procedural arrangement entitled "**Joint FAO/WHO Expert Meetings on Nutrition (JEMNU)**" which will replace the current ad hoc expert consultation arrangement for provision of scientific advice on food and nutrition to Codex and Member States, while keeping flexibility and a low administrative burden. The focus of work and subjects of the scientific advice to be provided by JEMNU will drive the selection of experts, who would come from different FAO and WHO Expert Advisory Panels and rosters of experts including respondents to open calls. JEMNU expert membership would be limited to the duration of a specific assignment. The JEMNU process will be in line with Article 6 of the FAO Constitution and aligned to the required process of the WHO Guidelines Review Committee (GRC) and specified in the WHO Handbook for Guideline Development procedures, following the resolution of the World Health Assembly. In brief, the JEMNU process will entail a series of consultations that will develop and refine scientific questions and analyse the outcome of systematic reviews addressing them. A joint Secretariat composed of two Secretaries, one in FAO Headquarters and one in WHO Headquarters, will be established to service the JEMNU.
14. **WHO Nutrition Guidance Expert Advisory Group (NUGAG).** As part of WHO's efforts in strengthening its role in providing scientific advice and developing evidence-based policy and programme guidance, WHO has established the **WHO Nutrition Guidance Expert Advisory Group (NUGAG)** in February 2010 in accordance with the new WHO guideline development process developed in response to a need expressed at the 58th World Health Assembly for more rigorous processes to develop evidence-based guidelines. NUGAG has three sub-groups covering **Micronutrients, Diet and health, and Nutrition in lifecourse and undernutrition**. NUGAG meets twice yearly to implement biannual programme of work. The first meeting was held in Geneva, Switzerland on 22-25 February 2010 and the second meeting is scheduled to take place in Amman, Jordan on 15-19 November 2010. The programme for 2010 include the development of nutrition guidelines in the areas of micronutrients for iron supplementation, food fortification and multiple micronutrient powders, of diet and health for sugars, total fat, nutrient profiling and sodium, and of nutrition in the life course and undernutrition guidelines for severe and moderate malnutrition, nutrition support for TB patients and for HIV patients.
15. Simultaneously, WHO is developing the **WHO E-Library of Evidence for Nutrition Action (E-LENA)** whose goal is to provide comprehensive programme guidance and support to WHO Member States and their partners for the successful implementation of safe and effective nutrition interventions. This way, WHO E-LENA will become a single, exhaustive resource for finding the most current nutrition related guidelines and other information available.
16. **WHO Global Network of Institutions for Scientific Advice on Nutrition.** As part of WHO's efforts in strengthening its role in providing scientific advice and developing evidence-based policy and programme guidance, WHO has established a **Global Network of Institutions for Scientific Advice on Nutrition** in March 2010. The main aim of the Global Network of Institutions is to bring together major public institutions who develop diet- and nutrition-related guidelines in order to facilitate synergies and avoid duplication of work in this area. The Network would mainly work through teleconferences, video

conferences and electronic communications with occasional face-to-face meetings. However, to initiate and launch the Global Network, the first face-to-face meeting was held in Geneva from 11 to 12 March 2010, the objectives of which were to: 1) share the information on each institution's planned work related to diet- and nutrition-related guidelines and 2) explore possibilities of collaboration and joint efforts with a view to harmonize the development of diet- and nutrition-related recommendations and guidelines. While the first face-to-face meeting only included some selected leading agencies which are major public institutions, the importance of broader regional representation was recognized. Membership would be voluntary and could include multiple institutions in countries. Concrete actions as the next step include setting up of an information platform for communication and linking with the Codex and the Joint FAO/WHO Expert Meetings on Nutrition (JEMNU). As a second phase, projects of harmonization, synergies or collaboration could be pursued, for example in the area of nutrient profiling where WHO is currently in the process of developing guidance.

17. **Development of the Guidance on Nutrient Profiling.** WHO has initiated the work on nutrient profiling in 2009 in collaboration and involvement of various partners. This is part of WHO's efforts in implementing the recommendations of the Organization's Nutrition Programme Review undertaken early 2009. The development of an internationally recognised method (or set of methods) of nutrient profiling is clearly beneficial for a wide range of applications in commercial, international, governmental policy and health promotion strategies. WHO is responding to this challenge through developing an evidence-based framework and guiding principles for the nutrient profiling of food, based on international dietary recommendations established by FAO/WHO. The work has 5 phases: 1) Production of a systematic review of existing nutrient profiling systems; 2) Production of methodological guidance and manual on guiding principles for developing and implementing nutrient profiling; 3) Validation of guiding principles and methodological guidance at least in 6 countries in each Region; 4) Holding of a technical consultation to review the outcome of the validation work with a view to assess the feasibility of a single international nutrient profiling system and the key elements that such a system should contain; 5) Development of a WHO framework and manual for the country level development of nutrient profiling.

18. **Establishment of a new programme: Emergency Prevention System for Food Safety (EMPRES Food Safety).** As reported to the 32nd session of the CAC, FAO has established a program for emergency prevention and early warning in the area of food safety (EMPRES-Food Safety) as part of its Food Chain Crisis Management Framework (FCC). During the 32nd Codex Alimentarius Commission, a side event was held on the EMPRES Food Safety, its objectives and mechanisms, and FCC. This was attended by many Codex delegates who supported the establishment of the EMPRES Food Safety programme and useful feedback and inputs were received to further develop the programme. Several ongoing initiatives on predictive systems at both international and regional levels were recognized and it was recommended that International Food Safety Authorities Network (INFOSAN), which is a joint FAO/WHO initiative be included in the EMPRES Food Safety Strategic Plan as a major part in responsive systems. To respond to recent requests from many member states for, technical assistance on food safety emergencies, preparedness and rapid response, EMPRES Food Safety and INFOSAN Secretariat implemented a workshop from 14 to 18 December 2009 and drafted a framework document on the development and implementation of national food safety emergency response (FSER) plans. The final FSER document will be available in early summer 2010. In March and April 2010, EMPRES Food Safety drafted a Global Programme that aims to assist members to manage food safety risks in three pillars: early warning, emergency prevention and preparedness and emergency response. The Global Programme will be available in Summer 2010. EMPRES Food Safety will also shortly issue a call for experts in a wide range of food safety topics in order to establish the EMPRES Food Safety Expert Roster. For more information on any of these items contact: EMPRES-FS@fao.org.

19. **INFOSAN.** In addition to activities noted above, the INFOSAN secretariat participated in a Food Safety Emergency Response Planning workshop in Fiji, in December, 2009 to assist in the development of a national response plan. To enhance partnership between International Health Regulations focal points and the food sector during food safety events of possible international concern, the INFOSAN secretariat attended a meeting of International Health Regulations national focal points in the South East Asia Region in Bangladesh in 15-17 February, 2010. A proposal has been developed for a global meeting of INFOSAN later in 2010 and funding is being sought.

15. **Foodborne Disease Burden Epidemiology Reference Group (FERG).** From 26-30 October 2009, the WHO hosted the third formal meeting of the Foodborne Disease Burden Epidemiology Reference Group

(FERG) in connection with the third international Foodborne Diseases Stakeholder Event in Geneva. For the first time, the FERG reviewed preliminary burden of disease results in the areas of enteric, parasitic and chemical causes of foodborne diseases. Specifically, they discussed interim results of diarrhoeal disease morbidity and mortality in persons older than 5 years, as well as the burden of dog and pork tapeworm and peanut allergens. The results were presented to stakeholders in a one-day event (reported on by PLoS Medicine: <http://speakingofmedicine.plos.org/2009/11/02/counting-the-global-burden-of-foodborne-disease/>) and the documents have been submitted to peer-review journals for publication. Stakeholders were invited to a second day of consultation where they discussed in extended workshops how the burden estimates may be used to inform food safety policy. WHO is now preparing the reports which will be publicly available in due course. In March 2010, the FERG Source Attribution and Country Studies Task Force launched its sub-group on policy analysis and made further strides in preparing for the burden country studies which will be piloted in early 2011. The next formal meeting of the FERG will be held from 8-12 November 2010 and will again include a Stakeholder Day. For more information please contact foodsafety@who.int.

16. **WHO Advisory Group on Integrated Surveillance of Antimicrobial Resistance (AGISAR).** A WHO Advisory Group on Integrated Surveillance of Antimicrobial Resistance (AGISAR) was established in December 2008 to support WHO's effort to minimize the public health impact of antimicrobial resistance associated with the use of antimicrobials in food animals. In particular, the Advisory Group will assist WHO on matters related to the integrated surveillance of antimicrobial resistance and the containment of food-related antimicrobial resistance. The World Health Organization convened the first meeting of the Advisory Group on Integrated Surveillance of Antimicrobial Resistance (AGISAR) in Copenhagen, Denmark, from 15 to 19 June 2009. During the meeting a five-year strategic plan was drafted and four subcommittees were established to address specific issues such as capacity building, pilot studies, antimicrobial use monitoring and software development for integrated AMR surveillance. The report of the first AGISAR meeting is available at http://www.who.int/foodborne_disease/resistance/agisar_June09/en/index.html. The second meeting of AGISAR will be held from 5 to 7 June in Guelph, Canada. For more information please contact foodsafety@who.int.

17. **Tripartite Consultative group on antimicrobial resistance.** A meeting of the OIE/FAO/WHO Consultative *ad hoc* Group on Collaborative activities on antimicrobial resistance was held at the OIE Headquarters in Paris from 30 September to 1 October 2009. The meeting agreed on a range of joint activities related to i) the regular exchange of information on planned training courses and existing training materials; ii) the monitoring the use of antimicrobials in animals (OIE) and in humans (WHO); iii) surveillance of antimicrobial resistance in food and feed based on the existing standards (FAO); iv) the development of joint FAO/OIE/WHO training packages/courses on antimicrobial resistance; v) the development of advocacy materials for raising funds; vi) the development of material to increase awareness on antimicrobial resistance and vii) the joint development and implementation of pilot studies on surveillance of antimicrobial use and resistance.

18. **Improving biosecurity in aquaculture.** FAO implemented an Expert Workshop on Improving Biosecurity through Prudent and Responsible Use of Veterinary Medicine in Aquatic Food Production on 15-18 December 2009, Bangkok, Thailand to review current practices, alternatives to antimicrobials and biosecurity options to improve fish health with the objective of developing guidelines for responsible use of antimicrobials in aquaculture. In January 2010 FAO implemented an expert meeting to review biosecurity options for reducing *Salmonella* contamination of aquaculture ponds with the objective of providing advice on how to improve aquaculture practices in order to minimise the risk of *Salmonella* associated with aquacultured products.

19. **WHO GEMS Food programme.** The Global Environment Monitoring System/Food program is a part of the UN GEMS Food programme intended to provide data for dietary exposure assessment. GEMS/Food consists of databases including information on food consumption i.e. the GEMS Food cluster diets describing the per capita consumption in various regions of the world, and a compilation of national large portion of commodities that are consumed on a single day at the 97.5th percentile. The databases also include data on the occurrence of chemical contaminants in food from national monitoring programmes.

WHO identified the need for an update of the GEMS Food databases which includes:

- Implementation of a web-based system for data submission
- New collection of data on large portion sizes to be used for acute exposure assessment

- Comparison of the cluster diets with the national food consumption surveys on individuals
- Linkage between data on chemical occurrence, pathogen occurrence and food composition (including nutrients).

20. **Global Foodborne Infections Network (GFN).** In 2000, WHO initiated WHO Global Salm-Surv (GSS), now called Global Foodborne Infections Network (GFN), to enhance countries' capacity to conduct integrated surveillance for foodborne and other enteric infections from the farm to the table. The network fosters intersectoral collaboration and communication among professionals in human health, veterinary, and food-related disciplines. GFN has five main programme components: international training courses, a passive Salmonella surveillance system, an annual External Quality Assurance System (EQAS), focused regional and national projects, and reference testing services. To date, GFN has held over 65 international training courses in Chinese, English, French, Portuguese, Spanish, and Russian for more than 1200 microbiologists and epidemiologists from over 120 countries. More than 80 countries have provided data to the Country Databank on over 1.5 million human isolates and close to 400.000 isolates from non-human sources to help us provide a global overview of the epidemiology of Salmonella. The GFN EQAS is one of the world's largest annual proficiency test with more than 150 laboratories participating worldwide. More recently, FAO has actively been involved in the network and is now expanding its level of collaboration in GFN capacity-building activities. On 26-28 August 2010, GFN will hold a meeting to discuss and draft a five-year strategic plan, for which it is seeking a broad range of input.

21. **The Five Keys to Safer Food project.** The Five Keys poster is now translated into 60 languages, mainly on initiative from countries, and educational projects are implemented in over 90 countries in various sectors of activities, including the tourism sector. The continuous initiatives at country level show efficient uptake of the simple global message, through Five Keys material that can easily be adapted and adopted. The Five Keys to Safer food are being used in mass gathering events both to train food handlers and educate the consumers. As an example, the Department of Health, South Africa, adopted the Train the Trainer course on Five Keys to Safer Food to train food handlers in preparation of the 2010 FIFA World cup, and is developing a health promotion campaign to educate the consumers through the wide dissemination of the Five Keys materials, including the Guide on Safe Food for Travellers. The Five Keys to Safer Food will be part of the UN Pavillion Exhibition at the 2010 Shanghai Expo and organizers of future international mass gathering events are considering to use both the Five Keys to Safer Food to promote safe food behaviours and The 3 Fives (Five Keys to Safer Food, to a healthy diet, and appropriate physical activity) to promote healthier lifestyles. Five Keys to Safer Food web site: <http://www.who.int/foodsafety/consumer/5keys/en/index.html>

22. **Impact of private standards.** Following the request of the 32nd session of the CAC, FAO and WHO are working on the development of a paper focusing on the consistency of private food safety standards with Codex standards and the impact of these standards on small producers, particularly in developing countries. This paper will form the basis of a one day seminar on this issue to be held in conjunction with the next session of the CAC.

PART III: STATUS OF REQUESTS FOR FAO/WHO SCIENTIFIC ADVICE

a) Clear identification of needs (from Codex and member countries) for FAO/WHO scientific advice and criteria for the prioritization of the requests

23. Both organizations continue to jointly prioritise the requests taking into consideration the criteria proposed by Codex (ALINORM 05/28/3, para. 75), as well as the requests for advice from Member Countries and the availability of resources.¹ A table which contains a description of the current requests for scientific advice posed to FAO and WHO directly by Codex Alimentarius Commission and its subsidiary

¹ The 5th CCEXEC (ALINORM 05/28/3, para. 75) agreed the following set of criteria for the prioritization of requests from Codex for scientific advice:

- Relevance in relation to the strategic objectives and priorities as defined in the Strategic Plan;
- Clear definition of the scope and objective of the request as well as clear indication of the way in which the advice will be used in the work of Codex;
- Significance and urgency to the development or advancement of Codex texts taking into account public health and/or food trade relevance of the issue and the needs of developing countries;
- Availability of scientific knowledge and data required to conduct the risk assessment or to elaborate the scientific advice;
- High priority assigned by the Codex Alimentarius Commission.

bodies as well as meetings being planned by FAO and WHO in response to request from member countries is attached. It presents the overall status of pending requests for scientific advice received by FAO/WHO as of April 2010. The attached Annex shows the requests received.

b) Global Initiative for Food-related Scientific Advice (GIFSA)

24. Contributions, which are accepted from governments, organizations and foundations in accordance with WHO and FAO rules continue to be received. FAO and WHO would like to express their appreciation to the USA for their recent contribution.

25. For additional information and advice on the procedure for making a donation/contribution please contact: Dr Maria de Lourdes Costarrica, Nutrition Officer, Nutrition and Consumer Protection Division (lourdes.costarrica@fao.org) Tel: + 39 06 57056060) at FAO; and Dr Jørgen Schlundt, Director, Department of Food Safety and Zoonoses (schlundtj@who.int; Tel: + 41 22 791 3445) at WHO.

ANNEX

JOINT FAO/WHO ACTIVITIES ON PROVISION OF SCIENTIFIC ADVICE ON FOOD SAFETY
STATUS OF REQUESTS FOR FAO/WHO SCIENTIFIC ADVICE (April 2010) ²

TABLE 1

In prioritizing the requests for scientific advice to be addressed, FAO and WHO continue considering the set of criteria for the prioritization proposed by Codex (ALINORM 05/28/3, para. 75) as well as the requests of advice from Member Countries and the availability of resources. The table below presents the overall status of pending requests for scientific advice received by FAO/WHO as of **April 2010**.

#	Request for Advice	Originator	Reference	Required Action by FAO/WHO	Status of Planning/Implementation	Estimated Cost (US\$) ³	Expected Output by Codex
1	Risk assessment of contaminants in food	CCCF	2 nd Session ALINORM 08/31/41, paras.173-190 and Appendix XIII	Joint FAO/WHO Committee on Food Additives (JECFA)	72 nd JECFA held (Rome, Italy, 16-25 February 2010)	300,000	Maximum Limits or other advice as appropriate
2	Safety evaluation of food additives and contaminants	CCFA/ CCCF	41 st Session of CCFA ALINORM 09/32/12, paras 132-135 and App. IX; 3 rd Session of CCCF ALINORM 09/32/41, paras 117-120 and App. XI	Joint FAO/WHO Committee on Food Additives (JECFA)	Planned for 73 rd JECFA (Geneva, Switzerland, 8-17 June 2010)	250,000	Maximum levels, specifications for food additives, or other advice as appropriate

² FAO and WHO express appreciation to those governments who have contributed to support FAO/WHO scientific advice activities, either through direct financial support, facilitation of meeting at national institutes, and technical input by national experts. Figures indicate cost of pending actions related to each activity. Figures do not consider staff cost.

³ Total costs for FAO/WHO, including publication of reports, but excluding staff costs.

#	Request for Advice	Originator	Reference	Required Action by FAO/WHO	Status of Planning/Implementation	Estimated Cost (US\$) ³	Expected Output by Codex
3	Review of data from a study in China on ractopamine residues in pig tissues	CAC	32 nd Session ALINORM09/32 REP, paras 66-79	Secretariat to the Joint FAO/WHO Committee on Food Additives (JECFA)	Call issued and review of review of new data on residues of ractopamine in pig tissues will be performed when the data is made available by China	No cost	Maximum residue limits, advice as appropriate.
4	Assessment of benefits and risks of the use of “active chlorine” in food processing	CCFAC CCFH CAC	37 th Session ALINORM 05/28/12, para. 108 and Appendix XV 36 th Session ALINORM 04/27/13, para. 158 37 th Session ALINORM 05/28/13, paras 170–174 29 th Session requested FAO/WHO for scientific advice, ALINORM 06/29/41, para. 225	TOR of Expert Consultation specified by 37 th CCFH and 37 th CCFAC. 29 th CAC supported this request asking for scientific advice accordingly.	Expert consultation was implemented in May 2008. Report is available in electronic format and will be published in 2010.	200,000	Recommendations regarding the safe use of chlorine-containing disinfectants and alternatives.

#	Request for Advice	Originator	Reference	Required Action by FAO/WHO	Status of Planning/Implementation	Estimated Cost (US\$) ³	Expected Output by Codex
5	Evaluation of residues and toxicology of pesticides for the establishment of acceptable intake levels and of MRLs	CCPR	41 st Session ALINORM 09/30/24, Paras 60 – 130, 186 - 207 and Appendix XI	Joint FAO/WHO Meeting on Pesticide Residues	JMPR Meeting implemented from 16-25 September 2009 Report and Evaluations published on the FAO and WHO websites Recommendations to be provided to the 42 nd CCPR in 2010. Next JMPR session 21-30 September 2010, Rome	370, 000	Maximum Residue Limits and other advice in risk assessment of pesticide residues.
7	Risks and Benefits of consumption of fish and other seafood	CCFAC CAC	38 th Session ALINORM 06/29/12, paras 191–193 29 th Session ALINORM 06/29/41, para 195	FAO/WHO advice on the health risks and health benefits associated with the consumption of fish and other seafood	The Expert Consultation was held 25 -29 January 2010. Executive summary and report in preparation. Extrabudgetary resources were made available.	120, 000	Develop methodology for risk and benefit assessment. Guidance document on the safe consumption of fish taking sensitive subpopulations into account.

#	Request for Advice	Originator	Reference	Required Action by FAO/WHO	Status of Planning/Implementation	Estimated Cost (US\$) ³	Expected Output by Codex
8	Risk mitigation options for <i>Salmonella</i> in bivalve molluscs	CCFFP	29 th Session ALINORM 08/31/18, paras 89-93	Expert elicitation and consultation to evaluate the impact of microbiological criteria and sampling plans applied to harvesting areas and product lots as a means of reducing the risk from <i>Salmonella</i>	Call for data issued through Codex contact points and supplemented by the work of an expert consultant. Data review undertaken by FAO and expert consultant and results presented to 30 th CCFFP.	80,000	Use of the scientific advice to review microbiological criteria for <i>Salmonella</i> in bivalve molluscs and if necessary, use the scientific advice to guide the selection of appropriate criteria
	Public health risk related to <i>Salmonella</i> in bivalves and value of criteria for <i>Salmonella</i> in bivalves for consumer health protection		30 th Session ALINORM 10/33/18, paras 14 - 16	Risk assessment to determine the public health risk related to <i>Salmonella</i> in bivalves and evaluation of the impact of criteria for <i>Salmonella</i> on consumer health			

#	Request for Advice	Originator	Reference	Required Action by FAO/WHO	Status of Planning/Implementation	Estimated Cost (US\$) ³	Expected Output by Codex
9	Decision-tree approaches for the evaluation of veterinary drugs	JECFA Subsequently supported by CCRVDF	17 th Session ALINORM 08/31/31, para. 119	Convene several expert groups to develop a detailed decision tree approach for the evaluation of veterinary drugs, which provides greater flexibility in the advice that JECFA can provide on issues relating to the potential human health effects of residues of veterinary drugs	First draft of working document prepared and discussed at 70 th JECFA, provided to 18 th CCRVDF for preliminary input Additional extra budgetary resources will be required to support this activity	To be determined	Change in current work process and interaction with JECFA. Use the output to assist in the development of risk management guidance on veterinary drug residues, including for compounds without ADIs and MRLs
10	Scientific evaluation of measures for the control of <i>Salmonella</i> and <i>Campylobacter</i> in poultry and a risk-based decision tool to facilitate their management.	CCFH	40 th Session ALINORM 09/13/40 41 st session ALINORM 10/33/13	Implement an expert meeting to evaluate potential control measures and develop a user friendly web-based decision support tool.	Expert meeting implemented and report provided to 41 st CCFH Development of web-based tool will be continued and finalized in 2010 as requested by 41 st CCFH.	250,000	Use of the scientific advice to facilitate the development of the guidelines for the control of <i>Salmonella</i> and <i>Campylobacter</i> in poultry and the decision support tool to complement the Codex guidelines.

#	Request for Advice	Originator	Reference	Required Action by FAO/WHO	Status of Planning/Implementation	Estimated Cost (US\$) ³	Expected Output by Codex
11	Development and validation of risk assessment tools on <i>Vibrio</i> spp. in seafood and advice on methodology for <i>Vibrio</i> spp. in seafood.	CCFH	41 st session ALINORM 10/33/13	Implement an expert meeting to review methodology and develop and validate web-based risk assessment tools.	Calls for data and experts issued. Workplanning underway. Extra budgetary resources will be required.	250,000	Web-based tools and consensus methodology to support the implementation of Codex Guidelines.

TABLE 2FAO/WHO Expert Meetings not directly requested by Codex Alimentarius

#	Request for Advice	Originator	Reference	Required Action by FAO/WHO	Status of Planning/Implementation	Estimated Cost (US\$) ^[1]	Expected Output
1	Nanotechnology	FAO	Final report was published at http://www.fao.org/ag/agn/agns/files/FAO_WHO_Nano_Expert_Meeting_Report_Final.pdf Nanoagri 2010 in Brazil: www.nanoagri2010.com	Follow up to develop the Tierd Approach Diagram is being planned using the eWG in 2010 FAO will hold technical round table sessions at the International Conference on Food and Agriculture Applications of Nanotechnologies, held in São Pedro, Brazil, 20 to 25 June 2010	Core group meeting held on 14–15 May 2008 Expert meeting implemented on 1-5 June 2009	100,000	Scientific advice on food safety implication of nanotechnologies applied to food and agriculture sectors with particular attention to nanoparticles in foods

#	Request for Advice	Originator	Reference	Required Action by FAO/WHO	Status of Planning/Implementation	Estimated Cost (US\$) ⁽¹⁾	Expected Output
2	Pesticide Specifications	FAO/WHO	Memorandum of understanding between FAO and WHO http://www.fao.org/AG/AGP/AGPP/Pesticide/	Meetings of the Joint FAO/WHO Meeting on Pesticide Specifications (JMPS)	The 8 th JMPS implemented in Germany on 3-7 June 2009. in San Salvador, El Salvador. Report posted on the FAO/WHO website Next session, 8 th JMPS will be held from 2-6 June 2010 in Ljubljana, Slovenia.	150, 000	FAO and WHO Specifications for pesticides to be used in agriculture and public health sectors
3	Bisphenol A	FAO/WHO		Expert meeting to assess the health risks associated with Bisphenol A	The meeting is planned for November 2010 Calls for experts and data posted on FAO and WHO websites. Extrabudgetary resources available to support this activity	To be determined	Recommendations regarding the risks of dietary exposure to bisphenol A, including sensitive subpopulations