FAO/WHO SCIENTIFIC SUPPORT TO CODEX: ACTIVITIES, BUDGETARY AND FINANCIAL MATTERS

(Prepared by FAO and WHO)

Introduction

This document is structured as follows:

- PART I: recent FAO/WHO expert meetings and other relevant information
- PART II: financial and budgetary matters
- PART III: status of requests for FAO/WHO scientific advice

PART I: RECENT FAO/WHO EXPERT MEETINGS AND OTHER RELEVANT INFORMATION

1.1 The delivery of scientific advice continues at an accelerated level; for example, FAO and WHO have started considerable work to develop the requested scientific advice on AMR, JECFA continue to meet twice a year, an additional JMPR meeting will be held in 2019 and JEMNU is scheduled to meet in early 2019. These enhanced activities have been made possible through the contributions of Australia, Canada, France, Japan, the Netherlands, Republic of Korea and USA. These activities are the result of the high priority FAO and WHO assigns to the scientific advice programme, realizing the importance of a strong scientific foundation for all Codex standards. The CAC remains the primary client for this joint scientific advice programme, as the results are used extensively in the development of Codex texts and standards. However the results are also used by member countries of FAO and WHO, to strengthen the science-based decision making on food safety and nutrition issues at national and regional level. The following summarises the scientific advice provided in the 2017-2018 period since FAO and WHO’s previous report to the Commission (CX/CAC 17/40/14).

1.2 Joint FAO/WHO Expert Committee on Food Additives (JECFA), 84th Meeting, Rome, Italy, 6 – 15 June 2017. This meeting was held in the framework of the on-going programme on the risk assessment of food additives and contaminants in foods. The Committee undertook toxicological evaluations and dietary exposure assessments for nine food additives. The Committee prepared new or revised specifications for 14 food additives and revised one analytical method. The results were made available to and discussed by the 50th Session of the Codex Committee on Food Additives (CCFA).

1.3 Joint FAO/WHO Expert Committee on Food Additives (JECFA), 85th Meeting, Geneva, Switzerland, 17 – 26 October 2017. This meeting was held to evaluate certain residues of veterinary drugs in food. The Committee elaborated principles governing the evaluation of residues of veterinary drugs in food and undertook toxicological evaluations and dietary exposure assessments for nine veterinary drugs. The Committee elaborated further guidance on chronic dietary exposure assessment of compounds used both as veterinary drug and as pesticide, the assessment of the relative bioavailability and/or pharmacological activity of incurred drug residues in animal tissues, the acute reference dose (ARfD) and other methodological approaches and types of data for assessment of veterinary drug residues in food. The results were made available to and discussed by the 24th Session of the Codex Committee on Residues of Veterinary Drugs in Foods (CCRVDF).

---

1 This document has also been included in the agenda of the CCEXEC75 under agenda item 11
1.4 Joint FAO/WHO Meeting on Pesticide Residues (JMPR), Geneva, Switzerland, 12–21 September 2017: The Meeting evaluated 39 pesticides, of which nine were new compounds, and seven were re-evaluations within the periodic review programme of the Codex Committee on Pesticide Residues (CCPR). The Meeting established acceptable daily intakes (ADIs) and acute reference doses (ARfDs). The Meeting estimated maximum residue levels, which it recommended for use as maximum residue limits (MRLs) by the CCPR. It also estimated supervised trials median residue (STMR) and highest residue (HR) levels as a basis for estimation of the dietary intake of residues of the pesticides reviewed. The recommendations were made available to and considered by the 50th session of the CCPR.

1.5 FAO/WHO Joint Meeting on Pesticide Specifications (JMPS), 16th Meeting, Rome, Italy, 6-10 June 2017: This meeting was held in the framework of the on-going programme on the evaluation and development of pesticide specifications. The Joint Meeting reviewed 40 specifications/equivalences for use by either or both of the two organizations. Five JMPS related issues were discussed and a priority list of the JMPS programme for 2018 was prepared. The pesticide specifications established at the meeting are published on the FAO (www.fao.org/agriculture/crops/core-themes/theme/pests/pm/jmps/ps/ps-new/en/) and WHO websites (http://www.who.int/whopes/quality/en/).

1.6 2nd JEMRA Meeting on Shiga toxin-producing Escherichia coli (STEC), Rome, Italy 25-29 September 2017: This meeting reviewed and evaluated the available information on the global burden of foodborne STEC related disease, source attribution, hazard identification and characterization; and monitoring, including the status of the currently available analytical methods. Recommendations were made on a new approach to hazard characterization and an overview of the attribution of STEC to different food groups provided. The report will be available on the FAO and WHO JEMRA websites. The results were presented to the 49th session of the Codex Committee on Food Hygiene (CCFH) and are being considered in the in the scope of new work on STEC. Work continues to refine the source attribution of STEC.

1.7 Joint FAO/WHO Core Expert Meeting on the Safety and Quality of Water Used in Food Production and Processing, Bilthoven, the Netherlands, 21-23 June 2017: This meeting, held in response to a request from the 48th Session of the CCFH on defining clean water use in food production, reviewed existing data and guidance to assess feasibility of a definition for clean water, and recommended that the quality of clean water must be defined in the context of its use. The expert meeting proposed a ‘fit-for-purpose’ approach for water used in food production or processing in order to address the inextricable connection between the objective for water use and the related desirable or required water quality and that sector specific guidance be developed. This work is ongoing with a second meeting taking place in Rome, Italy 14-15 May 2018. An update was provided to the 49th session of the CCFH.

Other activities

1.8 FAO Expert Working Group on Protein Quality Assessment in Follow-up Formula for Young Children and Ready to Use Therapeutic Foods, Rome, Italy, 6-9 November 2017. As follow-up to a request submitted by the Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU), FAO organised an Expert Working Group to provide scientific advice on setting up guidelines for Codex members to determine protein quality using the Protein Digestibility-Corrected Amino Acid Score (PDCAAS) in Follow-up formula (FUF) for young children (12 – 36 months) and Ready to Use Therapeutic Foods (RUTF). The meeting provided practical guidance on the measurement of protein quality in two distinct products used to feed children in different conditions, FUF and RUTF.

1.9 WHO Nutrition Guidance Expert Advisory Group (NUGAG) Subgroup on Diet and Health: At the 10th meeting held in Lisbon in November 2016, the NUGAG Subgroup reviewed and discussed preliminary results of the systematic reviews of the evidence related to the intake of carbohydrates (in particular fibre and starch), non-sugar sweeteners and polyunsaturated fatty acids, PUFA (including EPA and DHA) and started to work on draft evidence-informed recommendations as well as detailed criteria to be considered when moving from evidence to recommendations (i.e. the balance of evidence on benefits and harms, values and preferences, resource implications, priority of the problems, equity and human rights, acceptability and feasibility). The NUGAG Subgroup also identified and agreed on further actions and required subgroup analyses for each of the topics which will be taken into consideration when finalizing respective systematic reviews. Regarding dietary patterns, the NUGAG Subgroup reviewed the further scoping undertaken, taking into consideration the definition and characteristics determined at the 9th meeting of the NUGAG Subgroup on Diet on Health and reviewed key PICO questions in order to guide the systematic reviews.
1.10 At the 11th meeting held in Brijuni, Croatia in July 2017, the NUGAG Subgroup reviewed and discussed the results of the final systematic reviews of the evidence related to the intake of carbohydrates, CHO (in particular, fibre and starch), non-sugar sweeteners and PUFA (including EPA and DHA) and formulated evidence-informed recommendations for all three topics. This included detailed discussion of criteria in (in addition to the quality of the evidence) to be considered when moving from evidence to recommendations (see above). The guidelines on CHO, non-sugar sweeteners and PUFA are being drafted by the WHO Secretariat while waiting for all the background systematic reviews to be published. Regarding dietary patterns, the NUGAG Subgroup discussed several methodological approaches that could be used to assess dietary patterns, taking into consideration the definition and characteristics determined at the 9th meeting of the NUGAG Subgroup on Diet on Health. The development of key PICO questions to guide the systematic reviews are being developed in order to proceed with the systematic review.

1.11 WHO Technical consultation: Risk of excessive intake of vitamins and minerals delivered through public health interventions - current practices and case studies. With a view of providing policymakers with the best available evidence to inform policies and programmes simultaneously providing micronutrients across the population or for specific population groups, the WHO Department of Nutrition for Health and Development convened this technical consultation in Panamá City, Panamá, on 4 – 6 October, 2017. Existing evidence was presented on the safety of the provision of micronutrients to vulnerable populations in settings where a combination of interventions include micronutrients, along with programmatic evidence of successful implementation experiences, best practices and lessons learnt. The consultation drew on background papers and case studies that were commissioned through a public call for papers. The outcome of this technical consultation will contribute to the Member States’ efforts to strengthen their health systems and provide them with a summary of technical considerations and lessons learnt which can be useful in the implementation of programmes delivering micronutrients.

1.12 WHO Technical meeting: Use and interpretation of haemoglobin concentrations for assessing anaemia status in individuals and populations. WHO has initiated a 4-year project to review its global guidelines for haemoglobin thresholds used to define anaemia at the individual and population levels. As a first step, more than 4,000 technical experts, researchers, blood banks, policy makers and programme implementers were asked to identify priority questions to understand the key information and knowledge that would enable a revised definition of haemoglobin thresholds, in the form of a prioritized list of scoping questions. Over 500 questions from more than 150 respondents were received and consolidated into 58 questions across six categories that were ranked as the most relevant aspects on anaemia diagnosis. Based on the questions and research needs that scored highest by stakeholders, and priorities outlined in the 2030 Sustainable Development Goals, the WHO Department of Nutrition for Health and Development convened this technical consultation in Geneva Switzerland from 29 November to 1 December, 2017.

1.13 Improvement of data sharing. In 2016-17 the GEMS/Food Programme (https://extranet.who.int/gemsfood/) supported 3 electronic WG of CCCF namely WG on lead in various food commodities, cadmium in cocoa and mercury in fish. WHO developed in 2016 a data sharing agreement for non-state actors in order to encourage Codex Observers to share monitoring data with Codex: for more information contact vergerp@who.int. GEMS/Food contaminant database is a web-based platform to allow the submission of data on food contamination from different countries and institutions. A distance-learning tool is now available (http://203.151.20.206/who3.html) to facilitate the use of the GEMS/Food system.

1.14 FAO/WHO GIFT (FAO/WHO Global Individual Food consumption data Tool). The Nutrition and Food Systems Division of FAO (ESN), in partnership with the Information Technology Division (CIO), Statistics Division (ESS) and the Food Safety and Quality Unit (AGFF) of FAO, the World Health Organization (WHO) and other international partners, is building the FAO/WHO Global Individual Food consumption data Tool (FAO/WHO GIFT). FAO/WHO GIFT is an online database of individual quantitative food consumption data from around the world. It provides microdata and food-based indicators derived from sex and age-disaggregated data, which are needed in the field of nutrition, dietary exposure and environmental impact. FAO/WHO GIFT also provides an up-to-date inventory of individual quantitative food consumption surveys conducted and ongoing in low- and middle-income countries, with detailed survey information on identified studies. The platform is available at http://www.fao.org/gift-individual-food-consumption/en/.
1.15 Updated Nutrition Landscape Information System (NLIS) country profiles. The Nutrition Landscape Information System (NLIS) (http://www.who.int/nutrition/nlis/en/) is a dynamic web-based tool that provides a user-friendly snapshot of a country’s nutrition situation from a national perspective, presenting key indicators and measures of nutrition status as well as the underlying factors related to food, health, and care. Data are gathered from the WHO Global Nutrition Databases and the WHO Global Health Observatory. It also incorporates information from UN partners, including FAO, UNDP, UNICEF, World Bank and other partners such as Demographic and Health Surveys (DHS) and International Food Policy Research Institute (IFPRI). The NLIS country profiles are currently being expanded to include a special highlight on the Global Nutrition Monitoring Framework adopted by the 68th World Health Assembly (68(14)) in 2015 to facilitate tracking countries’ progress towards achieving the Global Nutrition Targets 2025 based on the 21 outcome, process and policy indicators.

1.16 The 8th meeting of the WHO Advisory Group on Integrated Surveillance of Antimicrobial Resistance (AGISAR) will take place on 17-20 November 2018 in Utrecht, The Netherlands, with two main objectives: (i) the finalisation of the Global ESBL Escherichia coli Tricycle protocol to implement integrated “One Health” surveillance of ESBL E.coli from the human, the food chain and the environment sectors and (II) the review and update of WHO List of Critically Important Antimicrobials for Human Medicine (WHO – CIA List) http://who.int/foodsafety/publications/antimicrobials-fifth/en/. WHO Guideline on the use of medically important antimicrobials in food producing animals based on the WHO-CIA list were published in November 2017 http://www.who.int/foodsafety/publications/cia_guidelines/en/. WHO has published a brochure to raise consumers’ awareness on AMR from the food chain and provide recommendations to consumers to stop the spread of antimicrobial resistant bacteria, protect their health and ask for a safer food supply http://www.who.int/foodsafety/publications/superbuginfood/en/

1.17 The Commission is invited to note the information above provided by FAO and WHO. To facilitate the transfer and uptake of the relevant scientific advice by Codex, the FAO and 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.

Publications

JECAF publications

Peer-reviewed external publications:

https://doi.org/10.1080/10408444.2017.1340259

JECAF publications are available on the following websites:


WHO http://www.who.int/foodsafety/publications/jecfa/en/

Recent publications include:


- WHO Procedural Guidance for JECFA and guidance for experts have been updated. http://www.who.int/foodsafety/chem/jecfa/guidelines/en/
JMPR publications

JMPR publications are available on the following websites:


Recent publications include:


JEMRA Publications

*Peer-reviewed external publications:*


*JEMRA publications are available on the following websites:*


Forthcoming publications in this series include:


*Related publications:*

- Histamine in Salmonids: A literature review. FOA/WHO. 2018

Nutrition related publications

Upcoming meetings


- Joint FAO/WHO Expert Meetings on Nutrition (JEMNU) meeting for the establishment of nitrogen to protein conversion factors, tbd, 2018. The meeting will be dedicated to establishing nitrogen to protein conversion factors for soy and milk proteins.

- Joint FAO/WHO Expert Meeting on Microbiological Risk Assessment, 14-18 May 2018, Rome, Italy This meeting will focus on the safety and quality of water for food production and processing.

- Joint FAO/WHO Expert Meeting on Antimicrobial Resistance, 11-15 June, 2018, Rome, Italy This meeting will address the role of the environment, crop production and biocide use in foodborne antimicrobial resistance.

- Joint FAO/WHO Meeting on Pesticide Residues (JMPR), Berlin, Germany, 18 to 27 September 2018: The meeting will evaluate 9 new compounds, 3 within the periodic re-evaluation program, and 18 for additional MRLs. The call for data is accessible at http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/JMPR/2018_JMPR_Call_for_Data.pdf

Risk Assessment Methodology Work

1.18 In addition to the scientific advice requested directly, the FAO/WHO secretariats have been working to update risk assessment methodologies, taking into account recommendations from expert meetings and the latest scientific developments. This is critical to assure that the scientific advice provided is based on up-to-date methodology and scientific knowledge.

1.19 The currently planned work includes the yet only partially funded but necessary selected reviews and modernizations of the risk assessment methodologies included in chapter 3, 5, 8 and 9 of the international guidance EHC240 “Principles and methods for the risk assessment of chemicals in food” and a review of the analytical methods defined in Volume 4 of JECFA Monograph 1. This work is expected to require the employment of dedicated resource persons to prepare the necessary in-depth reviews and to provide suggestions that will be discussed in suitable international expert meetings (2) with the aim to provide updates to the relevant sections of EHC240 and the chemical analytical methods used in JECFA specifications for food additives.

1.20 In this context, several activities are under way to address the following areas of risk assessment methodology:

- **Expert meeting on enzyme evaluation**: This meeting will be dedicated to revise and update JECFA procedures for risk assessment of enzymes.

- **Expert Working Group on guidance for genotoxicity evaluation**: Ann Arbor; Mi, USA. The meeting will develop an updated guidance on the evaluation of genotoxicity tests and overall evaluation of genotoxicity of compounds in food.

- **Expert working group on dose-response modelling**: to update the current guidance.

- **Microbiological risk assessment methodology** – update of guidance documents, on-going work.

In addition the FAO/WHO Roster for JEMRA meetings have been updated and published.
PART II: FINANCIAL AND BUDGETARY MATTERS

2.1 The budget requirements presented here are based on the requests for scientific advice from a number of Codex subsidiary bodies. This section provides a summary of cost for the provision of scientific advice to Codex in 2016-17 by FAO and WHO based on actual expenditures, and budget requirements to implement the 2018-19 biennial work plan for scientific advice. The final information on 2018-19 expenditure will become available in early 2020.

WHO budget

2.2 In WHO, the majority of the funds for the activity and staff costs related to the provision of scientific advice in food safety and nutrition is provided through voluntary extrabudgetary contributions from Member States and other donors rather than through the Regular Programme budget (i.e. assessed contributions). The scientific advice programme is implemented by the Department of Food Safety and Zoonoses and the department of Nutrition for Health and Development.

2.3 For the biennium 2016-17, the activity costs for scientific advice amounted to USD 1,073,649 in food safety and USD 1,791,448 in nutrition. Actual staff costs were USD 2,473,139 in food safety and USD 2,098,537 USD in nutrition (including relevant and related scientific advice and guideline development work in nutrition).

2.4 For the biennium 2018-19 the planned activity cost for scientific advice are estimated at USD 1,565,000 in food safety and USD 1,360,000 in nutrition, based on actual expenditures in the previous biennium plus additional activities to address some of the backlog in particular in food safety. Estimated staff cost are USD 2,616,616 for food safety and USD 2,642,000 in nutrition.

2.5 By May 2018, Australia, Japan, the Netherlands, the Republic of Korea, USA and the Bill & Melinda Gates Foundation have made voluntary contributions to food safety and nutrition. The EU has now also committed funds for the food safety programme and other Members are strongly encouraged to follow this example.

2.6 The current funding gaps for scientific advice activities are difficult to quantify since it is early in the biennium. Currently the salaries of staff both in food safety and nutrition are only partly covered through 2018. The Food Safety Department is grateful to Germany for the support of a Junior Professional Officer who will join the department in June for a period of 3-4 years, mainly to support the scientific advice programme and other Codex related matters.

2.7 The scientific advice activity of WHO heavily depends on extrabudgetary contribution received from a small number of Members which is gratefully acknowledged, in particular the long-standing support from the USA to food safety.

FAO budget

2.8 In FAO, funds to support the activities and staff costs related to the provision of scientific advice to Codex are budgeted in FAOs regular Programme of Work and Budget and through extra-budgetary resources. Food Safety scientific advice to Codex is supported by a number of units and divisions within FAO including the Office of Food Safety, the Plant Production and Protection Division, the Fisheries and Aquaculture Policy and Resources Division, and the Animal Production and Health Division. Scientific advice on nutrition, when requested, is provided by the Nutrition and Food Systems Division.

2.9 For the biennium 2016-17, activity and staff costs for scientific advice to Codex amounted to USD 3,382,000 in food safety and USD 378,000 in nutrition.

2.10 In the 2016-2017 biennium, 93% of staff costs and 86% of the costs of activities actually implemented, amounting to USD 3.4 million were supported by FAO’s Regular Programme budget. In the biennium, extra-budgetary contributions were received from Canada.

2.11 For 2018-2019, USD 4.4 million is required in order to fully implement all planned activities. The staff and activity costs required for scientific advice are estimated at USD 4,043,000 for food safety and USD 315,000 for nutrition.
2.12 For 2018-19, all staff costs and 56% of the activity costs for the work plan of the 2018-2019 biennium are provided through FAO’s Regular Programme budget. FAO gratefully acknowledges Canada’s extra-budgetary resources. The Office of Food Safety has also received an Associate Professional Officer from China, for a period of 1-2 years, who will primarily be contributing to the Food Safety Scientific Advice Programme.

2.13 The recognition of key scientific advice meetings and consultations to Codex (such as JECFA, JEMRA and JMPR) as Corporate Technical Activities in FAO’s Programme of Work and Budget has ensured budgetary security for non-staff activities in the current biennium and is gratefully acknowledged.

Conclusion

2.14 As indicated above, the way the provision of scientific advice is currently funded is different between WHO (heavily dependent on voluntary contributions) and FAO (mainly covered by assessed contributions).

2.15 Overall the contribution of FAO and WHO to the provision of scientific advice equals to approximately USD 12 million per biennium. To ensure the ability of the joint scientific advice program to be able to deliver even at the current rate, it will be of paramount importance ensure this level of stable and predictable funding from both organizations.

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

3 Both organizations continue to jointly prioritize the requests for scientific advice taking into consideration the criteria proposed by Codex as well as the requests for advice from Member Countries and the availability of resources. A table of the current requests for scientific advice posed to FAO and WHO directly by the Codex Alimentarius Commission and its subsidiary bodies as well as meetings being planned by FAO and WHO in response to requests from member countries is attached as Annex I. It presents the overall status of pending requests for scientific advice received by FAO/WHO as of May 2018.
ANNEX I

JOINT FAO/WHO ACTIVITIES ON PROVISION OF SCIENTIFIC ADVICE ON FOOD SAFETY

STATUS OF REQUESTS FOR FAO/WHO SCIENTIFIC ADVICE

In prioritizing the requests for scientific advice to be addressed, FAO and WHO continue to consider 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 requests for scientific advice as of May 2018.

<table>
<thead>
<tr>
<th>#</th>
<th>Request for Advice</th>
<th>Originator</th>
<th>Reference</th>
<th>Required Action by FAO/WHO</th>
<th>Status of Planning/Implementation</th>
<th>Estimated Cost (US$)³</th>
<th>Expected Output by Codex</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Safety evaluation of food additives and contaminants (Current requests: CCFA 50 compounds and approximately 70 flavourings; CCCF 6 contaminants or groups of related contaminants)</td>
<td>CCFA CCCF</td>
<td>49th &amp; 50th Sessions of CCFA</td>
<td>Joint FAO/WHO Expert Committee on Food Additives (JECFA)</td>
<td>Evaluation of certain food additives scheduled for the 86th JECFA meeting (Geneva, 12 to 21 June 2018, full (re)evaluation of 7 food additives and 16 food additives for revision of specifications; additional flavours for 8 groups previously evaluated). Tentative plan for 2 food additives meeting in 2019 and a meeting dedicated to enzyme evaluation in 2018/2019</td>
<td>350,000 (fully funded)</td>
<td>Maximum levels, specifications for food additives, or other advice as appropriate</td>
</tr>
<tr>
<td>11th &amp; 12th Session of CCCF</td>
<td>Joint FAO/WHO Expert Committee on Food Additives (JECFA)</td>
<td>No JECFA meeting planned yet</td>
<td>350,000</td>
<td>Maximum levels for key food commodities, or other advice as appropriate; Code of practices</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 meetings at national institutes, and technical input by national experts. Figures indicate cost of pending actions related to each activity. Figures do not consider staff costs.
³ Total activity costs for FAO/WHO, including publication of reports, but excluding staff costs.
<table>
<thead>
<tr>
<th>#</th>
<th>Request for Advice</th>
<th>Originator</th>
<th>Reference</th>
<th>Required Action by FAO/WHO</th>
<th>Status of Planning/Implementation</th>
<th>Estimated Cost (US$)³</th>
<th>Expected Output by Codex</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Safety evaluation of residues of veterinary drugs</td>
<td>CCRVDF</td>
<td>23rd &amp; 24th Sessions of CCRVDF</td>
<td>Joint FAO/WHO Expert Committee on Food Additives (JECFA)</td>
<td>Evaluation of certain veterinary drugs. JECFA meeting tentatively planned for 2019</td>
<td>350,000 (partially funded)</td>
<td>Maximum residue limits, Risk management recommendations or other advice as appropriate.</td>
</tr>
<tr>
<td>3.</td>
<td>Development and validation of risk assessment tools on Vibrio spp. in seafood</td>
<td>CCFH</td>
<td>41st and 42nd Sessions of CCFH</td>
<td>Expert meeting to review methodology and develop and validate web-based risk assessment tools.</td>
<td>Following up on the previous activities, a recent review of new data and the possible impacts on risk assessment model and risk management tool is under review and will be presented to a wider stakeholder meeting for further input 2017-2018.</td>
<td>250,000 (Fully funded)</td>
<td>Web-based tools and consensus methodology to support the implementation of Codex Guidelines.</td>
</tr>
<tr>
<td>4.</td>
<td>Pesticide Residues</td>
<td>CCPR</td>
<td>49th &amp; 50th Session of CCPR</td>
<td>Meeting of the Joint FAO/WHO Meeting on Pesticide Residues (JMPR)</td>
<td>2018 JMPR to be held from 18-27 Sep. in Berlin, Germany.</td>
<td>260,000 (fully funded)</td>
<td>Maximum Residue Limits or other advice as appropriate.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2019 extraordinary JMPR (May, Canada)</td>
<td>160,000 (fully funded)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2019 JMPR (September, Switzerland)</td>
<td>260,000 (partially funded)</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Ciguatoxins: Full evaluation, including geographic distribution and rate of illness; congener; methods of detection</td>
<td>CCCF</td>
<td>11th Session</td>
<td>FAO/WHO expert consultation</td>
<td>FAO/WHO Expert Meeting 19-23 Nov, Rome, Italy</td>
<td>200,000 (partially funded)</td>
<td>Maximum levels for key food commodities, or other advice as appropriate; Code of practices</td>
</tr>
<tr>
<td>#</td>
<td>Request for Advice</td>
<td>Originator</td>
<td>Reference</td>
<td>Required Action by FAO/WHO</td>
<td>Status of Planning/Implementation</td>
<td>Estimated Cost (US$)</td>
<td>Expected Output by Codex</td>
</tr>
<tr>
<td>---</td>
<td>-------------------</td>
<td>------------</td>
<td>-----------</td>
<td>---------------------------</td>
<td>----------------------------------</td>
<td>---------------------</td>
<td>--------------------------</td>
</tr>
</tbody>
</table>
| 6. | Shiga toxigenic E. coli (STEC) | CCFH | 47th Session of CCFH | Data collection and analysis  
Review papers on the 3 key issues identified  
Implementation of 2 experts meetings | Two expert meetings implemented and report published. Source attribution work ongoing  
Preparation of final reports | 300,000 (fully funded) | Reports on attribution of STEC to foods, characterization of STECs, of concern for food safety and a review of monitoring and assurance programmes for STECs in food as a basis for management and control. |
| 7. | Scientific advice to help clarify the use of clean, potable and other types of water in the General Principles Food Hygiene and other hygiene text | CCFH | 47th and 48th session of CCFH | Collation and review of existing water quality related guidance  
Gap analysis  
Development of scenario-based advice/guidance on indicator/criteria of water quality appropriate for use | Collation of relevant texts complete  
2nd expert meeting to be convened in May 2018 | 100,000 (fully funded) | Review of the existing FAO and WHO guidelines and related data as the basis for the development of sector specific examples and guidance documents  
Illustrate the implementation of the approach to define and achieve ‘fit-for-purpose’ water |
| 8. | Nitrogen factors for fishery products and methodology to obtain data | CCFFP | 33rd Session | Call for data  
Compilation of the results/feedback to the call for data | Nitrogen factors, awaiting receipt of relevant data from different sources. | 5,000 (fully funded) | Information on Nitrogen Factors |
<table>
<thead>
<tr>
<th>#</th>
<th>Request for Advice</th>
<th>Originator</th>
<th>Reference</th>
<th>Required Action by FAO/WHO</th>
<th>Status of Planning/Implementation</th>
<th>Estimated Cost (US$)³</th>
<th>Expected Output by Codex</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>Review of the list of acceptable previous cargoes on fats and oils</td>
<td>CCFO</td>
<td>24th Session</td>
<td>Evaluate whether the 23 substances were suitable as previous cargoes and to provide an assessment against the four criteria as mentioned in the <em>Code of Practice for the Storage and Transport of Edible Fats and Oils in Bulk</em> (CAC/RCP 36-1987). Cluster the 23 substances based on chemical properties and rank according to priorities (i.e. low, medium or high).</td>
<td>Work planning to be carried out upon confirmation of resource availability</td>
<td>120,000 (no funding)</td>
<td>Technical report with the conclusion on suitability as well as the assessment results of the four criteria stated in the CoP. This should include a priority ranking.</td>
</tr>
<tr>
<td>11.</td>
<td>Histamine and Scombroid fish poisoning (SPF) or SPF-like illnesses linked to Salmonidae</td>
<td>CCFH</td>
<td>48th Session</td>
<td>Literature review of available information</td>
<td>Review completed and in press</td>
<td>20,000</td>
<td>Review of the links, if any between Salmonidae consumption and SPF or SPF-like illnesses</td>
</tr>
<tr>
<td>12.</td>
<td>Request for the establishment of nitrogen to protein conversion factors for soy and milk proteins</td>
<td>CCNFSDU</td>
<td>39th Session</td>
<td>Joint FAO/WHO Expert Meetings on Nutrition (JEMNU)</td>
<td>Review papers and expert meeting</td>
<td>30,000</td>
<td>Determination of science-based nitrogen to protein conversion factor(s) for soy and milk proteins</td>
</tr>
<tr>
<td>#</td>
<td>Request for Advice</td>
<td>Originator</td>
<td>Reference</td>
<td>Required Action by FAO/WHO</td>
<td>Status of Planning/Implementation</td>
<td>Estimated Cost (US$)³</td>
<td>Expected Output by Codex</td>
</tr>
<tr>
<td>----</td>
<td>--------------------------------------------------------</td>
<td>---------------------</td>
<td>---------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
<td>-----------------------</td>
<td>-------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>13</td>
<td>Antimicrobial Resistance</td>
<td>CAC</td>
<td>39th and 40th Sessions</td>
<td>Review of data relevant to the development and transmission of foodborne antimicrobial resistance, guidance on the use of the WHO and OIE CIA lists and advice on alternatives to antimicrobials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TFAMR</td>
<td>5th Session</td>
<td></td>
<td>Review papers and a series of expert meetings</td>
<td>500,000 (partially funded)</td>
<td>Advice based on the latest data on factors contributing to foodborne AMR and approaches to surveillance. Advise on use of the WHO and OIE CIA lists and advise on approaches to reduce foodborne AMR</td>
</tr>
<tr>
<td>14</td>
<td>Review and modernization of analytical methods used in monographs</td>
<td>FAO JECFA secretariat</td>
<td></td>
<td>Comprehensive review and to establish modernization needs for all analytical methods used in Volume 4 of Monograph 1</td>
<td>Review paper and one expert meeting</td>
<td>100,000 (no funding)</td>
<td>Replacing obsolete analytical detection methods and ensure consistency of analytical approaches</td>
</tr>
<tr>
<td>15</td>
<td>Review of Enzyme evaluation guidelines</td>
<td>JECFA Secretariat</td>
<td></td>
<td>Review and update of the enzyme evaluation guidelines</td>
<td>Review paper on national processes used and recommendations, expert meeting</td>
<td>100,000 (partially funded)</td>
<td>Work is required before enzyme evaluation for CCFA can resume</td>
</tr>
<tr>
<td>16</td>
<td>Review and update of Chapter 3: Chemical Characterization, Analytical Methods and the Development of Specifications in EHC240: Principles and methods for the risk assessment of chemicals in food</td>
<td>FAO JECFA secretariat</td>
<td></td>
<td>Review, update and modernizations of current guidelines regarding the chemical characterization and the use of analytical methods</td>
<td>Review paper and expert meeting</td>
<td>100,000 (no funding)</td>
<td>Critical modernization need to facilitate the work for CCFA, CCCF, CCRVDF</td>
</tr>
<tr>
<td>#</td>
<td>Request for Advice</td>
<td>Originator</td>
<td>Reference</td>
<td>Required Action by FAO/WHO</td>
<td>Status of Planning/Implementation</td>
<td>Estimated Cost (US$)³</td>
<td>Expected Output by Codex</td>
</tr>
<tr>
<td>----</td>
<td>------------------------------------------------------------------------------------</td>
<td>--------------------------</td>
<td>----------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>---------------------------------</td>
<td>------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>17</td>
<td>Update guidance on genotoxicity evaluation, update of chapter 4.5 of EHC240</td>
<td>WHO JECFA &amp; JMPR Secretariat</td>
<td></td>
<td>Update guidance on the evaluation and interpretation of genotoxicity data and overall conclusions of genotoxic potential, including minimum data requirements</td>
<td></td>
<td>80,000 (partial funding)</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Update of Chapter 5 of EHC240 on dose-response assessment and derivation of health-based guidance values</td>
<td>WHO JECFA &amp; JMPR Secretariat</td>
<td></td>
<td>Develop more detailed guidance in particular on the application of benchmark dose modelling and overall update on chapter taking latest developments and recommendations by JECFA and JMPR into account</td>
<td></td>
<td>80,000 (partial funding)</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Update of Chapter 6 of EHC240 on Exposure Assessment</td>
<td>JECFA&amp;JMPR Secretariat</td>
<td></td>
<td>Update chapter taking recent developments and recommendations from workshops and by JECFA and JMPR into account.</td>
<td></td>
<td>80,000 (partial funding)</td>
<td></td>
</tr>
</tbody>
</table>