CODEX ALIMENTARIUS COMMISSION

Food and Agriculture Organization of the United Nations

World Health Organization

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX ALIMENTARIUS COMMISSION

Forty-fifth Session

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

(Prepared by FAO and WHO)

Contents of paper

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

1. **The delivery of scientific advice continues at an accelerated level**. Despite the challenges that pandemic related restrictions have continued to impose on the meeting formats, FAO and WHO have continued to develop the requested scientific advice. This strong level of activity has been made possible through the contributions of Australia, Canada, the European Union, Japan, and the United States of America (USA), which have been greatly appreciated. In addition, t**hese 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 beneficiary of the joint FAO/WHO scientific advice programme, as the results are used extensively in the development of Codex texts and standards. However, also other UN agencies (for example, the World Food Programme) are requesting scientific advice from FAO/WHO. Furthermore, the outputs of this joint programme 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 levels. The following summarises the scientific advice provided in the 2021-2022 period since FAO and WHO's previous report to the Commission (CAC44 INF/2).

Joint FAO/WHO Expert Committee on Food Additives (JECFA)

2. Since the last session of CAC, three JECFA meetings (i.e., JECFA 93, JECFA 94 and JECFA 95) have been convened in a virtual format. These meetings addressed food additives, contaminants and veterinary drugs.

3. **Joint FAO/WHO Expert Committee on Food Additives (JECFA), 93rd meeting (on contaminants) 24, 25, 29, 30 March and 1 April 2022**[1]**:** This meeting was held in the framework of the on-going programme on the risk assessment of contaminants in foods. The purpose of the meeting was to evaluate the safety of certain food contaminants, specifically the trichothecenes T-2, HT-2 and 4,15-diacetoxyscirpenol (DAS). The exposure assessment and the chemical characterization had already been carried out at the ninetieth meeting of the Committee. Therefore, the purpose of this meeting was to review the toxicological data on the trichothecenes T-2, HT-2 and DAS and conduct a safety evaluation and a re-evaluation of the combined dietary exposure.

4. **Joint FAO/WHO Expert Committee of Food Additives (JECFA), the 94th Meeting on Veterinary Drugs, Virtual meeting, 16 to 27 May 2022**[2]**:** The tasks before the Committee were to further elaborate principles for evaluating the safety of residues of veterinary drugs in food, establishing acceptable daily intakes (ADIs) and acute reference doses (ARfDs), and recommending maximum residue limits (MRLs) for such residues when the drugs under consideration are administered to food producing animals in accordance with good practice

[1] https://www.fao.org/3/cb9478en/cb9478en.pdf

[2] https://www.who.int/publications/m/item/ninety-fourth-meeting-joint-fao-who-expert-committee-of-food-additives-(jecfa)

in the use of veterinary drugs (GVP); to evaluate the safety of residues of certain veterinary drugs; and to respond to specific requests from the Codex Committee on Residues of Veterinary Drugs in Foods (CCRVDF). In total, four veterinary drugs were evaluated by the Committee.

5. **Joint FAO/WHO Expert Committee on Food Additives (JECFA). The 95th Meeting of food additives, 6 - 17 June 2022 with an additional day for approval of the report on 22 June 2022.** 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 the toxicological evaluations and dietary exposure assessments and developed specifications for nine food additives, revised the specifications for another food additive and evaluated the safety of two flavouring agents.

6. **Joint FAO/WHO Expert Committee on Food Additives (JECFA) - Future meetings:** Joint FAO/WHO Expert Committee on Food Additives (JECFA). The 96th Meeting of food additives is scheduled from 27 June to 6 July 2023 in Geneva. This meeting will be held in the framework of the on-going programme on the risk assessment of food additives and contaminants in foods. The list of substances scheduled for evaluation includes the food additive aspartame (INS 951) and fifteen flavouring agents for full evaluation, two food additives and eight flavouring agents for revision of specifications only.

7. **Joint FAO/WHO Expert Committee on Food Additives (JECFA)**. A second meeting on food additives is envisaged in fall 2023 for the evaluation of the food additive titanium dioxide (INS 171). This meeting will be held in the framework of the on-going programme on the risk assessment of food additives and contaminants in foods. In view of this evaluation, FAO and WHO are working on a Guidance document that can be used by JECFA and other FAO/WHO expert committees for the evaluation of chemical substances whose risk assessment requires looking into nanomaterial aspect.

Joint FAO/WHO Meeting on Pesticide Residues (JMPR)

8. **Joint FAO/WHO Meeting on Pesticide Residues (JMPR), Virtual, 6–17 September and 4–7 October 2021[3]:** The Meeting evaluated 15 pesticides of which a toxicological evaluation was performed for 11 of them. On the agenda, there were five new compounds and two compounds for periodic re-evaluation. The Meeting established ADIs and ARfDs, estimated MRLs and recommended them for use by CCPR. The meeting also estimated supervised trials median residue (STMR) and highest residue (HR) levels as a basis for estimating dietary exposures. In addition, the meeting responded to 7 concern forms raised at the CCPR.

9. **Joint FAO/WHO Meeting on Pesticide Residues (JMPR) 13–22 September 2022. Rome, Italy.** The first physical meeting after the relaxation of COVID-19 restrictions, plans to evaluate 35 pesticides of which 11 for new compounds,4 for periodic review and 20 for additional uses.

Joint FAO/WHO Expert Meeting on Microbiological Risk Assessment (JEMRA)

10. **Joint FAO/WHO Expert meeting on the prevention and control of microbiological hazards in fresh fruits and vegetables (Part1: Administrative procedures, meeting scope/objectives, data collection; Part2: General principle and fresh fruits and vegetables), virtual meetings, 26 and 28 July (Part1), from 20 September to 1 October with an additional day on 4 October 2021 (Part2):** The purpose of the meetings was to collect, review and discuss relevant measures for control of microbiological hazards from primary production to point-of-sale in fresh, ready-to-eat and minimally processed fruits and vegetables, including leafy vegetables. The meeting report is in development and the executive summary is available at FAO/WHO websites.[4]

11. **Joint FAO/WHO Expert meeting on the prevention and control of microbiological hazards in fresh fruits and vegetables (Part3 Sprouts), virtual meeting, 22, 23, 24, 29 and 30 November 2021:** The purpose of this meeting was to reconvene a subset of the Expert Committee to collect, review and discuss relevant measures for control of microbiological hazards in sprouts, from the production of seeds for sprouting, to the

[3] https://www.fao.org/3/cb8313en/cb8313en.pdf

[4] https://www.fao.org/3/cb7664en/cb7664en.pdf and https://www.who.int/news-room/events/detail/2021/07/12/default-calendar/joint-fao-who-expert-meeting-on-the-prevention-and-control-of-microbiological-hazards-in-fresh-fruits-and-vegetables

production of sprouts and point-of-sale. The meeting report is in development and the executive summary is available at FAO/WHO websites.[5]

12. **Joint FAO/WHO Expert meeting on the prevention and control of microbiological hazards in fresh fruits and vegetables (Part4: Commodity-specific interventions), virtual meeting, 16 May to 3 June 2022:** The purpose of this final meeting was to reconvene the Expert Committee to collect, review, and discuss relevant commodity-specific interventions in all other fresh fruits and vegetables from the primary production to point-of-sale. The meeting report is in development and the executive summary is available at FAO/WHO websites.[6]

Ad hoc Joint FAO/WHO Expert Consultation on Risk Assessment of Food Allergens

13. ***Ad hoc* Joint FAO/WHO Expert Consultation on Risk Assessment of Food Allergens Part 2: Review and establish threshold levels in foods of the priority allergens, Virtual follow-up meeting on milk and sesame, 15 March 2022:** The second in a series of the ad hoc Joint FAO/WHO Expert Consultation on Risk Assessment of Food Allergens was held from 15 March to 2 April 2021. The main purpose of the second meeting was to establish threshold levels in foods of the priority allergens. When reviewing the datasets on milk and sesame during the second meeting in 2021, the Expert Committee identified significant datasets not yet included in the dose distribution modelling. The Expert Committee agreed that these datasets should be considered for inclusion and to reconvene to establish threshold levels [reference dose (RfD) values] for milk and sesame when updated analyses became available. Following the approach established at the 2021 meeting, the Expert Committee discussed updated analyses of the data on sesame and milk and recommended their RfD. The executive summary is available at FAO/WHO website.[7]

14. ***Ad hoc* Joint FAO/WHO Expert Consultation on Risk Assessment of Food Allergens Part 3: Review and establish precautionary labelling in foods of the priority allergens, virtual meeting, 18 – 29 October, 3 November 2021:** The purpose of this third meeting was to evaluate the evidence in support of precautionary labelling. The meeting report is in development and the executive summary is available at FAO/WHO websites[8].

[5] https://www.fao.org/3/cb8201en/cb8201en.pdf and https://www.who.int/news-room/events/detail/2021/07/12/default-calendar/joint-fao-who-expert-meeting-on-the-prevention-and-control-of-microbiological-hazards-in-fresh-fruits-and-vegetables

[6] https://www.fao.org/3/cc2007en/cc2007en.pdf and https://cdn.who.int/media/docs/default-source/food-safety/jemra/jemra-microbiological-hazards-in-fruits-vegetables-part4-summary-report.pdf?sfvrsn=d8813293_5

[7] https://www.fao.org/3/cb9312en/cb9312en.pdf and https://www.who.int/news-room/events/detail/2021/03/15/default-calendar/ad-hoc-joint-fao-who-expert-consultation-on-risk-assessment-of-food-allergens-part2-review-and-establish-threshold-levels-in-foods-of-the-priority-allergens

[8] https://www.fao.org/3/cb7971en/cb7971en.pdf and https://www.who.int/news-room/events/detail/2021/10/18/default-calendar/ad-hoc-joint-fao-who-expert-consultation-on-risk-assessment-of-food-allergens-part-3-review-and-establish-precautionary-labelling-in-foods-of-the-priority-allergens

Other activities

15. ***Ad hoc* FAO Expert Consultation on food safety aspects of cell-based food, organized in collaboration with WHO, 1-4 November 2022:** Cell-based food (https://www.fao.org/food-safety/scientific-advice/crosscutting-and-emerging-issues/cell-based-food/en/) production, also known as cellular agriculture, involves culturing cells isolated from animals followed by processing to produce food products that are comparable to the corresponding animal versions, such as meat, poultry, aquatic products, dairy products and eggs. Cell-based food production is often carried out under controlled conditions and the most well-known food product of this technology is cell-based meat. The commercial landscape for cell-based food is fast expanding with various companies developing assorted products around the world, with the first cell-based chicken nuggets approved in Singapore since December 2020. FAO, in collaboration with WHO, held a 3.5-day expert consultation in Singapore on 1-4 November 2022. The overall objective of the expert consultation is to develop a document with up-to-date technical knowledge on the food safety aspects of cell-based food production through the process of expert elicitation. As the first step of the initiative, the consultation will have a narrow scope of food safety hazard identification, while other legitimate issues around the topic is acknowledged. Prior to the expert consultation, FAO in collaboration with the Ministry of Health of Israel will hold a stakeholder roundtable meeting inviting developers and producers of cell-based food products and their ingredients and materials to discuss various production processes and food safety considerations on 7 September 2022.

Ad hoc FAO work on microplastics in food

16. FAO developed a background document that compiles information on the occurrence of microplastics in all commodities, microplastics contamination along food value chains, and plastic migration from food contact materials and packaging, as well as a review of the existing literature on the toxicity of the most common plastic monomers, polymers, and additives. This process set up the basis for future risk assessment exercise and provides information that can be used for the provision of risk management options. The report was consolidated during an expert meeting held in January 2022 and to be published during 2022. Further information about this work can be found in the document on Matters Arising from FAO and WHO.

Ad hoc WHO work on dietary and inhalation exposure to microplastic particles

17. Microplastic particles in the environment is an emerging contaminant that has generated intense public concern as well as questions to WHO from Member States and recurring queries from the media concerning the associated human health risk. Recognizing this interest, WHO has reviewed the state of evidence on microplastic particles in drinking-water and assessed the potential risks to human health in 2019. To continue WHO's effort to assess the potential health risks associated with exposure to microplastic particles WHO has worked to widen the scope of the assessment from drinking water to the environment, including exposure via food, soil, water and air. The dietary and inhalation assessment started in 2019 with an expert consultation and later followed up by a final expert consultation in March 2022.The report is about to be published and will result in a report summarizing the current state of knowledge on the human health risk resulting from exposure to microplastic particles through the environment.

Ad Hoc WHO work on dioxin and dioxin-like compounds

18. Since the early 1990's, WHO has organized expert meetings with the objective to harmonize the toxic equivalency factors (shorten as TEFs) for dioxin and dioxin-like compounds on the international level, thereby giving recommendations to national regulatory authorities. The latest WHO TEFs for dioxin and dioxin-like compounds were established by WHO in 2005. New data indicate a need to update the 2005 WHO TEFs and therefore WHO has established an advisory group of international experts that advice WHO about the kind data needed to derive new TEF values. WHO in collaboration with the European Food Safety Authority and some external consultants has collected the needed data that WHO experts will need to derive new TEF values. An expert consultation aiming at re-evaluating the TEFs for dioxin and dioxin-like compounds is being organized for October this year. The outcome of the meeting including updated and new TEF values for dioxin and dioxin-like compounds will be published after the meeting. The updated and new TEF values will be used by JECFA in a future meeting to re-evaluate dioxin and dioxin-like compounds.

Ad hoc FAO work on e-notification systems for food control

19. Over a third of global agri-food exports now happen through global value chains. The complexity of food supply chains and the growing importance of global agri-food trade creates challenges for the management of food safety. For this reason, many nations have implemented more rigorous systems of food control for agri-food imports, while many others need assistance to develop them. To this end, FAO developed a Technical

guidance for the implementation of e-notification systems for food control. The document is available in the following link: https://doi.org/10.4060/cc0850en. Further information about this work can be found in the document on Matters Arising from FAO and WHO.

Ad hoc Joint IAEA–FAO Technical Meeting on the Way Forward for the Assessment of Protein Requirements and Protein Quality and for the Development of a Protein Digestibility and Quality Database

20. Defining accurately the amount and quality required to meet human nutritional needs and describing appropriately the protein supplied by foods and diets is critical in meeting global nutrition targets. Scientific advice on protein quality evaluation is also relevant for the development of Codex Alimentarius food standards and guidelines. More specifically, the Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU) has considered the issue of protein quality in foods and diets on several occasions. Standardized protein quality of foods data in humans has a potential to inform dialogue on recommendations for protein requirements for all age groups, especially in first 3 years of life. FAO in collaboration with IAEA will hold a four day technical meeting in Vienna, from10 to 13 October 2022. The main objective of the meeting is to review and update evidence and related methods on protein requirements and protein quality assessment and to design a framework for development of a Protein Digestibility Database to aid dialogue on the evaluation of protein quality and protein sufficiency in different populations.

Ad hoc Joint FAO/WHO work on risks and benefits of fish consumption

21. New evidence has become available regarding the risks and benefits of fish consumption. For this reason, FAO and WHO are currently working to update the Report of the Joint FAO/WHO Expert Consultation on the Risks and Benefits of Fish Consumption published in 2010. This will be done through an expert consultation that will set a framework for assessing the net health benefits or risks of fish consumption and that will also provide guidance to the Codex Alimentarius Commission in their work on managing risks, taking into account the existing data on the benefits of eating fish. Further information about this work can be found in the document on Matters Arising from FAO and WHO.

Ad hoc Joint FAO/WHO work on seaweed safety

22. Increased cultivation and utilization of seaweed are expected to be important pillars of sustainable food security and a robust aquatic economy in the near future. Many factors can affect the presence of hazards in seaweed. However, legislation and guidance documents on seaweed production and utilization are generally still lacking. In this regard, FAO and WHO developed a background document that identifies food safety hazards linked to the consumption of seaweed and aquatic plants. The document was consolidated during an expert meeting held in October 2021 and will be published during 2022. FAO and WHO considered that there was value in developing relevant Codex guidance on this subject and presented this topic to the 35th Session of the Codex Committee on Fish and Fishery Products that agreed on considering further work in the area based on the background document. Further information about this work can be found in the document on Matters Arising from FAO and WHO.

WHO Nutrition Guidance Expert Advisory Group (NUGAG) Subgroup on Diet and Health

Saturated fatty acids, trans-fatty acids, total fat, polyunsaturated fatty acids, carbohydrates, the use of non-sugar sweeteners, and the use of low-sodium salt substitutes

23. Final draft guidelines on total fat, and saturated fatty acids and trans-fatty acids have been submitted to the Guideline Review Committee in August 2022 for final clearance. Draft guideline on the use of non-sugar sweeteners was launched for public consultation in July 2022 and the comments provided through the public consultation are currently being reviewed and it is planned the final draft guideline will be submitted to the Guideline Review Committee in September/October 2022 for final clearance.

24. Draft guidelines on carbohydrates, polyunsaturated fatty acids and the use of low-sodium salt substitutes are currently being finalized to be issued for public consultation before the end of 2022.

Dietary patterns

25. The systematic review has been finalized and will be reviewed and recommendations formulated at the meeting of the NUGAG to be held early 2023.

WHO Nutrition Guidance Expert Advisory Group (NUGAG) Subgroup on Policy Actions

26. The NUGAG Subgroup on Policy Actions had commenced work on food environment policy guidelines, namely for nutrition labelling policies, policies to protect children from the harmful impact of food marketing and fiscal and pricing policies, and school food and nutrition policies in 2018, and new work on a fifth policy action, namely menu labelling to improve the out of home environment was initiated in 2022 with a call for authors for a scoping review which is expected by the end of the year to guide the formulation of the key questions and scope for undertaking the systematic evidence review to inform the recommendations.

27. Following two face to face meetings held in 2018 and 2019, three virtual meetings were held due to the COVID-19 pandemic in 2021 to progress the finalization of pending guidelines. At the first of the three meetings, held in March 2021 the NUGAG reviewed evidence from a systematic review (submitted for publication) and a review of contextual factors[9] and formulated recommendations on school food and nutrition policies, at the second meeting held in July the NUGAG reviewed two systematic reviews[10] a narrative review[11] and a review of contextual factors[12] and formulated recommendations on policies to protect children from the harmful impact of food marketing, and at the third meeting the NUGAG reviewed evidence from two systematic reviews[13] and a review of contextual factors and formulated the final draft recommendations on fiscal policies to promote healthy diets.

28. Draft guideline on policies to protect children from the harmful impact of food marketing was released for public consultation in July 2022 and comments are now being reviewed before finalization of the guideline. A public consultation is currently being prepared for the draft fiscal policy guideline and will be issued in the coming weeks.

FAO/WHO updating of nutrient requirements for infants and young children aged 0 – 4 years

29. FAO and WHO last updated vitamin and mineral requirements for all age groups in 2004. Since then, new data have emerged suggesting that requirements for some micronutrients may need to be updated, particularly for infants and young children. Therefore, in part to inform the planned updating of WHO guidance on complementary feeding and also to contribute to the on-going work of CCNFSDU in establishing NRV-R for persons aged 6 – 36 months, FAO and WHO established an expert group to initiate the updating of nutrient requirements for infants and young children aged 0 – 4 years. Prior to initiating the process for updating the requirements, WHO conducted an initial review of the recent scientific literature on nutrient requirements, and compilation of national dietary guidelines from all regions, containing detailed information about nutrient requirements in the age group of interest. Using the data obtained from this preparatory work done by WHO, FAO and WHO was able to prioritize the nutrients to be updated (i.e. calcium, vitamin D and zinc as the first three nutrients to be updated). The first two virtual meetings of the expert group were held in January 2021 and June 2021. The third through sixth meetings were held in December 2021, and on several dates in March through July 2022, at which additional analyses and additionally compiled evidence were reviewed and discussed. Over the course of these meetings, preliminary requirements and safe upper levels of intake for calcium have been derived by the expert group, and methods for deriving values for zinc and vitamin D identified and explored. Values for all three nutrients should be finalized by the fourth quarter of 2022. As a result of this effort, more than 25 systematic and narrative reviews have been completed and several have been published in peer-reviewed journals.

FAO/WHO GIFT (FAO/WHO Global Individual Food consumption data Tool)

30. The FAO/WHO Global Individual Food consumption data Tool (FAO/WHO GIFT) is an open-access online platform, hosted by FAO and supported by WHO, providing access to harmonised individual quantitative food

[9] https://www.who.int/publications/i/item/9789240035072

[10] https://onlinelibrary.wiley.com/doi/full/10.1111/obr.13447 and https://jamanetwork.com/journals/jamapediatrics/fullarticle/2791859

[11] https://www.who.int/publications/i/item/9789240041783

[12] https://www.who.int/publications/i/item/9789240035041

[13] https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2792842 and https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2792845

consumption data, especially in low- and middle-income countries. The platform is a growing data repository; in 2018, FAO/WHO GIFT received a four-year grant from the Bill & Melinda Gates Foundation to transform the platform into a robust global tool that will contain at least 50 datasets by 2022, with an extension granted until 2023. FAO/WHO GIFT provides sex and age-disaggregated microdata, which are needed in the field of nutrition and dietary exposure. To facilitate the use of these data by policy makers, ready-to-use food-based statistics are provided under the form of infographics for a user-friendly overview of key information by population segments and by food groups. The synergy between the FAO/WHO GIFT platform and FAO/WHO CIFOCOss (Chronic Individual Food Consumption Data summary statistics) database hosted by WHO, through the FAO/WHO FOSCOLLAB (Global platform for food safety data and information), has great potential for enhancing the monitoring of food systems. In fact, in order to enhance the consistency and reliability of nutrient intake and dietary exposure assessments, all datasets available as microdata in FAO/WHO GIFT are harmonised with the food classification and description system FoodEx2. FoodEx2 is also the system used to map all food chemical occurrence microdata available on WHO GEMS/Food. The combination of the two platforms supports the conduct of refined dietary exposure assessment for a large variety of food chemicals in all regions of the world. Moreover, datasets available as microdata in FAO/WHO GIFT and fulfilling minimum requirements are also being made available as summary statistics on FAO/WHO CIFOCOss.

31. For datasets where microdata are not yet available in FAO/WHO GIFT, the platform provides an up-to-date inventory of individual quantitative food consumption surveys conducted or ongoing in low- and middle-income countries, with detailed survey information on identified studies. The FAO/WHO GIFT platform is available at http://www.fao.org/gift-individual-food-consumption/en/. The dashboards of FAO/WHO FOSCOLLAB including the CIFOCOss are available at http://apps.who.int/foscollab and the dashboard of GEMS/Food is available at https://extranet.who.int/gemsfood/.

Toxicological profiling of compounds and less-than-lifetime dietary exposure assessment

32. Following the recommendations of the electronic working group for the toxicological profiling of chemicals, the JMPR agreed in 2019 to report estimated dietary exposures based on national dietary survey data in addition to the International Estimated Daily Intake (IEDI) results at future JMPR meetings because these data give a more realistic estimate of actual exposure for different populations around the world. Where there is an identified concern about shorter-than-lifetime exposures for the mean or high consumer, additional information on subpopulation groups are provided that is of use to risk assessors and risk managers. This level of information is not available using the IEDI.

Acute probabilistic dietary exposure assessment for pesticide

33. The FAO/WHO Scientific Advice Programme collected pesticide monitoring plans and individual food consumption data in order to perform a probabilistic assessment of the acute exposure for 47 pesticides having an acute reference dose. Data were submitted by Brazil, Canada, European Union (EU) and the United States of America (USA). A scientific Committee was established to ensure the quality and the transparency of the assessment to be done by an independent consultant. Results should support the ongoing review of the international estimated short-term intake (IESTI) equation.

FAO GM Foods Platform

34. The FAO GM Foods Platform (https://www.fao.org/gm-platform/) is a simple online platform to share information on safety assessment of foods derived from recombinant-DNA plants authorized in accordance with the Codex Guideline for the conduct of food safety assessment of foods derived from recombinant-DNA plants (CAC/GL 45-2003, annex III adopted in 2008). This Platform also facilitates the effective utilization of food safety assessment in situations of Low Level Presence (LLP) of r-DNA plant materials in food. As of August 2022, the Platform hosts more than 1,800 records from 26 Members, including European Union. All the safety assessment information shared on the Platform are the official submissions from Codex Members and the assessment methodologies are aligned to the relevant Codex principles and guidelines.

FAO work on food safety and genome editing

35. FAO has developed a technical paper on genome editing and food safety with a consideration of the impact of the technology on the work of Codex Alimentarius. The nature of the paper is technical and fact-based, and various regulatory experts around the world have provided reviews on the contents. The paper is expected to be published within 2022.

Publications

JECFA publications

36. JECFA publications are available on the following websites:

FAO http://www.fao.org/food-safety/resources/publications/en/

WHO https://www.who.int/groups/joint-fao-who-expert-committee-on-food-additives-(jecfa)

37. Recent publications include:

- Summary report of the 95th meeting of JECFA. https://www.who.int/publications/m/item/ninety-fifth-meeting-joint-fao-who-expert-committee-of-food-additives-(jecfa)
- Summary report of the 94th meeting of JECFA. https://cdn.who.int/media/docs/default-source/food-safety/jecfa/summary-and-conclusions/jecfa94-summary-and-conclusions-16to27may2022.pdf?sfvrsn=c1ba8328_8&download=true
- Summary report of the 93rd meeting of JECFA. https://www.who.int/publications/m/item/ninety-third-meeting-joint-fao-who-expert-committee-of-food-additives-(jecfa)
- Safety evaluation of certain food additives: prepared by the ninety-second meeting of the Joint FAO/WHO Expert Committee on Food Additives (JECFA). JECFA Monograph 83. https://www.who.int/publications/i/item/9789240048379
- Compendium of Food Additive Specifications, 91st Meeting. FAO JECFA Monograph 26, 2021, http://www.fao.org/documents/card/en/c/cb4737en
- Residue evaluation of certain veterinary drugs Joint FAO/WHO Expert Committee on Food Additives - 88th Meeting 2019, FAO JECFA Monograph 24 http://www.fao.org/documents/card/en/c/ca9167en

JMPR Publications

38. JMPR publications are available on the following websites:

FAO: http://www.fao.org/agriculture/crops/core-themes/theme/pests/jmpr/en/

WHO: https://www.who.int/groups/joint-fao-who-meeting-on-pesticide-residues-(jmpr)

39. Recent publications include:

- FAO and WHO. 2022. *Report 2021 - Pesticide residues in food - Joint FAO/WHO Meeting on Pesticide Residues.* Rome. https://www.fao.org/3/cb8313en/cb8313en.pdf
- FAO and WHO. 2021. *Report 2021 – Pesticide residues in food. Extra Joint FAO/WHO Meeting on Pesticide Residues.* Rome. https://www.fao.org/3/cb6975en/cb6975en.pdf
- Pesticide residues in food 2021. Extra Joint FAO/WHO meeting on pesticide residues. Evaluation Part I- Residues https://www.fao.org/3/cb6974en/cb6974en.pdf
- Pesticide residues in food 2021. Joint FAO/WHO meeting on pesticide residues. Evaluation Part I- Residues https://www.fao.org/3/cb9480en/cb9480en.pdf
- Pesticide residues in food 2019. Joint FAO/WHO meeting on pesticide residues. Evaluation Part II – Toxicological. https://www.who.int/publications/i/item/9789240012592 Pesticide residues in food - 2019: toxicological evaluations / Extra 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, Gatineau, Canada, 7–17 May 2019. https://www.who.int/publications/i/item/9789241655347

JEMRA Publications

40. JEMRA publications are available on the following websites:

FAO http://www.fao.org/food-safety/resources/publications/en/

WHO https://www.who.int/groups/joint-fao-who-expert-meetings-on-microbiological-risk-assessment-(jemra)/microbiological-risk-assessment-series

41. Recent publications include:

- FAO and WHO. 2022. Ranking of low-moisture foods in support of microbiological risk management: Meeting report and systematic review. Microbiological Risk Assessment Series No. 26. Available at: http://www.fao.org/documents/card/en/c/cc0763en.
- FAO and WHO. 2022. Microbiological hazards in spices and dried aromatic herbs: meeting report. Microbiological Risk Assessment Series No. 27. Available at: https://www.fao.org/documents/card/en/c/cb8686en and https://www.who.int/publications/i/item/9789240045187
- FAO and WHO. 2021. Safety and quality of water used with fresh fruits and vegetables. Microbiological Risk Assessment Series No. 37. Available at: https://www.fao.org/3/cb7678en/cb7678en.pdf and https://www.who.int/publications/i/item/9789240030220

Other publications

- FAO and WHO. 2022. Risk assessment of food allergens: part 1: review and validation of Codex Alimentarius priority allergen list through risk assessment: meeting report. Food Safety and Quality Series 14. Available at: https://www.fao.org/publications/card/en/c/CB9070EN and https://www.who.int/publications/i/item/9789240042391
- FAO. 2021. Risk profile - Group B *Streptococcus* (GBS) – *Streptococcus agalactiae* sequence type (ST) 283 in freshwater fish. Bangkok. https://doi.org/10.4060/cb5067en (4-page factsheet available at http://www.fao.org/3/cb4901en/cb4901en.pdf)
- FAO. 2022. Review of derivation methods for dietary intake reference values for older infants and young children (in publication)
- FAO.2022. Computing PDCAAS for Protein Quality Assessment in Follow-up Formula for Young Children (in publication)
- FAO.2021. Manuel sur l'étiquetage des denrées alimentaires pour la protection des consommateurs

Upcoming meetings

42. **Joint FAO/WHO Expert Meeting on the pre- and post-harvest control of non-typhoidal *Salmonella* spp. in poultry meat, 12-16 September 2022, Geneva, WHO:** The purpose of the meeting is to collect, review and discuss relevant measures for controls of non-typhoidal *Salmonella* spp. from primary production to consumption of poultry meat.

43. **Joint FAO/WHO Meeting on Pesticide Residues (JMPR), Rome, Italy. 12-23 September 2022:** The meeting planned to evaluate 20 compounds, including eight new compounds and three compounds for periodic re-evaluation.

44. **Joint FAO/WHO Workshop on safety and quality of water used in food production and processing. Honduras, 11-13 October 2022:** The purpose of this workshop is to work on the microbiological criteria based on the data collected from Honduras, have the pilot test of the JEMRA decision tree[14] with local fresh produce and promote the scientific knowledge from JEMRA to member countries.

45. **Ad hoc WHO Expert Meeting on update of the 2005 WHO toxic equivalency factors value for dioxin and dioxin-like compounds.** The purpose this meeting is to harmonize the toxic equivalency factors (TEFs) for dioxin and dioxin-like compounds on the international level, thereby giving recommendations to national regulatory authorities.

46. **Joint FAO/WHO Expert Meeting on microbiological risk assessment of *Listeria monocytogenes* in foods, 24 – 28 October 2022, Rome, FAO:** The purpose of the meeting is to develop a full farm to table risk assessment for *Listeria monocytogenes* in foods. The assessment will include the following types of food, but not be limited to: Leafy greens, Cantaloupe/rock melon, Frozen vegetables (for example peas, corn), RTE seafood that allows for the growth of *L. monocytogenes*, for example gravad (sugar-salt marinated) salmon/halibut.

[14] https://www.fao.org/documents/card/en/c/ca6062en

47. **Ad hoc Joint FAO/WHO Expert Consultation on Risk Assessment of Food Allergens: Part 4 Review ingredient exemptions from priority allergen labelling, 14-18 November 2022:** The meeting will focus on evaluating ingredient exemptions from priority allergen labelling.

48. **Joint FAO/WHO nutrient requirements for children aged 0-4 years of age, October 2022:** The group will review the results of the updated systematic reviews and derive requirements and upper limits of intake for vitamin D and zinc.

PART II: FINANCIAL AND BUDGETARY MATTERS

49. 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 2020-2021 by FAO and WHO based on budgeted expenditures. The final information on 2022-2023 expenditure will become available in early 2024.

WHO budget

50. 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 specified voluntary contributions from Member States and other donors while part of the staff costs is provided through assessed and unspecified voluntary contributions. Both food safety and nutrition scientific advice work is implemented by the Department of Nutrition and Food Safety in the Division of UHC/Healthier Populations.

51. For the biennium 2020-21, the activity and staff costs for the work on scientific advice amounted to USD 6 million including USD 1,672,517 in food safety (staff costs: USD 761,197 and activity costs: USD 911,320) and USD 4,379,038 in nutrition (staff costs: USD 2,753,332 and activity costs: USD 1,625,706) (including relevant and related scientific advice and guideline development work in nutrition).

52. For the biennium 2022-23, USD 4.6 million is budgeted for activity and staff costs related to scientific advice to Codex, including USD 2,548,219 in food safety (staff costs: USD 1,708,219 and activity costs: USD 840,000) and USD 2,107,187 in nutrition (staff costs: USD 1,247,187 and activity costs: USD 860,000). A budget increase is expected in 2023 to cover the expanded scientific advice work.

53. By July 2022, the European Union, Japan, USA, Irish Aid, Swiss Agency for Development and Cooperation, Bill & Melinda Gates Foundation, Eleanor Crook Foundation and Vital Strategies have provided voluntary contributions to support the scientific advice work on 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.

54. The scientific advice activity of WHO heavily depends on specified contributions received from a small number of Member States which is gratefully acknowledged, in particular the long-standing support from the United States of America to food safety and Japan to nutrition.

FAO budget

55. 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 Divisions of Food Systems and Food Safety, Plant Production and Protection and Fisheries and Aquaculture. Scientific advice on nutrition, when requested, is provided by the Food and Nutrition Division.

56. For the 2020-21 biennium, activity and staff costs for scientific advice to Codex amounted to USD 4.5 million in food safety and USD 0.6 million in nutrition.

57. In the 2020-21 biennium, 100% of staff costs and 90% of the costs of activities actually implemented, amounting to USD 4.8 million were supported by FAO's Regular Programme Budget, including the USD 1 million increase in the PWB 2020-21 (CL 163/3 para 30 and CL 164/3 para 59) for scientific advice and standard setting.

58. For the biennium 2022-23, USD 6.8 million are budgeted for activity and staff costs related to scientific advice to Codex, including USD 6.3 million in food safety (staff costs: USD 2 121 000 and activity costs: USD 4 138 000) and USD 0.5 million in nutrition (staff costs: USD 486,000 and activity costs: USD 14,000). In the 2022-23 biennium, approximately 73 percent of the budget, amounting to USD 4.9 million, represent allocations from FAO's Regular Programme budget. The remaining 27 percent is funded from extra-budgetary contributions from Canada, the USA and Australia. Additional extra-budgetary resources are anticipated in the current biennium.

59. The recognition of key scientific advice meetings and consultations that support the standard setting work of Codex (such as JECFA, JEMRA, JMPR and JEMNU) 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

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

61. Overall, the contribution of FAO and WHO to the provision of scientific advice equals to approximately USD 11 million per biennium. To ensure the ability of the joint scientific advice programme to be able to deliver at the current rate, it will be of paramount importance to ensure this level of stable and predictable funding continue to be made available to both organizations.