Science is central to the FAO work on food safety and quality along the chain. For over 50 years, FAO in collaboration with WHO has provided neutral and independent scientific advice as the essential basis for the international food safety standards, guidelines and codes of practice established by the Codex Alimentarius Commission, and for supporting the development of modern food control systems by national authorities. In developing high quality globally relevant scientific advice, consideration is given to the entire food production chain as appropriate as well as all relevant and accessible data and regular updates are made to the methods and approaches used to ensure consistency with the most recent developments.

Framework for the provision of scientific advice

- **Soundness**: scientific excellence, both of the experts and the process.
- **Responsibility**: accountability, safeguarding the integrity of the process.
- **Objectivity**: includes neutrality of the experts and to the advice provided.
- **Fairness**: of the process, and respect for all participants and their scientific views.
- **Transparency**: of both the process and the scientific advice.
- **Inclusiveness**: balance of skills and expertise, minority scientific opinion, geographical and socioeconomic balance without compromising excellence.

Advisory mechanisms

- FAO provides scientific advice on food safety through:
  - expert panels and committees, including, JECFA (Joint FAO/WHO Expert Committee on Food Additives), JEMRA (Joint FAO/WHO Expert Committee on Pesticide Residues) and JMPR (Joint FAO/WHO Meeting on Microbiological Risk Assessment) and JMPR (Joint FAO/WHO Meeting on Pesticide Residues);
  - expert consultations on topics as required, including, foods derived from biotechnology, nanotechnologies, risks and benefits of fish consumption and of chlorine based disinfectants, among others.
The Global Initiative for Food-related Scientific Advice

GIFSA was established in 2007 to ensure sustainable funding to meet the ongoing demand for high quality and timely scientific advice. Contributions are accepted from governments, organizations and foundations in accordance with FAO and WHO rules. Support through collaborative work or in-kind contributions is also sought. For more information or to make a contribution, please contact: GIFSA@fao.org.

JECFA – meeting since 1956, it provides scientific advice on food additives, contaminants and residues of veterinary drugs in foods as well as principles and guidance for safety assessment of chemicals in foods.

JEMRA – meeting since 2000, it provides scientific advice on microbiological hazards in foods and the impact of potential interventions and guidelines on microbiological risk assessment.

Scientific advice in Action

Scientific advice is generated on prioritized food safety issues on request of Codex and member countries. The advice underpins the establishment of a diverse range of Codex standards and guidelines such as:

- establishment of microbiological criteria for emerging hazards e.g. Cronobacter spp. and limits for new contaminants e.g. melamine, in infant formula;
- development of guidelines for the control of specific pathogens e.g. Campylobacter and Salmonella spp in chicken meat;
- principles for the Risk Analysis of Foods Derived from Modern Biotechnology.

It also feeds into field activities at national/regional level to support food chain stakeholders in their efforts to address specific food safety issues.