

# PROMOTING HARMONIZED FOOD SAFETY REGULATION IN A TIME OF CHANGE, INNOVATION AND GLOBALIZED TRADE

## KEY MESSAGES

---

A One Health approach promotes effective food safety regulations across sectors and provides value for effective surveillance, intervention and prevention strategies for foodborne risks.

---

Food safety regulatory systems need to adapt to new challenges and innovation in a harmonized, transparent and timely manner, applying a science-based risk-benefit approach and engaging the public.

---

The FAO/WHO Codex Alimentarius Commission needs to identify and tackle future challenges to continue being the reliable point of reference for harmonized food safety regulation and to provide guidance to governments in enabling them to protect consumer health while avoiding unnecessary trade barriers.

---

Joint effort is needed to provide suitable resources, knowledge and levels of engagement to the work of the Codex Alimentarius Commission and FAO/WHO scientific advice programme and to build the capacity for food safety regulation in low- and middle-income countries to avoid market exclusion as well as discrepancies in public health protection of consumers.



# INTRODUCTION

---

Food safety regulatory systems need to constantly adapt to novel challenges brought on, amongst others, by changes in food systems and climate, by emerging hazards, by innovation, new technologies, digitalization, as well as by evolving consumer needs and perception. Adaptations of food safety regulatory systems must be very timely in order not to hinder innovation and development and to protect consumer health. In addition, the role of all stakeholders needs to be taken into account, applying a multi-sectoral, holistic approach. While adapting to change, it is critical to promote harmonization of food safety policy and regulation across sectors and borders, to protect consumers'

health and to facilitate fair practices in food trade. International standards developed by the Codex Alimentarius Commission are used worldwide to harmonize food safety regulations and are recognized in the WTO Agreement on the Application of Sanitary and Phytosanitary (SPS) Measures as the international reference point for food safety. The work of Codex provides governments with a valuable science-based resource and reference for food safety and nutrition, while providing a basis for international food trade to take place. In addition, science-based food standards give confidence to consumers in the safety, quality and authenticity of what they eat.

## SYNERGIES BETWEEN FOOD SAFETY AND TRADE

---

### 1. ADDRESSING FOOD SAFETY CHALLENGES THROUGH A MULTISECTORAL (ONE HEALTH) APPROACH

The interface between people, animals and the environment is rapidly changing and becoming more complex due to urbanization, climate change, industrialization and other factors. The health of the human population is profoundly linked to the environment and animal health. This especially holds true in the food safety perspective, considering the growing demand for protein from animal sources, the risk of health hazards to be transmitted from animals to consumers through the food chain, as well as international trade and global agricultural intensification. A "One Health" approach that integrates the health of humans, animals and the environment is crucial for developing effective surveillance, intervention and prevention strategies for zoonotic and foodborne diseases, improving food safety systems and reducing the costs to society and environment.

In a globalized setting, food safety hazards can cross borders rapidly via commodities at all stages of the food chain. Microbes quickly adapt to new environments by for example finding new niches, crossing over to different species and developing resistance to antimicrobial agents. This can cause emerging as well as re-emerging foodborne and zoonotic diseases, transmitted through a vast range of commodities, especially from those handled or consumed raw. Often less considered than microbial hazards, but equally important, are chemical hazards such as contaminants and naturally occurring toxins which may accumulate in plants from soil or in seafood from water. To prevent foodborne diseases, the entire food chain, from the environment to the consumer must be taken into account, in a holistic, multidisciplinary approach to developing, implementing and monitoring food safety regulations and initiatives. Surveillance and occurrence data must be collected from relevant parts of the food chain and the environment, i.e. from water, soil, farms, livestock, wildlife, food and human

samples to inform source attribution in foodborne disease management, providing spatial and temporal trend data, as well as demonstrating the effectiveness of interventions applied. Harmonized integrated surveillance in relevant sectors will allow to support identification of appropriate intervention targets and thereby help tackling emerging risks such as antimicrobial resistance. Such data can also be used to estimate the burden associated with contaminated foods nationally and internationally.

Food safety policy makers will need to tackle the challenge of applying holistic approaches and building bridges between different disciplines as well as different sectors, including agriculture, public health, environment, tourism and trade. This is of special importance with changing consumer behavior and international travel in addition to international trade taking place at all levels of the food chain. Today, non-transparent international supply networks often make it impossible to track the origin of all the commodities and ingredients of food products.

To ensure supply chain integrity and protecting consumer health, there is a need for transparent, internationally harmonized intersectoral approaches to food safety. Global food safety capacity building, across all sectors will be needed to enable all countries to align

## 2. HARMONIZING FOOD SAFETY REGULATION IN A CHANGING AND INNOVATIVE WORLD

In a world of rapid change and rapid development, innovation has become key to ensure food security, food safety and healthy diets for a growing world population. Innovation is seen in every part of the food system, be it in terms of new product development to meet consumer needs, innovative technology in food production systems to maximize output with minimal resources, technological advances such as laboratory grown meat, 3D printed food, and gene-editing or new tools for diagnosis, surveillance and investigation. Innovation and food safety regulation interact on a fundamental level. While innovation will, can and must deliver the solution to many of today's challenges, policy-makers will need to ensure that innovations implemented in food systems maintain or improve public health and facilitate trade. Hence, policy needs to be innovation-friendly while keeping food safe, affordable, accessible and nutritious.

To drive innovation, it is of critical importance to promote the public acceptability of novel approaches. As food systems are becoming more complex and transnational, consumer mistrust tends to grow towards new technologies, big cooperations and government regulations. Policy makers, industry and the consumer need to continue to engage in dialogue to establish trust through transparency and information-sharing along the entire food chain. Consumers want more information about their food than

ever before. This includes details on where ingredients are sourced from, how their food is made and what impact their food has on the environment. Having consumers turn away from novel, enabling technologies due to missing trust in the regulatory system will hinder innovative efforts to feed the growing world population. Food system stakeholders could leverage innovative technology such as blockchain and other digital solutions to engage in dialogue, address evolving consumer concerns and make food systems more transparent and inclusive. Harmonizing food safety regulations internationally will additionally facilitate consumer trust and thus help to avoid market exclusion.

Policy makers have to be informed about the risks and benefits that new innovations may bring to their respective food systems in an efficient, timely and thorough manner, and Codex needs to be informed about the possible need for novel or revised standards to continue harmonized adaptation to change. While the current pace of newly emerging food products and technologies as well as the country- and region-specific legislation and food safety challenges may justify regulatory measures developed nationally, countries should continue aligning their regulation to the international food safety standards to avoid regulatory divergence and unnecessary trade barriers. While food safety regulations should be firmly based on scientific evaluation, policy makers today may choose to take additional factors, such as the environmental impact of innovations into account. As we are moving towards a more holistic approach to food safety, efforts to consider sustainability and accessibility of innovations in an integrated manner when establishing globally harmonized regulations will need to be continued. In addition, there is a need to strengthen the efforts of Codex to promote innovative approaches to food safety while avoiding unnecessary

market exclusion of countries with less technological capacity. Aside from facilitating international trade and development, harmonized food safety regulations have the potential to promote innovation, for example by setting economic incentives or by encouraging innovative approaches to comply with food safety standards.

## 3. FUTURE-PROOFING CODEX

The growing public interest as well as the growing participation, including developing countries, in Codex work demonstrates its importance. Codex provides a basis for the safety and quality of food and the fairness of international food trade and is a valuable science-based resource and reference for food safety and nutrition to governments. However, with food systems and trade evolving, Codex needs to address emerging and new challenges timely and efficiently, while keeping existing standards up to date.

To ensure the standards, guidelines and recommendations adopted by Codex are widely and robustly implemented, it is important to promote ownership. For this, Codex will need to engage a broader range of relevant stake holders and observer organizations (e.g. NGOs, private sector, consumers) through its communication efforts. In addition, to ensure effective engagement in Codex activities, Codex members need to continuously build and strengthen the capacity to engage stakeholders across the sectors, produce necessary scientific data, and participate effectively in the development of draft standards, including through the projects implemented by the Codex Trust Fund.

Furthermore, emerging issues will need to be addressed by Codex in a timely manner. One example is the continuous adoption of new technologies in food production, with their risks and benefits.

Codex needs to tackle the challenge of embracing new technological developments to avoid regulatory divergence among high-income countries, while ensuring to avoid creating barriers for low-income countries' harmonization of food safety regulations and their participation in international trade. Here, timing is a key. Codex cannot start working on new technologies too early, but should wait until the scope and full potential of such technologies are well known, together with their challenges. Codex cannot wait too long either, as, if it does, differentiations between national legislation and regulations would go too far and would impede efforts for harmonization by Codex. Examples can be found from the past Codex work on the safety assessment of food derived from biotechnology and its labelling. Codex members need to think ahead to allow timely assessments of novel technologies by FAO and WHO, and development of appropriate standards by Codex, allowing the development and evolution of national regulation in harmony with Codex work. The harmonization of food standards is a powerful tool to make trade less costly and more inclusive. Participation in Codex work is essential to ensure that standards take into account the realities and address the needs of different countries, as well as to offer adequate health protection to all consumers wherever they live and whatever food (domestically produce or imported) they eat. To be able to participate and engage in Codex work, countries need to invest adequately in food safety and control systems, including ensuring effective coordination between all relevant sectors and stakeholders.

Codex should continue its ongoing effort to make its work efficient and well-focused on the protection of consumers health. Codex consolidated its food safety work following a holistic approach over the past two decades, an example of which is the development

of a monumental General Standard for Food Additives (GSFA). What should be the next, long-term target for Codex? In setting such targets, a good balance should be maintained between food safety work and food quality (commodity standards) work as they compete for limited resources not only within the joint FAO/WHO Codex budget but also in national resources. As Codex has done since the introduction of the Critical Review, amenability for standardization needs to be systematically and objectively checked upstream.

Finally, given that Codex operates under the auspices of FAO and WHO and within the overall United Nations framework, the contribution of Codex to the 2030 sustainable development agenda needs to be clearly articulated. The possible roles and responsibilities of Codex in addressing emerging topics such as environmental protection, sustainability of food systems and food waste/loss encompass multiple sustainable development goals (SDGs). To ensure accountability and reaffirm its importance, Codex needs to measure how widely and deeply its standards are used by Codex members and non-State actors, and what impacts they are making for the health of people and for the sustainable economic development including through food trade. Development of good, measurable targets and indicators will strengthen Codex' *raison-d'être*.

To ensure that Codex Alimentarius can meet all its goals, adequate resources and the full engagement of suitably knowledgeable and engaged representatives from member states will be critical. This will need to also include sufficient and sustainable funding by FAO and WHO for the scientific advice programmes, which retain a critical role in informing Codex work in ensuring that all Codex measure reside on a sound and impartial scientific basis.

# THE FUTURE OF FOOD SAFETY

Transforming knowledge into action for people, economies and the environment



**ADDIS ABABA**  
12-13 February 2019

The First FAO/WHO/AU  
International Food  
Safety Conference

**GENEVA**  
23-24 April 2019

International Forum  
on Food Safety and Trade

