



JOINT FAO/WHO FOOD STANDARDS PROGRAMME
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FOOD SAFETY AND QUALITY SITUATION IN THE COUNTRIES OF THE REGION

(Prepared by FAO and WHO)

Introduction and background

1. Member countries need to address food safety issues in a timely and effective manner. These issues can include known, sustained critical issues, as well as unexpected emerging food safety issues. The 70th session of CCEXEC noted the importance to identify emerging issues and to define priorities among them (REP 15/EXEC). Regional coordinating Committees (RCCs) can play a role in catalyzing this process.
2. The CCEXEC, and CAC at its 38th session, requested FAO and WHO, in collaboration with the Codex Secretariat and the regional coordinators to develop a set of questions on needs and priorities in the region and to analyze the information collected for presentation at the next round of RCCs sessions.
3. This document presents an analysis of the responses to the questionnaire on critical and emerging food safety and quality issues.
4. The objective is to help countries and regions to proactively identify prospective issues that could be of significance and lead to concrete actions where necessary.

Questionnaire on critical and emerging food safety/quality issues.

5. An identical questionnaire prepared by FAO/WHO was sent to the Codex Contact Points of all members of the region with the request to indicate what issues in food safety and quality they consider as most critical and/or emerging.
6. Member countries were asked to provide the 3 to 5 most critical and emerging issues in food safety and quality, supported by a rationale (why the issue was selected; expected and /or actual impact of the issue).
7. Definitions of the key terms used in the questionnaire were provided – such as: issues, critical issues, emerging issues and drivers of change (see Table 1).

Table 1: Key terms in the questionnaire on critical and emerging food safety and quality issues.

Key terms	Definition
Issues	With the word <i>issues</i> is meant hazards/challenges, but also opportunities or trends that might have an impact on food safety and quality.
Critical issues	Those that are the most pressing ones, and as such need to be addressed and considered as priorities. They can be known issues that are actually present/already occurring or even recurring. They can also be completely new.
Emerging issues	Those that are new or unexpected. Although their effect is currently not necessarily being experienced, these issues may cause a change in the status quo. Identification of these issues will help to provide proactive guidance and support to counties in addressing prospective issues that could be of regulatory significance.
Drivers of Change	A driver refers to the underlying cause of change that might lead to the presence or potential occurrence of a food safety issue. A driver of change could lead to hazards as well as opportunities in food safety and quality.

Analysis of results.

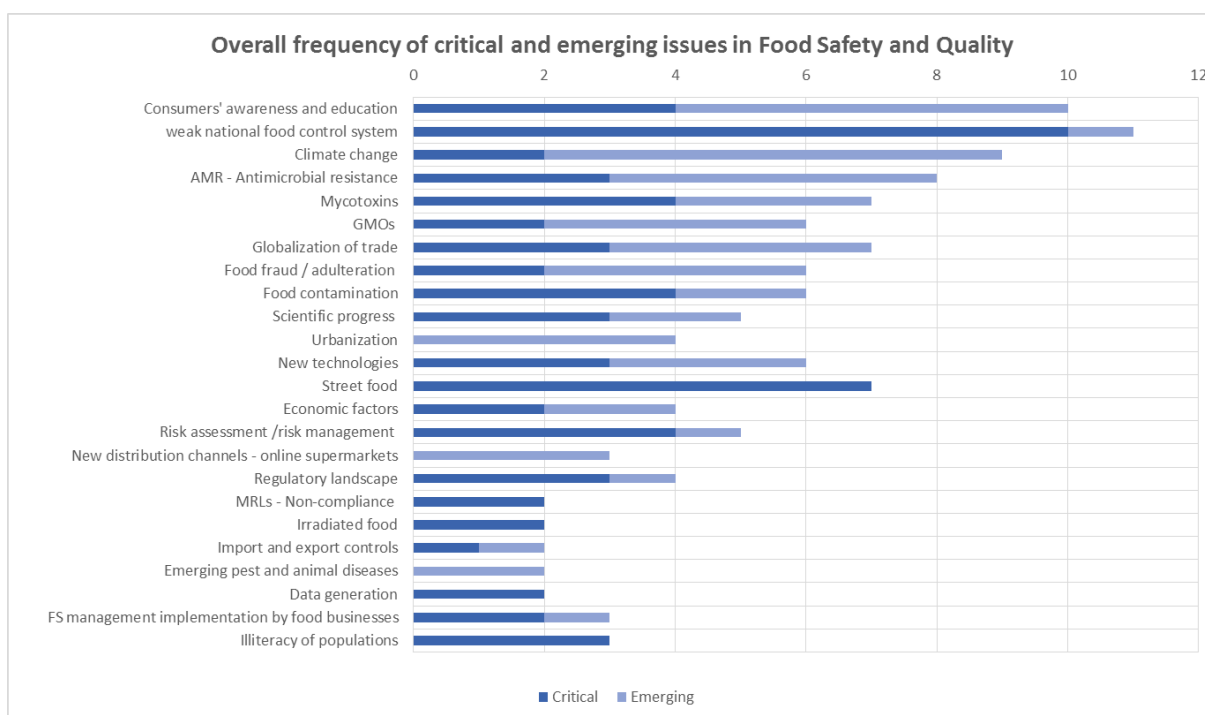
8. Responses from 17 Member countries were received out of the 49 member countries: Benin, Burkina Faso, Burundi, Cameroon, Central African Republic, Ethiopia, Ghana, Kenya, Mauritania, Mauritius, Niger, Senegal, Somalia, South Africa, the Gambia, Togo, Uganda.

9. Some limitations should be reflected upon, such as the relatively low response rate (34%), the frequent lack of a rationale supporting the identification of issues, and the apparent absence of clear distinction between “critical” and emerging” issues.

10. The issues were grouped into 24 main categories as per figure 1 below. This table shows the specific frequencies for critical and emerging issues as well as the total frequency.

11. A summary of information reported by countries, grouped by categories, with the specific aspects of critical and emerging food safety and quality issues is presented in Annex.

Figure 1. Overall frequency of critical and emerging issues in Food Safety and Quality



12. Other categories mentioned only once in the questionnaire, and therefore not reported in figure 1 were:

- The Economic Partnership Agreements (EPAs) with the European Union;
- Intensification of the aquaculture sector;
- Water issues;
- Bioterrorism in food;
- Food allergens;
- Quality and safety of herbal plants;
- Food fortification to reduce or prevent malnutrition;
- Demographic explosion;
- People displacement, Explosion of refugee's population.

13. The majority of issues were identified as both critical and emerging. However it should be noted that:

- o MRLs, Irradiated food, Street food, Data generation, and Illiteracy of population were identified only as critical issues.
- o Urbanization, New distribution channels, and Emerging pest and animal diseases were identified only as emerging issues.

Critical issues

14. In addition to the issues mentioned in paragraph 13 (mentioned only once, and specific to this category), the most frequently identified **critical issues** were:

- a) Weak national food control system (n=10); followed by
- b) Street food (n=7),
- c) Consumers' awareness and education (n=4);
- d) Mycotoxins (n=4); and
- e) Risk assessment/Risk management (n =4).

Annex 1 provides more information on each of the critical issues mentioned by countries.

15. Looking at data from the other Codex regions, the following issues identified most frequently across the regions:

- a) Issues related to capacity development (ranked first in CCASIA with more than 45%, ranked second in CCLAC with 15% and second in CCNASWP with 5 countries);
- b) Antimicrobial resistance (CCLAC 13%, 36% CCEURO, CCNASWP); and
- c) Globalization of the food trade (36% CCEURO, CCASIA more than 15%, CCNASWP with 3 countries).

Emerging issues

16. In addition to the issues mentioned in paragraph 13 (mentioned only once, and specific to this category), the most frequently identified **emerging issues** were:

- a) Climate change (n=7);
- b) Consumers' awareness and education (n=6); and
- c) Antimicrobial resistance (n=5).

Annex 1 provides more information on each of the emerging issues mentioned by countries.

17. The emerging issues showed similar trends with the responses from the other Codex regions, particularly the issues related to climate change.

Conclusion.

18. Weak national food control systems, consumers' awareness and education, climate change and - antimicrobial resistance are the four top issues (both critical and emerging) identified.

19. The summary and analysis of the questionnaire will serve as the basis to promote discussion by the committee, under agenda item 3b, and determine relevant follow up actions and strategies for the various issues identified, at regional or national level, including within the Codex system if appropriate.

20. CCAFRICA is requested to provide inputs to the following questions that could guide future action by FAO/WHO:

- Is the approach to this questionnaire useful?
- What are the suggestions to improve collection of relevant food safety insights?

Annex: Summary of rationale proposed by countries to support identification of topics either as critical or emerging issues.

Category (#of times it was mentioned)	Explanation of the critical issue	Explanation of the emerging issue
AMR (8)	<p>While the global issue of AMR is well identified, countries expressed the need for:</p> <ul style="list-style-type: none"> - a robust surveillance system to detect AMR and monitor the spread of AMR into the environment and - more data to better understand the impact of bad practices of antimicrobial use in agriculture to the general problem of antimicrobial resistance. 	<p>Countries realize the threat to human lives and sustainable food production and specifically mention MDR (multidrug resistance pathogens) bacteria which have been detected in both meat and fresh produce. Salmonellae were often mentioned.</p> <p>Countries expressed the need to work on the use of antibiotics in raising cattle (and fortification in poultry feed).</p>
Climate change (9)	<p>Climate change may affect socio-economic aspects related to food systems, in specific areas such agriculture and animal production, global trade, demographics and human behavior, which all influence food safety.</p> <p>Sharing information would help to better understand the magnitude of the issue.</p>	<p>Climate change may result in altered conditions for food production, which could lead to emerging pathogens, altered use of pesticides and veterinary medicines, and affect the main transfer mechanisms through which contaminants move from the environment into food. All these have implications for food safety and the nutritional content of food. (e.g. drought resulting from climate change could exacerbate the problem of mycotoxins in food).</p> <p>Climate change also has a direct influence on global food production pattern. It can result in the disruption of food supply system thus exposing the entire food chain to high risk of contamination e.g. water and food borne diseases due to changes in disease patterns because of seasonal and temperature changes.</p> <p>International engagement to protect the environment and fight against climate change brings to fragmentation of farmland, which is a risk factor for food security in the West as well as in Africa.</p> <p>It is important that this emerging issue is the subject of special attention in order to correlate the effects of climate change on the promotion of food security.</p>
Consumers' awareness and education (10)	<p>Lack of consumers' awareness and knowledge about food safety issues has a negative impact on the trade, as safe products suffer distortion of competition.</p> <p>Some countries argue that consumers' awareness is nevertheless increasing, but these might have not much choice when selecting products, or they lack confidence in official control systems or certification schemes.</p>	<p>Past food safety incidents have helped to increase consumers' awareness for food safety issues. There is a need for educational programs in food safety including at school level. Sustained consumer food safety education contributes to ensure rational behaviour to protect human health and prevent unnecessary damage to the food sector.</p> <p>A growing number of misleading claims have undermined consumer's trust. Providing key information from trusted sources and through relevant approaches regarding product ingredients and sources of production would improve the confidence level of consumers.</p>

		Stronger consumer associations could serve as means for raising awareness on one hand and to echo consumer complaints on the other hand. Associations are often poorly organized and there still are some misconception as to their role (e.g. acting as a duplicative control authority). Support from consumers should be increased.
Data generation (2)	Robust data is required to support food safety and quality interventions, such as food consumption data. This remains one of the bottle necks due to limited targeted research or surveys undertaken that is tied to lack of sufficient resources.	
Economic factors (4)	Economic and social consequences such as inadequate productivity, and limited exports, affecting the rural economy are the consequences of a weak food safety control system.	Food price volatility and food fraud are recurrent and common practices, affecting food safety.
Emerging pest and animal diseases (2)		Disease Preparedness Programmes, including surveillance and monitoring components, should be developed to get a realistic evaluation of the status of foodborne and animal diseases and to ensure a quick, effective and coordinated response to any outbreak of diseases. Coordination and interaction among the authorities concerned with animal health and public health control should be strengthened to 1) establish the link between an animal disease and human health, and 2) undertake valid food safety risk assessment efficiently to provide a scientific basis for swift risk management and communication. Barriers hindering communication between all parties should be addressed to facilitate effective and quick interventions.
Food contamination (6)	Various types of food contamination (veterinary drugs, pesticide residues, bacteria) were mentioned by countries, either linked to weak production (either primary or secondary) practices, environments and climatic conditions, in a context of weak national food control systems. It is recognized that the lack of data on the public health impact as well as limited food safety education of producers are impacting negatively on the effectiveness of public action.	The contamination by water and waste was highlighted as an emerging driver for food contamination. Examples are heavy metal contamination of rivers used for irrigation farming subsequently contaminating farmed crops; industrial, medical and cosmetic wastes finding their way into sewage water and later into rivers if uncontrolled and properly managed. Evolving techniques are also raising new issues such as: changes in methods of agricultural production. For example, organic food production is becoming popular and animal manure is now increasingly being used to fertilize crops. Improper use of manure can lead to production of unsafe food due to contaminated water and soil. Capacity building of extension services on Good Agricultural Practices to the farming community, as well as

		<p>monitoring programmes, and appropriate regulatory instruments are required to manage emerging issues.</p> <p>Another example is the development of ready to eat products that are expanding to respond to consumers' needs. This should be accompanied by robust food safety management programmes in the production chain of ready-to-eat products, for example salads.</p>
Food fraud / adulteration (6)	<p>Rising food prices, long and complex supply chains are contributing factors to fraud, making it easier and more profitable. Report was made of frauds such as use of potassium bromate used in bread to inflate the dough; use of ethyl-phosphoric acid and formaldehyde to accelerate the ripening of the plantain.</p> <p>Weak systems allowing to identify/register or license food business operators, in particular dealing with high risk products was identified as a key point to enable better controls.</p> <p>Effective traceability systems throughout the food chain and food authenticity testing (e.g. identification of meat species) must be strengthened.</p> <p>The issue of counterfeit veterinary drugs was also signaled as a concern, despite significant advances in the harmonization of veterinary pharmaceutical regulations in the African sub-regions. The consequences will be detrimental to both livestock (resistance to veterinary medicines, lack of effectiveness of drugs) and Public Health (residue problems).</p>	<p>A database with comprehensive information about fraud and adulteration and products involved would be useful as a reference for countries to progressively integrate this into their inspection approaches. This should be complemented by training and development of appropriate techniques for food authentication assessment, supported by the required equipment.</p> <p>It is felt that rapid urbanization, complex food supply chains and rising prices are incentive to increased frauds. Example were given of palm oil and honey.</p>
Food safety management implementation by food businesses (3)	<p>Countries point out a need to strengthen the understanding and awareness of modern food safety management systems in the agri-food sector. Awareness raising and training programmes should be backed up by regulatory instruments that provide an incentive to comply. Legislation should be implemented by the food industry and small and medium food enterprises.</p>	<p>Despite its importance, HACCP is not applied in many small and medium scale food businesses. Lack of, or inadequate resources, limited knowledge on the application and/or implementation of HACCP etc. may be responsible for the very limited implementation of HACCP in most developing countries. The needs of small and medium scale food industries with respect to HACCP implementation must be fully assessed and considered, especially if implementation of HACCP is made mandatory. Industry must be supported with tailored programs to enable effective implementation of HACCP.</p>
Globalization of trade (7)	<p>Food imports are critical to a number of countries to ensure the required variety and quantities of food products to satisfy the needs of their population. However, it is also recognized that the globalization of food chains is one factor contributing to the spread of food safety hazards. This is especially perceived as a threat when countries have a weak import control system in place. Among other tools, there is a need to strengthen early warning and traceability systems for food safety.</p>	<p>There is a perception by countries that more integrated markets and rapid adoption of new technologies can contribute to increased food safety threats, as imported food control systems are not able to cope with the added complexity induced by these trends. Concerns related to product origin, fraud and quality are also added to safety issues. It is recognized that harmonization of standards will be an asset in strengthening import controls.</p>

GMOs (6)	<p>GMOs are still a concern for a number of countries, in terms of capacities to:</p> <ul style="list-style-type: none"> - better understand the issue, get appropriate scientific advice to guide policy making processes - be able to conduct a GM food safety assessment - have policies and procedures to guide course of action in specific cases, such as unintentional trans-boundary movement of GMOs - have confidence in test results: harmonisation of methods, procedures and general approach 	<p>Countries recognize GMOs potential advantages, including increased agricultural productivity, due to the resistance to plant diseases, and improved nutritional value.</p> <p>Countries need the technical tools to ensure that the new GMOs based products are safe for food consumption, and that there are no allergens new to the food, no increased levels of natural toxicants, and no reduction of important nutrients and safety for the environment. There are concerns regarding the control of imported GMO based products when the analytical capabilities of countries in the region are limited.</p> <p>There is a demand for labelling GMOs to indicate whether a food or food ingredient is a bioengineered product, or indicate any modification(s) made to alter the level of native compound and significant difference when compared to conventional product.</p>
Illiteracy of population (3)	Illiteracy of populations represents a real obstacle to the implementation of good hygiene and agricultural practice by small scale producers.	
Import and export controls (2)	There is a need to evolve towards risk based imported controls, factoring in information such as nature of food, controls at origin, importer controls etc	
Irradiated food (2)	Presence in the markets of imported food that has undergone irradiation and inability to verify the safety of these products.	
MRLs – non compliance (2)	Non-controlled farmers' use of prohibited pesticides due to the decrease in rain, the proliferation of pests, intensive production.	
Mycotoxins (7)	<p>Despite numerous intervention to prevent or mitigate the public health impact of food contaminated with mycotoxins, the problem still persist. In sub-Sahara Africa, aflatoxins contamination of food have been associated with increased incidence of hepatocellular carcinoma in the presence of hepatitis B virus (HBV) infection and esophageal cancer respectively. Aflatoxins B1 (AFB1) being the most potent are produced on various food crops including maize and groundnuts. Fumonisin are a concern on cereals, as well as other aflatoxins in milk products</p> <p>Aflatoxin contamination in cereal and cereal products is partially affected by climate change; affects the economy and overall price of the safe products traded. Rejected products find their way to feed manufacturers resulting to further contamination. . A sustained multi stakeholder approach is needed to address this critical food safety threat.</p>	Need to increase awareness on those issues especially in developing countries.

New distribution channels - online supermarkets (3)		Consumers spare time and energy involved in food purchases and revert to new distribution channels. This is likely to pose food safety challenges, as regulation of the internet traders will over stretch the already weak food control system.
New technologies (6)	<p>There is need for a national food safety information system to provide the basis for ensuring that the correct checks and controls are applied at the correct time, and for recording the results by users. It also ensures that there is an adequate follow-up by the control authorities when non-compliances identified.</p> <p>Countries with limited technological capacities are challenged with fast growing trends in scientific development in food testing and food safety.</p> <p>Novel foods can cause trade disruption as several countries have a requirement in place to evaluate novel foods before they are granted access in the market. Codex should propose a regulatory tool in that regard.</p>	New after-harvest food processing technology to lengthen conservation and improve the presentation can be a risk factor for food safety. With globalization and the opening of markets, food that underwent advanced treatments invade our markets without rigorous controls and inspections for safety and quality.
Regulatory landscape (4)	The national regulations are obsolete.	Concerns over safety and counterfeiting of food has prompted the introduction of regulations designed to deal with such issues. These regulations should be dynamic and subject to review and amendments, as science is dynamic and all control measures have to be supported by scientific data.
Risk assessment /risk management / Risk analysis (5)	There is a lack of adequate structures and data to implement meaningfully the different components of the risk analysis paradigm. The risk management framework is not yet supporting everyday practice in competent authorities.	<p>Lack of data, weak integration of statistical and mathematical projection models are hindering evidence based decision making processes.</p> <p>A failure to produce, collect existing data, and centralized them (as they are often scattered and inaccessible) in databases is noted.</p>
Scientific progress (5)	<p>The capacities of laboratories need to be strengthened (and possibly accredited) to detect emerging food contaminants, food adulterants and also to use new technologies such as whole genome sequencing.</p> <p>The new technology related to the Whole Genome Sequencing is yet to be implemented in countries.</p>	Whole Genome Sequencing presents a promising tool for addressing food safety problems, offering advantages during outbreak situations. There is yet to build technical capacity to improve the limited competence in the use of WGS in most developing countries.
Street food (7)	Street food is often a way for the urban poor to feed themselves and generate income. A number of countries observe a degradation of the sanitary conditions in which streetfoods are being sold due to poor handling and non-observance of rules of hygiene, lack of running water, cleaning facilities and means of refrigeration and disinfection. This extends to the global conditions generally found on markets, and all foods being sold in open local markets.	

	<p>In this poverty context, a specific and efficient approach for controls is difficult.</p> <p>Considering that the street food business caters for large populations, more proactive measures which are well integrated into the national food control system are needed to ensure the safety of street vended food. There is a need to find specific strategies to accompany this type of economic operators in the management of food safety issues, taking into account the low income of these operators.</p>	
Urbanization (4)		<p>The growth of food production in cities and suburbs, is also connected to evolving food habits by changing people's traditional ways of handling their food: more and more people depend on markets, and many rely at least in part on food prepared outside of the home. Popular foods are high in fat, sugar and salt: there is a need for consumer education to guide healthy food choices. Food waste also becomes an issue and guidance is necessary to ensure that re-use of wasted food is done safely. Action is required by authorities, food business operators and consumers to mitigate food waste, to enhance food security and protect the environment.</p>
Weak food control system (11)	<p>Efficient food control systems are still an issue within the region. Fragmented systems, duplications, lack of coordination and weak organizational modalities are common weaknesses. As a result, controlling the implementation of and enforcing regulations is difficult and lacks consistency. As control capacities are limited, growing volumes of trade cannot be followed upon. Laboratories are not reliable to support monitoring activities, and very few are accredited. In addition new production technologies implemented in food businesses are sometimes difficult for weak control capacities to adjust to.</p> <p>As good systems are the results of different stakeholders taking their responsibilities seriously there is a need to leverage consumers growing awareness to ensure that they also play their role.</p>	<p>There is a need for coordination of the food control system. The information and communication capacities are major problems to reach all parts of the system and ensure all stakeholders play their role meaningfully.</p> <p>There is need for an entity unifying the different stakeholders in the system and advocating the cause of the food control.</p>