CODEX ALIMENTARIUS COMMISSION

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World Health Organization

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

FAO/WHO COORDINATING COMMITTEE FOR NEAR EAST

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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 *issues* 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

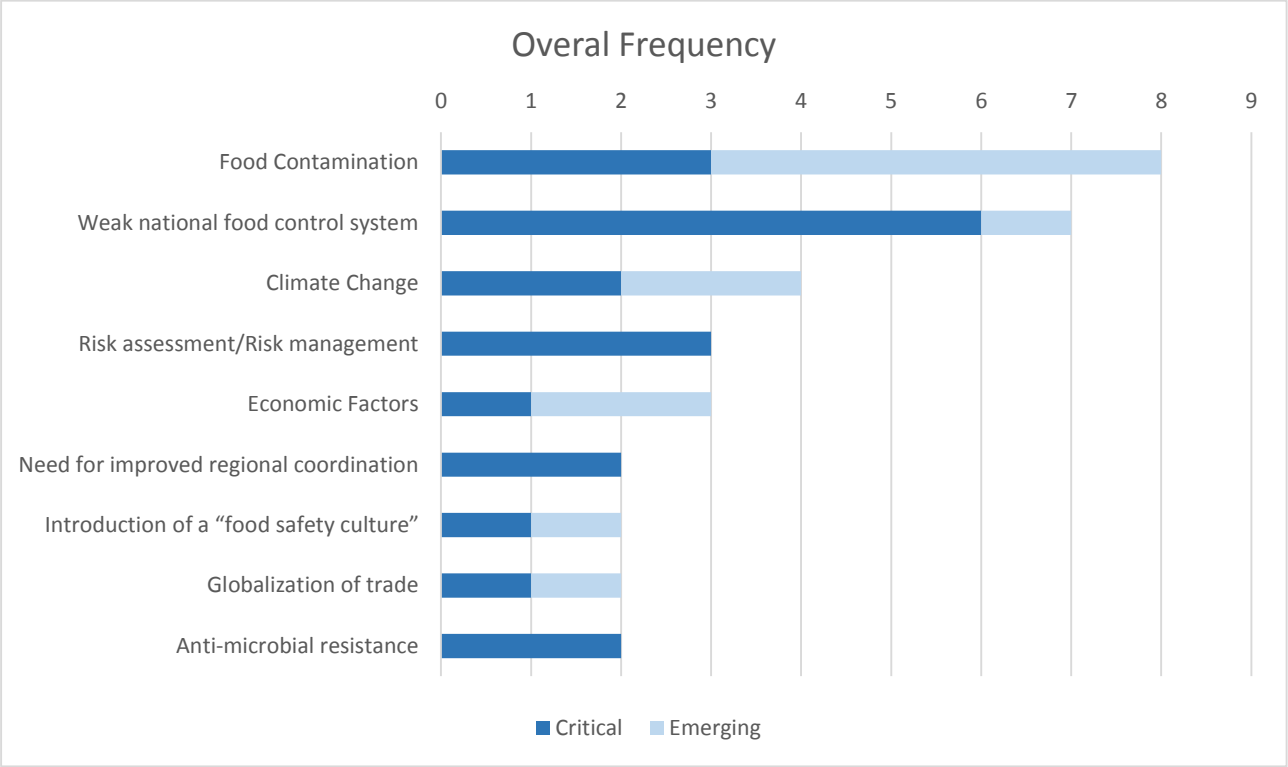
8. Responses from 6 Member countries were received out of the 17 member countries: Egypt, Iran, Sudan, Syria, Tunisia and Yemen.

9. Some limitations should be reflected upon, namely the low response rate (35%), an overlap between some"critical" and emerging" issues, as well as an overlap between issues. Not all responses included an explanation of the issues identified.

10. The issues that received more than one mention, were grouped into 9 main categories. Figure 1 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. Key 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:

- Issues related to livestock sector development
- Food fraud / adulteration / integrity
- Food safety management implementation by the food industry
- New distribution channels e.g. internet food trade
- New technologies
- Need for building capacity in food and feed safety in the region
- Strengthening nutritional facts/food labelling in parallel with public attention to food safety and quality and changing of life style
- Allergies
- Shiga-toxin producing group of E.coli

13. There was an overlap between what respondents considered critical and emerging issues. However, weak national food control systems, Risk assessment/Risk management and need for improved coordination and AMR were predominantly or exclusively seen as critical. In interpreting the results, it should be kept in mind that the total number of responses received was small (n=6).

Critical issues

14. The most frequently identified **critical issues** were:

a) Weak national food control system (n=6); followed by
b) Food Contamination (n=3),
c) Risk assessment/Risk management (n =3);
d) Need for improved regional coordination (n=2);
e) Anti-microbial resistance (n=2)

The Annex 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. The most frequently identified **emerging issues** were:

    a) Food contamination (n=5)

    b) Climate change (n=2);

    c) Economic factors (n= 2)

    All other emerging issues were mentioned only once. 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 were the most frequently identified critical issue, followed by food contamination and risk assessment/risk management. The need for improved regional coordination and antimicrobial resistance were other critical issues raised. Food contamination, climate change and economic factors were the key emerging issues identified.

19. It must be kept in mind that the response rate was low with approximately one out of three of members of the region having provided feedback. Considering that two extensions of the deadline were granted and several reminders through physical and electronic means made, it would be of benefit for future surveys to discuss obstacles that prevented CCPs from responding to this questionnaire and how to overcome these.

20. 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.

21. CCNE 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
ORIGINAL LANGUAGE ONLY

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

Category	Explanation of the critical issue	Explanation of the emerging issue
Allergy		There are different types of allergic reactions to foods. Developed countries have Allergen Labelling legislations. Foods law regarding labelling should cover at least the fourteen major food allergens. The fourteen major allergens are cereals containing gluten, crustaceans Eggs, milk, egg, fish, peanuts, soybeans, nuts, celery, mustard, sesame seeds, lupine, molluscs and sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre. Intolerance Guidance for Businesses need to be issued as volunteer standards for industry to help food businesses with the information that should be proved to customers to avoid certain ingredients because of a food allergy or intolerance. It includes allergen information rules. This information could cover food allergy intolerance and specific voluntary best practice guidance on cross-contamination controls for pre-packed foods and loose foods.
AMR	There is serious threat increase in global public health from antimicrobial resistance. It threatens the effective prevention and treatment of an ever-increasing range of infections caused by bacteria, parasites, viruses and fungi. This requires government action across all sectors and society through capacity building assistances programs.	AMR is a global issue concern which most of pathogens was be resistance to stipulated antibiotic. This situation leads to wide spread of resistance disease, consequence economical and social loss. Food beside other factors contributes in AMR either by misuse of antibiotics in husbandry or as adulteration to preserve food from microbial attack such as milk. Low consumption dose of antibiotic through food lead to microbial resistance beside other multiple effects in human body. Monitoring and rational use of antimicrobial will lead to well control with effective interference of these pathogens.
Capacity Building		Effective and targeted capacity-building of expertise of food safety and quality to support and implement all the sustainable plans in food safety and quality risk analysis is a need in each community. Because, it is the initial requirement and main core for the food safety and quality risk analysis with upgrading the knowledge, experiences and skills in identification of risks, risk management, risk assessment and risk communication. Sharing the information, experiences and techniques of risk analysis in the countries of the region will strength this approach, improve coordination and harmonization of them and facilitate the trade of the safe foods.

Category	Explanation of the critical issue	Explanation of the emerging issue
Climate change	Proper understanding of environmental issues, climate changes and their impacts on food safety and quality of agricultural productions and farmers revenue could improve suitable and on-time subsequent action plans. Les problèmes environnementaux générés par les changements climatiques, constituent une autre source de vulnérabilité, aggravant la nature aride de la majorité du territoire et notamment le problème de pénurie de l'eau qui se déclina aussi bien en termes quantitatifs que qualitatifs, constituant un risque grave pour la santé.	Climate change and variability may have an impact on the occurrence of food safety hazards at various stages of the food chain, from primary production through to consumption. There are multiple pathways through which climate related factors may impact food safety including: changes in temperature and precipitation patterns, increased frequency and intensity of extreme weather events, ocean warming and acidification, and changes in contaminants' transport pathways among others. Climate change may also affect socio-economic aspects related to food systems such as agriculture, animal production, global trade, demographics and human behaviour which all influence food safety. Climate change will not have an effect on primary production, food manufacturing and trade only but also on the epidemiologic triad (host, agent, and environment). It is clear that climate change will have a dramatic effect on infectious diseases (e.g., bacillary dysentery, cholera, mycotoxicosis) in particularly in developing countries and perhaps less so for the developed world, where stringent public health measures (sewage disposal, clean water and hygiene) moderate the risk of diarrhoeal disease. Government must be prepared and develop scenarios to reduce/prevent food contamination with pathogens including: i) contact with human/animal sewage/faeces ii) contact with infected food handlers iii) environmental contamination (from air, water, food contact materials etc) iv) contact with raw foods etc. Such contamination can arise along any part of the farm-to-fork continuum and may arise from any number of sources.
Coordination	Strengthening of the Coordination for developing and revising of codex standards/regional standards based on scientific evidences, member countries of the region, requirements and new technologies in parallel with globalization of food trade: In parallel with the growing pace of technological innovation which brings changes in food production techniques and types of food offered for sale, more sophisticated control and traceability mechanisms is needed. As a result, development and review of codex standards /regional standards should be implemented together with these innovations.	

Category	Explanation of the critical issue	Explanation of the emerging issue
Economic factors	Les problèmes économiques que traverse le pays, constituent une source de vulnérabilité pour le système alimentaire en la nation, provoquant la diminution du contrôle de l'Etat sur les produits avec l'émergence de marchés parallèles, ainsi que l'affaiblissement du secteur de production (diminution de l'investissement, exode rurale, etc.).	Climate change and variability may have an impact on the occurrence of food safety hazards at various stages of the food chain, from primary production through to consumption. There are multiple pathways through which climate related factors may impact food safety including: changes in temperature and precipitation patterns, increased frequency and intensity of extreme weather events, ocean warming and acidification, and changes in contaminants' transport pathways among others. Climate change may also affect socio-economic aspects related to food systems such as agriculture, animal production, global trade, demographics and human behaviour which all influence food safety. The weakness of the national economy due to political tensions in Yemen have negatively impacted on economy where there is a significant reduction on spending and the deficit In the state budget which affect regulatory work.
Food contamination	There is a limited capacity and capability in most countries in responding to food borne disease as well as food contamination. Due to globalization and open trade market this issues will be a big challenge for food safety authorised bodies because of hustle exchange and spread of these contaminants between countries. Hence, we need to build strong monitoring and surveillance system to catch any threats related to food beside an on time response to national or international food borne disease as well as food contaminants. Transparency is vital in this issue because we need to have a link at regional and international level such as INFOSAN to share information and knowledge. Most recent disease outbreak in the world was related to food safety either new emerging pathogen or chemical contamination. Actually we have selected all the issues due to the current crisis in our country which has affected badly on the food safety and quality situation Food bone diseases due to chemical pollutants through the remains of pesticides and pathogens or secretions albatugen or micro biological or physical	La contamination chimique est un des plus graves problèmes de sécurité sanitaire, en l'absence de réglementation adéquate et de difficulté de gestion des milliers de molécules qui circulent (diverses utilisations, retombées de la pollution, produits de transformation, etc.) La contamination Virologique des aliments (il suffit de consulter les données relatives au border rejection), à l'instar de Norovirus et du Virus de l'hépatite A (problèmes de capacités analytiques) Les mycotoxines et les biotoxines marines restent des risques peu maitrisés, notamment pour manque de capacités analytiques et désorganisation des circuits de production et de distribution suite à la révolution de 2011. Les micropolluants, dont les microplastiques (en sus des problèmes de gestion des déchets en la nation, ces problèmes ne sont pas pris en considération)

Category	Explanation of the critical issue	Explanation of the emerging issue
Food fraud / adulteration		Food Integrity has 3 dimensions, quality which includes the nutritional properties, safety as well as authenticity which is less widely considered. Food authenticity can diminish the posses' threat from adulteration of food with cheaper ingredients for economic gain, which tries to exploit their added value. Food authenticity tests can act as reliable protective measures for future food fraud cases and food safety risks that might arise from online retailers too.
Food labelling		Growing concern about the increase prevalence of lifestyle disease such as obesity on the one hand and development of genetically modified plants/animals and use of enhancing hormones on the other hand has highlighted more attention to nutritional facts and food labelling particularly in parallel with public attention to these issues.
Food Safety Culture	In a country like Egypt where people used to buy a very important item of food like bread from retailers, sell it loose without packaging at open sides of the streets and also they do not use the cold chain correctly in both poultry and meat chains. We know what it looks like, everyone takes responsibility for safety proactively and working to identify and correct unsafe behaviors, through a dynamic and ongoing employee training programs. Individual engagement is a direct reflection of shared beliefs and attitudes the very definition of culture and how to implement:" Food Safety as it is everyone's responsibility". Creating a safety culture is a journey not a destination, workers need to know that safety never competes with priorities, safety always becomes first. Food safety is a joint responsibility that is principally assured through the combined efforts of all parties participating in the food chain. Creating a total food safety culture is the main factor of ensuring the implementation of food safety guide lines along with food chains. But what does it take to actually create.	
Food safety management implementation by food businesses	Effective food safety and quality management systems are the key, not only safeguarding the health and wellbeing of people but also economic development and improving livelihood by promoting the access to safe domestic, regional and international food markets. Food safety and quality management systems are paramount to the business and can provide the best risk management tools that will really support the regional and international fair trade.	

Category	Explanation of the critical issue	Explanation of the emerging issue
Globalization of trade	Variations in the procedures of national food control systems involving monitoring and sampling, detection and analytical methods, application of standards and food safety requirements can give rise to trade restrictions. On some occasions, countries have developed standards that were not based on science and in fact were nothing more than non-tariff barriers to trade. It has become obvious that there is a need to harmonize food requirements globally and there is a growing need for international guidelines and rules. Eliminate the international agreement on the same WTO agreement including SPS TBT agreement which required the most open markets technology barrier in front of food. Developing state and least-developed country to possess the requirement equipment. Expertise services required to process an evaluation and conformance to ensure the safety of food products incoming their safety and health. These guidelines and rules are now provided within the framework of the recently established World Trade Organization (WTO). The Uruguay Round trade agreements take the approach of adopting international standards and codes of practice; this approach can be expected to decrease the variation in requirements imposed in the past by different countries. The main instrument to assist countries in the harmonization of food standards is the Codex Alimentarius, a collection of internationally adopted food standards, maximum residue limits for pesticides and residues of veterinary drugs and codes of practice. The Codex Alimentarius Commission is cited as the reference point for standards relevant to food quality and safety in the Agreement on the Application of Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade, discussed later in this article. The objectives of the Codex programme are to protect the health of consumers, to ensure fair practices in the food trade and to promote the coordination of all food standards work undertaken by national governments. The globalization process increased international trade for integrated markets and more rapid adoption of new technologies. Food Safety modernization Act, take a step to reduce hazards associated with third party suppliers, assuming they can address corrective actions and update compliance certifications by implementing a Supplies Management Programme" the foreign supplier verification programme (FSVP)". (This is an emerging issue under regulatory landscape).	

Category	Explanation of the critical issue	Explanation of the emerging issue
New Technology		"New technology" includes new food produced through genetic engineering, application of, equipment, substances, methods, processes, or procedures affecting food chain. High Pressure Processing, steam vacuums, steam pasteurization, and antimicrobials are all examples of advances in food safety technology that have occurred in recently in developed world and not applied effectively in developing countries. Nanotechnologies enable the management of food ingredients on a molecular level. Nanotechnology products could have a substantial impact on the food and feed sector in the future, potentially offering benefits for industry and the consumer, although possible risks need to be considered. Focus on global incidents involving melamine crisis related to food safety and facially incoming, such as melamine crisis in 2008 as application to the challenges and ways to review such incidents process of assessing the melamine from dairy product and how risk assessment
New distribution channels - online supermarkets		Increase in online retailers will eventually get to the food retail market; are there any food safety risks that might arise from such a change of the retail market. Risk based approach both in terms of supplier quality and preventive controls. Risk is quickly becoming the universal language specially in respect of online retailers which is fast growing nowadays.
Risk assessment /risk management / Risk analysis	The data generated from regular analysis in food laboratories is not fully analyzed and traced and benefits for national burden disease caused by food contaminants as well as risk mapping. There is no epidemiological data and studies linked to food borne disease and contaminants or syndromes suspected to be caused by food source. Food risk assessment is crucial to determine population exposure such as pesticides, POPs, EDCs, veterinary drugs, mycotoxin, heavy metals, melamine, pathogens and other environmental pollutants. The big challenge in this field is to upgrade laboratories capacities and capabilities with wide scope of analysis, beside establish a high qualified risk assessor teams. Use of experts from countries of the region would be providing an opportunity to exchange information and methodologies for risk analysis. Solving risk problems are so important at this period of time and it can help to faster understanding and professional collaboration in food safety and quality risk analysis among the countries of the region in regard to increasing globalization of food trade and consequence demand for safe food.	

Category	Explanation of the critical issue	Explanation of the emerging issue
	So, may be establishing a regional scientific expert committee for risk analysis (e.g. need to establish a regional JECFA, JMPR…), could be effect on better consensus for protecting consumers and they possibly extend further in that food which has a particular regional interest such as higher consumption rates. The end results will be more active participation in such decision making process at Codex. Risk analysis as a powerful tool should be used to enhance the scientific basis of regulatory decisions. The tolerances of food contaminants must be based on a risk assessment. To reduce the risk of unsafe food, food businesses are urged to pursue the practice of risk analysis and its three components as it is related to food safety: 1) risk assessment, 2) risk management and 3) risk communication. Risk analysis should be a millstone in which a new food law needs to be developed. Capacity building in the direction is needed.	
Shiga toxin producing group of E.coli		There are different validated qualitative methods for E. coli O157:H7 method and other belonging serogroup e.g., O111, O26, O103, 0104 and O145,but there is variation in the types of enrichment methods employed in the different food matrix or analytes. There is a need for uniformity of the qualitative and quantitative method for determination of these strains. The same problem is in the qualitative and quantitative determination of Campylobacter, Listeria monocytogenes and Salmonella
Weak food control system	The responsibility of food safety and quality is under various law and legislation as well as different ministries and agencies. A well harmonized system with intact mandate and stipulated networking and resource mobilization and well equipped laboratory can be useful and prevent the overlapping and cross cutting issues related to food safety. Most of regulatory issues are based on processed food with week attention or no control of vendor food as well as restaurants and take way food. So our ultimate goal is to make sure that the food is safe and not pose a risk to public health and comply with national or international standards. Hence, effective coordination, cooperation and information sharing between different sectors involving food safety and quality can lead to better situation for food safety.	La non parution de la loi alimentaire de la nation qui adopte les approches modernes de sécurité sanitaire des aliments telle que la généralisation de la traçabilité, de l'HACCP, l'agréage,…pour toutes les filières de l'agro-alimentaire, ainsi que l'inspection basée sur le risque,…), problème en termes de mise à jour de la règlementation horizontale (additifs, contaminants, pesticides,…).

Category	Explanation of the critical issue	Explanation of the emerging issue
	Actually we have selected all the issues due to the current crisis in our country which has affected badly on the food safety and quality situation In some countries, currently a multiple control food safety is practiced among different agencies. It depends on old legislations from the forties' and testing samples. Recently the cabinet has approved the establishment of a single organization for food safety. A new food law complying with the international standard regulations is expected to follow the approval of the Perlman for the agency. Collaboration with different agencies to achieve this development will be needed. Strengthening of the food control systems, especially for contaminants such as pesticide residues, veterinary drugs, mycotoxins, heavy metals, microbiological hazards and pathogens: However the control of chemical hazards have been improved in the recent decade, but chemical hazards such as residues of pesticides, veterinary drugs, mycotoxins and heavy metals remain as a concern for both consumers and food safety experts, due to weak infrastructure in the national food safety systems. Furthermore, microbiological hazards and pathogens have been reported repeatedly. So, for upgrading fair trade among the countries of the region, remove the concerns and safety assurance, the control measures that have been implemented may need to be reviewed.	