CODEX ALIMENTARIUS COMMISSION





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Agenda Item 3a

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME FAO/WHO COORDINATING COMMITTEE FOR NORTH AMERICA AND THE SOUTH WEST PACIFIC

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FOOD SAFETY AND QUALITY SITUATION IN THE COUNTRIES OF THE REGION

Introduction and background

- 1. This document summarizes the responses to the questionnaire on critical and emerging food safety and quality issues, and includes an initial analysis of the data.
- 2. 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. National responses and capacities are essential, but in addition, global discussions and standards setting at Codex sessions can also provide an important role in collective sharing of information and action for efficient responsiveness to critical and emerging food safety and quality issues.
- 3. The 70th Session of CCEXEC noted the importance to identify emerging issues, and to define priorities among them (see REP15/EXEC). It was also noted that the Regional Coordinating Committees (RCCs) could play a role in this process. The CCEXEC 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 regions; to prepare an analysis of the information collected for presentation at the next round of the RCCs sessions.
- 4. An identical questionnaire prepared by FAO/WHO has been distributed to the member countries in all RCCs, thus providing a global overview of critical and emerging issues, once the responses from all RCCs are received and discussed.
- 5. Overall, this exercise will help countries/regions in proactively identifying prospective issues that could be of significance and lead to concrete actions where necessary.

Questionnaire on critical and emerging food safety/quality issues

6. Upfront in the questionnaire, definitions of the key terms were provided – i.e. issues, critical issues, emerging issues and drivers of change (see Table 1). Furthermore, since many external factors can directly and/or indirectly affect Food Safety and Quality, examples of some important drivers of change were indicated as well. In short, critical issues are those which you may urgently need to address and they may have been known to your country for some time, while emerging issues are typically new or unexpected.

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, either but also (positive) 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.

7. Member countries were asked to provide the 3-5 most critical and emerging issues in Food Safety and Quality, together with an explanation for the identified issues: 1) why that issue was selected (i.e. on what basis - information/data, knowledge or assumption - that choice was made) and 2) the expected and/or actual impacts of the issue (whether the impact would be sector-specific, affect only some sub-populations or countries/regions, whether it would be related to public health or trade etc.).

Summary and Analysis

- 8. Responses were received from 12 member countries Australia, Canada, Federated States of Micronesia, Kiribati, Nauru, New Zealand, Papua New Guinea, Samoa, Solomon Islands, Tonga, United States of America and Vanuatu. To facilitate discussion, the issues were grouped into 21 different categories (see Annex 1), with the frequency of the number of countries indicated as an issue (critical or emerging). For reference, the individual countries' responses are included in Annex 3. It is proposed that discussion at CCNASWP focusses on the issues, rather than necessarily linking each issue to a specific country.
- 9. A description of the different categories, with the specific aspects of critical and emerging food safety and quality issues are summarized in Table 2 and Table 3, respectively.
- 10. Figure 1. Shows the categories and frequency of when identified as critical and emerging issues.

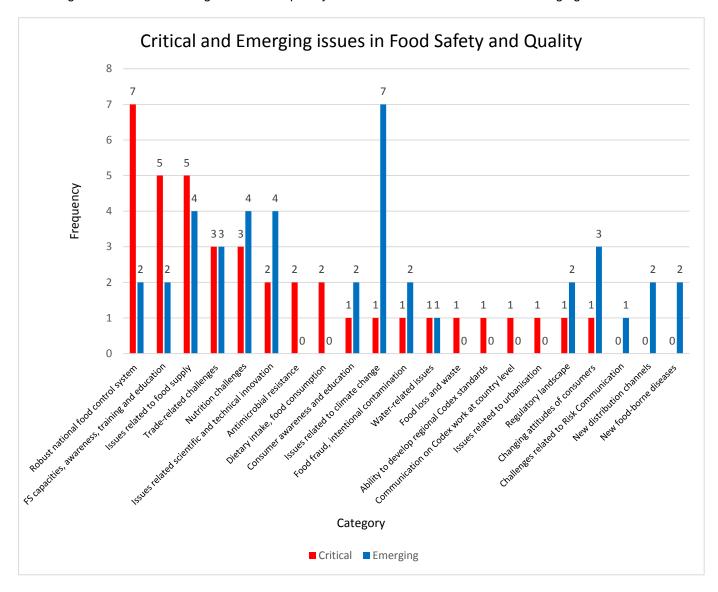


Figure 1. Critical and emerging Food Safety and Quality issues, with the frequency

Analytical section on Critical Issues

11. The issues identified most frequently as critical included: **Robust national food control systems** (n=7); **Food safety capacities, awareness training and education** (n=5); **Issues related to food supply** (n=5); **Trade related challenges** (n=3); **Nutrition challenges**, including NCDs (n=3).

- 12. Of these, it is worth noting that national food control systems, and aspects of food supply were critical issues for the Pacific Islands only. Nutrition challenges, food safety capacities, trade-related challenges were mentioned by Pacific Islands and at least one non-Pacific Island country. Critical issues cited by non-Pacific island countries only included: Anti-microbial resistance (n=2); food fraud and intentional contamination (n=1); food loss and waste (n=1); and safety of water (n=1).
- 13. Other critical issues which ranked lower and were only cited by Pacific Islands included: dietary intake and food consumption data (n=2); ability to prepare project documents for regional standards (n=1); communication at national level on Codex (n=1); and urbanisation (n=1).

NOTE: Please refer to Annex 2 for further detail on the issues raised for each sub-category.

Analytical section on Emerging Issues

- 14. The most frequently identified emerging issues were: **Issues related to Climate change** (n=7); **Scientific and technical innovation** (n=4); **Nutrition challenges** (n=4); and **Food supply issues** (n=4).
- 15. Issues related to climate change, scientific and technical innovation, and food supply were identified as emerging issues throughout the CCNASWP region. Nutrition related challenges remains largely an emerging issue highlighted by the Pacific islands as well as food distribution through on line purchasing (n=2); food control systems (n=2); the need to strengthen food safety capacities (n=2). Other areas of convergence on emerging food safety issues are trade-related challenges (n=3); changing consumer attitudes (n=3); emergence of new foodborne diseases (n=2); changing regulatory landscape (n=2). Some emerging issues mentioned by non-Pacific islands only included: the importance of risk communication (n=1); and food fraud and intentional contamination (n=2).

NOTE: Please refer to Annex 2 for further detail on the issues raised for each sub-category.

Additional comments

- 16. While most of the issues identified as critical or emerging were presented as a challenge and actions need to be identified to address the issue (e.g. food control systems or antimicrobial resistance), a few issues were presented in a more positive way and were in fact the solution to a challenge. A clear example of this was the mention by some Pacific island countries (of an emerging issue) of the importance to focus on increasing the consumption of nutrient rich foods and reduce food supply from energy dense imported foods in order to tackle nutrition and NCD challenges.
- 17. Many issues were identified as either critical or emerging, while others were identified as only critical or as emerging. See Figure 1.
- 18. In the ranking of critical and emerging issues, some countries listed issues as well as ways to address the issues. The analysis and listing of overall critical and emerging issues has been done in honour of the responses received and as such, the outcome has been a list of emerging and critical issues as well as means to address these.
- 19. The following Figure 2. Shows the combination of emerging and critical issues. When combined, the most frequency cited issues are food control systems (n=9); issues related to food supply (n=9); issues related to climate change (n=8); food safety capacities (n=7); and nutrition challenges (n=7).

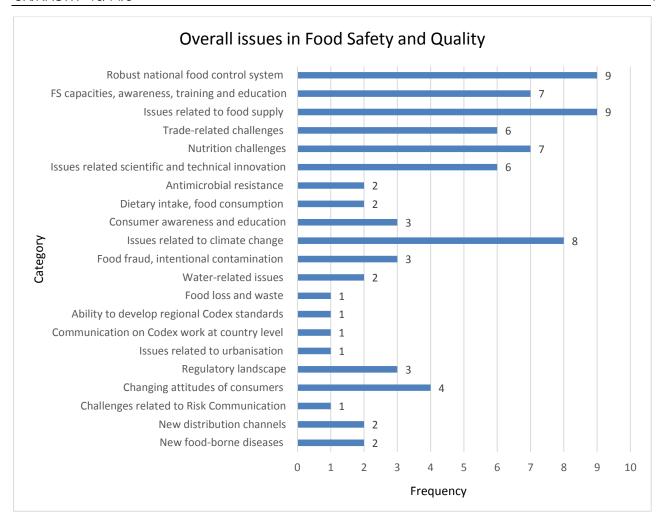


Figure 2. Overall frequency of identified Food Safety and Quality issues (Critical and emerging)

20. Table 4 shows the information from the graphs is tabular form.

Table 4: Ranking of most frequently identified critical and/or emerging issues

Rank	Most frequently identified critical issues	Most frequently identified emerging issues	Overall most frequently identified issues
1	Robust national food control systems (7*)	Issues related to climate change (7)	Robust national food control systems (9)
			Issues related to food supply (9)
2	Issues related to food supply (5)	Issues related to scientific and technical innovation (4)	Issues related to climate change (8)
	Food safety capacities, awareness, training and education (5)	Nutrition challenges (4)	
	education (3)	Issues related to food supply (4)	
3	Trade-related challenges (3)	Trade-related challenges (3)	Food safety capacities, awareness, training and education (7)
	Nutrition challenges (3)	Changing attitudes of consumers (3)	Nutrition challenges (7)

^{*}n indicates the frequency with which of each issue was identified

Conclusions

21. Many countries expressed the need for concerted efforts to tackle the issues that have been identified. The summary and analysis of the survey provided here will serve as the basis to promote discussion (in the following agenda item 3b) by the Committee and determine any relevant follow up action and strategies for the various issues identified. Follow up action could include national or regional actions, or appropriate action within the Codex system.

Annex 1

Frequency for each category of Food Safety and Quality issues (critical or emerging) [note the issues are listed in descending order according to the critical issues]

	Category Food Safety and Quality issues	Critical issue	Emerging issue
1	Building a robust national food control system (including enforcement of legislation) Food recall. and \$allocation	7	2
2	Issues related to food safety capacities, awareness, training and education (including public and private sectors), and on scientific and technical knowledge	5	2
3	Issues related food supply (over-reliance on imported food, lack of local foods)	5	4
4	Trade-related challenges (including globalization)	3	3
5	Nutrition challenges, dietary preferences and global nutrition challenges, including NCDs	3	4
6	Issues related scientific and technical innovation, including new technologies (includes knowledge gap)	2	4
7	Antimicrobial resistance	2	0
8	Dietary intake, food consumption	2	0
9	Consumer awareness and education (on food safety and nutrition)	1	2
10	Issues related to climate change	1	7
11	Food fraud, intentional contamination	1	2
12	Water-related issues	1	1
13	Minimising food loss and waste	1	0
14	Ability to develop regional Codex standards	1	0
15	Improved communication on Codex work at country level	1	0
16	Issues related to urbanisation	1	0
17	Regulatory landscape	1	2
18	Changing attitudes of consumers	1	3
19	Challenges related to Risk Communication	0	1
20	New distribution channels, marketing of food via the internet	0	2
21	New food-borne diseases	0	2

Explanation of the Critical and Emerging issues in Food Safety and Quality

Category	Explanation of the Critical issues	Explanation of the Emerging Issues
Building a robust national food control system (including enforcement of legislation) Food recall. and \$allocation	Countries recognise the importance of having a robust food control system, with a legal basis and the capacity to implement the different elements and programmes. But a number of countries still need to work to improve their system. Specific challenges mentioned include enforcement of legislation and standards due to weak capacity of officials, food import programmes not adequate for high volume of poor quality food imports, including expiration issues. Human resources is often mentioned as a limitation, as well as the need for governments to allocate resources and consider the role of food industry as a financial contributor to food inspection and certification.	Some countries need to improve their internal food recall systems and awareness of the consumer to alert the authorities when sub-standards foods are on sale. Monitoring and enforcement of compliance among food vendors is also becoming more of a challenge in some countries.
Issues related to food safety capacities, awareness, training and education (including public and private sectors), and on scientific and technical knowledge	The importance of understanding producer and consumer food safety practices is an important element of preventing foodborne illness, and subsequently increasing capacity to address unsafe practices or knowledge gaps. Food safety officers within the official services need to be well educated and trained to carry out their functions effectively (e.g. inspection and certification tasks). There is a need to build capacities in the scientific field to be able to conduct research, risk assessments and generate and analyse data and information for Codex work and other national priorities. This would include improved training and understanding of the risk analysis framework, food technology, food safety, food analysis, standard setting, HACCP.	There is a need for increased scientific and technical capacities. The capacity of the inspectorate is also very important and needs to be strengthened. The gap in knowledge between countries also presents a challenge with the weakest countries with limited access and resources to keep abreast of ever changing scientific technologies and innovations.
Issues related food supply (over-reliance on imported food, lack of local foods)	A number of countries commented on the switch from more traditional locally soured foods to imported processed food, and associate lifestyle changes – with populations being less active. The association between processed food imports and high in salt, sugar and fat and link to NCDs was mentioned. The challenge of receiving sub-standard food imports was mentioned. A wish for encouraging more locally produced food was made, although challenges in certain countries including limited agricultural land – what could be the balance.	The promotion of consumption of local foods will be important to address NCDs. This includes backyard gardening and small food production activities, e.g. pig-rearing. Families will have more direct access to more nutritious diverse foods and also benefit from physical activity. Other dimensions of food supply stressed were the need to ensure food production methods are sustainable and protect the environment. Consideration might be given to a tax or ban on unhealthy food imports – this will need cross government department cooperation however.

Category	Explanation of the Critical issues	Explanation of the Emerging Issues
Trade-related challenges (including globalization)	This sub-category covers a range of trade-related issues, including non-science based measures being applied to food imports often through the application of bans, there can be a negative impact on food security and trade. Expanding and increased international trade can present food safety concerns and new regulatory challenges (spread of microbiological hazards and chemical contaminants, safety or imported ethnic foods, weak or mislabelling of imports. Some countries still face challenges in being able to have all the capacities needed to take advantage of international food trade – meeting import requirements, ensure strong control at own borders, and economic gain that may result from exports.	
Nutrition challenges dietary preferences and global, including NCDs	Through changing dietary habits, including a shift to more convenience foods, sugar and salt dependencies by consumers are emerging. The rapid rise in NCDs is also a major concern.	Non-communicable diseases (NCDs) continue to increase in some parts of the world partly due to life-style and dietary changes. High consumption of imported foods high in energy and fat, but low in vitamins, minerals, and fibre is also a risk factor. Poor dietary practices are evident. Food safety programmes can play a preventive role through enforcement of food labels, enactment of food standards that will help regulate unsafe levels of sugar, salt, fat, and there is a need for stronger consumer education on choice of foods and life-styles. One country advised that prevention of NCDs is a top priority of the government, however success in achieving this will depend on food availability and affordability.

Category	Explanation of the Critical issues	Explanation of the Emerging Issues
Issues related scientific and technical innovation, including new technologies (includes knowledge gap)	Innovation in food production (e.g. nanotechnologies, more sensitive detection methods, bioinformatics, health and organic foods) has, and will continue to have multiple impacts on food safety and its management. There will be a need to assess and manage any risks. Scientific advances and technological innovation may also involve Codex work. Some countries still face challenges in adopting improved food technologies for food production.	New technologies and innovation in food production and processing are expected to emerge and continue. Imperatives include population growth, changing consumer tastes, and globalization. This places a pressure on Codex to keep pace and set new standards which are sound and science based to keep up to date with new technologies, and ensuring their safety. Some aspects for Codex may include use of all possible information and scientific practices when setting standards and revising standards when new approaches/technologies emerge. Advances in analytical methods is resulting in minute traces of chemicals being detected in food (which would not have been detected before). At these traces levels they may not be considered to be a health risk, but they may lead to restrictions in trade. It is proposed that there is a need for a globally harmonized approach to detection of chemicals in food to minimize any trade problems.
Antimicrobial resistance	The recent global developments and actions were noted, including resolutions by OIE, FAO, WHO and actions by several governments, which have resulted in AMR being an important issue in the food safety domain. The global significance was noted, as well as the multi-disciplinary nature across human health, animal health, and food, with it being noted as a global public health concern. Challenges may exist to address the issue.	
Dietary intake, food consumption	Data and information on dietary intake is still missing in some countries – it is important to address this, in order to know assess exposure to potential hazards in food. Additionally, information on food composition is important for food safety, and dietary and nutritional purposes.	
Consumer awareness and education (on food safety and nutrition)	A need to increase knowledge on food safety and quality, which will result in better choices for safe, quality food, with knock on effect to import and export food patterns.	There is still a need to raise consumer education levels and awareness.

Category	Explanation of the Critical issues	Explanation of the Emerging Issues
Issues related to climate change	Climate change is impacting on food production and leading shifts in consumption patterns. An example is salt intrusion from king tides which affects local production of dalo for example – then consumers look to food imports.	Food production systems, including water availability are affected by climate change. The occurrence of natural disasters is also a dimension. Climate change can have direct and indirect impact on food safety – includes the occurrence of new sources of risks along the food chain, affect patterns of food safety risks, potential to introduce new risks from animal and plant diseases and increase incidence of mutated diseases, e.g. avian influenza, resistant salmonella, prion diseases. It is noted that funds are available to some countries to tackle threats from climate change – these countries need to work to demonstrate food safety risks in order to target funding and prevent food safety risks. In order to address climate change and reduce knock on negative impacts, countries should implement sustainable farming systems taking account of climate change and need to protect the environment.
Food fraud, intentional contamination	The global nature of our food supply and movement of foods around the world is one reason to minimise the risk of intentional contamination of our food supply. International dialogue on food defence could be facilitated by Codex.	Intentional food contamination has become prevalent in the recent years, and it is expected that as consumer's continue to be concerned about food safety risks from intentional or unintentional contamination there be increasing need for regulators in all countries and regions to detect and prevent, ability to detect at low levels will continue to be a challenge. Substituting food ingredients for lower grade, cheaper ingredients or one species for another in the interest of economic gain is expected to continue and proving challenging given the increasingly global and complex nature of food supply. Food fraud can lead to public health risks. In order to assess these risks, it may lead to more effective testing methods and rapid capability to detect in order to prevent adverse health and economic consequences.
Water-related issues	Contaminated irrigation water has been the source of pathogens and parasites found on fresh fruit and vegetables.	We need to focus on ensuring safe water supply in order to have safe food (for some countries they can consider accessing climate-change related funding for support).
Minimising food loss and waste	The importance of preventive approaches to minimise food loss and waste was highlighted. There is a role to be played by all in the public and private sectors (including consumers). It is a multi-dimensional issue including policy and standards, value chain management, infrastructure, markets and a well-informed consumer.	

Category	Explanation of the Critical issues	Explanation of the Emerging Issues
Ability to develop regional Codex standards	This was recognised as a challenge still for some countries – capacities still need to be strengthened on how to develop a project document for new work in Codex.	
Improved communication on Codex work at country level	There is a need for more communication in order to increase understanding of Codex standards and their use – among regulators, private sector and consumers.	
Issues related to urbanisation	Urbanisation brings with it different food distribution patterns, including an increase in street food vendors. The food safety control systems needs to adapt and have resources to address any potential risks. The issue of safe water, waste disposal and use of low cost technologies need to be addressed to minimise any risks.	
Regulatory landscape	This concerned the reality of the food standards environment and the need for regulators to understand it's complexity which includes private standards, importing country requirements, and how they all affect compliance requirements for foods traded. They also mention the link between regulation for food safety, and gelation in other sectors – e.g. In the fisheries sector it is important to be aware and link to IUU (illegal, unregulated and unreported).	Countries are increasingly importing foods from multiple trading partners and countries and this change to increasingly global supply chains has an impact on regulations applied to food imports and exports. This can lead to changing international rights and obligations in setting standards and on the other hand complying with standards.
Changing attitudes of consumers	Consumers preferences are changing, and it is important to ensure that there is solid communication of risks to ensure an informed consumer.	There is an increasing awareness by many consumers on the role of food in a healthy diet, and knowledge of nutrition and food safety risks. Public attention and a heightened awareness by consumers can pressure food safety regulators to address their concerns when setting food safety measures. Advocacy groups, consumer demands may impact on regulators. Public acceptability issues are not normally integrated into the current scientific risk assessment approaches. There is an expectation that over time public opinion may have an important impact on food safety decision making and trade, and the work of food safety regulators. But there is a caution that there is still a need to ensure food safety standards remain based on sound scientific principles.

Category	Explanation of the Critical issues	Explanation of the Emerging Issues
Challenges related to risk communication		The growing use of social communication can pose challenges to food safety regulators where mis-information is given to consumers. This calls for strong and effective risk communication on food safety from regulators. While it is important to consider consumer concerns and opinion when setting national and international regulations, it can prove challenging when those views are based on mis-information. In the worst case it can lead pressure to introduce non-science based measures.
New distribution channels, marketing of food via the internet		Marketing of food through the internet has become very easy, and very often the foods are cheaper and or lower quality. Where consumers are not informed, they will purchase due to low price. The emergence of these new distribution channels pose new challenges to food control authorities. There is weak regulation and already porous borders may face new challenges. Bulk warehouses and re-labelling of foods also have negative impacts on rules of origin (foods labelled in a second or third country will be imported).
New food-borne diseases		As we control some diseases, others emerge. Changes in microorganisms can lead to evolution of new pathogens, globalization of the food supply call on food regulators to adapt to the changing environment and combat these threats. As these changes occur, it requires countries to work together to protect public health and facilitate trade.

Individual Country Responses on Critical and Emerging Issues

COUNTRY	CRITICAL ISSUE	EMERGING ISSUE
AUSTRALIA	Antimicrobial Resistance	Risk Communication
	Non-scientific measures on imported food (barriers to trade)	Intentional food contamination
		New technology/approaches to food production and processing
CANADA	Globalization of food trade	Climate change
	Scientific/technological innovation	Regulatory landscape
	Lack of food safety training and education for food producers, handlers, consumers	Changing attitudes of consumers / increased consumer sensitivity/awareness and demand
	Antimicrobial resistance	Food fraud
FEDERATED STATES OF MICRONESIA	Formal education, training and capacity building of food safety officers.	Non-communicable diseases.
	Consumer education and awareness on food safety and quality.	Marketing of unsafe and low quality food products via internet
	National food control system.	Promotion of healthy and nutritious local foods.
KIRIBATI	Dependency on imported processed food	Taxation/ban to unhealthy imported food
	Climate change and NCD	PACER-PLUS: Free trade agreement
	Endorsement of the Food safety regulations and stands, 2014	Climate-related funding to assist in the food safety program
		Climate-related funding to assist in the water quality and safety program
NAURU	Heavy reliance on imported food	Global & Bilateral trade agreements
	Lack of locally grown food	Climate Change
	Easier convenience/access & purchasing power for processed imported food compared to local food e.g. canned fish Vs fresh fish	Regulatory Landscape
	In sufficient resources to control & enforce quality foods; e.g. wide scale practice selling expired foods against only 1 food inspector.	Public attention to food safety

COUNTRY	CRITICAL ISSUE	EMERGING ISSUE
	Iced coffee/tea and fizzy drinks are becoming increasingly trendy instead for water for thirst.	
NEW ZEALAND	Risk communication and changing consumer preferences.	Advances in analytical methods.
	Dietary preferences and global nutrition challenges.	Climate change and impact on agricultural production.
	Minimising food loss and wastage.	Sustainability issues.
		Environmental protection.
		New technology.
PAPUA NEW GUINEA	Scientific and technical capacity development	
	Development of project documents for new work proposals for regional standards development	
	Dietary Intake Studies (DIS)	
	Develop adequate consultation and awareness procedures to communicate Codex work	
SAMOA	Trade aspects (Food Safety)	Climate change
	Implementation/ Enforcement of legislation and standards.	New diseases
	Non communicable disease	New Technologies
	Capacity Building (Food technology, food safety)	Food recall system
		Food vendors
SOLOMON ISLANDS	Globalization of trade.	New distribution Channels
	Economic Factors	Public Attention to Food Safety
	Regulatory landscape	Climate Change
	New Technologies	Scientific Progress
	Urbanisation	Technical & Capacity Building of Inspectors

COUNTRY	CRITICAL ISSUE	EMERGING ISSUE
TONGA	Imported foods of sub-standards quality, expired, etc. are traded.	Food Consumed that results in High prevalence of Diabetes, High blood pressure and Heart diseases
	Food safety control, management and enforcement in food preparation for local street food vendors, social ceremonies and festivities	Food Consumed that results in High prevalence of Anaemia in Women and Children
	Imported foods that are high in energy and fat but low in vitamins, minerals and fibre.	
UNITED STATES OF AMERICA	Food Insecurity: This is driven by almost all of the "drivers of change" that supported this exercise. Scientific advances and technological innovation in food production to meet future needs may involve Codex work (e.g., new pest control technology).	Global Economy: Understanding the impact of global economy on food production.
	Food Defense/Fraud/Adulteration: Intentional food fraud and adulteration for economic gain.	Viral and Bacterial Diseases: Exposure to exotic viral and bacterial diseases through the consumption of "exotic" foods introduced (or smuggled) into the food supply. The constantly evolving challenge of foodborne illness, as documented in the new report "The Global Burden of Foodborne Diseases" (released December 2015).
	Irrigation Water: Pathogens (e.g., parasite eggs/spores) are regularly found on produce from around the world and often attributed to contaminated irrigation water.	Science & Public Perception: Increased societal concerns in the absence of scientific understanding driving international standards.
VANUATU	Dumping of low grade food to Vanuatu	Increasing NCD prevalence
	Capacity building	Effects of Climate Change
	Absence or Limited information (data) on food safety, food composition and food availability.	Knowledge Gap