



# REPORT ON HANDLING FOOD SAFETY INCIDENTS

April 2023, Ha Noi, Viet Nam





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## LIST OF ACRONYMS AND ABBREVIATIONS

AC	Assessment Criteria
CA	Competent Authority
CAC	Codex Alimentarius Commission
CDC	Centre for Disease Control
CEA	Canadian Executing Agency
CFIA	Canadian Food Inspection Agency
DAH	Department of Animal Health
DCP	Department of Crop Production
DG	Director General
DLP	Department of Livestock Production
EBS	Event-Based Disease Surveillance
FAO	Food & Agriculture Organization
FBD	Foodborne Disease
FBO	Food Business Operator
FCSA	Food Control System Assessment (FAO/WHO tool)
FIORP	Foodborne Illness Outbreak Response Protocol - Canada
FSMA	Food Safety Management Authority
FS	Food Safety
GAC	Global Affairs Canada
GMP	Good Manufacturing Practices
HACCP	Hazard Analysis Critical Control Points
HC	Health Canada
HPO	Hanoi Project Office
IBS	Indicator-Based Disease Surveillance
ICD	International Cooperation Department – MARD
IPPC	International Plant Protection Convention
LAB	Laboratory on food safety analysis
MARD	Ministry of Agriculture and Rural Development
МОН	Ministry of Health
MOIT	Ministry of Industry and Trade
MOST	Ministry of Science and Technology
NAFIQAD	National Agro-Forestry-Fisheries Quality Assurance Department
PHAC	Public Health Agency of Canada
PPC	Peoples' Party Committee
PPD	Department of Plan Protection
SAFEGRO	Safe Food for Growth
SOP	Standard Operating Procedure
SPS	Sanitary and Phytosanitary Measures

VFA Vietnam Food Administration

VFIORP Vietnamese Foodborne Illness Outbreak Response Protocol

WHO World Health Organization

**WOAH** World Animal Health Organization

### 1 Summary

In a society that is increasingly developing to a higher level of communication, awareness and demand, safe food is a global concern and has a profound impact on the integration process of all countries for a sound food safety system. Food incidents and food-borne disease (FBD) outbreaks are both caused by unsafe food, with diverse causes, and there is a need to conduct thorough surveys to analyze the core issues that need to be addressed and responses improved continuously.

In Vietnam, the work of ensuring food safety and handling of food incidents has been observed with great attention by the society and is one of the key target programs of top priority for the State. However, in accordance with figures in the official reports of the last 10 years, food incident cases and foodborne illnesses of various causes still occur at significant levels with a notable number of victims. In order to analyze and evaluate the causes and gaps in food incident and FBD management (including food poisoning), the technical team in charge of Activity 1112.1 under SAFEGRO Project developed a set of survey questionnaires based on the FAO/WHO's Food Control Systems Assessment (FCSA) Tool to review the food safety control system for its adequacy, efficiency, relationships with relevant partners, capacity, resources, ability for continuous improvement and development of the relevant Competent Authorities (CA)s.

There were 36 collected feedbacks from professional staff of the provincial CAs. These responses provided diversity and richness in helping to identify system's capabilities according to different levels of response compared to the assessment criteria under the FCSA Tool. The feedback provided the provincial CAs' perspective on technical details of how to control food incidents and food poisoning and the role of stakeholders in handling food incidents and impact on the effectiveness of food incident handling measures. Through the responses to the survey questionnaires, the CAs provided various comments on the measures to be taken for different elements regarding handling of food incidents, food poisoning and FBD, particularly the legal framework system, the CAs' roles, and the recommendations for improved prevention and how to mitigate serious consequences of food incidents that may occur.

By consolidating the system capacity assessment through a scoring system based on the feedback, and by considering the CAs' comments, the SAFEGRO's team in charge of Activity 1112.1 determined various categories of recommendations for the CAs to consider, thereby contributing to making important decisions to strengthen the management required to prevent and more effectively and efficiently handle food incidents, food-borne diseases, including food poisoning in the future.

## 2 About SAFEGRO and Activity 1112.1

#### 2.1 Background of SAFEGRO Project

The Safe Food for Growth (SAFEGRO) <sup>(1)</sup> Project is a Canadian-funded project, aimed to support the development and enforcement of food safety regulations, build on science- and risk-based approaches to food safety management, and to engage smallholder and private sector producers to promote smart and eco-friendly agricultural production. The project is also aimed at the development of a traceability system, raising public awareness about food safety for consumers and promoting behavior change contributing to increasing demand for safe and affordable agro-product thereby enhancing Vietnamese's access to safe and competitive agri-food products, with an aim to improve the well-being of consumers, farmers, and other stakeholders.

The SAFEGRO project works with central and city governments to modernize food safety capacity among regulatory agencies. The project, through its activities, helps to improve the performance of central and provincial management agencies in the enforcement of food safety (FS) policies and regulations to meet international standards. The central and local authorities, through the project, can access and learn from experience as well as exposure to advanced technology, scientific and modern control methods related to food safety and quality to improve their capacity on enforcement of FS policies and regulations.

The SAFEGRO project helps improve the competitiveness of producers/farmers and actors in the value chains, both in domestic and international markets through improvement of food safety, enhances their position towards meeting consumers' increased demand for safe and affordable agro-products, changes producers' behavior, and promotes sustainable agricultural practices, with the expected outcome of improved wellbeing of consumers and actors in the agri-food sector, including poor farmers in Vietnam.

#### 2.2 Activity 1112.1

The SAFEGRO project includes three components with different activities and includes Component 1 "Enabling environment, improving performance of national and sub-national governments in food safety regulation enforcement along the selected value chains in Vietnam to meet international standards" with the expected result to improve the capacity of relevant government agencies to coordinate policies, procedures, and programming on food safety at national and sub–national levels.

Activity 1112.1<sup>(2)</sup> under Component 1, is tasked with providing technical assistance to central and subnational food safety authorities to improve coordination on foodborne diseases (FBDs) management aligned with international standards, with specific activities being: a comprehensive assessment of the current national food control system in Vietnam using FAO/WHO Food Control Systems Assessment (FCSA) tool (issued in 11/2019), as a basis for the review and gap analysis on incident management and FBD management (including food poisoning) through development and application of a questionnaire (based on the FAO/WHO FCSA toolkit) to collect and evaluate relevant information, regulations, control methods, reports, and information on food incidents and FBDs in recent years (i.e. in the last 3-5 years).

<sup>&</sup>lt;sup>(1)</sup> The Safe Food for Growth (SAFEGRO) Project, *https://safegroproject.com/* 

<sup>&</sup>lt;sup>(2)</sup> Project Document, issued under Decision No. 3145/QD-BNN-HTQT dated August 14, 2020 of the Minister of Agriculture and Rural Development.

## 3 A Need for Food Incident Survey

## 3.1 Overview and Status of FS Incidents, Food Poisoning in the World and in Vietnam

In today's time, as society is increasingly developing, and as origins of the food supply has gradually reached a higher level of complexity, the demand for safe food becomes a global issue, not just limited to a nation, but also has a profound impact on the process of international integration and exchange.

Ensuring food safety requires ensuring a whole process throughout the food supply chain, from production, processing through consumption of food. Food poisoning and food-borne diseases (FBDs) are generally the result of unsafe food that has been contaminated with toxins or pathogens. Food contamination can occur during the process of production, processing, storage, transportation, and use of food, including improper use. It can be a result of several forms of environmental pollution, including contamination of water, soil, or air, as well as bad practices on food handling and storage. Food poisoning can also be caused using plants and animals found in nature that should not be used as food due to a user not having knowledge and accidentally using or has known about the toxicity but irrationally used and became sick or infected.

The 2015 WHO report <sup>(3)</sup> on the estimates of the global burden of foodborne diseases presented the firstever estimates of disease burden caused by 31 foodborne agents (bacteria, viruses, parasites, toxins, and chemicals) at global and sub-regional level, highlighting that more than 600 million cases of foodborne illnesses and 420 000 deaths could occur in a year (Annex C). The burden of foodborne illness falls on vulnerable groups, and about 30% of food-related deaths occur in children under 5 years of age, with the highest burden occurring in low-income countries and low to medium income. WHO estimates that 33 million years of healthy life are lost globally from eating unsafe food each year, and this number may be an underestimate. WHO also considers that foodborne illnesses are preventable and that WHO is actively working with international organizations such as FAO, which play an important role in organizing action across multiple dimensions and scope, guiding the countries to join hands to build a strong and flexible national food safety system, while providing consumers with tools to make safe food choices.

In Canada, food safety is a shared responsibility and an increasing concern to Canadian consumers. The investigation of and response to multi-jurisdictional foodborne illness outbreaks involves several organizations at multiple levels of government with complementary responsibilities. In Canada, a Foodborne Illness Outbreak Response Protocol (FIORP) was collectively developed by the Public Health Agency of Canada (PHAC), Health Canada (HC), and the Canadian Food Inspection Agency (CFIA), in consultation with provincial and territorial stakeholders, to enhance the collaboration and overall effectiveness of response during foodborne illness outbreaks with a commitment to review every 5 years.

Canada has a very safe food supply. However, food-borne bacteria, parasites and viruses still cause illnesses in Canada. Every year, about 4 million (1 in 8) Canadians are affected by a food-borne illness. Of these, there are about 11,600 hospitalizations and 238 deaths (Annex D). Estimates on just how much food-borne illnesses affect Canadians show there is still work to be done to prevent and control food-borne illness in Canada, focus efforts on the bacteria, parasites and viruses that cause the biggest problems, and better understand food-borne illness when there is no known cause.

Canada uses different surveillance systems to monitor cases of food-borne illness. Surveillance systems across Canada detect outbreaks, monitor trends, and identify risk factors. These systems rely on information provided by local public health authorities and laboratories, as well as provincial and territorial public health ministries and authorities.

<sup>&</sup>lt;sup>(3)</sup> WHO Estimating the burden of foodborne diseases, 2015.

In Vietnam, ensuring food safety and effectively handling food safety-related incidents is also an issue of great social concern and one of the key agenda items included in the State's national target program with top priority. Food safety CAs in Vietnam are currently working hard to collect reliable data on handling, consequences, and social burden from food poisoning cases as well as FBDs to attract the public's attention, and to mobilize political will and resources to join hands in the prevention, reduction, and mitigation of the consequences of food poisoning and FBDs.

According to the VFA/MOH's report for 2012-2021 (i.e., Food poisoning surveillance report for 2012-2021) <sup>(4)</sup>: some 1,446 cases were recorded, with 41,238 people affected, 240 deaths (Annex A). In comparing the 5-year terms of 2012-2016 and of 2016-2021 the average number of food poisoning cases/year, the number of infected people, the number of hospitalizations and the average number of deaths per year are all decreasing over time. The causes of food poisoning varies and includes: poisonous mushrooms; toxins from pufferfish, sea bream, sea snail; poisonous crabs; toad; alcohol such as industrial alcohol, wine soaked with roots, trees and forest tubers; histamine in aquatic products, toxins in vegetables and forest trees; mycotoxins; toxic preservatives that are used illegally; toxins caused by microorganisms such as botulinum, endotoxins from Salmonella and diseases caused by viruses, microorganisms, and parasites (Annex B).

Actual data shows that, despite the fact that there is a fairly strict legal system on food safety and special attention has been paid by CAs to food safety, food incidents, food poisoning, FBD in Vietnam still occurs in varying degrees of severity requiring special surveys and investigations following a new approach to detecting issues for improvement with respect to regulations, standards, techniques, methods and resources to control food incidents and food poisoning more effectively, help improve food safety and quality towards ensuring public health, and increasing the competitiveness of Vietnamese food products.

#### 3.2 FAO/WHO Food Control System Assessment Tool

#### 3.2.1 Why is it importance and the FAO/WHO's approach to assessing national food control systems?

Food control systems play a pivotal role in protecting the health of consumers and ensuring fair practices in the food trade. Within the framework of the Codex Principles and Guidelines for National Food Control Systems (CAC/GL 82-2013) countries have the flexibility to determine how best to design their food control systems and to implement specific control measures. However, to be able to assess the performance of a national food control system to determine the effectiveness of its use of resources and to ensure good protection of the health and economic interests of consumers, the right tools and measures are needed. To this end, FAO and WHO jointly designed a Food Control Systems Assessment (FCSA) Tool <sup>(5)</sup> to assist Member States in assessing the effectiveness of their national food control systems, no matter how complete the system is.

FCSA has been developed by FAO in collaboration with WHO, based on identifying possible approaches, building on knowledge and experience, improving previous tools related to the food chain or functions assessment such as national sanitary and phytosanitary (SPS) measures, Interamerican Institute for Cooperation on Agriculture (IICA)'s Performance, Vision, Strategy (PVS), OIE (now World Organization for Animal Health [WOAH])'s tool for Performance of Veterinary Service (PVS), or the International Plant Protection Convention (IPPC)'s tool for Phytosanitary Capacity Evaluation (PCE).

The FAO/WHO FCSA tool is primarily focused on analyzing the performance of CAs involved in food control. This tool has been developed by participating member countries for nearly 7 years with the contributions

<sup>&</sup>lt;sup>(4)</sup> Food poisoning – Situation and management system in Vietnam, Truong Tuyet Mai, 2022

<sup>&</sup>lt;sup>(5)</sup> WHO and FAO 2021, Food control system assessment tool: Introductory booklet, ISBN (WHO) 978-92-4-002837-1

of many scientists and CAs from various countries and is expected to be used by countries as a platform to support self-assessment to identify priority areas for improvement and planning for coordinated and sequenced activities to achieve expected results. Through regular reviews, a country can use the FCSA tool to monitor and evaluate the effectiveness of its food control system.

#### 3.2.2 How is the FAO/WHO FCSA Tool Structured

The primary focus of this assessment is CAs – how they work and what outcomes they can attain as well as the enabling framework in which they work (for example, the policy and legal context). The information collected from the CAs is aggregated and analyzed at system level to provide a global and integrated picture of the food control system to identify necessary improvements for enhancing food control effectiveness and efficiency.

The FCSA tool is structured in four basic dimensions <sup>(6)</sup>: DIMENSION A. INPUT AND RESOURCES – DIMENSION B. CONTROL FUNCTIONS – DIMENSION C. INTERACT WITH STAKEHOLDERS – DIMENSION D. SCIENCE/KNOWLEDGE BASE AND CONTINUOUS IMPROVEMENT. These dimensions are further divided into 9 sub-dimensions.

For sub-dimensions, there are different categories of system competency assessment criteria (AC) to be assessed. Each system competency has specific assessment criteria (AC). To help countries accurately assess the current state of each specific competency of their food control system, the FCSA tool provides specific indicators for each AC. FCSA provides a total of 162 ACs, specifically:

•	Dim A.	INPUTS AND RESOURCES:	61 ACs
•	Dim B.	CONTROL FUNCTIONS	51 ACs
•	Dim C.	INTERACTION WITH STAKEHOLDERS:	21 ACs
	Dim D	SCIENCE /KNOWI EDGE DASE AND CONTINUOUS IMDDON	

#### • Dim D. SCIENCE/KNOWLEDGE BASE AND CONTINUOUS IMPROVEMENT: 29 ACs

#### 3.3 Designing Food Incident Survey Questionnaire

#### 3.3.1 Purpose

The questionnaire was designed for the purpose of the Activity 1112.1 with the objective of "taking stock of the current situation on implementation, analysis of shortcomings and constraints in handling of food safety incidents, and management of food-borne diseases and food poisoning" under the SAFEGRO, with aim to collect information so as to recommend to the CAs what needs to be improved to enhance the effectiveness and efficiency of the national food safety control system.

Activity 1112.1 proposed to use FAO/WHO's FCSA tool as a basis to collect information and analyze the current situation of food incident and food poisoning management in practice and inform a subsequent activity under SAFEGRO towards the development of a Foodborne Illness Outbreak Response Protocol for Vietnam (VFIORP). The national consultant team, in collaboration with international consultants, examined the FCSA tool and, referring to the current context in Vietnam, initially selected some of the most common assessment criteria to assist CAs to assess the current system and how to respond and handle food incidents, food poisoning, FBD in a scientific and new approach in accordance with the general assessment rules in place globally under a well-elaborated tool, standards and rules of the FAO/WHO and CODEX guidelines.

As a long term goal for post-SAFEGRO Project, based on the development of the agriculture and food processing industry, the emergence of increasingly higher standards of FS of the society and the requirements of global integration according to international standards for food business operators (FBOs), the survey questionnaire on food incidents can be further researched and expanded to incorporate more

<sup>&</sup>lt;sup>(6)</sup> FAO and WHO. 2019. Food control system assessment tool: Introduction and glossary. Food safety and quality series No. 7/1. Rome

ACs to fully adopt the FAO/WHO's FCSA tool to improve Vietnam's approach to food safety control that is fully consistent with international rules.

#### 3.3.2 The subjects of the survey questionnaire

Based on the scope of application of the FAO/WHO's FCSA tool, and for the purpose to assess the handling system for food incident, food poisoning and FBD, the food incident survey questionnaire focused on Vietnamese CAs directly participating in the investigation, inspection/examination, and handling of food safety incidents (including FBDs and food poisoning).

In addition, the questionnaire considered the assessment of the relationship between CAs and related partners, including laboratories taking samples for analysis, required auditing agencies, research institutions involved in risk assessment, media agencies, FBOs' associations, raw material suppliers, distributors, storage service providers, wholesalers, retailers, and consumers. These correlations with CAs are key factors in handling of food safety incidents, food poisoning/FBD and their assessment should be consistent with the FAO/WHO's FCSA toolkit.

#### 3.3.3 Structure of the questionnaire

The questionnaire is structured into 4 Parts as follows:

- I. Introduction to the questionnaire, the purpose of the survey, a disclaimer of personal responsibility, and commitment to information confidentiality by the survey agency.
- II. Acronyms and abbreviations used in the questionnaire.
- III. Short guidance for answering the questions.
- IV. Survey questions: a main technical part, including 94 questions (Annex E).

#### 3.3.4 How to evaluate AC

For the questions regarding technical aspects (i.e., questions #16 to #93), each question has been selected according to certain AC with the corresponding AC code in the System Competencies under the FAO/WHO's FCSA tool for the survey.

Surveyed CA will provide information or evidence for their assessment for each AC surveyed. Each AC is rated in 3 levels.

- FA (Fully Applied): the system capacity fully meets the relevant AC. When FA is selected, it gives a score of 4 points.
- PA (Partly Applied): the system capacity meets the relevant AC but is not sufficient. When PA is selected, it is counted as 1 point.
- NA (Not Applied): the system capacity has not met the relevant AC. When NA is selected, it gives 0 points.

Special cases, include:

- For an AC that is left blank by a surveyed CA, it means that the relevant CA did not have any evidence of implementation or could not access the level of application. If an assessment criterion of system competency is left blank, it can be considered that at the time of assessment, such assessment criterion has not been given due attention and consideration, so it will be scored as Not Applied (NA).
- The comments under Question #94 are to be consolidated into the general report (Annex D), and no score is given to this question.

#### 3.4 Method for conducting survey and collecting information.

Based on the objectives and topics of the survey questionnaire, the consultant team collaborated with the SAFEGRO's Hanoi Project Office (HPO) to draft and submit a correspondence to the Director General (DG) of the National Agro-Forestry-Fisheries Quality Assurance Department (NAFIQAD) for consideration and approval, which was subsequently sent it to relevant CAs (engaging in handling of food incidents and food poisoning), namely:

- Sub-NAFIQAD of all provinces/central-run cities (by sending the questionnaires and collecting feedback via email)
- Sub-VFA of all provinces/central-run cities (by sending questionnaires and collecting feedback via email)
- FSMA of Bac Ninh and Da Nang and Sub-VFA of Ha Noi (consultants directly interviewed these agencies according to questionnaires, and collected the feedback in place)

## 4 Survey results

#### 4.1 Synthesis of collected responses.

#### 4.1.1 General information

#	Content	Unit	Quantity
1	Number of responding CAs	Agency(ies)	36
2	Number of food poisoning or food incident cases reported	Case(s)	26
3	Number of victims of these food incidents, food poisoning cases	Person(s)	1.017
4	The number of cured victims from these food incidents, food	Person(s)	996
	poisoning cases		
5	Number of deaths attributed to these incidents	Person(s)	06
6	Percentage of deaths/total number of victims of reported incidents	%	0,59
7	Severity of the incidents:		
	+ Serious	Case(s)	11
	+ Moderate	Case(s)	08
	+ Mild	Case(s)	07
8	Number of repetitions of similar incident	Time(s)	0

#### 4.1.2 Information about system competency



Item	General information of surveillance	Percentage
C	Legal basis related to CA(s) ~ A.1.2 (FAO/WHO FCSA Tool)	87.85%
D	Control activities on FBO(s) related to FS incident(s) ~ A.1.3; B.1.1 (FAO/WHO FCSA Tool)	42.28%
Ε	Interactions with FBOs as stakeholders ~ C.1.1; C1.2; C.1.3 (FAO/WHO FCSA Tool)	59.03%
F	Control activities of CAs ~ B.2.1 (FAO/WHO FCSA Tool)	71.92%
G	Surveillance activities of CA ~ B.2.2 (FAO/WHO FCSA Tool)	47.45%
Н	CA's management of food safety emergencies ~ B.2.3 (FAO/WHO FCSA Tool)	67.16%
Ι	Requirement of CA handling FS incident(s) ~ D.1.1; D.1.2; D.1.3; D.2.1; D.2.2 (FAO/WHO FCSA Tool)	58.85%

#### 4.1.3 Other assessment of CAs (not referenced to FAO/WHO FCSA)



87	Based on urgency, how long is the dealing time for FS incidents?	67.36%
88	How effective was the handling of FS incident, in general? (public health, economic losses, impacts	60.42%
	on food production and business, etc.)	
89	Role of the CAs on the effectiveness of handling FS incidents?	95.14%
90	Role of the FBOs on the effectiveness of handling FS incidents?	88.19%
91	Role of the FBOs' Association on the effectiveness of handling FS incidents?	47.92%
92	Role of the consumers on the effectiveness of handling FS incidents?	86.81%
93	Role of the media/communication agencyon the effectiveness of handling FS incidents?	84.03%

#### 4.1.4 Comments regarding improvement and enhancement of the effectiveness of food control system

The CAs shared many comments with diverse contents regarding legal documents, authorities, measures to improve and enhance the CAs' performance, and recommendations related to training and communication, etc. The comments were consolidated, duplicated comments were removed, and comments were recorded as written by the CAs (Annex F).

#### 4.2 General comments

#### 4.2.1 Regarding response to the survey questionnaires

> Many CAs participated in the survey and gave relevant responses in answering the questionnaire. Many CAs gave different feedback to a question demonstrating differences between CAs in the assessment of system competencies according to the established assessment criteria. There were still quite a few similarities in individual CA responses.

> There were responses where respondents did not provide brief explanations or evidence for the assessment but simply gave a rating (FA, PA, or NA).

➤ Based on the brief explanations or evidence showing that some do not understand the nature of the AC of system competency, leading to a not really inaccurate assessment (for example: do not know that an administrative document cannot replace technical standards; inspection by an authority of higher level does not replace external assessment by a certification/accreditation body; annual monitoring program and results does not replace the food safety risk classification framework for the product, the internal rewards are very general, not clearly showing the encouragement and support for employees to share knowledge with colleagues and working groups aimed at promoting individual and system competency development, etc.)

Some recommendations are quite general, of policy-based content, and do not go directly into what needs to be revised, therefore, no specific solution has been shown.

#### 4.2.2 Regarding CAs handling of food incidents

➤ Regarding the legal basis for CAs involved in handling of food incidents, in general, the mandates are defined in the legal documents (e.g., Law on Food Safety, Law on Handling of Administrative Violations, Law on Inspection, and various legal interpretive documents that provide implementing guidelines to these laws, decrees, ministerial circulars, or Peoples' Party Committees [PPC] decisions). However, there are certain cases where there are several CAs in different sectors/levels jointly involved. In such cases CAs must wait for an inter-sectoral document to be issued to handle relevant incidents. Lead agencies in those cases have difficulty implementing rapid actions to handle such food incidents and food poisoning cases.

> Operations of CAs involved in handling food incidents, food poisoning have been implemented quite fast, but the capacity and competency of enforcement officers are limited. They sometimes do not have a good understanding of the basic legal regulations for their tasks, the qualifications of staff are not at the appropriate level, the enforcement officers of lower local CAs remain weak on training and are in short supply, equipment capacity is limited, particularly the testing capacity of CAs or the budget for operation is limited.

Since FBOs involved in food incidents and food poisoning are mostly small scale, either collective kitchens, popular restaurants, or family dining, CAs are not able to conduct surveys to detect weaknesses in food safety control measures in these establishments in order to develop and enter them into the training program for improving food safety assurance capacity of FBOs. The CAs only provide training on food safety basic knowledge as required by these establishments.

➤ For situational management activities when incidents occur, most of the related CAs do not know or do not have a Food Safety Indicator-Based Disease Surveillance (IBS) and Food Safety Event-Based Disease Surveillance (EBS).

> The CAs have annual food safety monitoring and sampling programs of food safety hazards, and information on food safety potential risks, especially during peak holiday periods. However, small-scale FBOs related to food safety incidents are rarely included in the relevant plans.

➤ Most of the surveyed CAs indicated that they are generally weak in capacity to respond to food poisoning incidents or FBD outbreaks of multi-sectoral and multi-disciplinary at regional and local level, capacity to apply epidemiological analysis during outbreak investigation, and capacity to quickly connect and exchange information. So, those surveyed CAs often apply the interdisciplinary mechanism in collaboration with local CDCs and/or hospitals and the response to food incidents, food poisoning or FBD outbreaks may not be timely.

#### 4.2.3 Regarding food incidents and related FBOs

➤ Based on the feedback, except for some CAs who said there has been no food incident case in their area or gave hypothetical situation that is unrealistic and has not been included in the report, most of the CAs reported that food incidents and food poisoning are mainly related to collective kitchens of some schools and some companies, food caterers, at wedding parties, popular restaurants, alcohol poisoning, or are poisoned by eating animals that are not commonly used as food. Most of them are small-scale food service establishments. There is only one report of excessive pesticide residues (related to export goods) and a few cases of a small-scale product sold online.

➤ Most of the establishments are not subject to register for being appraised and inspected on required food safety conditions. They have only to register their operations and self-announce or commit to ensure food safety. Hence, these establishments do not have a standard food safety control program, are not ranked, do not have a regular inspection plan, and do not keep records of food safety controlling activities. Provincial CAs are not decentralized to manage these establishments, and do not have a legal basis to prepare a plan to control them. They only become involved when there is an incident or at the request of the central competent authority.

Small-scale establishments rarely have any contracts with FS testing laboratories for regular sampling and analysis of FS hazards as planned. Therefore, when FS incidents occur, these establishments cannot trace the cause of the incident and cannot collect information for contributing to the development of a national FS management information system of FS incident occurrences.

➤ Many CAs did disclose information and re-posted food safety and risk communications electronically via website, Zalo, portal of PPC, or via hotline. However, FBOs still lack awareness, rarely use such links nor take initiative in learning to control food safety on their own initiative.

From the CAs' feedback to the survey, most food incidents are related to FBOs which do not participate in any Association, so they lack information, techniques, methods of FS management as well as necessary support for the development of a food safety control program at the establishment.

#### 4.2.4 The effectiveness of response to food incidents

➤ Most of the responses said that the role of CAs is very important to quickly handle and limit the bad consequences caused by FS incidents and food poisoning occurring to the community and the economy. However, some reported that the responsibility to handle food incidents and food poisoning rests with the health sector, so the incident handling assignment for production industry from the health sector may lead to a slower response.

> The FBOs often react passively when an incident occurs. The food safety management program is not available or incomplete, there is improper or no record keeping system. There is a lack of awareness of

FS by staff. They lack information or do not know where to find information on food safety. These are all factors resulting in ineffective control or prevention of food safety incidents and food poisoning.

> Consumers have a very important role but are not fully aware of the FS risks so they may improperly use foods or use kinds of plants and animals that should not be commonly used as foods or use food of unknown origin resulting in serious food incidents or food poisoning.

➤ Most of the reported cases relate to small-scale production or food service, so the response to food poisoning and FS incidents by these establishments is often passive and the outcome will depend on how fast the CA responds. Therefore, when the CAs cannot react promptly to these cases of food poisoning and FS incidents, the consequences are often very serious and difficult to overcome.

➤ To date, there are regulatory documents regarding management of FS incidents issued by the MOH, such as MOH Decision 39/2006/QD-BYT dated December 13, 2006 regarding regulations on investigation of food poisoning cases, MOH Decision 5327/2003/QD-BYT dated 13 October, 2003 regarding regulations on taking sample of food and contaminated specimens when food poisoning occurs, MOH Decision 3081/QD-BYT dated 15 July 2020 regarding regulations on reporting regimes and templates for food safety reports in the health sector, and MOH Circular 14/2011/TT-BYT dated 01 April, 2011 regarding general guidance on food sampling for inspection, quality control, food safety and hygiene. However, there is no legal document or national technical regulation providing technical guidance on required procedures and sequenced steps of handling food safety incidents, so the response to relevant situations of FS incidents and food poisoning has not been standardized and uniformly applied, and the efficiency of handling food safety incidents has been limited.

### 5 Recommendations

Based on the data, comments and recommendations extracted from the survey responses, the collected comments and recommendations from the Consultation Workshop<sup>(7)</sup>, referenced WHO global strategy for food safety 2022–2030<sup>(8)</sup>, based on the current status of the surveyed food safety control system, in order to improve the effectiveness and efficiency of the system, the following recommendations are presented.

#### 5.1 Regarding policy and regulation framework

1. The system of legal documents related to the assignment, delegation of powers, responsibilities, coordination mechanism among the CAs at the central level to the subordinate units has been clearly stated in the relevant regulations on food safety but it is recommended these legal documents should be reviewed and supplemented in the direction of strengthening the monitoring competency on actual implementation of the roles and responsibilities of the lead agency as well as the compliance and coordination among other CAs throughout the food chain to ensure effective implementation in practice, and supplement related regulations on specific sanctions when the assigned CA fails to fully implement the assignment in reality or does not perform effectively.

2. In accordance with the provisions of the Law on Food Safety, the lead and focal point CA shall develop principles, plans, FS control and prevention programs, and anticipate scenarios to effectively respond to FS incidents and food poisoning. The CA will also ensure that the content of these plans and programs are clearly understood and implemented uniformly for all coordinating agencies from central to local levels.

3. Review current related regulations to ensure that all enforcement officers (especially those in the pilot phase such as FSMAs) have complete and specific responsibilities and authorization on handling violations of food safety in conformity with the regulation (especially officers of the piloting CAs of FSMA), and there are enough specific legal grounds to safeguard these officers when performing tasks as well as a complaint mechanism to ensure transparency and prevent abuse of authority by CAs' staff.

4. The legislation system sets out the technical provisions needed for the performance of food control activities, and achieving the overall objectives set forth in the policy on food safety and quality. The regulation clearly states the responsibilities and obligations of food-related producers and services in terms of ensuring food safety, preventing, and handling FS incidents and food poisoning. The legislation needs to create a legal framework for CAs to issue and update technical regulations that are clear, not generic, and consistent with international standards such as CODEX standards, which are mandatory for FBOs to be compliant.

5. The legislation provides for regulations required for CAs to implement risk based technical measures to develop food safety assurance measurements. Clearly define responsibility of focal point and lead CAs to take authority and provide information and interoperability to monitor both food production and importation. The focal point CA must also take responsibility before the law for the development of an effective early warning system, preparing for and responding to emergency situations of food poisoning and FS incidents, in accordance with international commitments and consistent with national policy.

6. MOH should add relevant legal documents or technical regulations in which there are standardized technical processes with all steps required to respond to FS incidents and food poisoning when a potential

<sup>&</sup>lt;sup>(7)</sup>SAFEGRO Consultation Workshop for Deliverables under Annual Workplan (Apr.22 – Mar.23) and Draft Annual Workplan (Apr.23 – Mar.24), Ha Long City, March 24-25, 2023.

<sup>&</sup>lt;sup>(8)</sup> WHO global strategy for food safety 2022–2030: towards stronger food safety systems and global cooperation, ISBN 978-92-4-005768-5.

FS incident is detected or when the CA receives relevant information, to investigate, take sample(s), analyze root cause(s), handle the related cause(s), take remedial action, monitor corrective actions, conduct post-remedial inspection, and reporting.

7. It is necessary to add rules to include the basic knowledge on food safety into the training or education curricula at all levels, possibly starting from primary school to equip them with knowledge of food safety and awareness of proper usage of animal and plant species as foods, how to process and handle food properly to prevent and limit FS incident, food poisoning occurrence due to a lack of basic knowledge on food safety.

#### 5.2 Regarding improvement of control capacity of CA

1. The CA needs to improve the control capacity for domestic or imported food.

• CA shall establish plans and measures to control and supervise FBOs scientifically, effectively and based on FS risk classification framework by category of FBOs, by product types, by target consumers.

• CA shall develop and implement a Quality Management Program for regular control operations or hazard-based classification/prioritized control activities, including appropriate sampling to verify the effectiveness of the FBO's FS management. CA shall manage and implement standard operating procedures (SOPs), with internal audits regularly evaluated by a third party to ensure the quality of control, monitoring activities and effectiveness of prevention or handling of FS incidents, food poisoning and FBD.

• CA shall develop a Foodborne Illness Outbreak Response Protocol for Vietnam (VFIORP) to more effectively and efficiently respond to food safety incidents and foodborne disease (including food poisoning).

• CA shall develop and implement a hazard-based prioritized monitoring and surveillance program of food products to proactively identify trends and bring foresight to the prevention or mitigation of food safety incidents, foodborne disease (including food poisoning).

2. The CAs need to improve their capacity on collection, processing and storage of national-level data and information on specific hazards which is analyzed and collected from monitoring and surveillance results, handling of FS incidents and food poisoning occurrences and from the results of control and analysis of data from FBOs. This information system shall be used by the FS CAs for effectively developing and implementing a food control system at all levels of FS assigned to a CA.

3. The CA needs to review and assess their competencies based on specific criteria to ensure sufficient resources, including human resources, financial resources, related facilities, and equipment, including a mechanism for using FS testing laboratories that are accredited on international standards, to support the work of evidence-based inspection, and risk-based approach to control food safety hazards. Appropriate sampling for analysis of food safety criteria will support the verification of the food safety management system of FBOs and support the traceability system to help identify consignments non-compliant with food safety regulations/standards, and to recall food in case of need.

4. The central CA needs to develop and manage a national food safety monitoring and surveillance program, with all relevant information on the specific FS hazards, and a risk classification framework, develop and update the IBS, EBS systems to assist the provincial CAs in performing coordinated activities and programs in line with their local conditions, and contribute and update information for trend analysis, risk assessment and improvement of the overall national food control system.

5. With sufficient legal basis, the FS CAs need to coordinate the concerned CDCs in performing a rapid risk assessment for urgent public health incidents related to FBD/food poisoning so that when investigating a suspected food-borne outbreak, they can analyze the epidemiology and determine the most likely source

or root cause of the outbreak. The results of the outbreak investigation should contribute to the identification of specific control measures and the prevention of future reoccurrences.

6. The central CA needs to update and analyze FS incidents and food poisoning cases in order to forecast emergency cases of FS incidents and food poisoning that may occur, to develop principles for handling and predetermining effective measures and action plans for emergency situations by regularly updating and conducting training and practice on hypothetical situations (emergency response drills) for lower-level CAs to proactively prevent and be ready to properly handle situations on FS, especially during important national events and festivals.

#### 5.3 Regarding interaction between CA and stakeholders

1. The CA needs to, based on the annual national food safety assessments, proactively develop and implement a survey plan, analyze the need for capacity building of FBOs, and determine strategies to raise awareness, design and implement targeted education and training programs on controlling FS risks so that all FBOs are provided with up-to-date information on food standards and FS requirements in accordance with legal regulation(s) and in conformity with the risk classification.

2. The CA needs to effectively operate a communication system with appropriate means and tools and coordinate with media agencies to regularly provide updated information on FS and food quality to FBOs to prevent FS incidents and quickly inform to CA when there are any signs or occurred incidents of food safety or food poisoning. This communication system or food safety information system (FSIS) should provide information in an effective manner to FBOs in FS high risk groups and collect feedback in a timely manner from relevant FBOs to update and supplement the national food safety control system, strengthening the positive cooperative relationship between FBOs and CAs, and enhance compliance with the legal documents on food safety.

3. The CA needs to fully comply with regulations on transparency of food safety information for consumers and the community. The CA must promptly inform the public about FS issues, incidents, and food poisoning, their impact on public health, consequences, causes, and effective preventive measures. Measurements should be taken by different methods, by different media, through different contact channels supported by communication experts, to create a good interaction between CA and consumers and communities, with the goal of raising awareness and facilitating public and consumer feedback on food safety.

#### 5.4 Managing, exchanging data, improving the FS incident management system

1. There is a need to have an appropriate system to store information in a database on FS monitoring results with scientific, objective, and transparent assurance features, granting the CA staff access to correct and scientific information, and ensuring accuracy in the performance of food safety control tasks. The development of the recommended food safety information system (FSIS) has been identified as an objective under a subsequent activity under SAFEGRO.

2. The CA staff need to participate in the exchange of technical and professional information in supervision, control, inspection of food safety, supported by the Training Centers, Research Institutes, and Verification Bodies to improve skills in FS hazard assessment, risk analysis, update knowledge about risks, professional techniques, data exchange and incident management techniques to improve effectiveness and efficiency of activities, to prevent and handle food safety incidents and food poisoning.

3. The CA should update an approach to risk management on products in the value chain, develop and apply a quality management program for food safety incident control and monitoring activities in conformity with international standards or equivalent ones, and take advantage of external inspection and assessment on operational processes of the CA for improving their performance.

## 5.5 Regarding the templates for assessment and self-assessment of FS control system at CA

1. The current food safety control system of Vietnam has demonstrated comparable components, equivalent to international guidelines and standards, especially the principles and guidelines for the national food control system CODEX (CAC/GL 82-2013) and FAO/WHO Guidelines for Strengthening National Food Control Systems. However, to improve the effectiveness of the national food safety control system, technical regulations need to be put in place for the CA to adopt the FAO/WHO's FCSA tool. Under the SAFEGRO project all six documents contained in the FCSA tool have been translated into Vietnamese. For further assessments, suitable assessment checklists need to be developed that are adapted to the practical situation of Vietnam, ensuring equivalence with the FAO/WHO FCSA tool and conformity with the WHO global strategy for food safety 2022–2030.

2. The CA applies the assessment templates when carrying out internal verification of the quality of operations on control, supervision, investigation, and handling of food safety incidents. This form should be used by the superior CA in regular assessment of the food safety control and monitoring activities of the lower CAs. Having a uniform assessment form will assist the CAs to have similar understanding of assessment criteria and system competencies to ensure the quality and effectiveness of the national food control system and detect what needs to be further improved to increase the efficiency of the system.

3. The results of assessment using the uniform template that was built on the FAO/WHO's FCSA tool and systematically kept in a record system will help to improve integration of food safety between ministries and authorities at lower levels, bring Vietnam's food safety control closer to the FS control requirements of other countries, give evidence and create trust in the food control system of Vietnam, and support other activities such as food exporting, tourism and increasing the country's economy.

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## 7 Annexes

#	Year -	Indicator		
		# of cases	# of people infected	# of death
1	2012	168	5,541	34
2	2013	167	5,558	28
3	2014	194	5,203	43
4	2015	179	5,552	23
5	2016	174	4,554	12
6	2017	148	4,087	24
7	2018	108	3,472	17
8	2019	88	2,235	11
9	2020	139	3,094	30
10	2021	81	1,942	18
	Total	1,446	41,238	240
Yearly average		144	4,213	24

#### 7.1 Annex A. Reported food poisoning cases in Vietnam during 2012-2021

(Source: Food poisoning – Situation and management system in Vietnam, *Truong Tuyet Mai, 2022*)



(Source: Food poisoning - Situation and management system in Vietnam, Truong Tuyet Mai, 2022)



(Source: General Statistics Office of Vietnam, 2023)

		Indic	ator	
Cause	Poisoning cases/%	People infected/%	Death/%	Hospitalized/%
Microorganism	620 (38.7%)	29,268 (60.6%)	9 (3.1%)	24,936 (60.8%)
Natural toxins	456 (28.4%)	3,466 (7.2%)	215 (73.4%)	2,912 (7.1%)
Chemical	67 (4.2%)	1,874 (3.9%)	48 (16.4%)	1,726 (4.2%)
Unspecified	461 (28.7%)	13,686 (28.3%)	21 (7.1%)	11,437 (27.9%)
Total	1,604	48,294	293	41,011

#### 7.2 Annex B. Food poisoning/foodborne illness in VN during 2010-2020 (by cause)

(Source: Food poisoning – Situation and management system in Vietnam, Truong Tuyet Mai, 2022)



<sup>(</sup>Source: Food poisoning – Situation and management system in Vietnam, Truong Tuyet Mai, 2022)

#### 7.3 Annex C. Global burden of foodborne disease

The burden diseases is s	of foodborne ubstantial
Every year foodborne d almost people to fall ill Beople to fall ill	Iseases cause: <b>3 mållion</b> healthy life years lost
Poodborne diseases can be deadly	, especially in children <5 Children account for 1/3 of deaths from for deaths from to deaths from
FOODBORNE DISEASES A EVERYONE HAS A R	RE PREVENTABLE.
er miss information were also inf/feeduality ISafeFood	World Healt

(WHO Estimating the burden of foodborne diseases, 2015.)

#### 7.4 Annex D. Burden of foodborne disease in Canada



#### 7.5 Annex E. Burden of foodborne disease in Vietnam

Losses from food borne diseases in Vietnam were estimated at +/- \$750 million in 2016.



The estimate could be higher if occupational health of food system workers and other morbidities caused by trans fat, toxic foods and other water borne pathogens entering the food chains taken are into account

Source: Page 41 https://openknowledge.worldbank.org/bitstream/handle/10986/30568/9781464813450.pdf?sequence=6&isAllowed=y

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#### 7.6 Annex F. About the questionnaires

#### IV. SURVEILLANCE QUESTIONS

This section consists of 94 questions and is structured into:

#### • Part A. General Information

Includes 7 questions (from question #1 to #7), that relate to personal information of the respondent.

#### • Part B. Information regarding recent FS incidents

Includes 8 questions (from question #8 to #15), that relate to information about the most recent food safety incident that the respondent (or agency) participated in handling or was related to them in their locality including information from the media, severity of occurrence, recurrence, etc.

#### QUESTION RELATED TO TECHNICAL ASPECTS

+ From Part C to I: includes 71 questions regarding technical aspects to assess important requirements on the capacity of stakeholders in the chain of food safety incident handling activities.

Actual situations lead to formulate required questions	Main professional contents for specific questions		
Part C. Legal Framework for CA to handling of incidents (6 questions)			
There are many regulatory CAs that have assigned function of control food safety, so when food safety incidents occur, the coordination between the authorities can be a problem	This section focuses on the factors contributing to the development of an effective and efficient food control institutional framework (refer to required system competencies in section A.1.2 of the FAO/WHO FCSA tool). This section focuses on examining how comprehensive, coherent, and consistent is the division of tasks among the CAs on ensuring food safety in the whole food chain. Survey on coordination mechanisms to ensure appropriate and timely communication to exchange information related to incident handling between the CAs, the actual implementation between the CAs in the coordination of FS control and handling FS incidents.		
Part D. Control activities	Part D. Control activities at the FBO related to FS incidents (17 questions)		
Food production and business establishments in FBOs contain potential factors that can lead to food safety incidents	This section focuses on assessing the awareness and compliance with the Law on Food Safety; food safety assurance from FBOs, implementation of FS standards and regulations, honesty in doing business, compliance with the management requirements of the CA, application of the FS management systems in establishments, official assessment according to the plan of the CA, self-assessment activities of FBO, using competent Laboratories to support the control of FS hazards, conduct product traceability and recall in practice (reference to some required system competencies in section A.1.3 and section B.1.1 in FAO/WHO FCSA tool)		
• Part E. Interactions with FBOs related to food safety incidents (8 questions)			
In fact, although there is a good food control system, the recurrence of food safety incidents still occurs. This may be a concerned issue related	This section focuses on assessing the responsibilities of the CA in providing information and training on FS for FBOs, the participation of production and business establishments and the role of the Professional Associations, the relationship with CAs to follow regular supervision, receive update FS standards, regulations, warnings and		

Actual situations lead to formulate required questions	Main professional contents for specific questions
to the interaction between the regulatory authorities, the media institutions and the FBOs.	even FS incidents, access to information from regulatory agencies to control food safety and participating on communicational operations about FS risks (reference to some required system competencies in section C.1.1; section C.1.2; C.1.3 in FAO/WHO FCSA tool)
Part F. Activities of Cas r	elated to handling FS incidents (7 questions)
In fact, the CA may not fully perform its responsibilities, including analyzing, controlling, and providing information to help FBOs controlling FS hazards, or the CA's resources are not fully adequate and lack efficient coordination between these agencies, especially in case of CAs that are not in the same sector.	This section focuses on assessing the role of CAs in implementing national food safety monitoring programs, providing relevant information for specific hazards, contributing to trend analysis, risk assessment and improvement of FCS. The determination and prioritization of the CAs for the specific FBO need to take samples, the reasonable facilitation of human and financial resources, using analytical appointed laboratories (owned or contracted by the CA) and the mechanisms, relationships, coordination between involved ACs in similar systems or in different ones (reference to some required system competencies in section B.2.1 of the FAO/WHO FCSA tool).
Part G. FS incident hand	ling operations of CAs (6 questions)
The actual investigation for certain FS incidents may not be systematically performed; lack of analysis to find specific indicators, forecast signals, and signs based on reported events to prevent possible food safety incidents, and the multidisciplinary responding capacity to FS incidents may be limited.	This section includes 6 expertized questions, focusing on assessment of the national surveillance system, its ability to effectively manage and ensure on controlling FS incidents that have occurred, such as the Indicator-Based monitoring System (IBS) and Event-Based monitoring System (EBS) to track trends, predict potential FS incidents or suspected occurrence of FBD. When investigating a suspected FBD outbreak or FS incident, an epidemiological analysis should be performed to identify the likely source of the outbreak, thereby helping to identify specific control measures (reference to some required system competencies in section B.2.2 of the FAO/WHO FCSA tool).
Part H. Activities of CAs	related to management of a food safety emergency (7 questions)
The fact shows that when there is a FS incident, because the lack of predetermined assignment, the response and management of food safety emergency is not good, leading to inaccurate information communication, causing confusion for the community, which can cause confusion, adversely affect the food business process and other industries (e.g., tourism, food export, etc.)	This section focuses on assessing the ability of the management system to coordinate, identify, and respond appropriately to food safety emergencies, and to communicate effectively with all stakeholders, both at national and at international level. All relevant CAs when responding to FS emergencies must clearly understand their roles and positions. Mechanisms for gathering and analyzing information to help identify incidents, manage risks, use a risk analysis framework (where necessary) to define response structures, communication strategies and guidelines, inspection activities implemented before, during and after the occurrence of food safety incidents, the improvement of food safety response mechanisms (reference to some required system competencies in section B.2.3 of the FAO/WHO FCSA tool).

Actual situations lead to formulate required questions	Main professional contents for specific questions
• Part I. Requirements for	CAs related to management of a food safety emergency (20 questions)
In fact, the CAs dealing with food safety incidents may lack access to/updating useful information, science and technology, limited conditions for professional exchange, lack of scientific basic approaches or supportive research. Risk management, incident control and handling results are not properly evaluated, there is a lack of forecasting techniques to strengthen measures for preventing food safety incidents.	This section focuses on assessing staff capacity, scientific and technical knowledge; how the CAs refer to relevant scientific and technical information to make decisions, review the information collecting process as a basis for risk analysis, and evaluate the use of a risk analysis framework to quantify risk of food safety occurrence. How CAs and their staff share new knowledge with colleagues or workgroups or other CAs in a coordinated way, using shared records of FS risks to completely inform for policymaking and support risk management decisions. Assess the competencies of the CA to review and improve operations, which examines up-to-date scientific and technical knowledge of science and technology (reference to some required system competencies in sections D.1.1, D.1.2, D.1.3, D.2.1, D.2.2 in FAO/WHO FCSA tool).

+ **Part J (8 questions)**: including question #87 to question #94. This is a group of open-ended questions, directed at determining the assessment of surveyed individuals/agencies themselves. It remains flexible in order to evaluate the current situation in Vietnam and collect relevant suggestions/recommendations from the interviewed person/agency (sentence #94) to contribute to finding effective solutions and measures for improving the current national FCS.

## 7.7 Annex G. Suggestions and Recommendations from surveyed person/agency on solutions and measures for improving the current national FCS (question #94)

- 1. The CA applies policies or measures to increase the number of FBOs applying quality management programs such as GMP, HACCP in food quality and safety management.
- 2. The CA applies measures to manage risks, periodically assesses risks and puts in place appropriate management measures.
- 3. It is necessary to regulate and assign separate two main functions: risk assessment and risk management. Consolidate the entire food safety management machine, unify the focal point of food safety management in provinces and cities for proposing suitable advise on issuing specific and practical guidances.
- 4. It is necessary to manage, inspect and control food safety hazards along the food supply chain (from farm to fork). Strengthen the supervision and inspection of food safety, handle strictly enough to deter cases of violations of the Law on Food Safety.
- 5. Need to develop and apply an electronic food traceability system for food products. Promoting the application of information technology in food safety management, building national and local databases on food safety, warning of risks and potential incidents on food safety.
- 6. Promote information, communication, inspection, sampling and monitoring of food safety for food products belonging to high-risk groups.
- 7. Higher level CAs should regularly organize capacity building training for lower levels. Training for officers to properly investigate and handle food safety incidents. Standardized procedures and guidelines for FS incident investigation and handling are required.
- 8. Need funding for communication work. Support funding for information dissemination and training to improve practical knowledge of FBOs on investigation and handling of food safety incidents. Promote information dissemination related to food safety regulations and basic legal regulations, knowledge on food safety for FBOs in practice.
- 9. Strictly manage the source of raw materials out in the process of food production and trading; strictly punish violations of regulations on food safety. Strengthen supervision and post-inspection of production and business establishments to collect information for warns of FS risks.
- 10. Strengthen communication activities on food safety with suitable and diverse contents to defined target groups who are food producers, traders and consumers. Strengthen information communication activities, and training for all related human resources that focused on effective measures for quality and food safety control activities, especially, food safety, hygiene conditions, hazard monitoring and post-inspection.
- 11. Strengthen the work of information and communication to the relevant subjects of FBOs and consumers to make changes in awareness; thereby taking the right action in complying with the provisions of the law on food safety, contributing to minimizing food poisoning and food safety incidents in the community. There should be a national communication program on the FS risk to raise public awareness. Consumers need to improve their understanding of product quality, especially food quality and safety; They must have knowledge to choose foods with identified origins and assured food safety. Processing manufacturers should be received useful support for clean production that following food safety standards.
- 12. Increase resources to invest in testing equipment and tools as well as develop human resources with elite professional qualifications. Establish high quality and accredited testing laboratories for local CAs.

- 13. Strengthen monitoring activities for identifying contaminated food safety hazards to promptly detect and prevent unsafe food from circulating on the market. There should be a policy on suitable training to improve competencies of food safety management official staff on doing the assigned state management of FS. Strengthen inspection and supervision on food safety and sampling for monitoring of agriculture, forestry and fishery products.
- 14. There is a mechanism to encourage the development of a safe food production and business chainThere should be a synchronism from three sides: (1) Mechanism policy; (2) Socio-economic; (3)Science Technology; as well as actions from the State, producers and consumers.
- 15. The State needs to review and adjust the laws and regulations related to food safety and hygiene production and food operation in accordance with the situation of the country; overcome the overlapping situation, avoid functional responsibilities that can reduce the effectiveness of the State management on food safety. Building and completing the State FS management system and legal documents on food safety.
- 16. Develop national data system on risks of food safety and broadcasting potential case(s) of FS incident. Develop a list of products/product groups with high risk of causing food safety incidents to serve on the needs of CAs and community.
- 17. Connect with health facilities of provinces/cities on patient treatment during the FS incident. Prepare professional forces and equipment to handle quickly and effectively when situations of FS incidents and food poisoning can occur .
- 18. Disseminate information and organize training courses to improve knowledge of safe production for establishment owners and workers in agricultural, forestry and fishery producing establishments. Communication to raise consumer awareness. Strengthen the operation of information communication, training, education; keep strong resources and financial support for activities of quality, food safety and hygiene control (including of risk monitoring, post-inspection). Increase consumer awareness in the process of choosing to buy food with good labelling and identified origins.
- 19. Train, workshop and equip effective system for control the FS based on the identified indicators (IBS) to monitor and predict possible incidents. Investigate and control food safety based on reported events (EBS) to track and detect food safety incidents.
- 20. Further strengthen the analysis of food safety hazards in FBOs' activities to have timely solutions to overcome negative consequences after inspection, examination and post-inspection of food products on quality and safety. Thoroughly handle the violations related to food safety issues.
- 21. To request food production, food business establishments and food services to strictly comply with the Law on Food Safety related to FS assurance conditions; strictly control food origin and all stages in food chain such as: processing, preserving, transporting food; comply with the delivery process, three-step verification, store food samples in accordance with related regulations. Use cooked food and boiled water, minimize the use of raw vegetables and tubers and dishes that are prepared in the form of salads. Food service establishments need to develop a predetermined response plan for certain case of food safety incident.
- 22. Strictly manage and supervise food products that are given away for free or distributed in programs of product introduction, advertising, sale and gift by organizations and individuals. In case of detecting or suspecting that the product is not safe, request to suspend the use of the product and coordinate with the CAs to verify and promptly handle it in accordance with the related regulations.
- 23. Food service businesses need to develop a response plan when there is a food safety incident. Strengthen communication, training, education, and strictly monitor FS hazards. It is necessary to

regulate food safety management in conform with the situation of the country, to overcome the overlap between CAs, phenomena of avoiding responsibilities that can reduce the effectiveness of state management on food safety.

24. It is recommended to build a pilot model of community supervision on food safety for smallholder agro-forestry-fishery production and business households to prevent/reduce the number of food poisoning cases in the future. It is proposed that the Project Management Board allocate resources from programs and projects such as the SAFEGRO project for localities to carry out food safety hazard monitoring, support management models and prevent food poisoning in the community. These can increase public warnings on FS and promote sustainable food safety management solutions.