



**Food and Agriculture Organization
of the United Nations**

**Training Workshop Report:
Development of National Food Safety Indicators in the Philippines
Using a One Health Approach**

**18-20 March 2019
Luxent Hotel, Timog Avenue, Quezon City, Philippines**



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Regional Office for Asia and the Pacific
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Abstract

This report presents the proceedings of the two and a half day kick-off activity conducted by the Philippine College of Veterinary Public Health (PCVPH) as the FAO Service Provider for the pilot project “Development of national food safety indicators with a One Health Approach”. Fifty-eight participants representing various interests of the government and the private sector attended the consultation-workshop to learn about the concept of measuring food safety, using as indicative list the 40 food safety indicators (FSIs), otherwise called “priority areas”, identified in the Asia-Pacific Regional Consultation held in Singapore in 2017. After doing sequential workshop sessions facilitated by lead discussant Dr. Masami Takeuchi, FAO Food Safety Officer, the participants selected five (5) priority areas which will henceforth be evaluated as to measurability and possibility to serve as the initial set of at least three (3) national FSIs. The results of the Philippine experience will eventually be shared with other countries in the region. The concept of food safety culture was also introduced to the participants.

Keywords: Food safety; Indicators; Capacity building

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Abbreviations and acronyms

ACB	ASEAN Centre for Biodiversity
AMR	Antimicrobial Resistance
BAFS	Bureau of Agriculture and Fishery Standards
BAI	Bureau of Animal Industry
DA	Department of Agriculture
DENR	Department of Environment and Natural Resources
DILG	Department of the Interior and Local Government
DOH	Department of Health
DOST	Department of Science and Technology
FAO	Food and Agriculture Organization of the United Nations
FBO/s	Food Business Operator/s
FNRI	Food and Nutrition Research Institute
FSA	Food Safety Act
FSI/s	Food Safety Indicator/s
FSRA/s	Food Safety Regulatory Agency/ies
GAHP	Good Animal Husbandry Practices
GAP	Good Agricultural Practices
GaqP	Good Aquaculture Practices
GMP	Good Manufacturing Practice
HACCP	Hazard Analysis and Critical Control Points
LGU/s	Local Government Unit/s
MDG	Millennium Development Goals
NMIS	National Meat Inspection Service
PAFT	Philippine Association of Food Technologists, Inc.
PCVE	Philippine College of Veterinary Epidemiologists
PCVPH	Philippine College of Veterinary Public Health
PVDA	Philippine Veterinary Drug Association
Q&A	Question and Answer
SOFI	State of Food Insecurity in the World
SPS	Sanitary and Phytosanitary
TWG	Technical Working Group
WFS	World Food Summit
WHO	World Health Organization
WTO	World Trade Organization

Executive summary

The Philippines recognizes the significant impact of food safety on public health and economic/trade implications and more importantly, acknowledges that is a fundamental part of food security. In fact, in his opening message, Department of Agriculture Undersecretary Segfredo R. Serrano highlighted the importance given to food safety and the role that safe food plays in the attainment of the government's most important task: ensuring the welfare of the citizens and nurturing succeeding generations. However, obtaining adequate and sustained budgetary resources especially for food safety regulations is a challenge. The Undersecretary, thus, emphasized that stakeholders must do a more effective communication to underscore the attention needed to address food safety goals and initiatives and support the advocacy on allocation of resources, on a long-term rather than medium-term basis. National food safety indicators (FSIs) can help in this regard.

After participating in the Asia-Pacific Regional Consultation on FSIs held in Singapore on December 2017, the Philippines indicated their interest to be among the pilot countries to initiate the process to develop national FSIs based on the indicators discussed at the regional level. In this regard, the Food and Agriculture Organization of the United Nations (FAO) through the Philippine College of Veterinary Public Health (PCVPH) embarked on a project "Development of national food safety indicators with a One Health Approach" with the conduct of a consultation-workshop as a kick-off activity on 18-20 March 2019 in Luxent Hotel, Timog Avenue, Quezon City, Philippines.

The kick off activity involved two and a half days of lecture presentations, question and answer (Q&A) sessions, group works, and presentations of group outputs. It was attended by 58 participants from the government and the private sector who brought with them their respective interests and desired goals in the field of food safety. From Day 1, the participants were organized into six (6) groups of ten (10) members each, with the grouping pre-determined to ensure balanced representation of the various sectors in the group discussions.

Dr. Masami Takeuchi, FAO Food Safety Officer, served as the lead discussant and guided the participants in gaining a better understanding and appreciation of FSIs through lecture presentations and Q&A sessions. The concept of food safety culture was also introduced.

Through sequentially-conducted workshops, the groups were able to list down the reasons for having FSIs and agreed on the desired outcome with corresponding tangible outputs to be prepared, and the intended recipients of such outputs. Dr. Takeuchi was assisted by the PCVPH Team and the Technical Working Group (TWG) during the workshops.

The desired outcome was collectively stated as:

By developing and using food safety indicators, government agencies, food industry and consumers in the Philippines are able to have an overview of the current food safety situations. By monitoring the results regularly, improvement can be systematically reported, which eventually provides confidence to the stakeholders in the Philippines food safety control system. The systematically collected evidence-based results will serve as a basis for an effective information and communication campaign on food safety, thus further understanding and appreciation on the importance of food safety will be gained. Food safety indicators will be designed to highlight the immediate needs and areas for improvement; therefore, they will be useful in prioritization of programmes and activities, particularly for capacity development activities; and the results may be used as inputs to develop a strategic action plan. In addition, it will also be helpful in requesting for appropriate budget allocation, as prioritization has been conducted with solid supporting data and sound justifications.

The 40 FSIs identified at the regional consultation were narrowed down by the participants into five (5) priority areas. These are:

- 14 - Number of food inspectors (per population) trained on official food control
- 18 - Presence of and access to accredited food testing laboratories with well-defined sops
- 21 - Presence of monitoring and verification mechanisms by the government on self-checking system of the producers, processors, food industries and food business operators throughout the food chain
- 31 - All stakeholders farm to fork, including consumers, are reached in food safety information activities and are aware of the potential problems and risks related to hygiene and food safety
- 39 - Percentage of reported rejections of food exports due to food safety by importing countries

Three (3) priority areas will be selected from the above after the validation to be led by the TWG based on a set of guide questions suggested by FAO. These will represent the initial set of three (3) national FSIs to be developed by the Philippines, with recommended methodologies to measure, keeping in mind the One Health Approach. Fourteen (14) candidate priority areas were also listed as possible next FSIs to be developed.

The concept of food safety culture was also introduced to the participants. Finally, the participants presented their wish list on food safety-related training. The list will be reviewed by the TWG as part of the next step of the pilot project.

The process of the ensuing work and the results of validation of the selected priority areas to be developed as national FSIs as well as the result of the review of the training areas will be reported in a second consultation tentatively scheduled on 27-28 June 2019.

1. Introduction

1.1 Overview

In order to provide a sound tool for countries to be able to consider all the key elements, both obvious and non-obvious ones, to properly address such shortcomings, a regional consultation meeting was held on 6–8 December 2017 in Singapore to identify a set of FSIs for the Asia-Pacific region.

After the regional consultation, some countries initiated the process to develop national FSIs based on the indicators discussed at the regional level. The Philippines, being one of the leading countries in the region in the area of food safety, a set of national indicators from the country would be useful for other countries to identify good practices in the process of setting the indicators as well as to learn from the experience. In this regard, the Food and Agriculture Organization of the United Nations (FAO) through the Philippine College of Veterinary Public Health (PCVPH) embarked on a project “Development of national food safety indicators with a One Health Approach” with the conduct of a consultation-workshop as a kick-off activity on 18-20 March 2019 in Luxent Hotel, Timog Avenue, Quezon City, Philippines.

The kick-off activity was attended by 58 participants who hold a stake in food safety initiatives and goals. These include representatives from the government and the private sectors, namely: the Food Safety Regulatory Agencies (FRAs) of the Department of Agriculture (DA) and the Department of Health (DOH) who are directly involved in implementing the Philippine Food Safety Act 2013; the policy offices and food safety support agencies of government, including, among others, the Food and Nutrition Research Institute (FNRI) of the Department of Science and Technology (DOST); Department of Environment and Natural Resources (DENR); private sector representatives from food producers and processors such as the mango, sugar, banana, tuna, livestock and poultry, and feeds sectors; the academe; Nationwide Association of Consumers, Inc; Philippine Association of Food Technologists, Inc. (PAFT); Philippine Veterinary Drug Association (PVDA); Provincial, City, and Municipal Veterinarians League of the Philippines; ASEAN Centre for Biodiversity (ACB); and selected members of the PCVPH. (Annex1).

1.2 Background

Food safety can have a significant impact on public health and economic/trade implications and more importantly, it is a fundamental part of food security. However, the social and economic consequences of unsafe food are often invisible in many developing countries where their surveillance systems are still yet to be developed or improved to be effective, and food safety problems can occur unnoticed. This often leads the policy makers to consider the topic of food safety less of a priority and budget allocation is not appropriately done.

Several tools and frameworks to determine the status level of country food safety management capacities exist. However, such existing tools either require long processing time or they are focused on the safety assessment of certain parts of food systems. Having a refined set of food safety indicators (FSIs) would provide an overview of immediate need for decision makers. A set of measurable, accountable, and actionable FSIs also helps various relevant national agencies in objectively allocating national resources for effective investment as well as raising funds to be received from external partners.

2. Highlights of the workshop

2.1 Workshop structure

From Day 1, the participants were organized into six (6) groups of ten (10) members each, with the grouping pre-assigned to ensure balanced representation of the sectors in the group discussions.

Dr. Masami Takeuchi, FAO Food Safety Officer, served as the lead discussant, guiding the participants in understanding the concept of measuring food safety and in generating the concomitant outcomes and outputs necessary in identifying the priority areas for developing the initial list of FSIs deemed important to the Philippines. Dr. Takeuchi also facilitated the synthesis of the discussions and presented to the body the consolidated outcome and outputs based on the group work submissions. A wish list on training areas on food safety issues was also generated.

Officials and staff of the PCVPH were on hand during the two and a half days kick-off activity and ensured the smooth flow of program activities. A Technical Working Group (TWG) composed of selected PCVPH officials, resource persons, representatives from relevant government agencies, and FAO Antimicrobial Resistance (AMR) project staff facilitated the active engagement of the participants during the group work, leading to the generation of the expected and desired outputs of the activity.

2.2 Opening Session

In her welcome remarks, Dr. Edna Villacorte, PCVPH President, explained the role of the PCVPH in the project. According to her, after the regional consultation on FSIs for Asia and the Pacific held in Singapore in December 2017, the Philippines indicated willingness to be one of the pilot countries to further develop her own FSIs. In this regard, FAO entered into an agreement with the PCVPH for the latter to serve as Service Provider for the operational and technical services that will help in identifying and developing at least three (3) concrete national FSIs with methodologies to measure.

PCVPH accepted the challenge and committed to work with the relevant stakeholders from the government and the private sector in undertaking the required activities. A report will be submitted detailing the Philippine indicator setting process for the three (3) FSIs. Dr. Villacorte explained that the work will not be finished in the two and half days of the project kick off and that concomitant activities will follow. This will require the continued engagement with concerned participants through the Technical Working Group (TWG) that was created. Dr. Villacorte further explained that the results of the Philippine experience will eventually be shared with other countries in the region.

The opening ceremony was graced by two champions of food safety initiatives: Dr. Segfredo R. Serrano, Undersecretary for Policy and Planning, Project Development, R&D, and Regulations of the Department of Agriculture, and Mr. Jose Luis Fernandez, FAO Country Representative.

Undersecretary Serrano cited that the Food Safety Act (FSA) of the Philippines was passed relatively fast in the context of the country's legislative process, as there were no debates or challenges to the law's provisions. This indicates the importance given to food safety and the role that safe food plays in the attainment of government's most important task: ensuring the welfare of the citizens and nurturing succeeding generations. The Undersecretary highlighted, however, the challenge of obtaining adequate and sustained budgetary resources necessary for implementing a food safety control system. He, thus, emphasized that stakeholders must do a

more effective communication to underscore the attention needed to address food safety goals and initiatives and support the advocacy on allocation of resources, on a long-term and not just medium-term basis. He recognized the value that national FSIs has for this purpose, as the indicators can provide the necessary data and memory to give policy makers substantiated information necessary in prioritizing areas to be funded. He, thus, implored the participants to actively share their insights and inputs to attain the desired outcome of the project.

Mr. Fernandez thanked PCVPH for organizing the project kick off and all the participants for agreeing to collaborate in this project. He stated that the FAO recognizes the impacts of food safety to the economy and the importance of ensuring food safety for everyone, citing that in a recent international forum that focused on Food Safety and Trade, it was noted that contaminated food causes illnesses to more than 600 million people, and even death to around 420,000 people, worldwide every year. He further noted that illness linked to unsafe food overloads healthcare systems and damages economies, trade and tourism. The impact of unsafe food costs low- and middle-income economies around \$95 billion in lost productivity each year. And with these threats in mind, FAO acknowledges that food safety must be a paramount goal at every stage of the food chain, from production to harvest, processing, storage, distribution, preparation and consumption, while preserving our planet's resources.

Mr. Fernandez also acknowledged the Codex Alimentarius or Codex, which is the international food safety standards established by FAO and the World Health Organization (WHO), as instrumental in facilitating the exchange of knowledge and good practices by eliminating cross-country boundaries, involving multiple stakeholders, and encouraging convergence to eliminate unsafe food and enabling trade across the globe. A Codex guideline adopted in 2017 entitled "Principles and guidelines for monitoring the performance of national food control systems", recommends that countries establish FSIs for a more effective national food control system. National agencies are encouraged to develop their own indicators in order to capture country-specific capacities and situations. It is also acknowledged that regional initiatives also contribute significantly in ensuring implementation of Codex activities from a broader perspective, such as capacity building and trainings, policy dialogues, and multi-stakeholder consultations, among others. He mentioned the regional consultation workshop held last December 2017 in Singapore, where 40 FSIs were identified to be prioritized in the Asia-Pacific Region and noted the participation of the Philippines. He proceeded to laud the Philippines for being recognized as one of the leading countries in the region in the area of food safety and expressed gratefulness for the continued collaboration of the Department of Agriculture, Department of Health, and PCVPH on developing national FSIs as part of strengthening food surveillance systems.

Mr. Fernandez set the tone of the kick-off activity by emphasizing that the ensuing workshop aims to provide a platform of information exchange on the progress of pilot countries, to reflect on the priority areas, and develop a proposal on desired outcomes of the Philippines on food safety based on the identified 40 regional indicators. This also includes the assessment of the measurability and viability of these indicators. Moreover, lessons learned from this project will be shared to other countries and expressed optimism that the results will be a useful reference for their performance monitoring of national food control systems vis-à-vis the Codex implementation. The insights and rich experiences that the participants will bring in from their respective areas of technical expertise will be valuable contributions to the joint efforts on ensuring food safety and ultimately on enhancing the country's public health, trade, poverty, food security and nutrition.

2.3 Kick off program: Objectives and FAO next steps

The kick off activity involved two and a half days of lecture presentations, Q&A sessions, group works, and synthesis and presentation of group outputs. (Annex 2. Program of Activities).

Dr. Takeuchi provided the following information on the progress of work so far done on the initiative of developing FSIs:

Step 1: Members' requests

Step 2: Literature review – FAO technical working paper

Step 3: Expert opinion elicitation – Regional consultation on FSIs for Asia and the Pacific, 6-8 December 2017, Singapore

Step 4: Consolidation of the proposed indicators (FAO)

Step 5: Series of pilots of the indicators at national level (South Korea, Bhutan, China, Cook Islands, and the Philippines) – result-sharing meeting in China

Step 6: Final review of the proposed indicators (Experts)

Step 7: Publication of the regional guide on the indicators (possibly with other relevant international organizations)

Taking off from the technical review that has been done on the subject and the regional consultation in Singapore in December 2017, which was deemed as the first step towards identifying a set of actionable food safety indicators for the region, Dr. Takeuchi presented the objectives and expected outputs of the kick off activity as follows:

- a. Agree on a desired outcome of having/using national FSIs
 - Why do we want to measure?
 - What are we going to do with the results?
- b. Agree on 3-5 priority areas for setting FSIs
 - What do we want to measure?
 - Who will measure?
 - How do we measure?

The above-expected outputs shall form part of Step 5 of the FAO-led initiative. Dr. Takeuchi pointed out that the pilot activity in the Philippines is particularly significant because it is the first to involve a big group of multi-sectoral representations from the government and the private sectors, cutting across different fields of disciplines and expertise in the field of food safety.

2.4 Presentations on concepts on food safety and developing food safety indicators

Following are highlights of the presentations of Dr. Takeuchi on the program agenda topics:

Topic A. Measuring Food Safety

Dr. Takeuchi introduced the concept of FSIs and the importance of measuring food safety. The presentation aimed to help the participants better understand and appreciate the objectives and desired outcome of the kick off activity. A key message was shared: “*What gets measured gets managed*” (Peter Drucker). The question remains, however: “what do we measure and how do we measure?”

To illustrate, examples were given on existing food security indicators and nutrition global indicators and how these have been used to measure and set targets for improving the identified areas of concern.

“The 1996 World Food Summit called for a 50 percent reduction in the number of undernourished people by 2015 (WFS target).

In 2000, the Millennium Declaration recognized the value of hunger and poverty reduction by setting the MDG target of “halving, between 1990 and 2015, the proportion of people who suffer from hunger”.

In setting indicators, the following questions and answers may help:

1. Why do we need indicators? To monitor the progress, identify the needs, set the priorities, allocate appropriate funds, effectively communicate on the topic
2. At what level? Global, regional, national, prefectural/provincial, local
3. What is the shape of the eventual outputs? Annual/monthly/weekly reports, factsheets, project proposals, infographics for web/snss
4. How do we use the outputs?

Again, using food security indicators as example:

1. WHY measure food security? To monitor progress towards the WFS/MDG targets and present in the State of Food Insecurity in the World (SOFI) report annually (Global level)
2. WHAT are measured? The number and proportion of persons below the minimum level of dietary energy requirement (estimates) at global, regional and national levels
3. HOW they are measured? Establishing and using food security indicators
4. HOW are the outputs being used? Prioritizations, allocation of funds, rationale for project/activity development

However, in the area of food safety, measurable indicators are yet to be developed. For this purpose, technical assistance from FAO was requested to help countries in the region to know where exactly they stand on their food safety capacity level. It was underscored that improvement is a significant challenge for countries if a baseline cannot be identified. Further, food safety is too complex, and everything looks extremely important, thus, decisions will have to be made on where to start so that targets are not arbitrarily set. Identifying measurable FSIs indicators also presents a key challenge amidst the changing global context and diverse challenges faced by countries.

Among these challenges are:

1. Globalization
2. Increased movement of people, agricultural and food products across borders
3. New agricultural production and processing technologies
4. Growing membership of World Trade Organization (WTO)
5. Increased public awareness about sanitary and phytosanitary (SPS) issues

Challenges are also diverse because of:

1. Existence of hazards/diseases with potential to move across sectors

2. Breakdown in security at one point in the chain, which can have consequences for the rest of the food chain
3. New outbreaks of transboundary disease affecting people, animals and plants
4. Increasing number and stringency of SPS requirements
5. Legal obligations for signatories of international agreements
6. Ensuring protection against uncertainties associated with new technologies
7. High cost of regulation and limited public resources

Thus, can food safety really be measured? A basic principle was offered: *“To be measured, the object of measurement must be described clearly, in terms of observables.”* (Hubbard). The Codex Alimentarius Commission also prescribes some guidelines on a Performance Monitoring Framework¹ but it is essential to establish indicators first before a monitoring plan and effective monitoring could be done. The process itself of establishing the indicators needs to be developed, with the capability to measure such indicators likewise clear and practicable.

Dr. Takeuchi also cautioned that good measurement can go wrong. It is, thus, essential to have a better reporting system to ensure proper communication of food safety issues and not unduly alarm the population or lead to wrong decisions. She emphasized that the worse thing to avoid is miscommunication.

Reference was also made to the FAO Technical Paper: Measuring Food Safety. The paper was developed *“to identify existing food safety indicators based on various literature reviews so that countries will be able to use the paper as a basis to further discuss the potential effectiveness of having regional and national food safety indicators. The paper provides four essential elements for food safety experts from the region to consider when determining: 1) whether or not a set of regional food safety indicators is useful; 2) what types of regional and national food safety indicators can be useful; 3) what criteria can be used in selecting regional and national food safety indicators; and 4) how regional food safety indicators can be used. The paper does not provide any direction nor opinions, and all information in the paper is based on the evidence and statements found in the existing literature. A rapid scoping review has been conducted to compile all of the identified food safety indicators in the literature.”*

Topic B. A proposed set of the regional food safety indicators: food safety priority areas

Dr. Takeuchi presented the pool of 40 indicators which resulted from the Asia-Pacific Regional Consultation held in Singapore in December 2017. The pool served as a guide for countries to select effective indicators and tailor them for the national context.

Dr. Takeuchi reported that all the FSIs identified in the technical working paper were reviewed in three (3) working group sessions participated in by senior officials from 18 Asian and 6 Pacific Island countries working in the area of food safety. Variations were observed, but content-wise, all groups chose almost the same set of indicator categories. Variations were likewise observed in measuring methods, but suggested data sources are very similar among the 3 groups. The set may be useful to be recognized as a pool of indicators, so that each country can select effective indicators and tailor them to fit the national context. The participants were advised, however, that the set needs more work on appropriate wordings. For the purpose of the workshop, the indicators were considered as “priority areas”.

¹ *Principles and guidelines for national food control systems (CAC/GL 82-2013) and Principles and guidelines for monitoring the performance of national food control systems (CAC/GL 91-2017)

The 40 priority areas, grouped into categories which reflect the nature and scope of the areas of concern, are:

Food safety competent authority(-ies) and partners

1. Presence of a leading food safety agency (entity) to drive the coordination work to ensure food safety
2. Food safety relevant agencies have clearly defined roles and responsibilities for food control management
3. Competent authority is supported by necessary infrastructure and adequate resources (e.g., human and financial resources and lab equipment and materials)

Policy and legal & regulatory framework

4. Presence of enabling national policy and legal & regulatory framework are consistent with international standards, guidelines and best practices (including legally embedded criteria for executing food recall and traceability) and they show government commitment to protect public health and ensure fair practices in food trade

Principles of the national food control systems

5. National food control system covers the entire food chain (farm-to-table) in an integrated system
6. National food control system is implemented in a transparent manner with mechanisms for information, education, communication and coordination with relevant stakeholders
7. Use of risk analysis paradigm by the competent authority to inform and support risk-based, science-based and evidence-based decision-making and establish food safety control measures with a mechanism for expert consultation to advice government on food safety risk assessment

Codex and functions with other international bodies and platforms

8. Existence of National Codex Committee with allocated budget
9. Level of engagement in the work of Codex
10. Ability to meet and demonstrate compliance with international food safety and quality requirements and obligations (e.g., Codex standards, WTO SPS Agreement and requirements of trade partners)
11. Credible functioning of national contact points for Codex, OIE, IPPC and other relevant international organizations and platforms (e.g., INFOSAN) with required resources

Food inspection

12. Criteria for risk categorization and prioritization established for food inspection
13. Presence of functioning risk-based food inspection mechanism with well-defined sops
14. Number of food inspectors (per population) trained on official food control
15. Number of inspections being conducted for infrastructure, installations and hygiene throughout farm to fork food chain (primary production, processing, distribution, hotels and restaurants and community kitchens)

Food safety certification

16. Presence of functioning food safety certification systems with well-defined sops

Testing and analysis

17. Presence of and access to capable diagnostic and analytical laboratories with well-defined sops
18. Presence of and access to accredited food testing laboratories with well-defined sops

Notifications

19. Presence of notification mechanism on food safety incidents and outbreaks
20. Presence of notification mechanism on food recalls

Support to self-checking systems

21. Presence of monitoring and verification mechanisms by the government on self-checking system of the producers, processors, food industries and food business operators throughout the food chain
22. A recognition system for the producers, processors, food industries and food business operators implementing good food safety practices
23. Presence of effective guidelines for developing good standard operating procedures (sops) and instructions concerning GAP, GMP, GHP and HACCP

Food monitoring, health surveillance and epidemiology

24. Mechanisms are established and functioning for detecting to foodborne disease and food contaminations
25. Existence of One-Health disease surveillance systems (animal plant, human and environmental health)
26. Number of outbreaks of foodborne illness reported

Examples: Salmonellosis in humans, Listeriosis in humans

27. Percentage of reported occurrences in which presence/contamination of hazards are identified (biological, chemical, physical) in all types of food and feed from farm to fork [or, Percentage of commodities (food or animal feed) that comply with regulations (e.g., mrls), pertaining to pesticides, pesticide residues, veterinary drug residues, food additives, mycotoxins, heavy metals, radiological substances and key chemical, microbiological and physical (non-food) contaminants]

Examples: *Salmonella* spp. In food, *E. Coli* in food, *Listeria monocytogenes* in food (specify a commodity)

Data collection, collation and interpretation

28. Institution(s) exists that is responsible for the collection, collation and interpretation of data on food safety issues (including microbiological, chemical, natural and environmental) at the national level

Food safety emergency preparedness

29. National food safety emergency response capacity supported by a national plan/guidelines/rapid alert system, which state responsibilities, relevant parties and necessary systems and actions including traceability and food recalls

Information, education, communication and trainings

30. Risk-based education and trainings to food business operators related to hygiene and food safety are mandated and provided
31. All stakeholders farm to fork, including consumers, are reached in food safety information activities and are aware of the potential problems and risks related to hygiene and food safety

Shared responsibility - industry, producers, processors, food business operators

32. Percentage of producers, traders and food business operators implementing documented self-checking food safety management system, such as good standard operating procedures (sops) on GAP, GMP, GHP, HACCP or any others in accordance with the local context
33. Percentage of food establishments from farm to fork displaying information, education and communication materials or signs on hygiene and food safety within their premises
34. Percentage of producers, processors, traders and food business operators that have implemented a functioning traceability system
35. Percentage of food establishments complying to labelling requirements including allergen risk indications

Access to potable water

36. Percentage of the population with access to potable water

Public trust in food safety

37. Presence of mechanism to understand public perception on the national food control system
38. Levels of public trust in food safety

Food and feed trade

39. Percentage of reported rejections of food exports due to food safety by importing countries
40. Mutual recognition of equivalence systems (e.g., MRA, mous for market access) based on international guidelines

Dr. Takeuchi advised that the above is not a final set and further refinement is necessary. She also highlighted that when selecting them for use at national level, it is important to define the outcomes first.

Topic C. Introduction to food safety culture

Dr. Takeuchi introduced the concept of food safety culture based on a presentation by Kate Astridge of Food Standards Australia New Zealand (FSANZ).

According to the Global Food Safety Initiative (GFSI), food safety culture is “*shared values, beliefs, and norms that affect mindset and behaviors towards food safety across/in/throughout an organization.*” The vision is for a culture of excellence in which food safety is recognized as the cornerstone for success, and food safety and integrity are priorities for all food businesses. In such culture, everything connects – people, processes, systems and data.

The journey to establishing a strong positive food safety culture, however, takes time and care, especially as challenges exist (Campden BRI, *et al.*, 2014):

1. Lack of resources
2. Negative employee attitude
3. Lack of effective communication
4. Multicultural workforce
5. Negative management attitudes
6. High staff turnover
7. Lack of awareness of culture
8. Lack of coordination across company
9. Lack of prioritization of culture

10. Inability to measure culture

11. Lack of technology

Who initiates the practice: policy maker, regulator, industry, businesses, consumers?

Government plays a lead role. An essential paradigm shift is making the food safety regulators as educators. Practice of food safety must be embedded in culture and for this to be realized, coaches and champions are needed.

Topic D. Pilot project on developing FSIs: South Korea and Bhutan experiences

Dr. Takeuchi shared the experiences of South Korea and Bhutan in piloting the development of national FSIs.

South Korea conducted a survey among 100 respondents to identify which among the 40 priority areas are considered most significant. Results of the survey showed the respondents giving high regard for indicators which will measure the capability of government to ensure food safety through the presence of a leading food safety agency. Dr. Takeuchi explained that such prioritization is explained by a recent reorganization of the country's food safety agency and the respondents needed to have a gauge of its capability and performance.

From 21 areas selected, ranked first was FSII1. Presence of a leading food safety agency (entity) to drive the coordination work to ensure food safety (12.5), followed by FSI29. National food safety emergency response capacity supported by a national plan/guidelines/rapid alert system, which state responsibilities, relevant parties and necessary systems and actions including traceability and food recalls (10.0) and FSI7. Use of risk analysis paradigm by the competent authority to inform and support risk-based, science-based and evidence-based decision-making and establish food safety control measures with a mechanism for expert consultation to advice government on food safety risk assessment (10.0). Ranking low in the priority are FSI10. Ability to meet and demonstrate compliance with international food safety and quality requirements and obligations (e.g., Codex standards, WTO SPS Agreement and requirements of trade partners) (1.7); FSI11. Credible functioning of national contact points for Codex, OIE, IPPC and other relevant international organizations and platforms (e.g., INFOSAN) with required resources. (1.7); and FSI13. Presence of functioning risk-based food inspection mechanism with well-defined sops (0.8).

In Bhutan's case, current issues which pose challenges in measuring food safety indicators were raised:

1. It was not known what food safety related hazards (microbiological, chemical, etc) are the main problems (killing/sickening people)
2. It was not known what food items are really posing the actual risks to Bhutanese
3. Even if there is capability to detect pathogens, chemicals, etc, there is no means to act upon them (no traceability, recall capacities)
4. Current situation in food trade with neighboring countries is making the imported food control almost impossible
5. Food inspectors are mainly checking on expiration dates, packaging defects – and seizing the products (local people think inspectors are taking their food and destroying them without enough explanations)

Nonetheless, indicators for the following areas are desired:

1. Presence of the food safety competent authority

2. Trust – food safety culture – the competent authority is not policing people, but it is helping businesses to produce and provide safe food to all
3. Drinking water safety – accessible to everyone
4. Imported food control – risk categorization exists and border control (quarantines, food inspections) is conducted according to the risk categorization
5. Microbiological laboratory capacity – detection/quantification capacity exists on 2 key microorganisms (Salmonella and Campylobacter)
6. First building block for the future traceability system – one step back and one step forward system for retailers

2.5 General process of identifying and prioritizing areas for developing national FSIs

After each lecture presentation and Q&A sessions, group workshops were sequentially conducted, leading to:

1. Enhanced understanding and appreciation of the need and rationale for developing FSIs,
2. Statement of desired outcome, identification of possible outputs and use of such outputs,
3. Identification of priority areas upon which the indicators are to be selected (based primarily on data availability and accessibility to allow measurability of the selected indicators), and
4. Identification of the training areas to address gaps and support improvements in food safety initiatives and control

The workshops were:

Workshop 1: Establishing the necessity and reasons for having FSIs

Workshop 2: Identifying the desired outcome, the corresponding outputs, and the target recipients

Workshop 3: Selecting the priority areas for the Philippines from the 40 areas identified in the Regional Consultation

Workshop 4: Identifying training areas to address gaps

The workshop-specific processes and results are presented in the following section of this report.

2.6 Workshop Results: Outcomes, Outputs, Priority Areas, and Suggested Areas for Training

Workshop 1: Establishing the necessity and reasons for having FSIs

Instruction: Do we need FSIs? Cite ten (10) reasons to support your answer.

Results:

All groups unanimously decided that FSIs are necessary, and the various reasons cited by each group (Annex 3. W1. Necessity and Reasons for Having FSIs) are summarized below.

It was observed that while all groups agreed that FSIs are necessary, the reasons cited showed some variations in the perceived use of the FSIs.

In general, the FSIs are perceived to be necessary:

- As a tool to ascertain or measure the status and effectiveness of food safety programs and food safety control systems of the government (policies, programs, and regulatory interventions),
- As a basis to justify budget or resource requests and allocation for food safety programs,
- For determining food safety capacity building needs and developing proposals to address such needs,
- For gauging compliance to food safety regulations, standards, and codes of practices,
- For identifying the strengths and weaknesses of the Philippine Food Safety Law,
- For setting priorities in the food safety control program
- For determining and establishing good food safety coordination mechanism between the national and the local governments
- For advocating awareness among consumers on their role in food safety
- For identifying causes of detections and/or rejections
- For monitoring the number of food safety related incidents

On the other hand, a small number of participants also perceived FSIs as necessary to:

- Facilitate trade
- Contribute to socio-economic and environmental goals
- Contribute to economic development and strengthen global competitiveness
- Showcase stronger and deeper relationship among Asia-Pacific countries

Workshop 2: Identifying the desired outcome, the corresponding outputs, and the target recipients

Instruction:

Dr. Takeuchi explained that developing indicators alone is not enough. It is necessary to have clear outputs and in what form or shape such outputs should be. Thus, from the reasons listed, the groups were asked to deliberate on the format or concrete outputs desired to be produced to respond to the reasons. For example, if the desired output is advocacy on food safety, what would be the information materials to be produced?

Results:

The exercise eventually led to the statement of desired outcome, with the appropriate outputs to be produced/used and the intended recipients of the outputs indicated. (Annex 4. W2. Outcome, Output, Recipients)

The group outputs in this workshop were consolidated by Dr. Takeuchi and presented to the participants, who generally concurred with the resulting statement shown below:

Desired outcome(s)

By developing and using food safety indicators, government agencies, food industry and consumers in the Philippines are able to have an overview of the current food safety situations.

By monitoring the results regularly, improvement can be systematically reported, which eventually provides confidence to the stakeholders in the Philippines food safety control system. The systematically collected evidence-based results will serve as a basis for an effective information and communication campaign on food safety, thus further understanding and appreciation on the importance of food safety will be gained. Food safety indicators will be designed to highlight the immediate needs and areas for improvement; therefore, they will be useful in prioritization of programmes and activities, particularly for capacity development activities; and the results may be used as inputs to develop a strategic action plan. In addition, it will also be helpful in requesting for appropriate budget allocation, as prioritization has been conducted with solid supporting data and sound justifications.

Possible use of FSIs (outputs)

#	Output	Target(s)	Format(s)
1.	Annual situation report	<ul style="list-style-type: none"> • General public • Food industry • Government agencies • Policy makers 	<ul style="list-style-type: none"> • Report (Online) + webpage • Factsheet (summary, online and hard copies) • Policy issuances
2.	Trend analysis (monitoring #1 over time)	<ul style="list-style-type: none"> • General public • Food industry • Academia • Government agencies 	<ul style="list-style-type: none"> • Webpage • Social media
3.	Project / funding proposal	<ul style="list-style-type: none"> • Funding agencies • Policy makers • Donor organizations 	<ul style="list-style-type: none"> • Policy recommendation • Proposal
4.	Food safety advisory	<ul style="list-style-type: none"> • General public 	<ul style="list-style-type: none"> • Infographics on social media

Workshop 3: Selecting the priority areas for the Philippines from the 40 areas identified in the Regional Consultation

Instructions:

1. Set 3-5 criteria to select priority areas
2. Go through 40 indicators against the criteria
3. Identify elements that should be measured
4. Identify how you measure the indicators with possible data source
5. Reporting format (with sample entries):

Original Indicator #	Suggested indicator name (full sentence)	What will be measured	How to measure, who will measure	Possible data source
4	Government performance to protect public health and ensure fair practices in food trade thru national policy and legal framework.	Performance of the implementing FRAs National policy & legal framework issuance	Accomplishment report reviewed, FRAs with a rating of satisfactory Regulatory Impact Assessment conducted	Annual report of FRAs Existing national policy & framework from the website and depository (Records Division)
6	Transparent mechanism on National Food	No of published IEC	Published and disseminated IEC materials reviewed	FSRA issued IEC materials

Original Indicator #	Suggested indicator name (full sentence)	What will be measured	How to measure, who will measure	Possible data source
	Regulatory System thru quad media.			
14	Trained food inspectors	No of Food Safety Inspectors trained	FSRA List of Food Safety Inspectors and training attended reviewed	FSRA List of trained inspectors

Dr. Takeuchi emphasized that in selecting the priority areas, measurability and practical use of the indicators must be kept in mind. She stated that it would be pointless to select an indicator that cannot be measured. As actual measurement is a complex activity and may require considerations of multiple factors, the use of indicators require collaboration with a number of governmental partners and stakeholders. It is essential to involve them from the beginning.

The following guide questions were suggested in checking measurability of the indicators:

1. Is it quantifiable?
2. Are relevant data already available and accessible?
3. Are we on-target (meaningful)? (Example of performance evaluation)
4. Are we assuring a certain level of quality as well?
5. Can we monitor the measurements over time?

Results:

The priority areas selected by the groups (ANNEX 5. W3. Priority Areas for the Philippines) were consolidated, ranked, and narrowed down to those deemed most significant and relevant to the Philippines:

Original Indicator (Priority Area) #	Indicator
14 Number of food inspectors (per population) trained on official food control	Effective food inspectors
18 Presence of and access to accredited food testing laboratories with well-defined standard operating procedures	Food testing labs
21 Presence of monitoring and verification mechanisms by the government on self-checking system of the producers, processors, food industries and food business operators throughout the food chain (consider in conjunction with 22)	Mechanisms for self-checking system
31 All stakeholders farm to plate, including consumers, are reached in food safety information activities and are aware of the potential problems and risks related to hygiene and food safety	Effective iecs for all stakeholders
39 Percentage of reported rejections of food exports due to food safety by importing countries	Reported rejections of exported products

Fourteen (14) candidate priority areas were also listed as possible next FSIs to be developed.

Candidate Priority Area #	Indicator
1 Presence of a leading food safety agency (entity) to drive the coordination work to ensure food safety	Effective coordination of food safety

Candidate Priority Area #	Indicator
4 Presence of enabling national policy and legal & regulatory framework are consistent with international standards, guidelines and best practices (including legally embedded criteria for executing food recall and traceability) and they show government commitment to protect public health and ensure fair practices in food trade	Presence of enabling national policy and regulatory framework
5 National food control system covers the entire food chain (farm-to-table) in an integrated system	Farm to table (integrated system)
6 National food control system is implemented in a transparent manner with mechanisms for information, education, communication and coordination with relevant stakeholders	Transparent with effective IEC
13 Presence of functioning risk-based food inspection mechanism with well-defined sops	Risk-based inspection mechanism
15 Number of inspections being conducted for infrastructure, installations and hygiene throughout farm to fork food chain (primary production, processing, distribution, hotels and restaurants and community kitchens)	Implementation of #13
17 Presence of and access to capable diagnostic and analytical laboratories with well-defined sops	Diagnostic and analytical labs
22 A recognition system for the producers, processors, food industries and food business operators implementing good food safety practices	Recognition system for good self-checking mechanism
23 Presence of effective guidelines for developing good standard operating procedures (sops) and instructions concerning GAP, GMP, GHP and HACCP	Effective guidelines on GAP, GMP, GHP and HACCP
25 Existence of One-Health disease surveillance systems (animal plant, human and environmental health)	One Health surveillance system
26 Number of outbreaks of foodborne illness reported Examples: Salmonellosis in humans, Listeriosis in humans	Foodborne outbreaks
27 Percentage of reported occurrences in which presence/contamination of hazards are identified (biological, chemical, physical) in all types of food and feed from farm to fork [or, Percentage of commodities (food or animal feed) that comply with regulations (e.g., mrls), pertaining to pesticides, pesticide residues, veterinary drug residues, food additives, mycotoxins, heavy metals, radiological substances and key chemical, microbiological and physical (non-food) contaminants] Examples: <i>Salmonella</i> spp. In food, <i>E. Coli</i> in food, <i>Listeria monocytogenes</i> in food (specify a commodity)	Reported food contaminations
30 Risk-based education and trainings to food business operators related to hygiene and food safety are mandated and provided	Risk-based trainings for businesses
32 Percentage of producers, traders and food business operators implementing documented self-checking food safety management system, such as good standard operating procedures (sops) on GAP, GMP, GHP, HACCP or any others in accordance with the local context	Industry's self-checking system implementation

Workshop 4: Identifying training areas

The table below presents the wish list of the groups on food safety-related training. This will be reviewed by the TWG as part of the next step of the pilot project.

Group	Training Areas
1	<ul style="list-style-type: none"> • Training Local Government Units (Iigus) on food inspection, food safety and sanitation • Training on basic food safety standards for wet market vendors, food handlers • Training on certification of food handlers on basic food safety standards as requirement for issuance of business permit • Training top management officials of government on food safety culture (national, regional, municipal levels) • Awareness campaign in the academe on food safety culture and family values (advocacy to include in the curriculum)
2	<ul style="list-style-type: none"> • Proper food handling procedure for street vendors, turo-turo (small) eateries, market vendors, food handlers, food business operators • Proper sanitation and hygiene for Iigus • Risk-based inspection for regulators, Iigus • Food safety culture for regulators, producers, handlers, consumers
3	<ul style="list-style-type: none"> • Behavioral shift of ambulant food vendors on food safety culture • Harmonization of food safety testing methodologies • Risk assessment for prioritization of food safety contaminant testing • General campaign on food safety practices in households • Harmonization of sampling methods for food safety
4	<ul style="list-style-type: none"> • Effective food inspection • Risk-based management, communication, assessment, inspection • Development of surveillance plans on food safety (pesticide residues, veterinary drug residues) • Food safety culture advocacy for stakeholders: regulators, food business operators, consumers, academe (elementary, high school, college) • Best practices in data collection and analysis for food safety management
5	<ul style="list-style-type: none"> • Training on food safety culture for FRAs, Food Business Operators (FBOs), Iigus • Training on standards on pesticide residues and Good Agricultural Practices (GAP) for FBOs, fresh product producers, Iigus • Training on risk analysis for inspectors, FBOs, Iigus • Training on risk-based inspection for regulatory officers, FRAs, Iigus • Training on Hazard Analysis and Critical Control Points (HACCP) and safe food handling for FRAs, FBOs, Iigus • Training on safe food handling for consumers, restaurants, cafeterias • Training on risk management for FBOs, Iigus • Training on risk profiling for FBOs, FRAs, Iigus • Training on identification of food safety issues for FBOs, FRAs, Iigus • Training on development of presentation materials or public relations for FRAs, Iigus
6	<ul style="list-style-type: none"> • Training of trainers on food safety (DA, DOH, DILG, DOST) for a unified approach • Quality Management System/ Internal Control System for small players • Sharing of best practices/ success stories of food business operators • Indoctrination for a food safety culture • Basics of food safety (could focus on per commodity, and per sector: manufacturing, primary production, food establishments)

2.7 Next steps for the Philippines

The TWG will be conducting small working group meetings to validate the selected priority areas, using the guide questions below:

1. Is it quantifiable?
2. Are relevant data already available and accessible?
3. Are we on-target (i.e., meaningful)?
4. Are we assuring a certain level of quality as well?
5. Can we monitor the measurements over time?

The concerned stakeholders particularly from the FRAs and other government agencies will be invited to participate as necessary in the meetings.

Based on the results of validation, the five (5) selected priority areas will be further narrowed down to three (3) measurable FSIs to be developed. The 14 candidate priority areas will also be considered as possible next set of FSIs to be developed. Dr. Takeuchi asked the TWG to consider doing the selection according to three (3) levels of difficulty: basic, intermediate, ambitious.

The TWG will also review the suggested food safety-related areas for training.

Report on the process of the ensuing work, the results of the validation of priority areas, and the review of training areas will be presented in a second meeting tentatively set for 27-28 June 2019.

2.8 Closing session

In his closing remarks, Department of Agriculture Assistant Secretary for Regulations, Hansel O. Didulo reiterated the significant impact of food safety on public health, its economic implications, and more importantly, food safety as a fundamental part of food security. He mentioned that the social and economic consequences of unsafe food are often invisible in many developing countries including the Philippines where their surveillance systems are still yet to be developed or improved to be effective, and food safety problems can occur unnoticed. This often leads the policy makers to consider the topic of food safety less of a priority and budget allocation is not appropriately done. It is fortunate that the Philippines has its Republic Act no. 10611 or the Food Safety Act, but there are challenges that limit its full implementation.

Assistant Secretary Didulo cited that the project on the Development of National Food Safety Indicators with a One Health Approach is a great help not only for the Department of Agriculture and its FRAs but also to our private stakeholders in having the first step in developing the national FSIs. He thanked Dr. Takeuchi for facilitating the workshop and for providing the participants the necessary information on this matter. He also thanked Dr. Villacorte and the PCVPH for being the partner in this project. He expressed hope that the participants will be able to contribute to the success of this project that will strengthen food safety in the Philippines.

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Annex 2. Program of Activities



**Food and Agriculture
Organization of the
United Nations**



"Development of National Food Safety Indicators with a One Health Approach"

KICK-OFF WORKSHOP

"Development of National Food Safety Indicators with a One Health Approach"

18-20 March 2019

Luxent Hotel, Timog Avenue, Quezon City

Monday, 18 March 2019

#	Time	Item	
1	08:00 - 09:00	Registration	
2	09:00 - 09:45	Opening Session	
		Invocation	
		National Anthem	
		Welcome Remarks	Dr. Edna Zenaida V. Villacorte <i>President, PCVPH</i>
		Message	Honorable Segfredo R. Serrano <i>Undersecretary, Department of Agriculture (DA)</i>
		Message	Honorable Jose Luis Fernandez <i>Country Representative, FAO</i>
		Round Call - Participants Introduction	Dr. Florisa M. Vilorio <i>Vice- President, PCVPH</i>
		Group Photo	
3	09:45 - 10:45	Introduction to/Background of the Project	
		Objectives of the Meeting	Dr. Masami Takeuchi <i>FAO Food Safety Officer</i>
		About Food Safety Indicators	Dr. Masami Takeuchi
		Pilot Project in the Philippines	Dr. Edna Zenaida V. Villacorte
		Introduction of the Technical Working Group (TWG)	Dr. Minda S. Manantan <i>Chairman, TWG</i>
4	10:45 - 11:00	Open Forum	
5	11:00 - 12:00	Structured Discussion: Desired Outcome of Having Food Safety Indicators	Facilitated by: Dr. Masami Takeuchi
6	12:00 - 13:00	Lunch	
7	13:00 -14:00	Structured Discussion: Indicators as a Tool: How to Use the Outputs(Analyses, Monitor Trends, Status, etc) Produced Using the Food Safety Indicators	Facilitated by: Dr. Masami Takeuchi
8	14:00 -15:00	Group Work 1: Developing a Proposal of a) a Desired Outcome and b) Effective and Practical Use of the Outputs Produced Using the Food Safety Indicators	Facilitated by: Technical Working Group
9	15:00 - 16:00	Reporting Back of Group Work	Facilitated by: Technical Working Group

Tuesday, 19 March 2019

Time	Item	
08:30 - 09:00	Introduction to Day 2	Dr. Edna Zenaida V. Villacorte
09:00 - 10:00	Review of the Regional Pool of 40 Food Safety Indicators	Dr. Masami Takeuchi
10:00 - 11:00	Group Work 2: Identifying the Priority Areas for the Philippines, According to the Desired Outcome for Developing Indicators	Facilitated by: Technical Working Group
11:00 - 12:00	Reporting Back of Group Work 2	Facilitated by: Technical Working Group
12:00 - 13:00	Lunch	
13:00 - 14:00	Discussion: Selecting of 3-5 Priority Areas	Facilitated by: Dr. Masami Takeuchi
14:00 - 15:30	Group Work 3: Measurability of the Indicators	Facilitated by: Technical Working Group

Wednesday, 20 March 2019

Time	Item	
08:30 - 09:30	Reporting Back of Group Work 3	Facilitated by: Technical Working Group
09:30 - 10:00	Progress of Other Pilot Countries, Introduction of the Initiative on "Food Safety Culture"	Dr. Masami Takeuchi
10:00 - 11:00	Discussion on Relevant Training Needs	Facilitated by: Dr. Masami Takeuchi
11:00 - 11:30	Summary of the Meeting Desired Outcome Possible Use of the Indicator-Based Outputs Priority Areas for Indicators Next Step Project Timeframe Next Steps Immediate Action Items	Dr. Josefina C. Santos Member, TWG
11:30 - 12:00	Closing Session Closing Remarks	Atty. Hansel O. Didulo <i>Assistant Secretary for Regulations and the Visayas, DA</i>
	Group Photo	
12:00 - 13:00	Adjournment and Lunch	

Annex 3. W1. Necessity and Reasons for having FSIs, by Group

All groups answered YES to the question: Do we need FSIs? The reasons cited by each group are listed below:

Reason	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
1	To know where we are heading/status	For trading purposes (processed and imported frozen meat)	For efficient data collection and analysis	Basis for budget allocation	To monitor the number of reported incidents related to food safety	To make the local government units (Iigus) recognize the importance of food safety and make it a priority.
2	To measure efficiency of food safety programs	To understand the use of inputs for grain processing	To have early warning system on food safety status	To increase confidence as to whether or not government programs and official control are effective; Can encourage the government as basis to improve the system	To determine compliance to code of practices (i.e. GAHP, GAP, gaqp, GMP, HACCP)	To identify areas for capacity building and coordination among food safety regulatory agencies (FRAs)
3	To determine capacity needs of food safety implementors and users/consumers	For proper storage to avoid contamination	To determine compliance with food safety regulations; to determine if food safety system is working (regulatory and assessment)	Trade facilitation	A: To determine the gap in protocol implementation (i.e. Codex, ISO, A.O.) B: To establish monitoring system to check compliance to regulatory requirements	To identify ways to lessen the cost of compliance
4	To identify strengths and weaknesses of the Food Safety Law	To have standardized safety methods for fresh and fruits	To set priorities in developing food safety control programs	To provide data for monitoring and evaluating performance, policy, programs, projects development/formulation/amendments/review risk management and strategic action.	To have specific project addressing food safety issues and develop national programs on food safety	To determine good mechanisms of national and local governments food safety coordination

Reason	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
5	To identify food safety program of each agency	For planning and funding	To meet requirements and needs of buyers, consumers, and other stakeholders	Assurance to consumers	To evaluate effectiveness of the food safety system (i.e. Residue, AMR, chemical and physical contaminants and microbiological)	To identify areas for improvement of surveillance capacities
6	Harmonization of the indicators themselves between regulatory agencies (government agencies, DA, DOH, FDA, etc.)	For monitoring	To promote consumer awareness on their role in food safety, health and welfare	Improve perception of the Philippines (government, food industry etc.)	To identify gaps for the development of guidelines for food services	To identify ways in the development of a national monitoring and control plan of food safety related risks
7	To establish benchmarks	For policy decision making	To contribute to economic development and strengthen global competitiveness		To monitor registered and unregistered products in the market	To determine resources needed to better manage food safety from farm to fork
8	To evaluate the implementation of the Food Safety Act	For internal control system	To justify funding of food safety programs	To identify and answer the needs of the following: Capacity building Applicability of the government programs/interventions to the private sector.	To establish priorities for the purpose of resource allocation	To identify causes of detection and/or rejection of commodities
9	To gauge awareness of manufacturers/producers/consumers/users on the Food Safety Act	For status (targets vs. Accomplishments)	To identify gaps in the food safety system for improvement of policies, practices, and programs in food safety	It will provide information to encourage paradigm shift (from traditional to more inclusive and comprehensive government programs/interventions.	To establish policies for the translations of food safety standards into technical regulations	
10	To identify budget requirement for the implementation of the law	To determine the impact on the socio-	To serve as guides if food safety goals are achieved	Serve as measurement on the level of implementation of food safety.	To develop grading system on	

Reason	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
		economic and environment			food establishments	
11	To gauge compliance to food safety standards (chemical, microbiological hazards, accreditation, compliance to GAHP) for local and international trade		Build (showcase) stronger, deeper relations among Asia Pacific member-countries.			

Annex 4. W2. Outcome, Outputs, Recipients, by Group

Group No.	Outcome	Output/s	Recipient/s
1	Stakeholders/General Public gain understanding and appreciation of the importance of food safety for their general well-being.	Increased level of awareness on food safety thru info campaign 1.1 Review of FSA policy including roles and responsibilities of stakeholders 1.2 Implementation of capacity building activities (manpower, equipment, funds, etc.) 1.3 Inspection/monitoring/evaluation reports (compliant and non-compliant) 1.4 Issuance of technical bulletin	Implementing Agencies
		1.1 Conduct of surveys and interviews among food business operators, food handlers 1.2 Implementation of capacity-building activities (manpower, equipment, funds, etc.) 1.3 Issuance of certification from Agencies	Food Business Operators
		1.1 Conduct of surveys and interviews among consumers/general public 1.2 Increased volume of products being marketed/exported 1.3 Increased volume of products being patronized by the general public	General Public
2	By having Food Safety Indicators, the Philippines will have a well-developed plan and budget for the conduct of capacity building on Republic Act 10611 (FSA) and its implementing rules and regulations.	Capacity building to perform the mandated task under the Food Safety Act of 2013	Food Safety Regulatory Agencies (FRAs), Local Government Unit (LGU), Food Business Producers/Operators, Food Handlers and Consumers.
3	By having Food Safety, the Stakeholders will have confidence in the Philippine Food Safety Communication System	Published Information through Quad media (TV, Radio, Print, Social) Blitz Regulatory Enforcement Order Compliance Report Food Safety Advisory	Stakeholders
		Proposals, e.g., Training Module Development; Policy Recommendation	Funding institutes
4	Government, industry, and consumers are confident in the food regulatory system	Results of Impact Performance Assessment on Food Regulatory System; Report on Consumers' Satisfaction Survey; Policy Guidelines, reported in the following formats:	Government, Food Industry, Consumers, and Interested Parties

Group No.	Outcome	Output/s	Recipient/s
		<ol style="list-style-type: none"> 1. Annual, monthly, weekly reports 2. Impact assessment report 3. Fact Sheets 4. Published policy issuances 5. Video conference 6. Accessible website 7. Quad Media (TV, Radio, Print & Social) 	
5	Philippines has an effective information and communication campaign for food business operators and consumers in relation to food safety	Color coded advisory bulletin to be posted in social media and official website	Food business operators and consumers
6	Increased awareness of all stakeholders on the importance of food safety	<ol style="list-style-type: none"> 1. Proposal to establish a food safety agency which will do the task of integrating all accomplishments of the FRAs 2. Increased number of food safety regulators trained 3. Increased number of Igs implementing food safety policy through food safety related ordinances 4. Increased number of FBOs implementing codes of practices such as GAP, GAHP, GMP, GHP, gaqp <p>Outputs reported in the following formats:</p> <ol style="list-style-type: none"> 1. Annual food safety report 2. Quadmedia 3. National food safety policy guide for Igs 	Not indicated

Annex 5. W3. Priority Areas for the Philippines, by Group

Group 1				
Original indicator #	Suggested indicator name (full sentence)	What will be measured	How to measure *Who will measure	Possible data source
25	Mechanisms for disease surveillance systems for food borne diseases	Outbreaks, Incident reports, mortalities/ morbidities (case definitions)	Hospitals, event surveillance *DOH Outbreak reports *DA	DOH Information system BAI, DA
27	Integration of Information management system	Data other than disease: registrations, retail activity, related to micro, chemical, natural and environmental issues	Food safety issues raised Registration of facilities and products *Respective agencies	Technical bulletins
21	Alignment and compliance to established standards, SOPS, policies and guideline	Percentage of establishments compliant to existing standards. Compliant – non compliant ratio trends	Number of recognized/ accredited establishments *Respective agencies	Registry records
32	Strengthened Public Private Partnership: Willingness of competent authority for private sector to do self-checking	Joint Activities/ agreements between government and private sectors	Number of awareness activities *Government	Company dialogues Reports

Group 2				
Original indicator #	Suggested indicator name (full sentence)	What will be measured	How to measure *Who will measure	Possible data source
31	Knowledge on the safe and judicious use of fertilizers and pesticides	IEC materials (leaflets, posters, manual) distributed to farmers Awareness of farmers on the safe and judicious use of fertilizers and pesticide Concept test with small group of farmers before IEC material production Customer (Farmers) satisfaction survey	IEC materials disseminated *FPA Survey before and after IEC distribution *FPA Survey before and after IEC distribution *FPA	FPA
17	Presence and access of oil millers to capable analytical laboratories with well-defined SOPs in measuring aflatoxin level of copra meal	Percentage of existing analytical laboratories capable of testing aflatoxin in copra meal	Registered analytical laboratories in key areas where oil millers are located	Philippine Coconut Authority (PCA)
39	Percentage of reported border rejection of mango exported to Korea and Japan due to pesticide residues.	Reported rejections by mango exporters	Data reported by concerned agencies *Mango exporters	Concerned agencies (BOC, FMA, etc.)
15	Number of inspections being conducted in meat cold-storage facilities	Percentage of meat cold storage facilities inspected and passed	Inspection report by concerned LGUs at the local level and NMIS at the national level	NMIS
30	Mandated/ Provided risk-based education and training to meat cold storage plant employees related to hygiene and safety for accreditation purposes	<ul style="list-style-type: none"> • Frequency of training • Type of training • Training materials Number of good operating practices trainings conducted by concerned LGUs deputized by NMIS	No. of trainings conducted vs set target Training reports by NMIS	CCAP NMIS

Group 3				
Original indicator #	Suggested indicator name (full sentence)	What will be measured	How to measure *Who will measure	Possible data source
18	Presence of and access to accredited food testing laboratories	<ul style="list-style-type: none"> *No. of laboratories accredited 	ISO 17025 (General Requirements for the Competence of Testing and calibration laboratories) *DTI-Philippine Accreditation Bureau (PAB) *FRAs	DTI-PAB
31	Stakeholders are reached in food safety information activities are aware of the potential problems and risk related to hygiene and food safety	*No. of IEC Materials Published and Distributed <ul style="list-style-type: none"> *No. of campaigns conducted 	Reports *Food Safety Regulatory Agencies	Local and National Food Safety Regulatory Agencies
26	No. of outbreaks of foodborne illness reported	<ul style="list-style-type: none"> *No. of Cases Reported and Resolved 	Data Reports (Occurrence of Distribution) *DOH	DOH Epidemiology Bureau

Group 4				
Original indicator #	Suggested indicator name (full sentence)	What will be measured	How to measure *Who will measure	Possible data source
4	Government performance to protect public health and ensure fair practices in food trade thru national policy and legal framework.	Performance of the implementing FRAs National policy & legal framework issuance	Accomplishment report reviewed, FRAs with a rating of satisfactory Regulatory Impact Assessment conducted	Annual report of FRAs Existing national policy & framework from the website and depository (Records Division)
6	Transparent mechanism on National Food Regulatory System thru quad media.	No of published IEC	Published and disseminated IEC materials reviewed	FSRA issued IEC materials
14	Trained food inspectors	No of Food Safety Inspectors trained	FSRA List of Food Safety Inspectors and training attended reviewed	FSRA List of trained inspectors
22	Adoption of recognition system	Completeness of Guidelines or criteria on recognition system	TWG to develop guidelines/criteria created	Cross referencing with other countries implementing food safety regulatory system
31	Adoption of recognition system	Completeness of Guidelines or criteria on recognition system	TWG to develop guidelines/criteria created	Cross referencing with other countries implementing food safety regulatory system
39	Reported rejection on food exporters	No of rejected products	Rejection reports or list of detention reviewed	EU, USFDA, Canada rejection/detention list

Group 5				
Original indicator #	Suggested indicator name (full sentence)	What will be measured	How to measure*Who will measure	Possible data source
31	Availability of infographic materials for IEC campaigns	Number of infographics developed and disseminated	Inventory on available infographics published and distributed *Agencies	Available infographics in agency websites, social media accounts, or printed copies
14	Ratio of trained inspectors to monitored areas	Percentage coverage of monitored establishments for compliance	Number of target establishments versus number of monitored establishments *Agencies	Inspection report
18	Presence of accredited food testing laboratories	Number of laboratories accredited to ISO 17025	Percentage of accredited versus the existing laboratories	Philippine Accreditation Bureau (PAB)
21	Companies with internal food safety control system	Number of companies with internal food safety control system	Percentage of companies implementing internal food safety control system	Bureau of Plant Industry (BPI) Local Government Units (LGUs)
23	Mandatory implementation of standard code of practices	Number of fresh fruits and vegetables and vegetables standards translated into policies	Conduct of surveys and impact assessment	FRAs BAFS BPI

Group 6				
Original indicator #	Suggested indicator name (full sentence)	What will be measured	How to measure *Who will measure	Possible data source
1	Creation of a National Food Safety Coordination Council	Coordination activities Joint Administrative Orders (JAO)	Number of coordination activities conducted and JAO issued	FRAs annual reports
5	National food control system covers the entire food chain in an integrated manner	Policy issuances	Number of permits, certificates issued/ Food safety agency	FRAs accomplishment report
13	Presence of functioning risk-based food inspection mechanism on the storage of processed meat in supermarkets	Storage condition	Actual inspection and temperature data log	FDA, Supermarkets, DTI
31	All stakeholders are reached in food safety information activities	Level of awareness	Surveys and questionnaires by respective FRAs IEC materials distributed Food safety campaigns	FRAs and ATI

Annex 6. Photos (Credits to the PCVPH Team and TWG Members)

A. Preparatory Meeting

PCVPH Team and TWG meet with Dr. Masami Takeuchi to fine tune the flow of program of activities and the administrative arrangements.



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B. Opening Ceremony

Department of Agriculture Undersecretary for Policy and Planning, Project Development, R&D, and Regulations Segfredo R. Serrano giving his message



PCVPH President Dr. Edna Zenaida V. Villacorte on the role of PCVPH.



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FAO/UN Country Representative Mr. Jose Luis Fernandez giving his message.



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C. Meeting Proper

PCVPH Vice-president Dr. Florisa M. Vitoria, overall master of ceremonies, ensuring smooth flow of the two and a half day kick off program.



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Dr. Minda S. Manantan, TWG Chairperson, introduced the TWG members who facilitated and documented the outputs of the groups in all workshop sessions



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Dr. Masami Takeuchi, FAO Food Safety Officer, served as lead discussant
For the two and a half day kick off program



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D. Workshops sessions

All participants actively engaged in the discussions during the workshop sessions



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E. Group Presentations

Designated rapporteurs for each group presented the outputs.



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F. Q&A Session

Multi-sectoral interests and clarifications were expressed in-between the lecture presentations



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G. Meeting Summary

PCVPH Treasurer Dr. Josefina Santos presented the highlights of The two-and-a half-day program.



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H. Closing Ceremony

Department of Agriculture Assistant Secretary for Regulations Hansel O. Didulo
Giving the Closing Remarks



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