



# PHILIPPINES Food for Progress Building Safe Agricultural Food Enterprises

Midterm Evaluation

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# Midterm Evaluation for the Building Safe Agricultural Food Enterprises (B-SAFE) Project in the Philippines

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# List of Acronyms

ACRONYM	FULL TERM
<b>AAS</b>	Atomic Absorption Spectrometry
<b>AFTA</b>	ASEAN Free Trade Area
<b>AMPC</b>	Agay-ayan Multipurpose Cooperative
<b>ARTA</b>	Anti-Red Tape Act
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>ASF</b>	African Swine Fever
<b>ASPSI</b>	Asian Social Project Services, Inc.
<b>ATI</b>	Agricultural Training Institute
<b>BAFS</b>	Bureau of Agricultural and Fisheries Standard
<b>BAI</b>	Bureau of Animal Industry
<b>BBS</b>	Beneficiary-based Survey
<b>BFAR</b>	Bureau of Fisheries and Aquatic Resources
<b>BIDA</b>	Biotechnology Industry Development Act
<b>BOC</b>	Bureau of Customs
<b>BOI</b>	Board of Investment
<b>BPI</b>	Bureau of Plant Industry
<b>B-SAFE</b>	Building Safe Agricultural Food Enterprises
<b>BUCFPI</b>	Binmaley Upward Christian Fish Processor Association, Inc.
<b>CAPGOV</b>	Capacity of Regulatory Agencies
<b>CAPP</b>	Capacity of Producers
<b>CAPT</b>	Capacity of Traders
<b>CFRR</b>	Center for Food Regulation and Research
<b>CI</b>	Custom Indicator
<b>CODEX</b>	Codex Alimentarius Commission Guidelines
<b>CONVERGE</b>	Convergence on Value Chain Enhancement for Rural Growth Empowerment
<b>COP</b>	Chief of Party
<b>CPD</b>	Continuing Professional Development
<b>CPFMPC</b>	Cabanglasan Paradise Farmers Multi-Purpose Cooperative
<b>CPR</b>	Certificate of Product Registration
<b>DA</b>	Department of Agriculture
<b>DA-BPO</b>	Department of Agriculture-Biotechnology Program Office
<b>DAC</b>	Development Assistance Committee
<b>DAR</b>	Department of Agrarian Reform
<b>DBM</b>	Department of Budget and Management
<b>DILG</b>	Department of the Interior and Local Government
<b>DOST</b>	Department of Science and Technology
<b>DTI</b>	Department of Trade and Industry
<b>EU</b>	European Union
<b>ESGI</b>	Europhil Swine Genetics Inc.

<b>FAO</b>	Food and Agriculture Organization
<b>FBD</b>	Foodborne Disease
<b>FDA</b>	Food and Drug Administration
<b>FFPR</b>	Food for Progress
<b>FGD</b>	Focus Group Discussion
<b>FPA</b>	Fertilizer and Pesticides Authority
<b>FPTAC</b>	Fertilizer Policy Advisory Committee
<b>FSRA</b>	Food Safety Regulatory Agency
<b>FSRCB</b>	Food Safety Regulation Coordinating Board
<b>FSSC</b>	Food Safety Scheme Certification
<b>GAHP</b>	Good Animal Husbandry Practice
<b>GAP</b>	Good Agricultural Practices
<b>GAQP</b>	Good Aquaculture Practices
<b>GM</b>	Genetically modified
<b>GMAV</b>	Global Mindanaw Agri-Ventures Corporation
<b>GMO</b>	Genetically Modified Organism
<b>GMP</b>	Good Manufacturing Practices
<b>GOP</b>	Government of the Philippines
<b>HACCP</b>	Hazard Analysis and Critical Control Points
<b>ICS</b>	Internal Control System
<b>IPM</b>	Integrated Pest Management
<b>IPPC</b>	International Plant Protection Convention
<b>ISAAA</b>	International Service for the Acquisition of Agri-biotech Applications
<b>ISDA-AC</b>	Intensified Strategies for the development of Agri-Fisheries Agriculture Cooperative
<b>ISO</b>	International Organization for Standardization
<b>ITCPH</b>	International Training Center on Pig Husbandry
<b>JDC</b>	Joint Department Circular
<b>KAPARBA</b>	Kadingilan Pay-as Agrarian Reform Beneficiaries Association
<b>KII</b>	Key Informant Interview
<b>KP-SPC</b>	Korea Philippines Seafoods Processing Complex
<b>LAMPCO</b>	Linabu Agrarian Multipurpose Cooperative
<b>LEVPR</b>	Leveraging Public Sector Resources
<b>LGU</b>	Local Government Units
<b>LLP</b>	Low Level Presence
<b>LOP</b>	Life of Project
<b>LTO</b>	License to Operate
<b>MAO</b>	Municipal Agricultural Officer
<b>MARBFC</b>	Mantibugao Agrarian Reform Beneficiaries Farmers' Cooperative
<b>MC</b>	Memorandum Circular
<b>MOU</b>	Memorandum of Understanding
<b>MT</b>	Metric Tons
<b>NCBP</b>	National Committee on Biosafety of the Philippines
<b>NDA</b>	National Dairy Authority
<b>NGA</b>	National Government Agencies
<b>NGO</b>	Non-governmental Organization
<b>NMIS</b>	National Meat Inspection Services
<b>OCA</b>	Organizational Capacity Assessment

<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OIE</b>	World Organization for Animal Health
<b>OSH</b>	Occupational Safety and Health
<b>PAO</b>	Provincial Agricultural Officer
<b>PBI</b>	Plant Breeding Innovations
<b>PCR</b>	polymerase chain reaction
<b>PHILGAP</b>	Philippine Good Agriculture Practices
<b>P-IMA</b>	Prioritizing SPS Investments for Market Access
<b>PIRS</b>	Performance Indicator Reference Sheets
<b>PO</b>	People's Organization
<b>POLR</b>	Policies and Regulations
<b>PPE</b>	Personal Protective Equipment
<b>PPTAC</b>	Pesticide Policy Advisory Committee
<b>PRC</b>	Professional Regulation Commission
<b>PSA</b>	Participatory systems analysis
<b>RESPOND</b>	Regulatory Reform Support Program for National Development
<b>RF</b>	Results Framework
<b>RFP</b>	Request for Proposal
<b>RIA</b>	Regulatory Impact Assessment
<b>RMP</b>	Risk Management Program
<b>SET-UP</b>	Small Enterprise Technology Upgrading Program
<b>SI</b>	Standard Indicator
<b>SIDC</b>	Soro-Soro Ibaba Development Cooperative
<b>SME</b>	Small and Medium Enterprise
<b>SPS</b>	Sanitary and Phytosanitary
<b>SSOP</b>	Sanitation Standard Operation Procedures
<b>T2G</b>	Trunk to Gold Agribusiness Corporation
<b>TMPC</b>	Talahiron Multi-Purpose Cooperative
<b>TOC</b>	Theory of Change
<b>TWG</b>	Technical Working Group
<b>UNIBAT</b>	United Batangas Hog Farmers, Inc.
<b>US</b>	United States
<b>USAID</b>	United States Agency for International Development
<b>USD</b>	United States Dollar
<b>USDA</b>	United States Department of Agriculture
<b>USG</b>	United States Government
<b>WTO</b>	World Trade Organization

## Executive Summary

Building Safe Agricultural Food Enterprises (B-SAFE) is a five-year project of the United States Department of Agriculture (USDA) in the Philippines under its Food for Progress (FFPr) Program (October 1, 2019 to July 31, 2024). B-SAFE is pursuing five strategic activities: **Activity 1:** Conduct Sanitary and Phytosanitary Gap Assessment and Benchmark Capacity Needs; **Activity 2:** Enhance Government of Philippines Capacity in Risk-Based Systems; **Activity 3:** Support Biotechnology Decision-Making and Awareness-Building; **Activity 4:** Build Technical Capacity of the Private Sector to Meet International Standards; and **Activity 5:** Build Cold Chain Systems. Project performance is measured using 12 FFPr standard indicators and 2 custom indicators.

The midterm evaluation was conducted to provide in-depth assessment of project performance and pursue the following specific functions: (1) assess whether targeted beneficiaries are receiving services as expected; (2) assess whether the project is on track in meeting stated targets and implementation benchmarks; (3) review the project-level results frameworks and assumptions; (4) respond to evaluation questions for midterm measurement of project trajectory and initial Lessons Learned; and (5) identify modifications or corrections necessary to effectively meet stated goals and objectives.

An exploratory sequential mixed method evaluation design was employed which entailed carrying out first the qualitative assessment using thematic analysis followed by a quantitative evaluation. The former involved the conduct of key informant interviews (KIIs) and focus group discussions (FGDs) with project stakeholders, mainly people in government and people in production and trade while the latter involved the conduct of a validation survey of project beneficiaries. The study also reviewed all available project documents and relevant references and gathered and used available data from the B-SAFE's project database.

### **On whether targeted beneficiaries are receiving services as expected**

The main beneficiary groups of B-SAFE are people in government (primarily the food safety regulatory agencies) and people in production and trade of corn in Bukidnon, coconut sugar in Misamis Oriental, swine in Batangas, and Milkfish in Pangasinan. Thus far, the project has adequately addressed the needs of the food safety regulatory agencies (FSRAs) for capacity development with the completion of the capacity needs assessment, the formulation of the capacity development agenda and the conduct of various trainings designed to improve the technical capacity of these agencies. However, the accomplishments of the project in addressing the needs of people in production and trade are still limited, but undoubtedly significant. The project is working on the establishment of an African Swine Fever (ASF)-free and disease-free artificial insemination and breeding center in Batangas. In Batangas, the project has also conducted webinars and in-person trainings on fundamentals of swine genetics, breeding, selection, and artificial insemination for a swine breeding and genetics company and a multipurpose cooperative. On coconut sugar, the focus mainly is on the production system as well as the provision of services towards securing Food and Drug Administration's (FDA) License to Operate (LTO). The project has conducted several trainings on Good Manufacturing Practices (GMP) and

Occupational Safety and Health (OSH), Sanitation Standard Operating Procedures (SSOP) of GMP, Internal Control System (ICS), Good Agricultural Practices (GAP), and organic production as well as on Hazard Analysis and Critical Control Points (HACCP). The project has also provided assistance to various cooperatives for LTO certification. The B-SAFE program on milkfish in Pangasinan aims to improve the supply chain management of milkfish from fingerling production to processing and trade. B-SAFE has been working with at least three major producer/processor groups in Pangasinan to achieve this. For processing and trade, the project is assisting a fish processor in Pangasinan to obtain an LTO which has been the firm's goal since it started processing operation two years ago. In addition, B-SAFE has supported another fish processor, a toll processing facility for deboners of milkfish in Dagupan City and neighboring towns, to get HACCP certification. On corn in Bukidnon, among the notable accomplishments of the project are the conduct of several trainings on proper handling, treatment, and use of improved corn seed and varieties, improved corn production techniques and technologies, corn harvest and post-harvest processing technologies and corn silage production and management.

#### **On whether the project is on track in meeting stated targets and implementation benchmarks**

B-SAFE has 14 performance indicators - 12 FFPr indicators, or standard indicators (SIs), and two custom indicators (CIs). These indicator targets have undergone two revisions. The latest was approved in August 2022. Thus far, the percentage accomplishments ranged from 0 percent to 83 percent with an average of 18.5 percent. This is low for a project halfway in its project life/duration. However, the project appears to be performing well in terms of improving the performance of organizations (SI 12) and number of regulations, policies and procedures in different stages of development (SI 17). This is reflective of the actual activities of the project which were focused during the early stage of the project on capacity needs assessment and development of the various FSRAs as well on policy reforms, especially on biotechnology. It should also be noted that while there are indicators with zero or very low accomplishments, the project has already started the groundwork which would eventually lead to more concrete accomplishments in these areas.

#### **On the project's results framework and assumptions**

The project's results framework (RF) as well as the direction and focus during the early phase of implementation are on point. Much of the initiatives of B-SAFE during the first half of the project were focused on supporting policy/regulation reforms and building the capacity of the regulatory agencies. These were found to be the drivers and critical factors respectively, in the food safety system. However, the project should also realize that it is missing on another important element, which is the need to leverage public sector resources. This element is another important driving factor that could enhance project success.

There appears to be no significant development in the external environment of B-SAFE which may have adverse implications on the critical assumptions of the project. The pandemic was not anticipated during the period of project design; hence it is not part of the critical assumptions. It was the pandemic however, which proved to be the greatest challenge to effective project implementation.

#### **Answers to evaluation questions**

The evaluation found the critical assumptions of the project as accurate, except for the pandemic which understandably was not anticipated during the project design. The project was found to be highly relevant and has adequately addressed the needs of the people in government. People in production and trade find B-SAFE activities are contributing to improved Sanitary and Phytosanitary

(SPS) in production and management of their supply chains, albeit at still limited scale. The areas contributing most to the FFPr objectives of increased agricultural productivity and expanded trade of agricultural products are the capacity enhancement of the people in government and people in production and trade. The evaluation did not find any unanticipated opportunities or challenges that may require revisions to B-SAFE's strategy or reallocation of project resources.

The evaluation also found the project effective, despite the pandemic. It is on target for people in government and has already improved the technical capacity of some FSRAs, such as the Bureau of Plant Industry (BPI), FDA, and Bureau of Animal Industry (BAI). It is behind targets for people in production and trade but has already carried out the needed groundwork to effectively address key supply chain constraints in swine, milkfish, coconut sugar and corn.

The evaluation found that participants both from the FSRAs and the various supply chains were eagerly participating in the project. Top management of the Department of Agriculture (DA) and the different FSRAs have been very cooperative with the project.

The success of the project in leveraging public funds is still limited. This is an area where the project needs to catch-up considering that this activity is an important driver in improving the food safety system. B-SAFE's accomplishments on supporting laboratories/facilities and building cold chain systems are still limited.

## Recommendations

1. **Extend project implementation to offset COVID-related delays as well as the delay caused by Memorandum Circular (MC) 16<sup>1</sup>** – Extend the project implementation period by another 2 to 3 years to compensate for the adverse impact of the pandemic and MC 16 on project operation. An extension of just one year may not be enough considering the field challenges being faced by the project. In addition, the evaluation recommends the project to look into other policy problems not earlier considered in the original project workplan. B-SAFE has already laid down the foundations for accelerated accomplishments should an extension be provided. A detailed work and financial plan should be prepared for this proposed extension.
2. **Focus more on the interventions to improve the four supply chains** - The remaining implementation period including the extended time, if granted, should focus more on the interventions to improve the four supply chains. This work should prioritize areas where the project will have maximum impact. In corn, for instance, the project has yet to determine which of the four options to focus. Focusing support on those who sell corn on the cob and engage in silage production are appropriate focus areas. In milkfish, more focus should be placed on processing, albeit the interventions to improve fingerling supply should continue. The current focus of interventions on coco-sugar should continue, especially in assisting firms comply with the needed standards. Also, more assistance should be provided to sap tappers as this is where the project can have maximum social impact. The current interventions on swine are appropriate.
3. **Intensify training activities** - Training activities should be intensified especially for people in production and trade. This will impact positively on almost all performance indicators of the project. B-SAFE appears successful in the conduct of trainings as evidenced by the favorable

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<sup>1</sup> MC No. 16, s. 2017 – Requests for authorization to negotiate and sign international agreements, and agreements covering borrowings, guarantees, and foreign grants (<https://www.officialgazette.gov.ph/downloads/2017/04apr/20170411-MC-16-RRD.pdf>)

training participant feedback covered in the survey. More trainings should be done during the remaining project life.

4. **Include process documentation** of the work being done on the various supply chains for future replication. The project is into development works where process is as important as outputs. Development work involves activities that are easily affected and/or influenced by the on-the-ground circumstances faced by the project team. A thorough and systematic documentation process should be followed to better understand B-SAFE's performance over time. This requires documenting both the circumstances on the ground and the project context. Process documentation can be done concurrently with process implementation or retrospectively.
5. **Explore providing additional assistance to improve the laboratories** - The project should consider all possible assistance channels to improve the various laboratories involved in food safety regulation. This is a concrete area where B-SAFE can make a lasting impact. Much has been done already by the project to improve the understanding and appreciation of people in government of the various concepts and tools to improve food safety regulation. In fact, this area (i.e., improving the capacity of people in government) is where the project scored impressive performance despite the pandemic. More focus should now be given on improving the laboratories and facilities needed to ensure a highly functional food system regulation in the country.
6. **Focus on strategies to effectively leverage public sector resources** – B-SAFE should focus on strategies to effectively leverage public sector resources. This factor was found to be among the drivers of the improvements required for effective food system regulation. The possibility of B-SAFE conducting the cost and benefit analysis for laboratory improvement is a powerful one. This is necessary if the flow of public and private resources for the improvement of laboratories and other facilities is to be facilitated. The study to examine the comparative advantage of government in offering laboratory services is also imperative. The various strategies to leverage public sector resources should be linked to this. Explore tapping public-private partnerships focusing on the improvement of laboratories and the provision of laboratory services.
7. **Devote attention to help the government serve as honest broker of biotechnology information** - The policy work on biotechnology has been completed already with the revision of Joint Department Circular (JDC) 1, issuance of National Committee on Biosafety of the Philippines (NCBP) Resolution No. 1 and the DA Memorandum Circular to implement the resolution. The remaining period should be devoted to assisting the government to serve as honest broker of biotechnology information. The project has already collaborated with International Service for the Acquisition of Agri-biotech Applications (ISAAA) in various information dissemination activities. It should continue to collaborate with this and other entities to develop the overall Government Communication Plan and Strategies for Biotechnology in the country.
8. **Consider working on other emerging policy issues** – B-SAFE should consider working on other emerging policy issues/initiatives (especially if extension is granted) which directly impact food safety system regulations in the Philippines. The evaluation discovered some issues to be addressed by policy reforms such as the overlapping functions of some agencies (e.g., BAI, National Meat Inspection Services [NMIS] and National Dairy Authority [NDA]) and the need to update existing policies such as Food and Agriculture Organization (FAO) 221 Series of 2003 on the regulation in the importation of live fish and aquaculture products.

# 1. Introduction and Purpose

This report presents the results of the midterm evaluation of the Building Safe Agricultural Food Enterprises (B-SAFE) Project as of September 2022. Winrock International contracted the Asian Social Project Services, Inc. (ASPSI) to conduct the evaluation. Section 1 provides the context and overview of B-SAFE, outlining its theory of change (TOC), results framework (RF), and project activities. Section 2 lays down the purpose of the evaluation, describing its design, data collection and methods of analysis in answering the questions raised in this assessment and noting down its limitations. Section 3 discusses the findings of the evaluation, while Sections 4 and 5 respectively provide the conclusions and recommendations of the study.

## 1.1. Project Context

Agriculture trade<sup>2</sup> is an essential component of the economy of the Philippines, providing a lifeline to over 12 million farmers and fishermen, who comprise 40 percent of the country's labor force, and contribute over \$5.68 billion in export revenue. Despite the country's integration into the Association of Southeast Asian Nations (ASEAN) and the Regional Comprehensive Economic Program (RCEP)—along with the United States (US) and Government of the Philippines (GOP) commitment to strengthen bilateral trade—Filipino farmers and agri-businesses, have yet to exploit more fully these market opportunities.

B-SAFE offers a path towards expanding the country's agricultural trade and productivity, i.e., that is through the development and adoption of evidence-based international food safety systems. These are fundamental building blocks for attaining project objectives, which the Philippines has the strong potential of realizing. The GOP has committed to improve domestic food safety systems and adhere to its international trade treaty obligations, which are expected to advance consumer health and strengthen multilateral and bilateral trade relationships particularly with the US. At the food system level, it enacted its Food Safety Act in 2013 and subsequent Implementing Rules and Regulations (2015), which among others are consistent with the standards and technical regulations of the Codex Alimentarius Commission (CODEX), the International Plant Protection Convention (IPPC), and the World Organization for Animal Health (OIE). At the trade level, the GOP commitment extends to adhering with its farm and food trade related obligations, particularly those on Sanitary and Phytosanitary (SPS) measures, Agriculture and Trade Facilitation. These accords call for evidence-based risk analysis on imports to eliminate food safety-related non-tariff barriers, which its trading partners have recognized.

This political will is impaired by the limited capacity of its food safety regulatory agencies (FSRAs). Sustained government action on food safety needs to be complemented by private sector investment in upgrading food safety systems. The cost of complying with improved domestic

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<sup>2</sup> Project Context: from the B-SAFE Baseline Terms of Reference (TOR)



and export market food safety standards is a constraint for farmers and small businesses when the market incentives for upgrading production and processing practices are unclear and relevant business support services (i.e., laboratories and cold chain) are inefficient, insufficient, or inaccessible. Lack of cold chain infrastructure, an essential element to food safety compliance, drives up transaction costs and contributes to food losses of up to 50 percent from the point of production to distribution to consumers. On the other hand, a burgeoning Filipino middle class is demanding safe food and is willing to pay a premium for it.

## 1.2. Project Overview

B-SAFE is a five-year project (currently on fourth year of implementation) of the United States Department of Agriculture (USDA) in the Philippines under its Food for Progress Program (FFPr) (October 1, 2019 to July 31, 2024) with a project budget amounting to \$8.3 million. The project is implemented by Winrock International to contribute to attaining two USDA FFPr Strategic Objectives:

- Increase agricultural productivity by improving the SPS in production and management of supply chains; and
- Expand trade of agricultural products by improving the GOP regulatory agencies to manage risk-based systems, promote awareness of biotechnology, enhance regulatory standards and processes, enhance domestic and export market linkages, and build the capacity of the private sector to leverage investment.

There are five key activities under B-SAFE: **Activity 1:** Conduct Sanitary and Phytosanitary Gap Assessment and Benchmark Capacity Needs; **Activity 2:** Enhance Government of Philippines Capacity in Risk-Based Systems; **Activity 3:** Support Biotechnology Decision-Making and Awareness-Building; **Activity 4:** Build Technical Capacity of the Private Sector to Meet International Standards; and **Activity 5:** Build Cold Chain Systems.

B-SAFE activities are carried out in different regions in the Philippines, focusing on selected value chains that produce major volumes of products, particularly swine in Batangas, milkfish in Pangasinan, corn in Bukidnon, and coconut sugar in Misamis Oriental, targeting the following actors:

1. **Pillar I direct beneficiaries**, who include GOP regulatory agencies, particularly Manila-based and targeted frontline regional staff of the Department of Agriculture (DA), Food and Drug Administration (FDA), and Local Government Units (LGUs). The target number of direct beneficiaries over life of project under Pillar I is 2,741 individuals.
2. **Pillar II direct beneficiaries**, who include private sector trade associations and agribusinesses with the incentives and resources to invest in SPS compliant supply chains (both lead firms and Small and Medium Enterprises [SMEs] – with focus on identifying at least 40 percent women-owned or those employing high numbers of women), training service providers that have the proven capacity and willingness to respond to dynamic market requirements, and business service providers (i.e., refrigerated trucking and packaging companies) that have the ability to invest their resources in testing and scaling smallholder-oriented cold chain services. The target number of direct beneficiaries over life of project under Pillar II is 8,002 individuals.
3. **Indirect beneficiaries**, who include GOP regulatory agency departments and officials not directly supported by the project but who will benefit from improved policies and procedures; SMEs and producers not directly supported by the project or project-assisted institutions but who benefit from stronger supply chains and cold chains; domestic retailers who receive

higher quality products; trade associations and alliances not directly supported by the project but benefiting from a streamlined policy and regulatory system; consumers who have access to safer foods, and household members of direct beneficiaries. The target number of indirect beneficiaries over life of project is 40,968 individuals.

### 1.3. Theory of Change, Results Framework and Activities

The project's TOC narrative and RF are provided in **Annex 1**. In summary, the project theorizes that increased trade of agricultural products compliant with SPS and regulatory requirements in the local and international markets can be achieved if:

(1) the GOP and the private sector use risk-based management approaches to guide their use of relevant SPS-related technical assistance that build capacity; (2) the GOP and private sector become stronger at capturing information and decision making to meet SPS and regulatory requirements for export and import markets, in market situations that change quickly; and (3) the GOP and private sector adopt and invest in SPS systems and have adequate facilities and equipment to use. The theory is therefore built on two distinct, but mutually reinforcing pillars: (1) GOP regulatory agencies' capacity in risk-based SPS systems; and (2) SPS-compliant supply chain linkages.

### 1.4. Purpose of the Evaluation

The midterm evaluation is designed to provide in-depth assessment of project performance, pursuing the following specific functions:

- i. Assess whether targeted beneficiaries are receiving services as expected.
- ii. Assess whether the project is on track in meeting stated targets and implementation benchmarks (for a full list of B-SAFE's 14 project indicators, please refer to the B-SAFE Indicators and Targets shown in **Annex 2**).
- iii. Review the project-level results frameworks (as portrayed in **Annex 1**) and assumptions.
- iv. Respond to evaluation questions for midterm measurement of project trajectory and initial Lessons Learned.
- v. Identify modifications or corrections necessary to effectively meet stated goals and objectives.

The intended audience of the evaluation are the project implementing team, Winrock International, and USDA. The evaluation findings may be used by the implementors in making the necessary adjustments to ensure the relevance, effectiveness, efficiency, sustainability, and impact of the project. The evaluation may contribute to informing the FFPr learning agenda especially with regards to the question of what point in the value chain should be targeted to have sustainable impact on value chain creation and which policies enhance value chains and improve enabling environment.

## 2. Evaluation Design and Methodology

### 2.1. Evaluation Questions

The specific questions raised in the evaluation are enumerated in the Terms of Reference (TOR) of this evaluation (see **Annex 3**). These track the trajectory of the project and help identify useful adjustments in the remaining period of implementation. To answer these questions, the evaluation design primarily

comprises of four parts. The first focuses on the review of the project's TOC and RF, validating these and examining the context and assumptions of the project. The second determines actual project accomplishments in relation to targets, gauging the extent to which they have been achieved. The third dives deep in its assessment of project performance relating it to Organization for Economic Co-operation and Development - Development Assistance Committee (OECD-DAC) criteria, while the last part takes up B-SAFE's organizational capacity interventions (for the FSRAs) in relation to the organizational capacity needs identified in an organizational capacity assessment it earlier determined as part of Activity 1.

## **2.2. Evaluation Design**

### **2.2.1. Review of Project-Level Results Framework and Assumptions**

B-SAFE's TOC, RF, and assumptions were examined first. This enabled the evaluation team to achieve a complete understanding of the project, its design logic from intervention to outcome as well as the associated assumptions. The RF also guided the evaluation team in pinpointing the critical assumptions for validation.

Participatory systems analysis (PSA) was employed to examine the TOC and RF. This is an established tool used to relate the foundational outcomes of the project and to critically examine the project's logic model. The details of this tool are provided in **Annex 4**. The study also reviewed the external environment within which the project operates to validate whether or not the critical assumptions still hold true. This was done by tracking the relevant events pertaining to the assumptions from available reports and even news articles from the time the project was conceived up to the present. The KII and FGD guide questions were also selected to validate these assumptions.

### **2.2.2. Assessment of Accomplishments vs. Targets**

B-SAFE has 12 Food for Progress (FFPr) indicators and two custom indicators. The project has set quantitative targets for each indicator, which it aims to achieve over the LOP. The midterm evaluation therefore gauged the extent to which the targets had been achieved. This is crucial in plotting the project's pace and trajectory and provide early indication of whether LOP targets can be fully achieved in the remaining project years or whether catch-up activities may be necessary. The assessment was straightforward and involved the examination of objectively verifiable evidence of accomplishments vis-à-vis targets.

The project's monitoring and evaluation (M&E) database was the primary source of data/information, especially in terms of the interventions provided and beneficiaries served. The reported accomplishment in the M&E database were then validated using the data from an earlier beneficiary-based survey (BBS) conducted by B-SAFE and the validation survey carried out as part of the current midterm evaluation.

### **2.2.3. Assessment of Project Performance Against the OECD-DAC Criteria**

A non-experimental evaluation design was employed using mixed methods to dive deep into the set of evaluation questions specified in the request for proposal (RFP). The exploratory sequential design was used in the mixed method approach. This entailed the collection and analysis of qualitative data through FGDs and KIIs, following the evaluation questions specified for this evaluation. The quantitative component of the approach was designed based on the initial insights from the qualitative

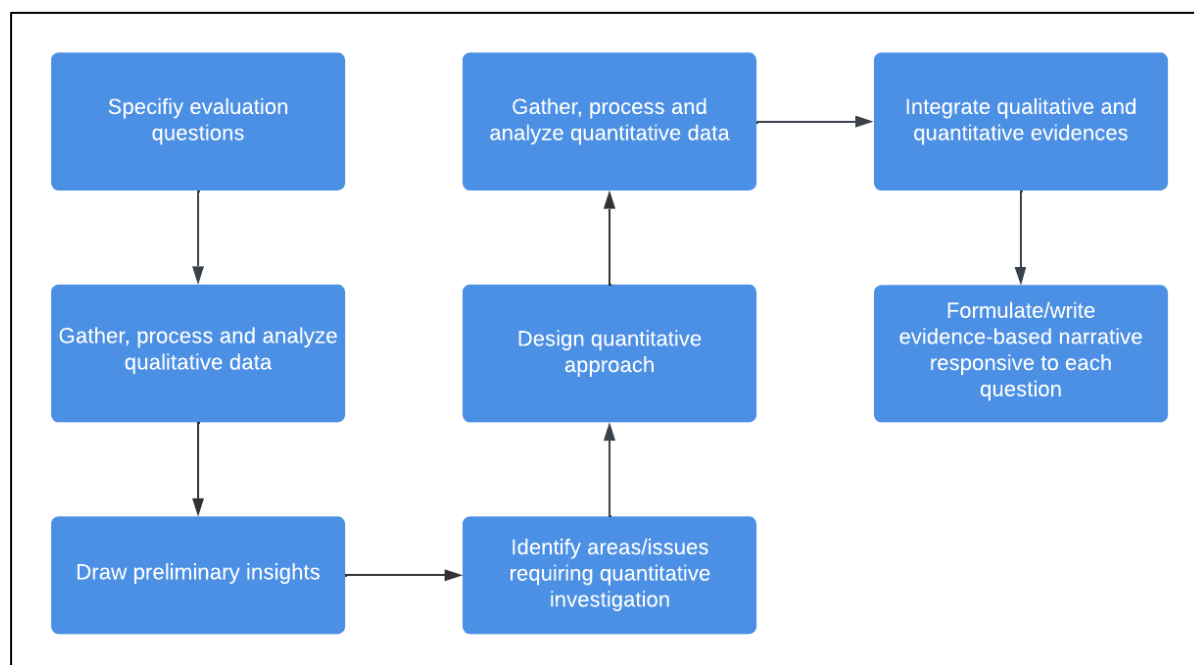
analysis, especially in terms of identifying the areas/issues that necessitate further empirical validation using quantitative data.

The steps involving exploratory sequential mixed method approach are provided in **Figure 1**. The decision to use this design was based on the nature of the evaluation questions specified in the RFP, which evidently necessitate the development of **rich qualitative narrative rigorously supported by strong quantitative evidence**. The design used was also deemed most appropriate in midterm project evaluations. Midterm evaluations are still **process centric** unlike terminal or endterm evaluation which are **outcome centric** and therefore summative in nature. Midterm evaluations tend to be concerned mostly with the trajectory of the project, the validation of its TOC, preliminary project outputs, and their translation to foundational outcomes. More importantly, their usefulness is in the discovery of the set of insights and recommendations to address problems/limitations and improve the project's probability of success.

As shown in **Figure 1**, the evaluation design entails: (1) specification of key evaluation questions; (2) gathering, processing and analysis of qualitative data; (3) drawing preliminary insights; (4) identification of areas/issues requiring quantitative investigation; (5) designing the quantitative approach; (6) gathering, processing and analysis of quantitative data; (7) integrating qualitative and quantitative evidences; and (8) formulating/writing evidence-based narrative responsive to each evaluation question.

It should be noted that the key evaluation questions were already specified in the RFP thus, the approach began directly with **step 2**, which is the gathering, processing and analysis of qualitative data. Such data were gathered through FGDs and KIs involving the various stakeholders of B-SAFE.

**Figure 1. Steps in exploratory sequential mixed method design.**



#### 2.2.4. Organizational Capacity Assessment

B-SAFE earlier commissioned an organizational capacity assessment (OCA) of the various FSRAs which served as the basis for identifying the capacity needs that the project is addressing. The assessment

report (Capacity Needs Assessment Full Report, 2021) was reviewed in this midterm evaluation as basic reference in situating/tracking the organizational capacity interventions provided by the project, thus far. Key informants from the various FSRAs were interviewed to determine what interventions have been provided relative to the capacity needs identified during the OCA.

### 2.2.5. Ethical Evaluation Standards

The project strictly adhere to establish ethical evaluation standards which include all evaluation team members undergoing the Winrock Ethics Board (Ethics in Human Subject Research Training), the informed consent form and maintaining the complete independence and impartiality of the evaluation. **Annex 5** shows copies of the Ethics Certificates of the data collection team.

## 2.3. Sampling Methods

Following the exploratory sequential mixed method design of the evaluation, the study employed purposive sampling for the qualitative component and simple random sampling for the quantitative component. Purposive sampling was used for the KIIs and FGDs involving the beneficiaries and partners of B-SAFE, namely the people in government (i.e., FSRAs) and people in the private sector, namely the producers and traders of the four commodities (i.e., corn, coco-sugar, milkfish and swine) covered by B-SAFE. The number of actual respondents for the KIIs and FGDs are presented in **Table 1**.

**Table 1. Number of actual respondents for FGDs and KIIs**

Beneficiary/Stakeholder	Data Collection Tool		Remarks
	KII	FGD	
People in Government	16	none	LGUs and FSRAs
People in Civil Society	1	none	NGOs and POs
Producers: Swine	2	1	Batangas
Producers: Milkfish	5	2	Pangasinan
Producers: Corn	5	2	Bukidnon
Producers: Coconut sugar	4	2	Misamis Oriental
Traders	3	none	Across project sites
B-SAFE Staff	2	1	

For the quantitative component, the original plan was to cover at least 30 samples per commodity randomly drawn from the list of sample respondents in the earlier BBS commissioned by B-SAFE. The quantitative component was designed primarily as a validation of the earlier commissioned survey, thus the 30-sample size per commodity was deemed statistically adequate. In addition, such sample size is sufficient per central limit theorem to ensure normal probability distribution, hence the validity to generalize the results. However, it was learned that the B-SAFE earlier commissioned survey had very limited samples (less than 30) especially for swine and milkfish. Complete enumeration of the BBS respondents was therefore employed for these commodities and additional samples not included in the earlier BBS were added to achieve the desired sample size. **Table 2** lists the final sample size per commodity surveyed in the current evaluation.

**Table 2. Sample size of the validation survey**

Beneficiary by commodity	FY2022 Annual Outcomes Survey (Actual No. of Respondents Surveyed)	Sample Size for the MTE Validation Survey
Swine	14	24
Milkfish	25	30
Coconut sugar	76	30

Corn	139	30
<b>Total</b>	<b>254</b>	<b>114</b>

## 2.4. Data Collection Methods

The qualitative component made use of KII and FGD guide questions to gather the needed data/information. The study customized these guide questions depending on the KII and FGD respondents. Therefore, each FSRA has a customized KII guide questions as the various FSRA covered by B-SAFE perform different roles in the food safety system. Similarly, separate KII and FGD guide questions were prepared for the commodity respondents as food safety concerns vary depending on commodity. The sets of KII and FGD Guide Questions are provided in **Annex 6**. The KIIs and FGDs were conducted by the evaluation team and commodity experts hired for this task. Those involved in the conduct of KIIs and FGDs had undergone a workshop for familiarization with the guide questions and refresher on the proper techniques to effectively carry out the task. The KIIs were conducted online, while the FGDs were conducted face-to-face.

Structured questionnaires were prepared for the quantitative component. The design of this instrument was informed by the initial insights drawn from the qualitative part. A separate instrument was prepared for each commodity which was then pretested and finalized based on the pretest results. The sets of questionnaires are provided in **Annex 7**. The questionnaires were administered face-to-face by the trained enumerators. The questionnaires were transformed digitally using the Kobo Toolbox<sup>3</sup> for easier administration and data processing.

All personnel involved in qualitative and quantitative data collection had undergone and passed the Winrock Ethics Board assessment required for studies involving human participants.

## 2.5. Data Analysis Methods

The qualitative component used thematic analysis as the primary method of analysis. This entailed identifying the themes and sub-themes that defined the structure of the analysis. The study used the prescribed evaluation criteria of relevance, effectiveness, efficiency, sustainability, and impact as the major themes. The sub-themes were determined based on what emerged to be the pattern of responses for each theme. The themes and sub-themes are presented in **Annex 8**. The NVivo<sup>4</sup> qualitative data analysis tool was employed in the study. The KIIs and FGD transcripts were uploaded to this software for encoding following the themes and sub-themes.

The quantitative component used the Kobo Toolbox for summary and presentation of data. The analysis involved the calculation of means and other measures of central tendency, percentages and the creation of charts and graphs for data presentation. Microsoft Excel data analysis was also employed especially for processing and analyzing the data from the earlier BBS commissioned by B-SAFE and the data derived from the B-SAFE M&E database.

## 2.6. Evaluation Limitations

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<sup>3</sup> Kobo Toolbox/KoboCollect App, is a data collection, management, and visualization platform for collecting survey data used in creating the Computer Assisted Personal Interview (CAPI) application in the android phones. <https://www.kobotoolbox.org/about-us/software/>

<sup>4</sup> NVivo is a qualitative data analysis computer software package produced by Lumivero, it aids researchers to organize, analyze and find insights in qualitative data. <https://lumivero.com/products/nvivo/>

There were no limitations that may compromise the quality and validity of data as well as the complete independence and impartiality of the evaluation process. The difficulties were mostly on coordination with the KIIs and FGD respondents (setting a common time) which caused significant delays in the activities of the study. These would have seriously stalled the progress of the study if not for the assistance provided by B-SAFE team.

### 3. Findings and Analysis

The findings of the study are organized into five sub-sections. The first sub-section discusses the accomplishments of B-SAFE by project activities to provide the breadth and depth of accomplishments, thus far. The second sub-section then presents the accomplishments of the project against established performance indicators to gauge the project's pace by situating the accomplishments in relation to the targets. The third and fourth sub-sections present the results of the qualitative assessment and the validation survey to dive deeper into performance of the project in relation to the evaluation questions. The fifth sub-section revisits the project's theory of change, results framework and critical assumptions in relation to possible adjustments needed given the findings of the study.

#### 3.1. Accomplishments By Activity

This section tracks and maps the accomplishments of B-SAFE by activity. The project has five (5) activities: **Activity 1:** Conduct Sanitary and Phytosanitary Gap Assessment and Benchmark Capacity Needs; **Activity 2:** Enhance Government of Philippines Capacity in Risk-Based Systems; **Activity 3:** Support Biotechnology Decision-Making and Awareness-Building; **Activity 4:** Build Technical Capacity of the Private Sector to Meet International Standards; and **Activity 5:** Build Cold Chain Systems.

##### 3.1.1. Accomplishments for Activity 1: Conduct of Sanitary and Phytosanitary Gap Assessment and Benchmark Capacity Needs

This activity is necessary as its findings on the capacity gap and benchmarking capacity needs of food safety regulatory agencies of both the DA and FDA serve as the basis of all succeeding interventions of the project to improve the capacity. It covered six FSRAs at the DA, namely the Bureau of Animal Industry (BAI), Bureau of Plant Industry (BPI), Bureau of Fisheries and Aquatic Resources (BFAR), National Meat Inspection Services (NMIS), Fertilizer and Pesticides Authority (FPA), and Bureau of Agricultural and Fisheries Standard (BAFS), as well as the Food and Drugs Administration (FDA) for processed foods, and the Food Safety Regulation Coordinating Board (FSRCB).

The gap assessment of individual FSRAs spanned their respective technical and organizational capacities. The technical part focused on the capacity to undertake risk assessment inspection and on laboratory operation. For BAI and BFAR, a complementary tool (OIE assessment tool) was adapted. The OCA tool was applied as well to the capacity of the FSRCB, a body created by the Food Safety Act to coordinate the work of the FSRAs. This highlights the system block of the capacity evaluation done by the project. As of this evaluation, only the technical evaluation tools had been applied.

The baseline capacity needs assessment conducted by B-SAFE enabled the FSRAs to situate their current capacity level based on established standards, apart of course from enabling these agencies to clearly identify the specific areas where capacity must be improved. For instance, on technical



capacity, BAI and BFAR, which respectively provide the veterinary services and aquatic animal health service of the country were found two to three levels below the OIE's capacity development progression scheme with five as the highest level. On food control services, the assessment scores of NMIS were mostly two or one (out of four as highest). It scored one in traceability and its capacity to inspect is inadequate with 2.88 personnel per slaughterhouse in the National Capital Region (NCR), short of the ideal 3:1 ratio. The agency also has limited capacity to perform laboratory analysis of microbiological, chemical, and physical hazards due to limited resources. None of its six laboratories have International Organization for Standardization (ISO) 17025 accreditation. This hampers the agency's capacity to detect contaminants, drug residues, meat parasites, and pathogens, or even identify the meat species. The FDA, which oversees the licensing, monitoring, and regulation of a wide range of commodities, including fresh and processed foods, scored mostly two or one (out of four) in three capacity areas. The B-SAFE assessment also found that the FSRAs were on average at level 2.36 out of 4 when assessed for organizational capacity covering seven dimensions<sup>5</sup> with four levels<sup>6</sup> of progression from level one requiring major improvement to level four indicating areas of strength.

As of this evaluation, four agencies have shown gains in technical capacity improvements. In terms of risk analysis and inspection, NMIS' inspection process is based on hazard analysis and critical control points (HACCP) principles or risk-based approach. The agency is also preparing a draft circular to assist the local government units (LGU) inspectors carry out surveillance and inspection responsibilities based on the framework used by NMIS. The circular hopes to facilitate the transfer of NMIS' duties to the LGUs in preparation for the implementation of Mandanas ruling.<sup>7</sup>

In terms of laboratory, NMIS laboratories have the capacity to provide timely analysis of samples following specific timelines depending on the type of laboratory procedure. Preparatory activities for ISO 17025:2017 accreditation of central office laboratory is underway, and application will push through in 2023. On collection and collation of data, NMIS has a system that is anchored on existing initiatives of DA under the One Health Approach (AMR). Other collection of data depends on the type of data collected and analyzed, which the NMIS shares with the counterpart agency, for instance BAI regarding veterinary drug residue.

A re-assessment was done with the Evaluation Working Group to determine the accomplishment at the technical capacity level (**Annex 9**). BAFS was excluded as technical, and not organizational capacities, were covered by the reassessments. On the other hand, FPA and BFAR had improvements, but which are inadequate for the agency to move up the technical capacity ladder based on FAO in the case of FPA and OIE tools for BFAR.

Activity 1 is completed except for the yearly capacity re-assessment done by the Evaluation Working Group such as shown in **Annex 9**. The output of Activity 1 following its baseline assessment in 2021 was the formulation of a systematically prioritized Capacity Development Agenda for the FSRAs. The agenda served as the basis of B-SAFE in crafting its own workplan to assist the various FSRAs develop their capacities. In the final year of the project, the evaluation will also assess the organizational capacities of the FSRAs.

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<sup>5</sup> Leadership, Strategy and Planning, Partnerships, Access to Markets, Knowledge Management, Human, Financial and Resource Management, and Rules and Regulations.

<sup>6</sup> 1-major area for improvement; 2-minor area for improvement; 3-area of adequacy; 4-area of strength

<sup>7</sup> The ruling provides local government units additional internal revenue shares after the Supreme Court ruled that the sharing between LGUs and the national government shall be based on all national taxes.



### 3.1.2. Accomplishments for Activity 2: Enhance DA and FDA Capacity in Risk-Based Systems

B-SAFE has already achieved significant accomplishments in Activity 2, despite the delays brought about by the COVID-19 pandemic. Following the results of the capacity needs assessment, the project solidified its plan for Activity 2 designed to enhance the DA and FDA capacity in risk-based systems. This activity consists of four sub-activities intended to: tailor capacity building to individual agency (sub-activity 2.1); develop and launch an SPS online training platform (sub-activity 2.2); provide needs-based and targeted training and technical assistance (sub-activity 2.3); and support DA laboratories (sub-activity 2.4).

In sub-activity 2.1, the project has strengthened the DA and FDA's understanding of the principles of risk-based approaches for improved food safety planning and management. The series of trainings started out with risk assessment including techniques of product recall for FDA processed food regulators, risk analysis in the importation of agricultural products and moved on to develop risk analysis and management for agricultural commodities. The project also offered three international certification training activities to the FSRAs, namely ISO 17020:2012 (Conformity Assessment), ISO 17025:2017 (Laboratory Management) and Food Safety Scheme Certification (FSSC v. 5.1). These trainings were intended for the FSRAs to be well informed on international standard practices in dealing with SPS issues and food safety measures. The participants were also required to cascade the trainings to achieve the greatest possible benefits from these activities. As of the evaluation period, the project has directly trained 145 participants from the DA and 162 from the FDA (**Annex 10**). In addition, the trainings were already cascaded through the assistance of B-SAFE to a number of participants from DA and FDA (**Annex 11**).

In sub-activity 2.2, the SPS online training platform was launched by September 2021. The online platform is designed to complement the trainings on risk-based systems intended for DA and FDA agencies. B-SAFE forged linkages with USDA for the project's adoption of the plant and animal health online courses from the Food Safety Network (FSN) program. The project also forged a partnership with Agricultural Training Institute (ATI) for the hosting of the SPS online courses. This partnership proved to be strategic as ATI has 16 regional centers which would dramatically extend the reach of this initiative, especially since some courses are delivered using blended approach (virtual and face-to-face).

With ATI linking to the FSN's online training courses on Plant, Animal Health, and Food Safety, B-SAFE started to develop its own online courses on food safety, tailored to the needs of the FSRAs. Also, in relation to Activity 2.1, B-SAFE required the trainees of the ISO 17020:2012 (Conformity Assessment), ISO/IEC 17025:2017 (Laboratory Management), and FSSC v.5.1 at the DA and FDA to complete the food safety module developed by the FSN as foundational courses prior to the ISO certification trainings. A total of 56 staff from the DA (27) and the FDA (29) completed the module.

B-SAFE has been converting several training modules into online, self-paced courses and uploading them into the ATI online training platform to enable more DA staff to access these trainings resources. It has been developing five online modules on risk analysis, Good Agricultural Practices (GAP), Good Animal Husbandry Practice (GAHP), Good Aquaculture Practices (GAqP), and Good Manufacturing Practices (GMP). The course on risk analysis with four modules is ready to be uploaded in the ATI platform once the ATI completes data migration to its new servers. The project team is still developing content of the courses on GAP, GAHP, GMP, and GAqP.

There were also significant accomplishments under sub-activity 2.3. In response to the request of the DA, B-SAFE provided assistance on two important tasks: (1) organization and conduct of needs-based trainings such as Regulatory Impact Assessment training for the FSRAs; and (2) development of a policy advisory mechanism for the DA, which helped produced the policy issuance for the institutionalization of RIA at the DA through MC 8 s2022. Still under review, the project helped in drafting DA's administrative circular on the "Harmonization of Terms and Streamlining of Requirements and Procedures for Granting Authorization and Recognition under the Regulatory Jurisdiction of the Philippine Department of Agriculture." It aligned the draft circular with international agreements specifically the World Trade Organization's SPS and trade facilitation agreements, remains under review.

The RIA training is crucial as the Anti-Red Tape Act (ARTA) requires the conduct of regulatory impact assessment before the issuance of any new regulation. It is worth noting that it was B-SAFE itself which emphasized the need for the institutionalization of Regulatory Impact Assessment (RIA) at the DA. The training was conducted with the participation of a USAID project called Regulatory Reform Support Program for National Development (RESPOND), representative from ARTA and Philippine Competition Commission. The suggestion of B-SAFE for the conduct of ex-ante RIA gained significant traction and most likely led to the realization of DA on the need to institutionalize RIA in the FSRAs. B-SAFE was also instrumental in the development of a policy advisory mechanism in the DA and was in fact the one which drafted the policy issuance for the institutionalization of RIA in the FSRAs, which was signed on June 30, 2022.

With regards to sub-activity 2.4, B-SAFE is still doing the groundwork that will lead to increased public investments for the improvement of the various DA laboratories. The project is helping to develop the five-year national strategic plan for laboratories. In addition, it intends to do the benefit-cost analysis for the improvement of the laboratories which would be important in convincing the Department of Budget and Management (DBM) and other funding sources to allocate more resources for such initiative. In addition, the DA has requested B-SAFE to assess the comparative advantage of the DA in providing laboratory services as against accrediting private providers.

### **3.1.3. Accomplishments under Activity 3: Support Biotechnology Decision-Making**

With four components, Activity 3 supports the issuance of policies promoting the safe and responsible use of biotechnology in the Philippines. In **sub-activity 3.1** supporting the approval of the memorandum circular of the DA Secretary on plant breeding innovations (PBI), B-SAFE had assisted private sector stakeholders participate in consultations on the draft circular and disseminated information through webinars on the technology. Approved on May 19, 2022, the Circular implements National Committee on Biosafety of the Philippines (NCBP) Resolution No. 1 s2020 declaring that PBIs not using foreign genes must be treated as conventional and hence, should not be subjected under the genetically modified (GM) regulatory system. The issuance describes the technical task of determining if a plant innovation is genetically modified or not.

Asked by the Department of Agriculture-Biotechnology Program Office (DA-BPO) to assist in capability building, B-SAFE contributed to the training of 24 BPI staff who would be involved in implementing the Circular. The general acceptability of the Circular was enhanced through the broader participation of the private sector in stakeholder consultation on the draft circular. This sub—activity is completed.

**Sub-activity 3.2** had likewise been completed with the approval of the Joint Department Circular (JDC)

No. 1 s2022, streamlining the regulatory policy governing GM plants and plant products. Five Department Secretaries jointly issued the Circular, which took effect on March 8, 2022. The reforms are expected to shorten the timeline for approvals and greatly reduce compliance cost for commercializing genetically engineered crops. However, the role played by B-SAFE in this initiative, which was limited to analyzing the draft and gathering comments/suggestions from the private stakeholders, appeared less prominent relative to that in sub-activity 3.1, as the project was not asked to assist in capability building. However as in the PBI, it disseminated public information with International Service for the Acquisition of Agri-biotech Applications (ISAAA) on the proposed reform through a webinar.

**Sub-activity 3.3** is still in its infancy as the original timeline for drafting the JDC on agricultural applications of GM animal products was stretched with the change in Administration following the May 2022 national elections. The project is working with ISAAA to disseminate information on the important agricultural implications of GM animals. ISAAA conducted a webinar on September 29, 2022, on the regulation of animal biotechnologies and their agricultural applications, and other initiatives to disseminate information on animal biotechnologies' tools, applications, benefits, risks, and management, as well as the proposed content and implementation of the Philippine JDC on Animal Biotechnology. Seventy-five individuals from the government (20), business sector (3), and the public (52) participated. Forty-five percent of them claimed to have no knowledge on animal biotechnology and policy-related developments in the country prior to the session. On March 31, 2023, the NCBP decided to submit for stakeholder consultations its draft Circular on GM Animals and Animal Products with Agriculture Applications.

**Sub-activity 3.4** is focused on providing technical assistance to the DA Biotechnology Program Office. The accomplishments of the project under this sub-activity include the collaboration with ISAAA in the conduct of three webinars to increase the awareness of the Filipino public on accurate and science-based information on modern biotechnology and promote its acceptance. The project is also supporting the drafting of the Biotechnology Industry Development Act (BIDA). The B-SAFE's Chief of Party (COP) is among the experts involved in drafting the bill and a designated B-SAFE staff is providing secretariat support for the quarterly meetings of the experts.

Besides BIDA, this sub-activity is contributing to the formulation of an Administrative Circular on Low Level Presence (LLP) in Trade of Unapproved GM Products Circular. With increasingly asynchronous approvals of biotechnologies by trading countries, low volumes of unapproved GM products in imports have become more likely. Permitting imports with no more than an LLP threshold is expected to provide incremental net benefits over prohibiting the trade. B-SAFE is assisting in the conduct of a study to advise the DA Secretary on the potential economic impacts of a range of different LLP thresholds.

#### **3.1.4. Accomplishments under Activity 4: Build Technical Capacity of the Private Sector to Meet International Standards**

B-SAFE is working on improvements of the supply chain of the swine industry in Batangas, coconut sugar in Misamis Oriental, milkfish in Pangasinan and corn in Bukidnon. A supply chain industry road map was developed for each industry wherein necessary interventions are planned for implementation to address the major issues affecting the industry. B-SAFE's strategy is to invest in people who produce and trade through capacity building and in facilities and equipment through its grant program.

#### **3.1.4.1. Swine Industry in Batangas**

Batangas is one of the leading pork producers in the Philippines, but the outbreak of the African Swine Fever (ASF) significantly reduced the swine population to 26 percent in 2021 as reported by Unified Batangas Hog Farmers, Inc. (UNIBAT). Based on the KIIs with the three producer groups in Batangas and the Local Government of Lipa City, about 50-70 percent of smallholders stopped operation in 2021 and 2022 not because all of them were affected by ASF but because the movement of swine was restricted and the fear of the recurrence of another ASF outbreak. Strict compliance to the national and local protocols led to the declaration of Batangas as the first province in the country to be ASF free.

To revive the industry, DA is implementing a swine repopulation program and local government units are continuing their monitoring and border control. On the other hand, B-SAFE, in collaboration with the LGUs in the pork producing towns in the Batangas, DA and BAI, has introduced an ASF virus surveillance system using mobile PCRs and affordable and effective testing kits owned by its partner, Microbiome Life Sciences (MLS) of Singapore. The hand-held polymerase chain reaction (PCRs) and testing kits allow the determination of the presence of ASF. If positive, a confirmatory testing of deoxyribonucleic acid (DNA) samples using RT PCRs at the Regional Animal Laboratory is undertaken. The project and MLS had trained selected veterinarians in the province in conducting onsite examination.

B-SAFE is working on the establishment of an ASF-free and disease-free artificial insemination and breeding center. Originally the work on increasing supply of ASF and disease-free sperm was being done with UNIBAT, but it hit bureaucratic roadblocks. The project pivoted to a swine breeding and genetics company to produce the semen for distribution to a multipurpose cooperative. The project also conducted a webinar and in-person training on fundamentals of swine genetics, breeding, selection and artificial insemination for the company and the cooperative. Two training sessions were conducted on hygienic meat handling and GMP.

B-SAFE also conducted an audit on one of Batangas' meat cutting facility to determine the necessary improvements for them to renew their license to operate provided by NMIS. B-SAFE is coordinating with the Tanauan City Government on the proposed grant to support food safety meat vending in the city's public market.

The project plans to restart its clustering of backyard pig farmers program in Batangas. The activity links the cluster of small producers to larger agribusiness firms, which supply inputs, facilitate access of small farmers to credit needed to put up clustered pig raising houses, training small farmers in good animal husbandry, and marketing the live pigs of suppliers. Its first backyard cooperative in Lipa City failed as it got disqualified in getting capital from the DA's National Livestock Program. The cooperative would be better off if it availed of the credit arrangement offered by a large private sector firm.

#### **3.1.4.2. Coconut Sugar Industry in Misamis Oriental**

The project is working on coconut sugar in Misamis Oriental. An earlier assessment showed that coconut sugar producers in the province in general do not conform to food quality and safety standards and therefore do not have the LTO and FDA registration. B-SAFE's supply chain focus on coconut sugar prioritizes the production system and the provision of services towards securing FDA's LTO and certificate of product registrations (CPRs). The project is working with four (4) private sector groups in Misamis Oriental.

In improving the coconut sugar production system, B-SAFE conducted the following training for each group in collaboration with the University of Science and Technology of Southern Philippines and Provincial Agriculture Office (**Annex 12**).

Of the four, one coconut sugar farmers' cooperative in Linabu, Balingasag, Misamis Oriental already has LTO and FDA approval for its coconut sugar, its certification for organically produced coconut sugar has just expired, but it remains to be Halal certified. The project is assisting the cooperative for its organic certification. A coconut sugar processor has a LTO certification. B-SAFE is assisting another processor and a cooperative in completing the documents needed for their respective LTO applications.

#### **3.1.4.3. Milkfish Industry in Pangasinan**

The B-SAFE activity on milkfish in Pangasinan aims to improve the value chain management of milkfish from fingerling production to processing and trade. Areas of coverage are the municipalities of Binmaley and Anda and the City of Dagupan. The key supply chain actors are the producers, processors and traders, LGUs and BFAR officials, among others.

B-SAFE is targeting three issues and constraints to improving the supply chain functioning in Pangasinan's milkfish industry. These are the (1) high reliance on imported milkfish fry, (2) compliance of identified processing facilities to food safety standards like GMP and HACCP, and (3) noncompliance of fish farmers to GAqP.

Given the above constraints, B-SAFE has been working with the following key players in the milkfish supply chain:

- A group of fishpond owners/leaseholders operating at least 5-hectare fishponds; fish farm workers like caretakers and laborers who repair fishnets for fish cages and construct fish cages. The cooperative has 168 members as of February 2023. B-SAFE's interventions aim to strengthen its ability to access projects from the government and non-government organizations.
- A women association involved in processing milkfish in Binmaley, Pangasinan.
- A fish processor which is a social arm of the Binmaley Upward Christian Community Mission. It is processing several milkfish products and is working on its License to Operate to get FDA registration.

In addition, B-SAFE has supported a toll processing facility for deboners of milkfish in Dagupan City and neighboring towns, to get HACCP certification.

The project is also working towards the achievement of operational efficiency in milkfish fingerling production. It engaged a fisheries cooperative through a grant fund to implement the project titled "The Establishment of Community-Based Bangus Nursery and Custom Services Facility in Binmaley, Pangasinan". The project provides milkfish fry and inputs like fertilizer to qualified members. The fry shall be raised into milkfish fingerling size for sale to its members. Excess can be sold to grow-out operators who are not members of the cooperative. A prospective beneficiary must have a certain amount of capital build up and has been trained, along with his staff, on fingerling production (Garungan System) and GAqP conducted by B-SAFE in collaboration with BFAR. The training was participated in not only by members of the cooperative but also members of the other fish farmers associations in Binmaley.

For processing and trade, B-SAFE is assisting a fish processor in Binmaley to obtain an LTO which has been the firm's goal since it started processing operations two years ago. Department of Science and Technology (DOST) provided the training on GMP, equipment through its Small Enterprise Technology Upgrading Program (SET-UP) program, packaging, and logo design while BFAR gave the mixture for the milkfish products that carry the brand name *Malinamnam Fish Products*.

The project also conducted a two-day training designed to equip milkfish processing entrepreneurs on the basic concepts of food safety. Fifty-nine participants attended the training. In addition, the project in partnership with BFAR Region 1 and Dagupan City LGU, conducted a 3-day training of trainers on GAqP for Dagupan City extension workers. Fifteen participants attended the training.

It is also interesting to note that a toll processing facility in Dagupan City has recently obtained Class B HACCP certification because of B-SAFE.

#### **3.1.4.4. Corn Industry in Bukidnon**

Framing the interventions of B-SAFE for the corn industry in Bukidnon has not been easy and considerable time was spent exploring the various possible options. The four options considered were: (1) support corn farmers who will produce aflatoxin-free corn; (2) support farmers selling corn on the cob; (3) strengthen food-grade yellow corn supply chains; and (4) divert corn farms for corn silage.

The viability of the first option is challenged by the fact that aflatoxin-free feed grade corn has to be sold at the same price as aflatoxin contaminated (i.e., no price premium for aflatoxin-free). The problem with the second option is the absence of processing facility for corn on the cob. The viability of the third option is also uncertain. B-SAFE met with a representative of Universal Robina Corporation to explore the possibility of linking up with the corn growers of Bukidnon. It requires at least 500 MT per transaction, and the grains must have no more than 13 percent moisture and no less than 8 percent protein content. At the current farm yields, producers would have to use at least 112 hectares to grow food-grade yellow corn, which is a challenge when feed-grade corn is currently priced at the unusually high price of PhP 18,000 a ton. The fourth option appears viable. B-SAFE conducted a quick study and uncovered that farmers selling corn silage may earn PhP 20,000 more per hectare compared to corn grain. This is due to the increased value from dairy farming, which increases its yield if corn silage is available regularly as feed. There is still the risk of aflatoxin. But like in corn on the cob processing, the risk is effectively managed with the practice of harvesting the corn and fermenting in storage within a day.

The project carried out several exploratory and preparatory activities to define its interventions in the corn industry in Bukidnon. The project has already forged a partnership with Syngenta Philippines Inc. for the establishment of learning centers in the province to provide technical trainings on production technologies, including corn silage and post-harvest operation. It is also working with a cooperative in Cabanglasan, which expressed interest to avail of B-SAFE's technical assistance through trainings on GAP, improved harvest and post-harvest techniques, and corn on the cob trading and processing. The cooperative submitted a grant proposal for a mechanical corn sheller and multi-crop drying pavement, which is currently undergoing review by B-SAFE. For corn silage, B-SAFE is working with the Spring Dairy Farm which operates a small-scale silage production farm as the main source of feed ration to both their dairy herd and beef cattle.

Among the accomplishments of the project thus far are the conduct of several trainings on proper handling, treatment and use of improved corn seed and varieties, improved corn production



techniques and technologies, corn harvest and post-harvest processing technologies and corn silage production and management (**Annex 13**).

### 3.1.5. Build Cold Chain Systems

The work of B-SAFE on building cold chain system are still preliminary. The project has developed the methodology for a cold chain registry for swine and milkfish in Batangas and Pangasinan, respectively, in collaboration with the Board of Investments (BOI) of the Department of Trade and Industry. As part of planned survey of swine and milkfish supply chain stakeholders in the two provinces, survey questionnaires were designed, digitized, and pretested. The survey was already carried out and the data were being processed and analyzed as of the evaluation period.

The project has conducted initial discussions with a swine farmer's association which is a close partner of the LGU of Tanauan that is set to operate a Triple "A" Slaughterhouse, equipped with meat cutting facility and a cold storage.

On milkfish, the cold chain intervention of B-SAFE starts at improving practices and technologies in harvest and post-harvest handling operation, sorting, grading, icing, packing, cold storage, and transport of fresh and processed milkfish.

## 3.2. Accomplishments by Indicator

B-SAFE has 14 performance indicators - 12 FFPr indicators and two custom indicators (CIs). These indicator targets have undergone two revisions, the latest was proposed and approved in August 2022. The cumulative performance as of September 2022, is shown in **Table 3**. The percentage accomplishments ranged from 0 to 83 percent with an average of 18.5 percent. This is low for a project halfway in its project life/duration. However, the project is performing well in terms of improving the performance of organizations (SI 12) and number of regulations, policies, and procedures in different stages of development (SI 17). This is reflective of the actual activities of the project which were focused during the early stage of the project on capacity needs assessment and development of the various FSRAs as well on policy reforms, especially on biotechnology. It should also be noted that while there are indicators with zero or very low accomplishments, the project has already started the groundwork which will lead to more concrete accomplishments in these areas.

**Table 3. B-SAFE's cumulative performance by indicator as of September 2022.**

No.	INDICATOR TITLE	CUMULATIVE PERFORMANCE		
		LOP Targets	Cumulative Performance as of Sep 2022	% of LOP Target Achieved as of Sep 2022
SI-22	Number of individuals participating in USDA food security programs	10,963	3,149	29%
SI-23	Number of individuals benefiting indirectly as a result of USDA assistance	45,065	10,707	24%
SI-21	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance	9,687	2,942 <sup>1</sup>	34%

No.	INDICATOR TITLE	CUMULATIVE PERFORMANCE		
		LOP Targets	Cumulative Performance as of Sep 2022	% of LOP Target Achieved as of Sep 2022
SI-4	Number of individuals in the agriculture system who have applied improved management practices or technologies with USDA assistance	4,855	197	4%
	Swine	1,706	15	1%
	Milkfish	608	23	4%
	Corn	481	39	8%
	Coconut sugar	1,215	119	10%
SI-11	Number of host government or community-derived risk management plans formally proposed, adopted, implemented or institutionalized with USDA assistance	10	0	0%
SI-12	Percent of USDA-assisted organizations with improved performance	75%	38%	50%
SI-9	Number of technologies, practices, and approaches under various phases of research, development, and uptake as a result of USDA assistance	10	1	10%
SI-13	Number of public-private partnerships formed as a result of USDA assistance	17	1	6%
SI-17	Number of policies, regulations and/or administrative procedures in each of the following stages of development as a result of USDA assistance	6	5	83%
SI-18	Value of annual sales of farms and firms receiving USDA assistance	\$90,399,240	3,278,235	4%
	Swine	\$45,012,401	2,504,143	6%
	Milkfish	\$33,980,983	322,869	1%
	Corn	\$5,166,709	266,077	5%
	Coconut sugar	\$6,239,147	185,146	3%
SI-19	Volume of commodities sold by farms and firms receiving USDA assistance	51,960	3,693	7%
	Swine	16,203	2,108	13%
	Milkfish	15,094	400	3%
	Corn	19,623	759	4%
	Coconut sugar	1,221	425	35%
SI-14	Value of new USG commitments and new public and private sector investment leveraged by USDA to support food security and nutrition	\$1,100,000	\$37,262	3%
CI-1	Number of individuals using improved packaging, equipment, transportation, or cold storage as a result of B-SAFE investment	319	15	5%
CI-2	Number of farms/firms/ laboratories with GAP, GMP, HACCP, or International Organization for Standardization because of USDA assistance	22	0	0%

Source: 6<sup>th</sup> Annual Report, B-SAFE.



<sup>1</sup> The total number is 3,330, with 2,942 unique participants. The difference pertains to participants that attended trainings more than once.

### **3.2.1. Number of individuals participating in USDA food security programs (SI-22)**

The project has the following types of target participants: (1) People in government; (2) Proprietors of firms in the private sector; (3) Producers belonging to producer associations and cooperatives, including smallholder and non-smallholder; and (4) Civil society organizations. Other types of participants are those who participate on grant activities, trainings, and capacity building sessions, on promoted improved technologies and market linkages.

As of the evaluation period, there are more people in civil society participating in the project than its target indicator, reporting 575 as against the target of 219 (263%). Many of project activities involving civil society included assistance in various policy reforms particularly in stakeholder consultations, as well as in trainings. The number of government workers targeted to be involved in project was nearly half of target (49%). Majority of the participants had participated in various trainings as well as those had received assistance in stakeholder consultations on various policy reforms. Project performance is still low in terms of reaching the producers (only 19% of target) and proprietors (11% of target) in the various supply chains.

In summary, the project appears to be on track when it comes to the people in government it targets to reach but must catch up to reach those in the private sector.

### **3.2.2. Number of individuals benefiting indirectly from USDA assistance (SI-23)**

As September 2022, the project has indirectly benefitted 24 percent of the targeted 45,065 individuals. The relatively low percentage accomplishment proceeds the low number of individuals in the private sector directly reached by the project. Raising the number of direct participants invariably translates to increasing the number of indirect participants benefitting from the project's assistance.

### **3.2.3. Number of individuals who have received short term agricultural sector productivity or food security training as a result of USDA Assistance (SI-21)**

From the Performance Indicator Reference Sheets (PIRS), the individuals to be trained will be coming from: (1) People in government – officials and employees of regulatory agencies of the DA, FDA and LGUs in the project sites; (2) People in trade – individuals belonging to trade associations, agribusiness firms and cooperatives engaged in the processing, semi-processing, logistics and cold chain services, and trade of commodities; (3) Producers – individuals belonging to producer associations and cooperatives engaged in the production of the commodities; and (4) People in civil society – training and business development service providers, including non-governmental organization (NGOs) with potential to cascade the trainings introduced by the project.

The indicator counts those who are directly trained by the project. Overall, of the targeted 9,687 individuals, 34 percent or 3,330 persons had been trained, of whom 2,942 are unique (See **Annex 14** for the list of trainings conducted by the project). Due to the lockdowns and government restrictions,

the trainings were conducted both online and onsite. The project is behind target and therefore must catch-up.

Disaggregated by target beneficiary groups, the people in government had the highest number of beneficiaries (1,547 out of the targeted 2,809 individuals). These benefited from the various trainings provided by the project to the seven FSRAs, LGUs and other national agencies of government. As mentioned in an earlier section, the trainings for people in government focused on risk-based regulatory systems, food safety, risk analysis, risk assessment, risk management, SPS and food safety standards, and regulatory impact assessment.

The project exceeded its target of 194 for people in civil society, with 566 people trained (292%). The number of producers and representatives of firms trained is below the target, only 25 percent of 3,293 and 12 percent of 3,390, respectively. As already mentioned, the project needs to accelerate efforts in attaining the targets for producers and representatives of firms as the change in their food safety appreciation and practice may strongly suggest project success.

By training type, the project had the highest percentage accomplishments versus the LOP targets for trainings focusing on food control, inspection, surveillance and monitoring (85%), followed by agri-economic policies and regulation (73%), livestock management (51%), laboratory and big data management (39%) and aquaculture management (28%). The project needs to exert effort to attain targets for crop management which stands at only 19 percent and post-harvest, value addition and marketing which is only at 5 percent of the targeted 4,010 number of individuals.

### **3.2.4. Number of individuals in the agriculture system who have applied improved management practices or technologies with USDA Assistance (SI-4)**

The indicator measures the total number of individuals participating in USDA-funded activities who have applied improved management practices and/or technologies promoted by USDA within the food and agriculture system. It tracks individuals who applied what they have learned from training or exposure to technologies promoted by the project. B-SAFE has identified a list of project-promoted practices and technologies as shown in **Annex 15**.

The accomplishment of the project with respect to this indicator is still very low at 4 percent of target. This should be taken seriously as adoption of improved management practices/technologies introduced by the project is a requisite to impact. However, the low level of accomplishment in this indicator should not be surprising considering the limited reach of the project thus far to people in production and trading. This again underscores the need to fast-track the trainings and assistance to producers, traders and processors in the four supply chains being covered by the project.

By commodity, the highest adopters are those of corn, followed by coconut sugar, milkfish, and swine producers and traders (**Table 4**). For corn, the most adopted technology or practice is crop genetics, followed by cultural management practices and soil-related fertility and conservation. This is consistent with the trainings provided by the project for the producers. It is, however, unclear under what technology or practice corn silage is being reported under. For coconut sugar, the most adopted practices are post-harvest handling and storage, followed by “others”, while the other technologies have less than 10 adopters, which is consistent given that most of the trainings on coconut sugar deal on GMP, HACCP and related practices. For milkfish, aquaculture management had the highest number of adopters, followed by water management, while for swine, adoption was seen in marketing and distribution and cold storage. Swine trainings are focused on hygienic meat handling and GMP, artificial insemination and swine genetics, and less on production management.

Highest accomplishments in terms of percentage were for aquaculture management (13%) and crop genetics (13%). The others have less than 10 percent accomplishment, with a number of practices having only 1 percent accomplishments. Given the time lag of adoption, there still might be time for the project to catch up on this indicator. But it is highly doubtful if 100 percent accomplishment can be attained at the end of project period.

**Table 4. Estimated number of adopters of B-SAFE promoted improved management practices or technologies for swine, corn, coconut sugar and milkfish by producers and people in trade**

	Coco Sugar		Corn		Milkfish		Swine		Total estimated adopters	Estimate from 6 <sup>th</sup> report <sup>2</sup>	LOP Target
Technology	Number of Adopters	Estimated Adopters <sup>1</sup>	Number of Adopters	Estimated Adopters <sup>1</sup>	Number of Adopters	Estimated Adopters <sup>1</sup>	Number of Adopters	Estimated Adopters <sup>1</sup>			
Crop genetics			77	119					119	116	869
Cultural practices	6	6	72	112					118	112	-
Livestock management							8	8	8	4	790
Aquaculture management					20	23			23	22	79
Pest and disease management	1	1	75	116	13	15			132	128	1,739
Soil-related fertility and conservation	2	2	41	64	1	1			67	66	869
Water management					18	21			21	20	2,795
Marketing and distribution	3	3			1	1	13	14	18	18	2,034
Post-harvest handling and storage	39	40	5	7	4	4	3	3	55	46	4,010
Value added processing	1	1	6	8	1	1	7	7	18	14	2,034
Others	34	35	11	17	8	9	3	3	55	61	678
Improved packaging	3	3			4	4			7		
Improved equipment	2	2			2	2			4		
Improved transportation	1	1			1	1	1	1	3		
Cold storage	2	2			1	1	12	13	16		
Total adopters		46		122		25		19	212		

Source of basic data: First Annual Survey, B-SAFE September 2022;

<sup>1</sup>conversion from number of adopters to estimated number of adopters were based on weights that takes into account adjustments for survey non-responses: for coconut sugar – 1.04; for corn – 1.57; for milkfish - 1.16 and for swine – 1.07

<sup>2</sup>6<sup>th</sup> report covers the period April to September 2022.

### 3.2.5. Number of host government or community-derived risk management plans formally proposed, adopted, implemented or institutionalized with USDA assistance (SI-11)

Risk is defined as the potential for an uncertain event or trend to have adverse consequences on lives; livelihoods; health; property; ecosystems and species; economic, social and cultural assets; service provision; and infrastructure. Risk management plans (RMPs) should be nested within one another (e.g., community plan nested within local or regional plan, which are in turn nested within the national plan). RMPs should identify risk, assess their likelihood, and develop strategies to reduce risk exposure (before the shock), mitigate the impact of the risk and increase ability to cope (during the shock) and reduce recovery time (after the shock).

Under B-SAFE, RMP is defined to include HACCP plans or any related plan that identify, mitigate, and/or manage risks at the government or community level. At the government level, FSRAs are expected to have RMPs as this will be among the outputs of the trainings on risk-based systems. As per the targets, of the eight FSRAs, four should develop RMPs before the end of the project. As per target, at least six firms will develop HACCP at the community level. The HACCP is usually required if a firm is into export and while the project is projected to be working with more firms, not all of them will seek HACCP accreditation.

The B-SAFE LOP target under this indicator is 10 but has reported 0 accomplishment as of September 2022. B-SAFE, however, has conducted several activities related to the preparation of RMPs. These include:

At the FSRA level, some of the trainings conducted which will aid the agencies in the preparation of the RMPs are enumerated in **Annex 16**. It is not clear which of the agencies will prepare or propose RMPs. The process of preparation will take time and effort, and the training will definitely be able to guide these agencies. The process of formally proposing the plan in the government bureaucracy needs some time and it is uncertain if this can be done within the remaining time frame of the project.

At the community level, B-SAFE has also conducted a number of activities that would assist the private sector enterprises who aspire to have HACCP and other similar accreditations. Some of the activities are enumerated in **Annex 17**.

The preparation of the proposal for accreditation of enterprises is a tedious process that needs guidance and close supervision. Although the farmer groups and enterprises have already received trainings, the actual tender for accreditation will have to be pushed to finally have these enterprises certified. If this is facilitated, then the target of six may still be accomplished within the life of the project.

### 3.2.6. Percent of USDA-assisted organizations with improved performance (SI-12)

B-SAFE anticipates that 75 percent of assisted organizations will have improved performance as a result of project interventions. As of September 2022, 38 percent (3 of 8) of the FSRAs assisted by the project have already demonstrated capacity improvement based on the OIE or FAO technical capacity assessment tools, especially in the technical capacity areas of surveillance and risk-based analysis and inspection, while one agency recorded improvement in laboratory capacity. These were BAI in the area of surveillance (risk analysis); BPI in the area of risk analysis and inspection, particularly on the “criteria

for risk categorization and prioritization established for food inspection”, “presence of functioning risk-based inspection mechanisms with well-defined standard operating procedures”, and “presence of functioning food safety certification systems with well-defined standard operating procedures”. FDA also had an improvement in one area under risk analysis and inspection – presence of functioning food safety certification systems with well-defined standard operating procedures” (**Annex 18**).

### **3.2.7. Number of technologies, practices and approaches under various phases of research, development and uptake as a result of USDA Assistance (SI-9)**

This indicator tracks the progress of new or significantly improved technologies, practices, and approaches through R&D for eventual uptake by the public and private sectors.

According to the PIRS, the technology or practice should be reported under each phase reached. They need not pass through all phases, but any technology or practice reported under Phase IV should have passed through previous phases during the life of the activity. The 4 phases are: Phase I – under research; Phase II – under field testing; Phase III – made available for testing; Phase IV – demonstrated uptake by the public/private sector (institutionalized or provided support for dissemination).

As of September, 2022, the project reported only one accomplishment of the LOP target of 10. This is on the cold chain mapping research, a social science research study initiated under Activity 5.

### **3.2.8. Number of public-private partnerships formed as a result of USDA assistance (SI -13)**

The PIRS describes this indicator as public-private partnerships involve an agreement between at least one public and one private entity. The reasons behind public-private partnerships formation may include producing alternative but distinct means to attain higher level of desired food safety-related results that are provided and formed at different years of project implementation

Of the LOP target of 17, the project reported 1 public-private partnership as of September 2022. This was on the tripartite Memorandum of Understanding (MOU) between Ibaan LGU, UNIBAT and International Training Center on Pig Husbandry (ITCPH) on swine.

### **3.2.9. Number of policies, regulations and/or administrative procedures in each of the following stages of development as a result of USDA Assistance (SI-17)**

The project targeted to support the development of six policies, regulations and administrative procedures. As of September 2022, B-SAFE accomplished as follows:

1. Issuance of the Administrative Circular on the RIA was completed on June 30, 2022. The Admin Circular No. 8 s. 2022 on Requiring the Conduct of RIA in the Modification, Repeal or Formulation of Existing or New Regulations in the DA”
2. Issuance of Memo Circular no. 8 Series of 2022 on May 19, 2022 on PBI by the Sec. of Agriculture.
3. Administrative Circular on the “Harmonization of Terms and Streamlining of Requirements and Procedures for Granting Authorization and Recognition under the Jurisdiction of the DA.

4. Biotechnology Industry Development Act (BIDA)
5. JDC on GM Plants and Plant Products (JDC s. 2021). Rules and Regulations for the R&D, Handling and Use, Transboundary Movement, Release into the Environment, and Management of GM Plant and Plant Products Derived from the Use of Modern Biotechnology”

### 3.2.10. Value of commodities sold by farms and firms receiving USDA assistance, USD (SI-18)

This indicator measures the value in USD of the total amount of sales of products and services of USDA assisted farms and firms within the commodity value chains or markets. Annual sales include sales by farms and firms – producers, non-farm enterprises (aggregators, input suppliers, distributors, traders, processors. As shown in **Table 5**, the project has so far achieved only 4 percent of the total targeted value. The lowest accomplishment was for milkfish (1% of target value), while the highest was for swine at 6% of targeted value. This is not surprising considering that the project barely started its fieldworks in the various commodity supply chains. Note that the project accomplishment under SI-4 (application of improved practices/technologies) presented earlier was also merely at 4 percent. Logically, limited number of individuals reached leads to limited number of those applying improved practices/technologies, which in turn results to limited value of commodities generated.

**Table 5. Value of commodities sold by farms and firms as of September 2022**

Commodity	LOP Target (in USD)	Accomplishment as of September 2022 (in USD)	Percent Accomplishment
Swine	45,012,401	2,504,143	6
Milkfish	33,980,983	322,869	1
Corn	5,166,709	266,077	5
Coconut sugar	6,239,147	185,146	3
TOTAL	90,399,240	3,278,235	4

Source of data: B-SAFE, annual survey.

### 3.2.11. Volume of commodities sold by farms and firms receiving USDA assistance (SI-19)

Most of the description under the indicator SI-18 is also applicable here, including the adopters and products sold. The revised target and accomplishments for this indicator is provided in **Table 6**. It should be noted that the overall accomplishment is only 7 percent. By commodity, coconut sugar had the highest percentage accomplishment at 35 percent. However, coconut sugar also had the lowest target across commodities, contributing approximately 2.3 percent to the total target. Given the time limitation of the project, it will be difficult to attain the target. The training and other interventions to be provided to producers and other beneficiaries such as traders and enterprises have to be done to enable the project to catch up on this target.

**Table 6. Volume of production by commodity**

Commodity	LOP Target (In MT)	Accomplishment as of September 2022 (in MT)	Percent Accomplishment
Swine	16,203	2,108	13
Milkfish	15,094	400	3
Corn	19,623	759	4
Coconut sugar	1,221	425	35
TOTAL	51,960	3,693	7

Source of data: B-SAFE, annual survey

### **3.2.12. Value of new USG Commitments and new public and private sector investment leveraged by USDA to support food security and nutrition (SI-14)**

Investment is defined as any use of public/private resources intended to create future production output or income, to improve the sustainable use of resources. Leveraged means the investment was directly encouraged or facilitated by activities funded or resources provided by USDA. For further details, please refer to the PIRS.

The LOP target is \$1,100,000, but as of September 2022, the project accomplishment is only 3 percent or \$37,262. This was from a B-SAFE grantee that invested \$37,262 for the construction of their facilities and an initial purchase of milkfish fries.

Other possible sources of investments leveraged by the project would include the investments to be made by grantees who already have submitted proposals to B-SAFE for funding. In addition, there is a need to intensify investments in the value chain including GOP investments as well as cold chain investments to meet the LOP target of the project.

### **3.2.13. Number of individuals using improved packaging, equipment, transportation, or cold storage as a result of B-SAFE investment (CI-1)**

The original target for this indicator was 290 but was reduced to 31 as of August 2022. The accomplishment reported as of September 2022 was 15 with the following distribution: packaging (2), equipment (2) and transportation (12) or 16. Based on first annual survey conducted by B-SAFE, the adjusted number of adopters was 25 distributed by commodity as follows: coconut sugar (5), milkfish (6), and swine (14).

Similar with the analysis of on the number of adopters and volume and value, the project needs to work overtime to attain this target given the time frame of the project.

Other significant and related activities for this indicator would be the B-SAFE's efforts on cold chain, particularly for swine in Batangas, milkfish and coconut sugar.

### **3.2.14. Number of farms/firms/laboratories with GAP, GMP, HACCP, or International Organization for Standardization because of USDA Assistance**



The LOP target for this indicator was 22. However, the project has not contributed to this indicator as of the evaluation period. With that said, a number of activities on this have already been started which hopefully can lead to at least a partial achievement of the target.

### 3.3. Results of the Qualitative Component

#### 3.3.1. Food Safety Regulatory Agencies

This section discusses where the FSRA stand today from the perspective of the stakeholders and what B-SAFE is doing to address the challenges faced in terms of their technical capacity to implement and monitor the SPS and food safety standards.

The analysis made use of information generated from key informants from BAI Veterinary Laboratory Division; BFAR National Fisheries Laboratory Division and Fisheries Inspection Quarantine Division; BPI Plant Product Safety Division and Zamboanga Plant Quarantine Office; NMIS Central Office, Administrative Division and Laboratory; FPA Fertilizer Regulation Division and Laboratory Services Division; BAFS Central Office, and FDA Center for Food Regulation and Research and Common Services Laboratory.

The analysis covered four dimensions, namely: infrastructure/facilities/equipment adequacy, human resources (number and technical capability), challenges in monitoring and control activities, and policies supporting the efficient implementation of SPS and food safety standards within each FSRA.

#### **Infrastructure/Facilities/Equipment Adequacy and Human Resources Complement**

Each FSRA has a unique role in implementing SPS and food safety standards. However, all of them appear to have the same problems as far as their laboratories and the staff complement in the laboratories are concerned. Their laboratories are ill-equipped and their staff conducting technical analysis are limited. A discussion on this is presented below.

**BPI** has identified several food safety hazards needing method development and validation as well as 106 analytes. Method development and validation necessitate more laboratories than the existing ones. The agency is accrediting private laboratories as a mitigating measure. It has sought the assistance of DA Regional Field Units for accreditation of existing food safety laboratories in the region. Moreover, since the workforce is not enough in the existing laboratories, it is proposing additional permanent positions to be assigned to its satellite laboratory facilities in Baguio, Cebu, Cagayan de Oro City and Davao City which all function as pesticides laboratories in the region.

In **BAI**, its Veterinary Laboratory Division is equipped with old facilities and is also understaffed. Its atomic absorption spectrometry (AAS) must be replaced since the old one has been damaged so it is unable to conduct trace mineral assessment and cannot receive clients requiring such assessment. Its nitrogen digester is still working. The computers are outdated and are running under Windows 7. The laboratory requires eight chemists and two laboratory technicians, but six chemists are now multitasking with the assistance of two contractual laboratory technicians in order to address the testing requirements of the samples coming in and the processing of certifications and trade clearances. Vacant permanent positions for two chemists and two laboratory technicians are yet to be filled up.

**BFAR's** regional laboratories have to be modernized to get an ISO 17025-2017 certification like its central laboratory. There is a high turnover of its workforce since the majority are on a job contract. BFAR could not keep them for long since it cannot offer them permanency status. This affects the

continuity of activities in the laboratories hence BFAR devised a succession plan wherein terminated contracts are immediately replaced.

**NMIS'** laboratory staff has no capability to conduct research. It relies on research collaboration with research institutions to generate information needed for policy development and allows college students to conduct on-the-job training in its laboratories to obtain the data it needs for policy formulation. Through a partnership with a non-government organization, it was able to acquire a PRC machine for meat species identification such as dog meat. With the machine in place, it is now able to confiscate dog meat and use it in supporting the development of relevant regulations. The facility is only available at the central office laboratory so sample species from the region have to be shipped to Manila for testing. Availability of budget is the major constraining factor for the limited service the laboratories can provide.

**FDA** requires equipment for trans-fat detection and genetically modified organism (GMO) such as Gas Chromatography, Flame Ion Detector and Isotope-Ratio Mass Spectrometry. The Common Services Facility has no air conditioning and poor internet service. The gadgets are obsolete and the equipment like laptops and desktops must be routinely maintained. While there is budget allocation for laboratory supplies such as reagents, procurement of these is a problem due to the current government procurement system. PCR machines for micro-laboratory are yet to be purchased.

Although **FPA** has one central laboratory and has accredited laboratories in Manila and two in Mindanao, all regions should have accredited laboratories to facilitate early testing of sample fertilizers and pesticides randomly taken from agro-chemical dealers instead of shipping these samples to Manila. Fast tracking the results of the tests could prevent the dealers from selling all their stocks. The budget for the existing laboratories is not enough for the required reagents and other laboratory supplies, for equipment calibration and maintenance, and for quality control certified references such as pesticide and fertilizer reference materials which are expensive. The current number of laboratory staff is already enough but needs constant competency training. The new laboratory under construction is in need of technical staff and equipment for heavy metals testing (ICI-MS), Mercury Analyzer for pesticides, LC-MS/MS for detection of impurities and OC-MS/MS.

**BAFS** has recently refurbished its central office. Like BFAR, many of the staff are in contract service status so turnover is frequent. Infrequently, training is conducted for newly hired staff in the area of standards development, process innovation and developing operational manuals which is costly. It also needs to build its data gathering capacity in developing a Philippine National Standard (PNS) for agri-fishery machinery infrastructure.

### ***Monitoring and Control***

FSRA's monitoring and control activities in the regions are constrained with lack of inspectors and lack of facilities and gadgets. Staff are overworked considering the demands of their job. Extending work beyond office hours is normal among food safety officers in **BPI**. After monitoring and inspection, they are required to report back to the office to prepare inspection reports and process applications. In Zamboanga Peninsula, Tawi-Tawi, Jolo and Basilan where the key informant is assigned, food inspectors have no official equipment like computers, so they prepare and submit their field inspection reports using their mobile phones. The number of inspectors is not enough considering that there is an airport and many seaports that they have to monitor in these provinces. Moreover, except in Zamboanga del Sur, BPI has no permanent offices in these provinces and the only staff share offices with government agencies in the sub-ports. They guide local traders in complying with standards and in the rules in barter so the traders will not end up smuggling goods from nearby countries like Malaysia.

**FPA** has inspectors in every province who inspect warehouses, dealer stores, and those doing fumigation in large plantations which requires the presence of inspectors. The key informants are curious as to how can one staff do all this alone and face some risks like theft and physical harassment at the same time. They need to be regularly updated on new regulations, new fertilizers and pesticides and the new manufacturers.

**BFAR** lacks fish inspectors and quarantine law officers in major ports and sub-ports. There is also no designated quarantine area in the ports. Imported fish are quarantined in far areas that have the facility. Inspectors and quarantine officers do not have hand equipment like tablets for inspection. BFAR is proposing to have a municipal fishery officer to assist in monitoring and provision of technical assistance to municipal fishermen and fish farmers.

**NMIS** has over 500 accredited meat establishments but has 300 meat inspectors to manage them. This is on top of the LGU managed meat establishments like slaughterhouses which NMIS also monitors. The lack of NMIS meat inspectors is mitigated through a deputation program wherein it trains for one month the LGU meat inspectors on the basic meat inspections. It also undertakes second border inspection of imported meat and issues a certificate of meat inspection when the imported meat is to be released from the port's cold storage.

**FDA's** food inspectors direly need equipment when they conduct inspections in manufacturing facilities. Personal equipment is being used to get their job done. Additional staff are needed for the processing of applications for LTOs and CPRs. Its current pool of food inspectors are generalists who inspect for cosmetics, drugs and then for food. At least five food inspectors are needed per region, preferably knowledgeable on risk-based inspection. At the central office, few have such expertise.

### **Challenges in Implementing Enabling Policies**

The FRsAs brought forward the following concerns related to implementing policies:

At **BPI**, there is lack of public awareness on BPI quarantine and inspection policies as people do not know why plant quarantine is necessary and important and why there is a need for certifications and clearances. There is also a need for massive promotion of the Philippine Good Agriculture Practices (PhilGAP) through PhilGAP summit and information caravan.

In **FPA**, the Fertilizer Policy Advisory Committee (FPTAC) and a Pesticide Policy Advisory Committee (PPTAC) that provide guidance on technical and policy matters related to both fertilizers and pesticides have been inactive since last year. A new executive director and deputy executive director have not been appointed yet.

The Blue Book (Fertilizer Regulating Policies and Implementing Guidelines) and Green Book (Pesticides Regulating Policies and Implementing Guidelines) do not contain the step-by-step and unified procedures on inspection hence, an Inspector's Handbook harmonizing all field inspection procedures is being drafted for presentation to management and Regional Field Units (RFUs).

In **BAI**, the only policy concern mentioned by the key informant is the major conflict with FDA on who should be in charge in the analysis of veterinary drugs and pre-mixes for licensing and registration. This issue has not been resolved yet. It is affecting traders as they do not know which agency to request for analysis. If BAI conducts the analysis, there is no assurance that the result will be accepted by FDA.

At **BFAR**, the registration of fishponds and conformity to GAqP are not complied with. It lacks regulatory enforcement authority to apprehend those who practice dynamite fishing, cyanide fishing

and the use of prohibited chemicals since all these are under the jurisdiction of the local governments. Regulation on importing live aquatic animals needs major updating. BFAR appears to be non-complaint with the Food Safety Act wherein processed fish products should belong to the FDA. The closed season or open season policy by BFAR should be reviewed as it affects the balance of local fish and imported fish.

With the devolution of the meat inspection function of **NMIS** to LGU there are overlapping functions between LGUs and NMIS in terms of confiscation and conduct of market surveillance. NMIS is also encountering several failed bids for the supply of scabbards due to stringent government procurement procedures. The on-going initiative in Congress should be pursued regarding the merging of NMIS, NDA and BAI in one mega agency like a livestock and poultry inspection service.

**BAFS** considers the adaptation of PNS into technical regulation as its biggest challenge. It is assisting the regulatory agencies on adopting the PNS and developing knowledge products for the PNS to be more informative and easily accessible to the stakeholders. In the development of standard, they lack sufficient data or scientific data to support the provisions of the PNS is another challenge.

**FDA's** Product Identity Standards are decades old and need updating to keep them relevant. They have to be approved in accordance with our commitment also with the World Trade Organization. Agreements should be made with DA agencies and FDA with regards to the competent authority that could sign the required certifications needed by exporting countries. Right now, the European Union (EU) recognizes BFAR as the competent authority to effectively ensure that fishery products exported to the EU comply with EU legislation yet under the Food Safety Act of 2013 processed food products should be transferred to FDA.

The Food Safety Act of 2013 is clear on who has product jurisdiction but in times of emergencies like the ASF outbreak, regulation for border control and biosecurity measures should be institutionalized so that both DA and FDA could respond accordingly.

Like other FRSAs, purchase of supplies by FDA have to go through stringent government procurement procedures. The government does not allow the importation of proficiency tests but relies on importers, so it is costly to the government. The law causes delays in purchase of laboratory supplies further resulting to delays in the conduct of testing.

#### **Capacity/Training Needs Suggested by the Key Informants**

At **BPI**, there is a need to enhance the knowledge of the food inspectors particularly in identifying quarantine pests like pulp weevils.

**FPA** laboratory staff need training on validation and measurement uncertainty and audit training for those who will be involved in ISO 17020. FPA's field officers need competency training in conducting field inspection.

**BAI** staff in the laboratory have Masters' degrees that are field-relevant. Future training needs should focus on laboratory analysis to strengthen this competency.

**BFAR**, problematic as it might seem because of high turnover of staff, it is suggested that quarantine law officers and inspection officers be trained on food safety, SPS requirements and regulations on different marine and aquaculture species.

**NMIS** is proposing exclusive training on risk assessment and digitalization for its staff. These are useful in their proposal for ISO certification.

**BAFS** need training in sampling methodology and data gathering, human resources required in data gathering, operational cost of gathering scientific data.

**FDA** is proposing to continue the training program on risk-based inspection, monitoring and surveillance.

### **B-SAFE Intervention**

B-SAFE conducted a series of trainings on risk-based system for FSRA. The training was tailored to fit the individual agency and department needs of DA and FDA. The list of trainings is presented in **Annex 19**. Among these trainings are:

- ❖ The webinar on International SPS and Food Safety Standards
- ❖ The training on Risk Assessment and Management and Product Recall
- ❖ The Import Risk Analysis Training for DA food safety
- ❖ The Risk Analysis Training is a series of trainings on risk analysis, covering: (1) Risk Categorization, (2) Quantitative and Qualitative Risk Assessment, and (3) Risk-Based Inspection.

The key informants rated the training making use of the Likert scale. The full summary is presented in **Annex 20**. Overall, they either agreed or strongly agreed on the importance of the trainings, their comprehensiveness and accuracy, knowledge of the resource persons, the time allocation for lectures and exercises, and the hands-on activities conducted.

Further assessments of the training were made in terms of their relevance; effectiveness, efficiency, and impact as shown in **Table 7**.

**Table 7. Frequency and percentage of responses (quotes by thematic and sub-thematic areas)**

Item	Number of FSRA Reporting	Number of References	Percent
<b>Relevance</b>		<b>187</b>	<b>86.18</b>
Addressing FSRA constraints/needs	7	172	
Addressing market/trade needs	3	4	
Helps in exploring available opportunities	4	11	
<b>Effectiveness</b>		<b>23</b>	<b>10.60</b>
Magnitude of effects	5	20	
Was able to address constraints/needs	7	3	
<b>Efficiency</b>		<b>2</b>	<b>0.92</b>
Timeliness of intervention	2	2	
<b>Impact</b>		<b>5</b>	<b>2.30</b>
Adoption of intervention/techniques	3	5	
		217	100.00

### ***Relevance***

There was general consensus that the training is highly relevant judging from the number references attached to it (**Table 7**). The key informants found the trainings relevant as they were able to address the constraints faced by the key informants in performing their tasks. They found the trainings helpful and they look forward for more B-SAFE trainings in the future.

Specifically, the training on risk assessment was in-depth, they learned the process of getting accreditation. It enhanced their capability and to quote an FDA key informant,

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*“The ISO 17025 training provided by B-SAFE is very useful to us here in the lab. It made us aware of the needed requirements in the lab. We now have in-depth knowledge of how our management system will be improved. The training was in-depth because we started from scratch and the training guided us what to do”*

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while the FPA key informant had this to say:

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*“We now appreciate the importance of risk analysis. If you account for all the risks, it becomes costly, so you need to prioritize which risks have the biggest impact. That's basically the major learning from the training”.*

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### **Effectiveness**

There was high appreciation for the trainings from the content to the resource speakers. The participants commented that they fully understood the training, it is easier to do risk categorization, the resource person is great, and there are new efforts to do risk assessment in their respective jobs. For instance, FPA key informant has made full use of the learnings from the Implementation Course Training on ISO/IEC 17020:2012 by drafting an inspectors' handbook detailing a step-by-step procedure in conducting field inspections and by including in the 2024 FPA budget for the needed resources to pursue the ISO 1720 certification.

### **Impact**

The trainings generated positive impacts to the participants as they learned to incorporate the knowledge acquired in their current work. BPI and BFAR participants even adopted the training design in their own training activities. Select quotes from BPI participants are as follows:

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*“What we learned in the training we've applied to the process we're doing here at BPI, regarding food safety. Because like for example the risk assessment, we have adopted what was taught in the training. We also adopted it in the assessment report that we are doing, as well as in our analysis”.*

*“We also imitated their training design in our other trainings—the style of their training. Because it's good because they made a reward system in the workshops so that the participants can be participative. We also adopted it in our trainings.”*

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Additional quotes from the training participants are shown in **Annex 21**.

### 3.3.2. Private Sector Groups

B-SAFE's intervention to the private sector group consisted of trainings and assistance on LTO and FDA registration. Trainings were well received by the key informants. They generally agree or strongly agree that the training is important, comprehensive, accurate, resource persons are highly knowledgeable, the allocated time is appropriate and the hands-on activities are very helpful. The ratings are shown in **Annex 22**.

The trainings were also assessed for their relevance, effectiveness, efficiency, impact and sustainability.

#### **Relevance**

*Addressing productivity needs of producer groups.* The training on GAP for corn farmers aims to improve their production and post harvesting. The cooperatives view this as beneficial if the corn farmers can apply GAP in their farming operation to take advantage of the presence of big companies or big buyers in the area that are looking for good quality corn.

Coconut sugar producers have received training on the food safety aspects of production from tapping of sap to processing it into coconut sugar. For instance, a coconut sugar key informant indicated that they learned what is most necessary, what should be done, and very specific processes needed for coconut sugar production.

Similarly, the training on milkfish fingerling production improved the survival rate of fry and make fingerlings available to grow out operators in Binmaley. An agri-fisheries cooperative in Pangasinan reported survival rates of 50 percent, 60 percent, or even 80 percent obtained by its member-beneficiaries.

In swine, the training on swine genetics and artificial insemination conducted for a multipurpose cooperative in Batangas by B-SAFE in collaboration with a semen provider, enabled one participant who immediately applied the techniques to get a litter size of 14 even if the artificial insemination project is yet to begin.

*Addressing market/trade needs of private sector groups.* A corn farmers' cooperative officer indicated that B-SAFE has been helping their cooperative members improve their production, processing and marketing. The same assistance has been provided to members of other multipurpose cooperatives. The KII results validated the need for marketing assistance especially the desire of farmers to be linked with large buyers.

B-SAFE has been helping coconut sugar producers in obtaining certification so they can explore wider market opportunities for their produce. Coconut sugar producers understand the importance of food safety certifications, meaning the value of their product is higher if their firm is accredited by a certifying body.

*Addressing farmer constraints (e.g., certification, inputs, equipment, facilities, capacity).* B-SAFE has been assisting BUCFPI, GMAV and AMPC to obtain LTO registration. They have been supporting with the documents required but the constraint is the lack of financial resource for improvement of their processing plant as in the case of GMAV and AMPC and in obtaining nutrition facts for their milkfish processed products in the case of BUCFPI.

Lacking in facilities and equipment for improved production of coconut sugar, B-SAFE has provided an agribusiness corporation a grant to address their needs. They now have potable water, additional

cooker, new food grade containers for freshly cooked coconut sugar, and materials for grading.

An agri-fisheries cooperative is a beneficiary of B-SAFE grant to address the supply of fingerlings for small fishpond operators. The grant is being used to assist qualified members of the cooperative in raising fingerlings. As of now, the project has ten beneficiaries engaged in fingerling production.

B-SAFE has conducted numerous trainings for coconut sugar producer groups to improve or enhance their knowledge in processing good quality coconut sugar. In determining the acidity of coconut sap, an agribusiness cooperative learned to use the pH meter and refractometer for the first time.

*Addressing beneficiary/client needs.* In corn farming, the mechanical dryer was introduced and promoted by B-SAFE as highly important equipment especially during the wet season months. A multipurpose cooperative in Bukidnon has 300 members which may further increase if the cooperative had a mechanical dryer to share for use with non-members. B-SAFE also introduced the combine harvester as a more efficient option to manual harvesting. The cooperative members expressed the need to acquire these technologies (mechanical dryer and combine harvester).

*Helps in exploring available opportunities.* B-SAFE is establishing collaboration not only in addressing the agri-input requirements of corn producers but also in assuring the market for produce.

### **Effectiveness of B-SAFE Intervention**

*Contributed to productivity and sustainable production of private sector groups.* B-SAFE's training on fingerling production influenced the survival rate as it increased to 50 to 60 percent from the below 50 percent survival rate before the B-SAFE training. According to the key informants, they learned and are now adopting the proper timing in land preparation, growing natural food in sufficient quantity, handling and transporting fry from the source to the farm, following guidance when to stock, applying the recommended stocking density and frequency of feeding, monitoring water quality, and managing the farm, among other things. On the other hand, while the intervention in corn may be better than the traditional practice, farmers find the techniques more expensive, therefore not effective.

*Improved capacity.* B-SAFE's trainings have helped a multipurpose cooperative in Linabu, Balingasag, Misamis Oriental to improve its sanitation processes and put into practice what was learned. Proper sanitation considerations have been instilled in the minds of tappers and workers and are now being practiced. The cooperative formed the ICS Team that is continuously monitoring their workers. There are now two inspectors, one is monitoring the entire facility, the other in the processing plant and acts as ICS Team Manager. On the other hand, an agri-venture corporation addressed the noncompliance to standards by having a monitoring checklist to investigate whether workers/tappers are wearing the Personal Protective Equipment (PPE). They are being coached properly because the processing facility is within the coconut plantation where the sap is being sourced.

At SIDC, its store officers are now monitoring if proper processes in meat handling are being followed especially on the use of proper tools in meat cutting. As observed, their meat processing and meat handling operations have improved after attending the B-SAFE training.

Tappers of a coconut sugar processor in Misamis Oriental have learned the proper tapping and pre-cooking of sap. This has been a challenge to the processor because the tappers were not following the pre-cooking process before. The processor managed this by involving them in the B-SAFE training on GMP and required them to follow the standard. Eventually, the tappers learned, otherwise, their product would be purchased at a lower price and they would understand why. The challenge has now been lessened as tappers have become part of the production team. The team is now producing good quality coconut sugar that the processor can market. It is important for the processor that they are identified as producer or manufacturer of good quality coconut sugar.



Similarly, another coconut sugar processor required its tappers to attend the GMP and SSOP training of B-SAFE. The video presentation helped them understand the processes better and they are actually adopting what they have learned.

Likewise, a multipurpose cooperative training participants appreciated the video presentations. According to one key informant, *“It helped because many of our workers are poorly educated, so when they watched the videos, they were able to absorb the procedure and what should be done.”*

The SSOP training is effective because, as summarized by one key informant from another cooperative,

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*“we have already practiced what we learned. We found that there really is something that should and should not be done. An example is pest control. We really need to know all the procedures in controlling them. The hygiene, personal hygiene. All these added to our knowledge.”*

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*Better facilities and equipment.* T2G is a B-SAFE grantee and the grant was used to improve their coconut sugar production. T2G now has potable water, an additional cooker, new food grade containers for freshly cooked coconut sugar, and additional materials for grading, among others. All these are being used for enhancing and improving their manufacturing processes to produce good quality coconut sugar.

*Magnitude of effect (i.e., increase/expansion of area of coverage, improvement of quality of products)* The key informant also said that better quality is obtained when corn is dried immediately. If the harvest gets wet during the rainy season, it may take 10 days for it to dry. If there is a mechanical dryer, drying only requires about 24 hours.

Improvement in product quality is pronounced in coconut sugar production. A multipurpose cooperative in Gingoog, Misamis Oriental sees to it that the product is well dried and has moisture content below 5 percent.

*Timeliness of intervention (e.g., late provision, on time delivery of interventions, etc.).* From the B-SAFE training, a coconut sugar processor found out that there are pH meters to test the raw materials. Had they known earlier, they would not have made trial and error in examining the sap. They also learned that there is a refractometer that can determine the purity of sugar. These are what they are using now.

For another processor, the presentation of the Food Safety Act and detailed aspects of HACCP discussed during the B-SAFE training made them realize there are many processes that need improvement.

Among corn farmers, the training on GAP is timely since it was only then that they learned that they are likely not applying the right amount or using fertilizers that are not suited for the soil. This is the reason their corn production is declining, according to a cooperative from Kibawe, Bukidnon.

## **Efficiency**

*Partnerships and linkages.* B-SAFE is forging partnership with SIDC to assist the corn farmers for much needed financial assistance and market of their produce. Situated in the province of Batangas, SIDC is

one of the largest agri-cooperatives in the country. It provides financial and technical assistance and agri-inputs to its members. Since one of the issues in corn farming is the lack of capital for farming operation, this B-SAFE initiative is highly appreciated by the corn farmers and they expressed willingness to become members of SIDC according to key informant representatives from corn farmer cooperatives in Bukidnon. SIDC and B-SAFE have started consultations and meetings with B-SAFE's cooperative and association partners in Bukidnon about this proposed initiative.

B-SAFE is collaborating with Europhil, a commercial pig farm in Batangas. Together, they conducted a seminar of fundamentals in swine genetics, breeding, selection and artificial insemination for a multipurpose cooperative in Batangas. Europhil will supply the cooperative with semen for its artificial insemination program. If successful, they plan to duplicate the training to other cooperatives in Batangas. It may be surmised that this collaboration is quite successful considering that one of the cooperative members immediately applied the techniques learned and was able to get a litter size of 14, the highest litter size he has produced so far.

For the conduct of trainings, B-SAFE's collaboration with the BFAR, LGUs and academic institutions like University of Science and Technology of Southern Philippines has been successful considering the positive feedback and praise coming from the training participants about the resource persons which they find as "highly knowledgeable," "they are experts so they know what they are talking about" and very patient in trying to address queries from the participants.

*Personnel resource use.* B-SAFE staff in Misamis Oriental may need to undertake more site visits. According to coconut sugar key informants, the last time they had communication with the B-SAFE staff was in August 2022.

*Financial Resource Use.* Two private sector groups are beneficiaries of grants from B-SAFE. According to a key informant, B-SAFE conducts site visits in Binmaley to monitor the status of the project. In B-SAFE's last visit, the key informant explained the reason for the stock failure of three beneficiaries and the necessary measures undertaken to avoid a repeat of what happened.

### **Sustainability of Intervention**

*Institutionalization of Intervention.* Among coconut sugar producers, it is a cooperative from Linabu, Balingasag, Misamis Oriental which has an organized Internal Control System (ICS) Team Management formed as a result of the B-SAFE training on SSOP. The cooperative upgraded its processes to put into practice what they learned from the B-SAFE training. It is also monitoring its workers by fielding two inspectors in the area.

*Policy formulation and conflicts.* A fish processor in Pangasinan amended its memorandum of agreement and requirements after three of its beneficiaries were affected by production failure due to flooding which washed away their stock. It lost its investments in the three beneficiaries. Thus, the processor decided to charge one percent interest to new borrowers for the equivalent amount of input, and one percent for administrative costs to cover any future risk that may happen. It used to be that it is charging one percent only for administrative cost.

Key informant from Batangas cooperative said that their manual of operations will be revised based on knowledge gained from the B-SAFE training on meat handling. This is also in preparation for the NMIS renewal of the processing plants' accreditation. Once revised, the manual of operation will be crucial in sustaining the benefits from the B-SAFE training.

A coconut sugar processor provides incentives to its tappers if they comply with the standard on coconut sap. At the end of the year, they are given a patronage refund based on the total number of

kilos delivered by each. The processor has been encouraging its tappers and workers to comply with food safety standards.

*Continuity of project intervention.* A fish processor in Pangasinan would like to sustain the project funded by B-SAFE not only within the project duration but also after the completion of the project implementation. Wanting it to be sustainable, it is charging one percent to beneficiaries for administrative cost. Moreover, the members will not be able to access the project fund or become beneficiaries if they will not undergo the training on fingerling production.

*Certification.* B-SAFE has been providing guidance in processing and accomplishing the documentation requirement for getting certifications, most especially in coconut sugar and milkfish.

## **Impacts**

*Adoption of intervention.* In corn, the key informants are one in saying that it is difficult to adopt the production aspect of GAP since they lack the capital to purchase the right quantity of inputs. According to a key informant from a farmers' association in Kadingilan, Bukidnon, it is difficult to implement GAP although the yield would be better and farmers can demand a higher price for their product if the entire GAP is adopted. Right now, what they appreciate most is the need to pulverize the soil by plowing and harrowing it twice before sowing the seeds and applying fertilizer. Farmers are adopting these techniques.

On the postharvest aspect of GAP, the use of combine harvester sheller is recommended to facilitate fast harvesting. There are farmers who are already using it when it was first released and that was before B-SAFE. According to a key informant from a cooperative in Cabanglasan, Bukidnon, the number of users increased by five percent after the B-SAFE training.

In coconut sugar, a cooperative from Linabu, Balingasag, Misamis Oriental reported that they already know the proper procedures in production and processing which were enhanced further due to B-SAFE training. They have been adopting the proper procedures and there are two inspectors monitoring the whole operation process in the plant.

At one of the coconut sugar processors in Misamis Oriental, the tappers were required to attend the GMP training and have learned the hygienic tapping procedures like the wearing of PPE, face mask, hair net and apron and hand washing as well as the processing of sap into coconut sugar. There was an assigned quality controller who checked the utensils, strainers and trays and the quality of coconut sugar produced. Even as the processor temporarily stopped operation, its tappers continue to produce coconut sugar on their own and it is assisting them in marketing their coconut sugar in local "pasalubong centers" and other local market outlets.

A cooperative in Agay-ayan, Gingoog, Misamis Oriental is likewise practicing what they learned from SSOP, for example, pest control. They find the training effective since they learned "what should and what should not be done" in coconut sugar production.

In milkfish, a fish processor reported that its members, after attending the training conducted by B-SAFE and BFAR, are applying what they learned especially the fishpond operators who are beneficiaries of B-SAFE.

*Replicability/Continuity of project intervention.* The cooperative from Linabu, Balingasag, Misamis Oriental has a proposal with B-SAFE for assistance in improving the water system of the processing plant. The cooperative is hoping that the proposal will be acted upon soonest as this is crucial in

ensuring compliance to food safety standards. If the assistance will be provided, this will also ensure the continuity/sustainability of the benefits from B-SAFE intervention.

In the case of a fish processor in Pangasinan, the cooperative partnered with TESDA-Binmaley for the execution of the same trainings earlier provided by B-SAFE. These trainings will target milkfish growers who have not been covered by the earlier B-SAFE trainings. In addition, these planned trainings will include hands-on/practical exercises.

*Income and profitability improvement.* Some corn farmers have adopted selected practices under GAP specially on land preparation. However, there were still no observed significant impact thus far on income and profitability. It should be noted that the trainings on corn started only in 2022.

*Social impact.* There were already some observed positive behavioral changes especially involving the coconut sap tappers. The key informants claimed that many of them have realized the importance of food safety and therefore started to adopt the hygienic tapping techniques, pre-cooking, and processing of sap to coconut sugar.

In corn, B-SAFE's training may have spawned the intention of farmers to acquire combine harvester and mechanical dryer. The producer groups are seeking help from the DA for the purchase of these equipment.

*Environmental impact.* The project interventions do not have a threat in the environment. Adoption of GAP by corn farmers ensures that soil is not contaminated by chemicals and sprayers will not harm people and the environment.

*Technological Impact.* There are indications that the project is already generating some technological impact, which refers to the set of technologies and practices being employed by the beneficiaries. In the case of milkfish, changes were on pond preparation techniques for the production of natural feeds and proper stocking density. Technological improvements in coconut sugar includes those on hygienic practices from tapping to processing as well as the use of analytical instruments such as refractometer and acid titration. In the case of corn, there were concrete changes in land preparation such as soil pulverization and proper application of fertilizer.

### **Production issues and challenges**

*High cost of inputs.* This has always been an issue in the agricultural production system and is frequently mentioned during the interviews. Despite attendance on many training courses including that of B-SAFE, corn farmers are experiencing financial difficulties due to high input cost. There are others who stopped producing corn and instead planting cassava. Lack of funds constrained them to adopt proper fertilization techniques. The key informant from a farmers' cooperative in Mantibugao, Manolo Fortich, Bukidnon indicated the following:

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*“Having learned from the training, you should definitely apply the knowledge gained if you want to obtain the yield per hectare in corn that you are aiming for. Maybe farmers cannot meet their production target if, for example, their capital is not enough. For example, let's say right now, what is required in the farm is 10 to 12 bags of fertilizer per hectare, but you only have five bags, of course, you cannot meet the 5 to 6 per hectare production. Corn won't produce much because they are undernourished.*”

*Another reason, the most difficult is that we need synthetic fertilizer, yet our incomes are low.”*

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Speaking on behalf of the corn farmers, *“we need capital or someone should lend us capital”*. He further said they may have some amount for seeds but do not have enough to pay for labor.

In milkfish, the key informant complained of the expensive feeds. On fertilization, *“we need to know the proper application in a particular pond as it depends on the type of soil. There are ponds with acidic soil. This should be studied well because fertilizers are expensive.”*

*Difficult certification process.* Key informant from a cooperative in Agay-ayan, Gingoog, Misamis Oriental complained of the many documents required, the expenses it entails and the slow processing of application to obtain an LTO. For one of the coconut sugar processors in Misamis Oriental, documentary requirements *“is a bit difficult to accomplish especially when we talk about food products where the standard is high.”* Getting an LTO is not easy because of the cost involved. Similarly, for another coconut sugar processor, getting an organic certification *“requires a lot of hard work”* and is quite costly.

Likewise, a milkfish processor specified that it is easy to apply for certification but the requirements are many and approval takes a long time.

*GAP inapplicable due to lack of equipment.* GAP compliance on post-harvest processing is hindered by the lack of mechanical dryers. Corn is easily damaged without proper drying. A lot of corn produced cannot be accommodated in existing dryers. A cooperative from Cabanglasan, Bukidnon has none. Multipurpose pavement is instead used. There is a mechanical dryer provided by DA regional office that is not operating yet. The coop has no mechanical harvester as well.

In addition, there is the issue of sharing machines making GAP on corn difficult to follow. When a tractor is used on a farm where chemical is applied, it cannot be used in another farm because the chemical residue may transfer or contaminate the area. That is why it is hard to convince farmers to use GAP, according to a farmer cooperative in Kadingilan, Bukidnon.

*GAP training interrupted by the pandemic.* The GAP module on corn being prepared by a farmer cooperative in Mantibugao, Manolo Fortich, Bukidnon was not completed because of the pandemic. Their planned seminar did not push through.

*Few agricultural technicians.* The DA also has a limited number of technicians who may also be overburdened with work. The farmer cooperative in Mantibugao, Manolo Fortich, Bukidnon is referring to its municipality where there are 22 barangays and a lone agricultural technician. In milkfish, the fish processor in Pangasinan sometimes consult BFAR but because of the heavy workload of the technical staff especially in monitoring their projects in the field, they could not give enough attention to Garungan or fingerling production

*Herbicide is still being used for easier farming.* GAP does not require the use of herbicides. However, according to a key informant in a cooperative in Kadingilan, Bukidnon, farmers do not follow the GAP recommendation on using manual weeding using the bolo. It is hard for corn farmer to do manual weeding as they want easier farming.

### **3.4. Results of Validation Survey**

The B-SAFE midterm evaluation conducted a survey to validate the various data and information gathered from various sources, including the B-SAFE FY2022 annual beneficiary-based survey (BBS), the semi-annual reports, and the key informant interviews conducted by the evaluation team. The sampling method for this was discussed in an earlier section. In particular, the survey focused on determining the respondent-beneficiary awareness of B-SAFE, including its programs and activities; examined their recollection of the trainings attended and looked at which areas discussed were found to be important and applied or adopted; generate the respondent-beneficiaries perception on the trainings in terms of relevance, effectiveness, timeliness and how they perceived the resources persons; and to examine changes in the volume and value of the production of the respondent-beneficiaries.

### 3.4.1. Socio-Economic and Farm Profile

**Table 8** describes the socio-economic characteristics of the respondent beneficiaries. About 60 percent are male. Cebuanos make up 33 percent of the respondents, all of whom are coconut sugar and corn respondents. Tagalog makes up 21 percent for respondents and these are mainly swine respondents. Pangasinense makes up 26 percent, all are working on milkfish. Other ethnicities make up 12 percent of the respondents, mostly Boholanos working on coconut sugar and corn in Mindanao. The respondents generally have relatively higher levels of education, with 20 percent graduated from college, mostly swine and milkfish beneficiaries, 15 percent are college undergraduates, 28 percent high school graduates and 18 percent high school undergraduates. The respondent's average household size is 5, and they have been engaged in farming for about 12 years, on average. All corn and milkfish respondents are members of producer organizations or cooperatives, while only about half and three-quarters of coconut sugar and swine respondents are members. The respondents are generally small farmers, except those engaged in milkfish production (**Table 9**). The average area planted with corn is 2.3 hectares while coconut farmers have only 44 coconut trees, on average. Swine growers only have 3 sow level, on average. Milkfish growers have 1.87 hectares, on average, dedicated to growing milkfish.

**Table 8. Socio-Economic Characteristics of Respondents, % reporting**

Characteristics	Coconut sugar	Corn	Swine	Milkfish	Total
<b>Gender</b>					
Male	50	63	58	67	60
Female	50	37	42	30	40
<b>Ethnicity</b>					
Cebuano	63	63	0	0	33
Ilonggo	0	27	0	0	7
Tagalog	0	0	96	3	21
Ilocano	0	0	4	0	1
Pangasinense	0	0	0	97	26
Others	37 <sup>1</sup>	10 <sup>3</sup>	0	0	12
<b>Highest educational attainment</b>					
Elementary undergraduate and below	17	0	0	3	1
Elementary graduate	20	7	8	0	8
High school undergraduate	20	37	4	7	18
High school graduate	27	33	29	30	28
Post secondary Undergraduate/Vocational	3	0	0	3	8

Characteristics	Coconut sugar	Corn	Swine	Milkfish	Total
Post secondary graduate/Vocational	3	3	4	0	3
College undergraduate <sup>8</sup>	10	13	13	30	15
College graduate <sup>9</sup>	0	7	42	27	20
<b>Average household size</b>	6	5	4	5	5
<b>Average length of time engaged in the industry/farming</b>	20	8	9	11	12
<b>Membership to farmer's cooperative/organization</b>					
Yes	53 <sup>2</sup>	100 <sup>4</sup>	75 <sup>5</sup>	100 <sup>6</sup>	76
No	47	0	25	0	24

<sup>1</sup>Boholano, IP Gingoog      <sup>4</sup>CPFMC, MARBFC.      <sup>6</sup>ISDA-AC, Binmaley Fisherfolks  
<sup>2</sup>36% from LAMPCO      <sup>5</sup>Pinagbuklod MPC  
<sup>3</sup>Boholano

**Table 9. Farm Profile of Respondents**

Characteristics	Coconut Sugar	Corn	Swine	Milkfish
Average area planted (ha)	n/a	2.3	n/a	1.87
Average number of trees	44	n/a	n/a	n/a
<b>Average farm size</b>				
Sow level	n/a	n/a	3	n/a
Number of fatteners	n/a	n/a	7	n/a
Number of boars	n/a	n/a	1	n/a
Number of Piglets	n/a	n/a	7	n/a
<b>Tenurial Status</b>		Percent Reporting		
Owner	17	67	100	90
Tenant	13	10	0	0
Leasehold/renter	23	17	0	0
Others	47 <sup>1</sup>	6 <sup>2</sup>	0	10 <sup>3</sup>

<sup>1</sup>GMAV employee (27%), LAMPCO employee, plantation worker

<sup>2</sup>Cooperative employees; <sup>3</sup>laborers

### 3.4.2. Awareness of B-SAFE and Usefulness of Trainings Provided

Except for one respondent from swine trainings, all were aware of B-SAFE and its activities. Specifically, three out of four respondents were aware that B-SAFE provides trainings on productivity improving technologies in the commodities they are involved in, particularly for coconut sugar, corn and milkfish;

<sup>8</sup> Respondents who completed some schooling but did not obtain a degree

<sup>9</sup> Respondents who completed a graduate-level degree

provides equipment, and link farmers to farmers and markets/traders also for coconut sugar, corn and milkfish. All respondents indicated they have attended the trainings provided by B-SAFE. These trainings were delivered mostly by the Municipal Agriculture Office (MAO)/Provincial Agriculture Office (PAO), and NGO/private partners (**Table 10**). About 82 percent indicated having applied areas or topics that they found useful from the trainings.

**Table 10. Respondent Awareness of and Application of B-SAFE Interventions, % reporting**

Item	Coconut Sugar	Corn	Swine	Milkfish	All
<b><i>Awareness of B-SAFE Activities</i></b>	100	100	96	100	99
<b><i>Source of information about B-SAFE</i></b>					
Through the cooperative/organization	47	57	67	87	64
Through the MAO/PAO	3	0	29	63	23
B-SAFE actively approached the organization	7	43	21	33	26
Others	43 <sup>1</sup>	0	0	13 <sup>7</sup>	15
<b><i>Knowledge about the B-SAFE project and activities</i></b>					
Provides trainings on productivity improving technologies	90	100	4	97	76
Provides trainings on improving techniques in coconut sap tapping	97	0	0	0	26
Provides trainings on genetics, breeding and animal selection techniques	0	0	71	0	15
Provides trainings on processing	0	0	29 <sup>5</sup>	27	13
Provides hands-on training on ASF virus PCR-testing	0	0	8	0	2
Provides equipment	17	47 <sup>3</sup>	0	23	23
Provides support in processing certification	3	0	0	27	8
Support to policy advocacy/formulation to address ASF	0	0	4	0	1
Linking farmers to market/traders	40	47	0	26	30
Others (specify)	6 <sup>2</sup>	0	0	0	16
Attended any B-SAFE training	100	100	100	100	100
<b><i>Who delivered the training</i></b>					
Municipal/Provincial Agriculture Office (MAO/PAO)	47	70	37	97	64
NGO/Private partners	96	0	12	67	45
Experts from State College or University	10	0	4	7	5
Others, Specify	0	43 <sup>4</sup>	58 <sup>6</sup>	30 <sup>8</sup>	31
<b><i>Applied the areas/topics that were deemed useful in the next production cycle</i></b>					
Yes	67	93	88	80	82
No	33	7	12	20	18
Too soon to apply learnings					

<sup>1</sup>GMAV; <sup>2</sup> equipment; <sup>3</sup>combine harvester-thresher and mechanical dryer <sup>4</sup>DA provincial offices, with Winrock, DAR, PILMICO <sup>5</sup>meat processing <sup>6</sup>Cooperative (40%), and Europhil (4%) <sup>7</sup>Fishpond owners, barangay officials <sup>8</sup>DA, BFAR



processing – coconut sugar, milkfish, meat processing equipment – milkfish: vaccum sealer; corn: mechanical dryers, harvester-sheller

Across commodities, corn had the highest percentage of respondents reporting that they found the trainings most useful, particularly on soil management and analysis, appropriate land preparation techniques, preparation and application of organic inputs (**Table 11**). Consequently, these respondents also reported the highest percentage in terms of application of their learnings in the succeeding cropping season. Also, all milkfish training participants on GAqP said they found the training interesting and that they applied them in their production system. For swine, the training on artificial insemination was found to be the most useful among participants.

**Table 11. Attendance to, Usefulness of and Application of Learnings from the B-SAFE Trainings, % reporting**

Type of Training	Attended	Found Most Useful	Applied Learnings
<b>Coconut sugar (n=22)</b>			
Good agricultural practices in coconut sap production/tapping	73	63	n/a
Coconut sugar good manufacturing practices (GMP)	46	33	n/a
Coconut syrup GMP	53	53	
Applied learnings in the next cropping season	n/a	n/a	93
<b>Corn (n=30)</b>			
Soil management/analysis	100	97	n/a
Appropriate land preparation techniques	100	97	n/a
Preparation and application of organic inputs	100	97	n/a
Use of combine harvester-sheller	100	17	n/a
Use of mechanical dryer	100	17	n/a
Determining moisture content (MC)	100	33	n/a
Use of aflatoxin tester	100	10	n/a
Silage-making	37	10	n/a
Applied learnings in the next cropping season	n/a	n/a	93
<b>Swine (n=21)</b>			
ASF management through surveillance system	12	8	n/a
Artificial insemination for repopulation	71	67	n/a
Good manufacturing practices	29	33	n/a
Good animal husbandry (GAHP)	12	8	n/a
Genetics, breeding, and animal selection techniques	29	25	n/a
Applied learnings in the next production season	n/a	n/a	88
<b>Milkfish (n=24)</b>			
Good Aquaculture Practices	100	100	n/a

Type of Training	Attended	Found Most Useful	Applied Learnings
Good manufacturing practices	6	3	n/a
Applied learnings in the next cropping season	n/a	n/a	80

The survey examined which specific topics or areas under each module were discussed and eventually applied by the respondents during the next production or cropping cycle. On coconut sugar, the most recalled area discussed under the GAP on coconut sap production was on topic hygienic practices in tapping coconut sap (86%) and proper cleaning of equipment/materials in tapping (95%) (**Table 12**). About 50 percent and 55 percent of reported also to have applied these in coconut sap tapping. All those who attended the training believed that GAP is important in improving productivity, ensuring food safety and improving quality of coconut sap production. On GMP for coconut sugar processing, 14 respondents attended this training and a high percentage reported recalling the topics discussed; with almost about half of those recalling the topic also reported adopting the practice. The same trend is observed for the GMP on coconut syrup processing.

**Table 12. Specific Areas Discussed in B-SAFE Trainings on Coconut Sugar, and Application and Perceived Importance by Respondent**

Specific Training Area	Discussed	Applied	%
<b>Specific GAP area/module in coconut sap production/ tapping (n=22)</b>			
Fertilization of coconut trees	4.5	0	n/a
Hygienic practices int tapping coconut sap	86	50	n/a
Proper wearing of personal protective equipment (PPE) in tapping coconut sap	23	18	n/a
Proper cleaning of equipment/materials in tapping (i.e., sap containers, etc.)	95	55	n/a
Proper use and calibration of equipment (i.e., pH meter, etc.)	14	14	n/a
Others (use of organic fertilizers)	4.5	0	n/a
<b>Perception of its importance in (n=22)</b>			
Improving productivity of coconut sap	n/a	n/a	100
Ensuring food safety in coconut sap tapping	n/a	n/a	100
Improving quality of coconut sap	n/a	n/a	100
Able to apply the learnings (yes)	n/a	n/a	55
<b>Reason for not applying</b>			
Cooking coconut syrup only, stopped collecting sap due to COVID; employed; stopped due to lack of buyers	n/a	n/a	45
<b>Specific GMP areas/modules in coconut sugar processing (n=14)</b>			
Sanitation protocols and maintaining cleanliness of working/processing areas	100	57	n/a

<b>Specific Training Area</b>	<b>Discussed</b>	<b>Applied</b>	<b>%</b>
Proper cleaning of equipment/utensils	93	57	n/a
Maintaining quality of coconut sugar	57	43	n/a
Safety and health protocols in processing	77	50	n/a
<b><i>Perception of its importance in (n=14)</i></b>			
Ensuring food safety in coconut sugar processing	n/a	n/a	100
Improving quality of coconut sugar	n/a	n/a	100
Able to apply learnings (yes)	n/a	n/a	57
<b><i>Reason for not applying</i></b>			
Coconut syrup cooking only, sap tapper only, GMAV stopped operating	n/a	n/a	43
<b><i>Specific GMP areas/modules in coconut syrup processing (n=16)</i></b>			
Sanitation protocols and maintaining cleanliness of working/processing areas	94	62	n/a
Proper cleaning of equipment/utensils	100	69	n/a
Maintaining quality of coconut syrup	69	44	n/a
Safety and health protocols in processing	50	31	n/a
<b><i>Perception of its importance in (n=16)</i></b>			
Ensuring food safety in coconut sugar processing	n/a	n/a	100
Improving quality of coconut sugar	n/a	n/a	100
Able to apply learnings in the next production cycle	n/a	n/a	69
<b><i>Reason for not applying</i></b>			
Coconut sap tapping only; stopped processing; GMAV stopped operations	n/a	n/a	31

For corn, all respondents said the module on land preparation included prescribed number of times for plowing and harrowing, and half reported the practice of stopping zero tillage (**Table 13**). All respondents also found this to be important and 93 percent said they were able to apply these learnings in the next cycle. For the training on organic inputs, all respondents said compost preparation and the health benefits of using organic inputs were discussed. Only 50 percent recalled the lecture of plant juice or plant foliar preparation was discussed, and none reported applying this. All respondents perceived that the training on organic inputs is important in improving the environmental conditions of their farms, soil quality and health of farmers, as well as reducing input costs.

**Table 13. Specific Areas Discussed in B-SAFE Trainings on Corn, and Application and Perceived Importance by Respondents**

	Discussed	Applied	Percent
<b>Specific modules on land preparation (n=30)</b>			
Prescribed number of times for plowing and harrowing	100	93	n/a
Stop zero tillage	50	40	n/a
<b>Perceived to be important in corn production (n=30)</b>			
	n/a	n/a	100
Able to apply learnings in the next production cycle	n/a	n/a	93
<b>Reason for not applying</b>			
Prescribed land preparation technique is laborious	n/a	n/a	3
Prescribed land preparation technique requires high cost	n/a	n/a	3
<b>Specific areas/modules - training on organic inputs (n=30)</b>			
Preparation/making of compost	100	57	n/a
Health benefits from using organic inputs	100	90	n/a
Preparation/making of plant juices (plant foliar)	50	0	n/a
<b>Perception of its importance in (n=30)</b>			
Improving environmental conditions of the farm	n/a	n/a	100
improving soil quality	n/a	n/a	100
Improving the health of farmers	n/a	n/a	100
Reducing the cost of inputs	n/a	n/a	100
Able to apply learnings in the next production cycle	n/a	n/a	90
<b>Reasons for not applying</b>			
Too soon to apply	n/a	n/a	10

All respondents found the training on the use of corn mechanical/combine harvester-sheller to be important in improving the quality of corn. They perceived that the use of the machine will shorten harvesting time. Although all farmer-respondents have the perception that standing corn plants heavily infected with aflatoxin should not use the machine to avoid mixing of the clean and aflatoxin-damaged corn grains resulting to poor quality grains, they also believed that using it with slightly infected corn will not further damage the harvest. The majority (87%) of the respondents, however, said they were not able to apply the learnings in the next cropping season simply because there is no

available machine to use. Other farmers said that the topography of their farm is rocky and sloping such and this will pose problem to the use of the machine.

**Table 14. Respondent perception on the importance of and application of learnings from training on the use of mechanical/combine harvester-sheller in corn (n=30)**

	Percent
<b><i>Important in improving the quality of corn produced/harvested</i></b>	100
<b><i>Perception of benefits/advantages in using mechanical/combine harvester-sheller</i></b>	
Shorten harvesting time	100
Avoid further/increased damage from aflatoxin	100
Decreased harvesting-shelling time	100
Decreased harvesting-shelling cost	50
<b><i>Perception that standing corn crop already damaged with aflatoxin cannot use combine harvester-sheller</i></b>	100
<b><i>Reason why combine-harvested cannot be used on aflatoxin-damaged corn crop</i></b>	
Results to mixing of clean and aflatoxin-damaged corn grains	100
Poor quality of grains (broken grains)	50
<b><i>Applied the learnings in mechanical/combine harvester-sheller in the next production cycle</i></b>	
Yes	10
No	87
Too soon to apply	3
<b><i>Reason for not using combine harvester-sheller following the B-SAFE trainings</i></b>	
There is no available combine harvester-sheller	73
High cost of using harvester-sheller	3
Others (specify) <sup>1</sup>	10

<sup>1</sup>Not applicable because farm is rocky and therefore machine cannot be used due to steep slopes; not planting corn because employee of coop.

On the mechanical dryer training, all respondents found this to be an important practice to avoid aflatoxin damage to corn grains. They perceived that using a mechanical dryer will shorten the drying time, avoid further damage from aflatoxin and generally improve the quality of the grains. Currently, most respondents are sun drying their harvest, while 17 percent practice both sun drying and mechanical drying. While the majority (90%) believe there is a need for this equipment, about half of the respondents do not have an idea on how this can be accessed. Consequently, only 20 percent reported having used dryers after the training.

**Table 15. Respondent perception on the importance of and application of learnings from training on the use of mechanical dryer in corn (n=30)**

	Percent
<b><i>Important to avoid aflatoxin damage in corn</i></b>	100
<b><i>Perception of benefits/advantages in using mechanical dryer</i></b>	
Shorten drying time	100
Avoid further/increased damaged from aflatoxin	100
Improved quality of grains	80
<b><i>Current practice in corn drying</i></b>	
Sun drying	77
Both sun and mechanical drying	17
Not drying corn and selling wet grains	7
<b><i>Need for mechanical dryer</i></b>	90
<b><i>How mechanical drying can be accessed</i></b>	
Through cooperative/organization	16
Through the private sector	33
<b><i>Applied the learnings in mechanical dryer in the next production cycle</i></b>	20
<b><i>Reason for not using mechanical dryer following the B-SAFE trainings</i></b>	
There is no available mechanical dryer	73
High cost of using mechanical dryer	3

All farmers believed on the importance of determining the nutrient requirements or the amount of fertilizers to be applied to improve the quality of soil. After the training, 93 percent of the respondents conducted soil analysis in the next production cycle. Based on the results of the analysis, farmers adjusted the amount of fertilizer applied to the corn plant.

**Table 16. Respondent perception on the importance of soil management and analysis and how facility and services can be accessed (n=30)**

Item	Percent
<b><i>Important in determining the nutrient requirements/amount of fertilizers needed to improve the quality of the soil</i></b>	100
<b><i>How to access soil analysis facilities and services</i></b>	
Through the MAO/PAO	63

DA or DAR	43
<b><i>Applied the learnings in soil analysis in the next production cycle</i></b>	93
<b><i>If yes, soil management practices applied</i></b>	
Adjusted the amount of fertilizers applied to corn	93
Stopped the use of selected fertilizers	20
<b><i>Reason for not applying</i></b>	
No financial resources to buy inputs (fertilizers)	3

Respondents also believed that determining the moisture content (MC) of corn is important as this will cause aflatoxin to spread, resulting in lower prices. The current practice is to use the MC meter owned by the buyers and traders, with about 10 percent saying they use the MC meter provided by the cooperative or farmer organization.

**Table 17. Respondent perception on the importance of using a moisture meter on corn (n=30)**

	Percent
<b><i>Important to determine quality of corn grains</i></b>	100
<b><i>Important to understand the moisture content of corn</i></b>	100
<b><i>Reason why MC in corn is a problem</i></b>	
High MC in corn causes aflatoxin damage	100
High MC in corn is priced lower	100
<b><i>How MC of corn is determined by farmer</i></b>	
Through the MC meter owned by the cooperative/organization	10
Through the MC meter of traders/buyers	83
<b><i>Disadvantages of selling corn with high MC</i></b>	
Low price	100
High incidence of aflatoxin	97

All corn farmer-respondents understand the importance of determining the level of aflatoxin in their corn grains. However, not one owns an aflatoxin tester, and all of them thinks that their cooperative or organization needs one. Only half of the respondents said that testing for aflatoxin is a requirement by the buyer. Majority (69%) have no idea where to source aflatoxin testing or tester, although some said through government facilities (23%) and the private sector (15%). Only two respondents (15%) experienced rejected due to high aflatoxin content and they used the rejected corn as animal feed.

**Table 18. Respondent perception on aflatoxin and the importance of aflatoxin tester in corn (n=13)**

	Percent
Perception that determining level of aflatoxin is important in the quality of corn	100
Farmer thinks his cooperative/organization needs an aflatoxin tester	<b>100</b>
Aflatoxin testing as a requirement in selling corn grains	50
<b><i>Source of testing/tester for aflatoxin</i></b>	
Through government facilities	23
Through the private sector	15
No idea	69
Experienced rejection of corn due to high aflatoxin content	15
What was done with the rejected corn	
Used as animal feed	100

All corn farmer-respondents understand that silage making is important in the conducted trainings due to the following reasons: it can be an alternative source of income, use of crop residues, and can be used as animal feeds.

**Table 19. Perception of importance of silage making (n=11)**

	Percent reporting
<b><i>Reason why silage making is important in corn trainings</i></b>	
As an alternative source of income	100
Use of crop residues	100
Animal feeds	100
<b><i>Practicing corn silage making</i></b>	19
<b><i>If yes, where silage is sold (n=1)</i></b>	
Animal/livestock raisers	100



Of the three trainings for swine, the most attended by respondents was the training on artificial insemination (AI), specifically on the proper handling of animals and use of quality genetic material and animal selection techniques (**Table 20**). Similarly, a high percentage of respondents reported that they applied this practice in swine breeding.

**Table 20. Specific Areas Discussed in B-SAFE Trainings on Swine and are Applied and Perceived Important by Respondents**

	Discussed	Applied	Percent
<b>ASF management (n=3)</b>			
Surveillance of ASF occurrence	67	33	n/a
Proper handling of animals	67	33	n/a
Perceived to be important in controlling spread of ASF	n/a	n/a	100
Able to apply learnings in the next production cycle	n/a	n/a	67
Reason for not applying			
Too few piglets	n/a	n/a	33
<b>Artificial insemination (n=17)</b>			
Use of equipment	29	12	n/a
Use of quality genetic material and animal selection techniques	65	53	n/a
Proper handling of animals	88	71	n/a
Perceived to be important in increasing animal production	n/a	n/a	94
Able to apply learnings in the next production cycle	n/a	n/a	76
Reason for not applying			
Others, specify <sup>1</sup>	n/a	n/a	6
<b>Good Manufacturing Practice (n=7)</b>			
Proper wearing of PPE	14	0	n/a
Proper cleaning of processing area	100	100	n/a
Proper cleaning of equipment/Utensils	100	86	n/a
Maintaining quality of meat products	100	100	n/a
Others, improved preservation techniques	14	14	n/a
<b>Perceived importance in terms of</b>			
Increasing production of meat products	n/a	n/a	86
Improving quality of meat products	n/a	n/a	100
Ensuring food safety in processing meat	n/a	n/a	100

	Discussed	Applied	Percent
Able to apply learnings in the next production cycle	n/a	n/a	100
<b>Good Animal Husbandry (n=3)</b>			
Humane handling of animals from farm to slaughterhouse	33	33	n/a
Proper cleaning of farm/production areas	100	100	n/a
Proper preparation of feeds	66	100	n/a
Improved genetics, breeding and animal selection	33	0	n/a
<b>Perceived importance in terms of</b>			
Increasing production/number of swine	n/a	n/a	100
Improving quality of live animals	n/a	n/a	100
<b>Reason for not applying</b>			
Able to apply learnings in the next production cycle	n/a	n/a	100

<sup>1</sup>Piglet already in heat; stopped production

On milkfish specific training areas, the GAqP was attended by all respondents. All recalled topic discussed was the improvement in fry/fingerling production, such as the Garungan rearing technique, and 83 percent applied the practice (**Table 21**).

**Table 21. Specific Areas Discussed in B-SAFE Trainings on Milkfish, and are Applied and Perceived Importance by Respondents**

	Discussed	Applied	Percent
<b>Good Aquaculture Practice (n=30)</b>			
Improvement in fry/fingerling production (i.e., Garungan rearing techniques)	100	83	n/a
Biosecurity measures in the farm (i.e., fence, proper storage for feeds, etc.)	10	7	n/a
Hygienic disposal of solid and liquid wastes	10	7	n/a
<b>Perceived to be importance in</b>			
Improving milkfish production	n/a	n/a	97
Ensuring food safety in milkfish production	n/a	n/a	100

Able to apply learnings in the next production cycle	n/a	n/a	83
<b><i>Reason for not applying</i></b>			
No capital, employer stopped production	n/a	n/a	17
<b>Good manufacturing practice in processing milkfish products (n=2)</b>			
Proper wearing of PPE in processing	50	n/a	n/a
Proper cleaning of processing areas	50	50	n/a
Maintaining high quality of milkfish products	100	50	n/a
Able to apply learnings in the next production cycle	n/a	n/a	50
<b><i>Perceived importance in terms of</i></b>			
Improving productivity of milkfish product production	n/a	n/a	100
Ensuring food safety in milkfish processing	n/a	n/a	100
Improving quality of milkfish products	n/a	n/a	100
Able to apply learnings in the next production cycle	n/a	n/a	50



### 3.4.3. Respondent's Rating on B-SAFE trainings



A Likert Scale was employed as a summary measure to evaluate the various trainings provided by B-SAFE. Three evaluation criteria were used namely, relevance, effectiveness, and timeliness. In addition, the effectiveness of the resource persons was evaluated against their mastery of the subject and delivery of the topics. The Likert Scale captured the respondent's level of agreement or disagreement to a positive statement related to the criterion examined. The study used a five-point scale ranging from 1 - strongly disagree to 5 - strongly agree.

#### 3.4.3.1. Relevance

The study used four specific metrics to gauge the relevance of the trainings: (1) importance in improving production; (2) importance in ensuring food safety; (3) comprehensiveness or substantive content; and (4) accuracy of information provided. The last two metrics may not directly relate to relevance but were included anyway as there were indications from the qualitative part of the study that farmers tend to associate relevance to these two metrics also. Apparently, a training may not actually address their needs (i.e., irrelevant) if the content is inadequate and inaccurate.

The positive statements posited to which the level of agreement/disagreement of the respondent was measured were:

-  The training provided by B-SAFE was important in improving the production of commodity
-  The training provided by B-SAFE was important in ensuring safety in production/processing of commodity

-  The training provided was comprehensive
-  The training provided by B-SAFE was accurate

The study found that the trainings provided by B-SAFE were highly relevant as assessed by the respondents themselves. This is evident from the responses and rating distributions which are highly skewed towards the higher values (i.e., 4 and 5), regardless of the B-SAFE target commodities (**Figure 2**). Results show that respondents found the trainings (**Table 21**) to be relevant in terms of improving productivity and ensuring food safety.

Coconut sugar respondents stated the trainings provided additional and useful information on how to maintain cleanliness in both sap tapping and coconut sugar processing. This includes the use of PPE and proper equipment, among others. Similarly, corn farmers viewed the training as highly relevant as it addressed their need for improved production/productivity. According to these respondents, it is important that they increase their production and improve the quality of their grains to achieve higher income, which is critical for smallholder farmers. On silage making, farmers indicated that the training provided other means of selling corn and therefore other sources of income, as well.

The two trainings on swine also received high ratings on relevance. On meat processing, respondents said that the topics are very important as clean food is important to protect customers against diseases. There were many realizations, including improper handling of meat resulting in dirty meat. Lectures were accurate and comprehensive with many examples provided. On genetics and AI, the topics were new to some participants and thus allowed them to gain new knowledge. The topics were important for improved production and decreased swine mortality. Respondents also cited the importance of clean surroundings or proper sanitation as an important topic to help in disease prevention. They stated the training was comprehensive and they learned many things. Accuracy was also cited as some of the topics were already being practiced hence this was validated by the lectures.

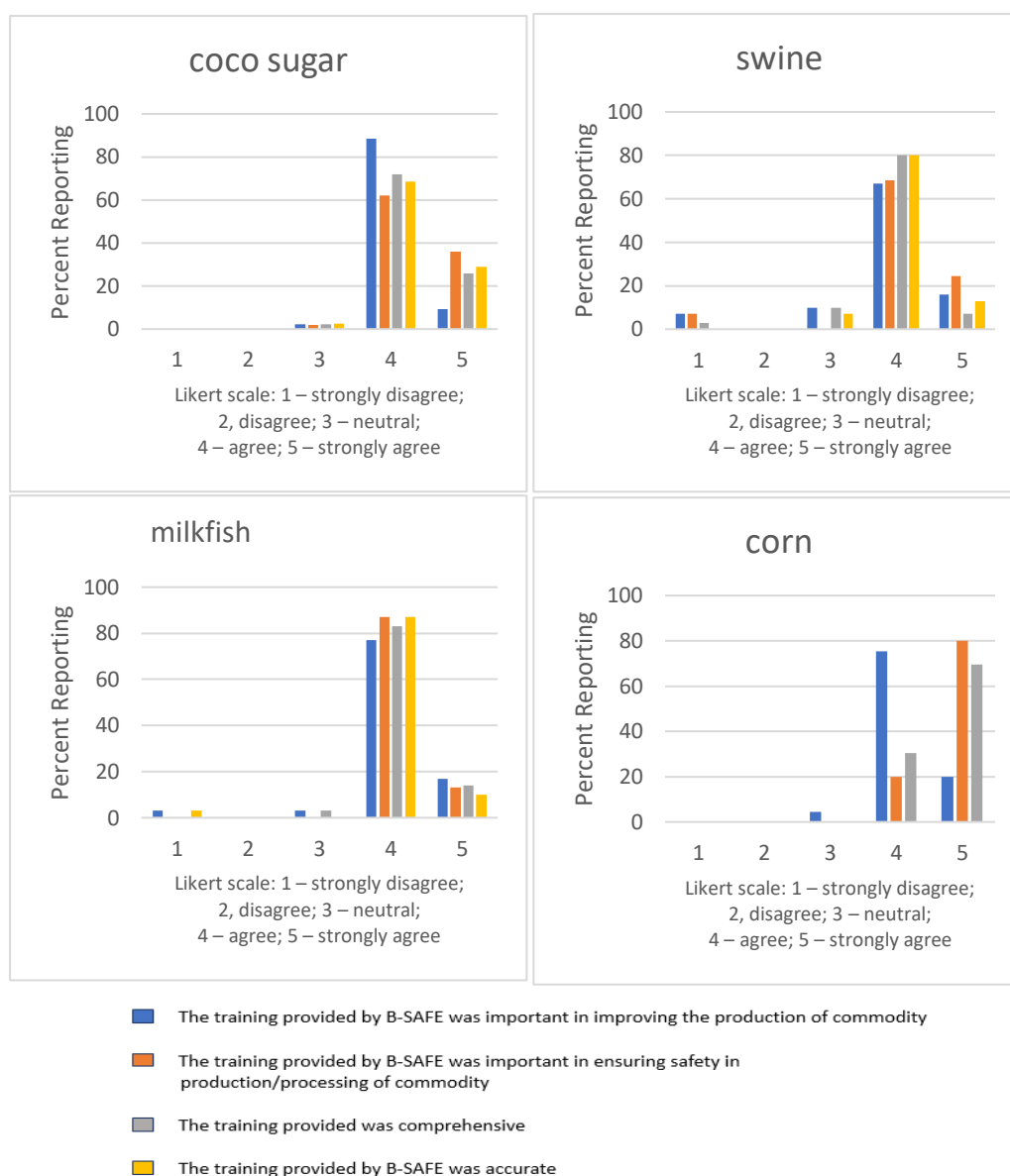
According to milkfish respondents, production improvement is very important, hence the trainings is very relevant as they gained knowledge and new learnings. Among these are the importance of cleanliness; that safe and clean milkfish is important and should be the goal of every producer. This will also improve farmer yield. The training was also considered comprehensive and accurate as these validated what some are already practicing in the industry.

**Table 22. Trainings conducted by B-SAFE and number of respondents able to attend**

Title of Training	Number of respondents able to attend training
Coconut sugar	
1. Good Agricultural Practice (GAP) in coconut sap tapping	22
2. Good Manufacturing Practice (GMP) in coconut sugar/coconut syrup	15
Corn	
1. Proper handling, treatment, and use of improved corn seed varieties and on the improved corn production techniques and technologies	30
2. Silage Making	11
Swine	
1. Food safety practices on hygienic meat processing/handling	7

Title of Training	Number of respondents able to attend training
2. Fundamentals in swine genetics, breeding, selection and artificial insemination	17
Milkfish	
1. Improved milkfish supply chain functioning (topics on GAqP, particularly on land preparation and water quality maintenance)	30
2. Good manufacturing practices in milkfish processing	2

**Figure 2. Respondent's Rating on the Relevance of B-SAFE Trainings**



### 3.4.3.2. Effectiveness

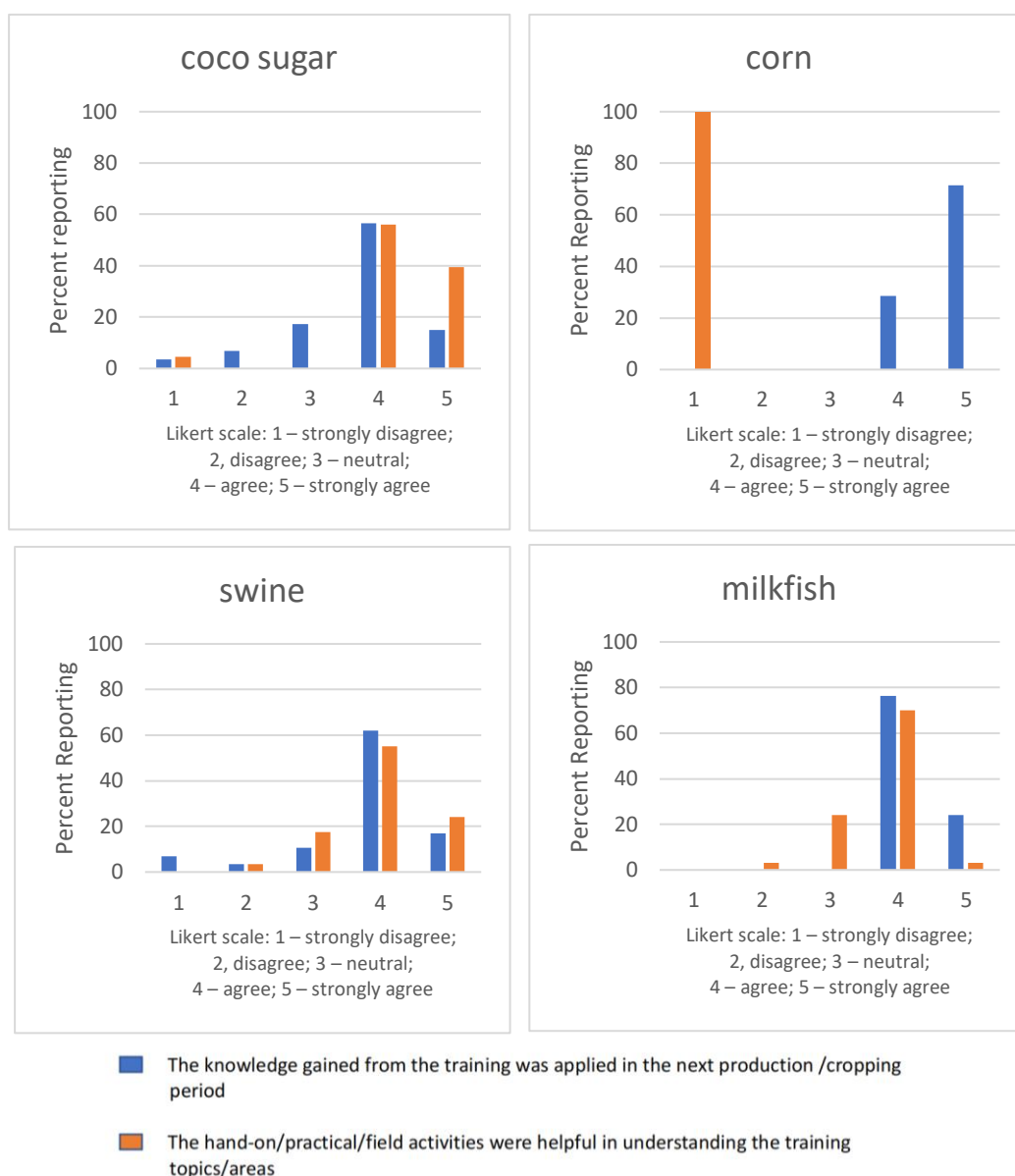
The effectiveness of the trainings was assessed by determining whether learnings have been applied and a practical approach such as hands-on exercises were employed. Based on the qualitative findings, farmers were appreciative of trainings especially when actual demonstrations involved. Some farmers subjected to KIs said they readily tried what they learned from the trainings since the steps were demonstrated to them.

The positive statements posited to the respondents to which their level of agreement/disagreement were elicited were:

- ☒ The knowledge gained from the training was applied in the next production /cropping period
- ☒ The hands-on/practical/field activities were helpful in understanding the training topics/areas

**Figure 3** showed that except for one metric on corn, majority of the respondents agreed/strongly agreed that the trainings were effective. The exception in corn was due to the fact that there were no hands-on/practical/field activities conducted.

**Figure 3. Respondent's Rating on the Effectiveness of B-SAFE Trainings**



On the effectiveness of the trainings in coconut sugar and coconut sap, respondents said they tried to apply the techniques taught and found them to be effective and very useful. The hands-on demonstration was very effective and able to provide a clear picture of the process. In addition, respondents said that the trainings helped them maintain hygiene of their products. However, a few participants rated the effectiveness of the training as neutral or even lower. This is because some of the respondents stopped coconut sap tapping and coconut sugar production because of the closure of their main market.

All corn farmer respondents claimed they tried to apply what they learned from the training, except those on silage making since there were no hand-on exercises.

In swine trainings, some respondents said they applied the learnings because they realized that what they were practicing were not proper, hence old practices were changed. One respondent cited that one such practice is the need to separate knives from chopping boards. There was no actual demonstration on handling meat, only lectures and images in the presentations. On genetics and artificial insemination training, 15 out of 24 respondents have reported to be practicing artificial insemination as this is easier than natural reproduction. They said they have noticed the difference, as



this has prevented the occurrence of diseases and increased pig production. Some have not yet applied the practice since there is no semen available. Discussions were complemented by videos, as there were no actual demonstrations made.

Although many of the respondents are applying the lessons learned from the trainings in their milkfish production systems, some also said that it is difficult to immediately change what they are already used to practice. Some also said that although they have practiced some of the learnings, they have yet to see the results at harvest time.

#### 3.4.3.3. Timeliness

Two specific metrics were used to examine the timeliness of the trainings provided. The first metric refers to the length of the training itself while the second metric captured the period the training was conducted. The first metric may not technically be considered as a measure of timeliness but was included nonetheless as the information could be useful for future training design. The second metric was deemed important as there were indications from the qualitative study that farmers who were provided training just before the onset of the production cycle were more likely to apply the learnings during the said cycle.

The positive statements to which the participant's level of agreement/disagreement were elicited were:

-  The allocated time was appropriate to ensure an understanding of the lectures and exercises
-  The timing of the training was appropriate, given it was conducted before the next production/cropping season

For coconut sugar trainings, respondents said that they had enough time to learn and gain knowledge and improve on their old practices and that there was enough time to discuss all topics (**Figure 4**). They were also able to apply the learnings immediately after the training since tapping and coconut sugar production is completed daily with no set season. However, some also indicated that the timing was off because their main market, the GMAV, has stopped operating at the moment.

Corn farmer respondents agreed that the training was well timed since they were able to apply what they learned in the succeeding cropping cycle. They stated that the training was conducted just before the next cropping started. Some used the training as a guide, including for land preparation.

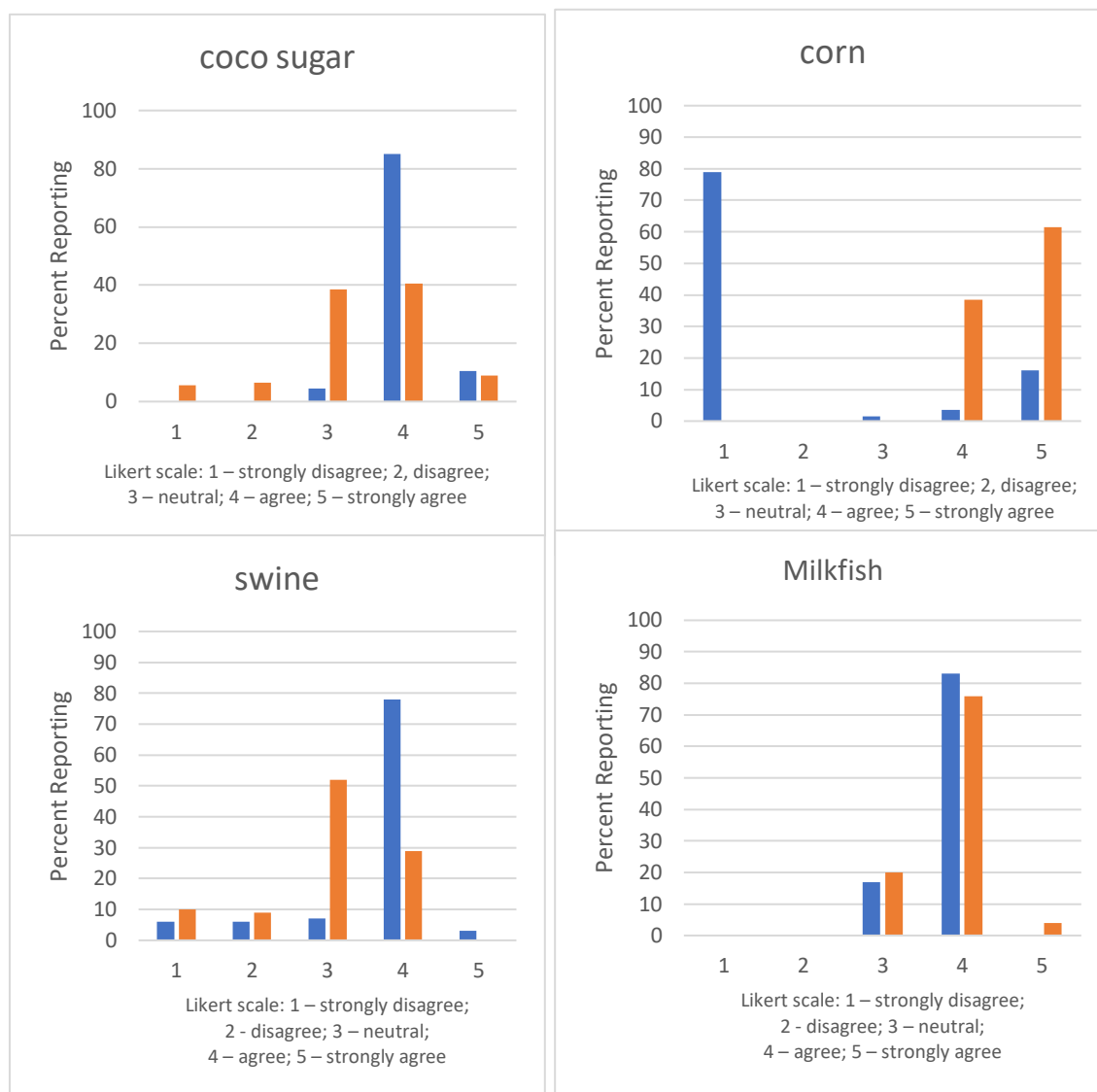
Although the majority of respondents for meat handling stated the time allotted for the training was sufficient, some also said that this was lacking. The discussions during the open forum had to be extended due to interest from participants. For the genetics training, respondents are a bit mixed with some saying the time for the training is just right, another said it was too long, while another said it was short. Similar with meat handling training, the genetics training also required extending the time during an open forum. In terms of timing of application, many already applied the learnings. For meat handling training respondents, the training was timely for selling and handling of meat, however, some topics are meant for slaughterhouses rather than for small meat processors and handlers. For genetics training, there was good timing since many of the participants said their sow was in heat and were ready for artificial insemination.

Milkfish trainees had mixed views in terms of the training duration, with the majority saying the length was just enough, while some said it was too short. In addition, some respondents said that although



the lectures and PowerPoint materials were good, hands-on activities in the pond would have been most effective. Case-by-case scenarios or discussions of different situations were also suggested for better appreciation.

**Figure 4. Respondent's Rating on the Timeliness of B-SAFE Trainings**



- The allocated time was appropriate to ensure an understanding of the lectures and exercises
- The timing of the training was appropriate, given it was conducted before the next production/cropping season

#### 3.4.3.4. Resource person

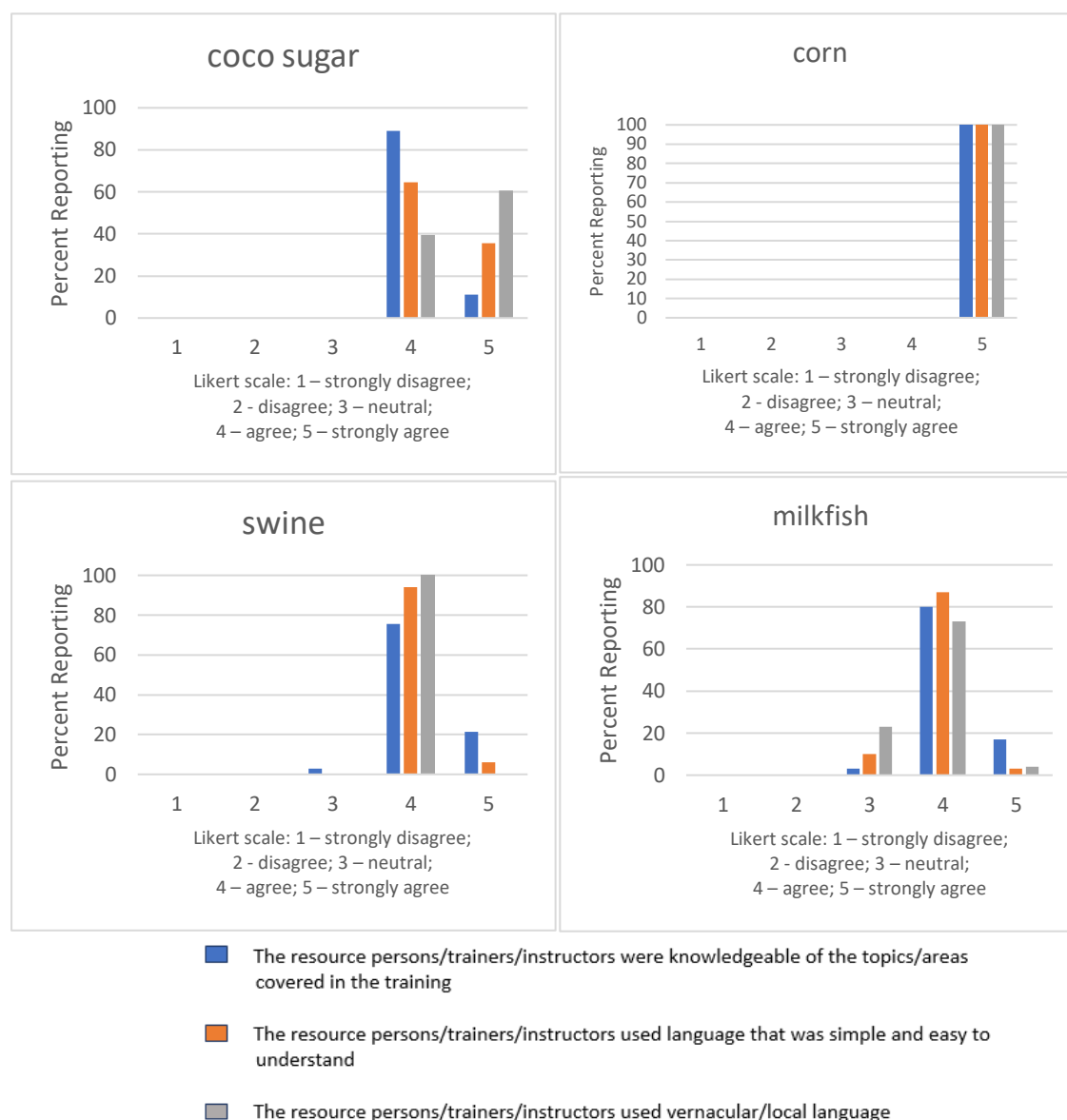
Resource persons ratings were examined using the following:

- The resource persons/trainers/instructors were knowledgeable of the topics/areas covered in the training

- The resource persons/trainers/instructors used language that was simple and easy to understand
- The resource persons/trainers/instructors used vernacular/local language

Coconut sugar and corn respondents found the resource persons to be knowledgeable, credible and were considered experts in their fields (**Figure 5**). They know the processes well and introduced new and better techniques using simple and easy to understand terminology. More importantly, they used the local dialect in the lectures and discussions.

**Figure 5. Respondent's Rating on the Resource Persons of B-SAFE Trainings**



For swine, respondents said the resource persons were very knowledgeable, experienced and explained the topics well as shown in the way they answered questions or provided clarifications. Speakers had international exposure and came from large companies. They used a mix of English and vernacular in the trainings and translated into vernacular the English technical terms used. They were lively and not boring.

The resource persons for milkfish also received higher ratings from beneficiaries, citing that the resource person was very knowledgeable, confident, able to explain well, shared a lot of lessons and had a very well-prepared power point presentation. The only drawback was that a few participants cited that sometimes they could not understand the English terms used during the lecture as the presentation was not translated into the vernacular.

See **Annex 23-26** for specific commodity trainings ratings for resource persons.

The number of respondents reporting to not able to produce or continue production after receiving B-SAFE trainings is presented in **Table 23**. For coconut sugar, 10 respondents did not produce any of the products such as coconut sap, coconut sugar or coconut syrup. This is primarily because they shifted to producing vinegar or tuba (for coconut sap) or stopped production of coconut syrup. The main reason is that the coconut sugar processor has stopped operation and they have nowhere to bring their products.

For corn, 90 percent of respondents were able to produce after the trainings. For swine, only 42 percent reported to have continued production, as many are affected by COVID and ASF.

**Table 23. Respondents reporting not producing after receiving interventions from B-SAFE**

Commodity/Product	Number	Percent
Coconut sugar		
Coconut sap	10	33
Coconut sugar	6	20
Coconut syrup	10	33
None	10	33
Corn	27	90
Swine		42
Milkfish	22	73

#### 3.4.4. Volume and value of production

Although the value of coconut sap production has increased, many of the tree tappers sell their products not for coconut syrup or coconut sugar, but as vinegar or as *tuba*. This is because their main market has closed down and is not producing coconut sugar at the moment.

Rejection of coconut sap was also reported by 60 percent of respondents before B-SAFE by an average volume of 0.66 liters per day. The number of respondents reporting rejected coconut sap went down to 40 percent with an average volume of 0.40 liters per day after the B-SAFE training. The reason for rejection was due to the presence of residues and the sap did not meet the minimum quality standards.

The volume of production for coconut sugar decreased considerably by about 100 kg per week after the B-SAFE training (**Table 24**) primarily because a large producer of coconut sugar stopped production for lack of market. This resulted in a decreased in total value of production despite the increase in the

price of coconut sugar. The increase in price was due to the improvements in the quality of the coconut sugar as reported by 83 percent of respondents.

For coconut syrup, average production also increased from 18.8 li/week to 20.70 li/week after B-SAFE training. With the price of coconut syrup increasing from PhP 67.50 to PhP 70.00 per li, the value of production also increased.

**Table 24. Volume, price and value of production before and after B-SAFE, coconut sugar, coconut sap and coconut syrup before and after B-SAFE**

Item	Before B-SAFE	After B-SAFE
Average number of trees/tapping	46	46
<b>Coconut sap (n=10)</b>		
Average Production per day (liters)	3.60	3.80
Price (PhP)/liter	8.75	8.88
Value of production per day/tree	31.50	33.74
Value of production per day for 33 trees	1,039.50	1,113.50
<b>Coconut sugar (n=6)</b>		
Production per week (kg)	213.33	133.66
Price (PhP)/kg	175.00	187.50
Value of production per week	37,332.75	25,061.15
<b>Coconut syrup(n=10)</b>		
Production per week (liters)	18.80	20.77
Price (PhP)/li	67.50	70.00
Value of production	1,269.00	1,453.90

Corn yield and price also increased, and as a result, value of production increased from PhP124,657.88 to PhP188,625.29 per hectare during the production period following the B-SAFE training (**Table 25**).

**Table 25. Volume, price and value of production before and after B-SAFE, corn before and after B-SAFE**

Item	Before B-SAFE	After B-SAFE
Area	2.34	2.34
Yield (mt/ha)	3.13	4.29
Price (PhP/kg)	17.02	18.79
Value of production/ha (Php)	124,657.88	188,625.29

For swine, although the percentage of respondents reporting being able to produce is only 42 percent, the volume of production of fatteners and piglets increased (**Table 26**) during the period immediately after B-SAFE training. The selling price also substantially increased due to ASF.

**Table 26. Volume, price and value of production before and after B-SAFE, swine, before and after B-SAFE**

Item	Before B-SAFE	After B-SAFE
<b>Volume of Production (head/cycle)</b>		
Sow	2.7	2.7
Fattener	11.4	14.9
Boar	1	1
Piglet	5.4	10.4
<b>Selling Price (PhP/head)</b>		
Fattener	11,785	14,993
Piglet	2,410	3,024
<b>Value of Production</b>		
Fattener	11,785	14,993
Piglet	2,410	3,024

The trend for the volume of production for milkfish products varied before and after the B-SAFE training (**Table 27**). For fresh products, the total production decreased as well as the number of cycles. For milkfish and fingerlings, the total production increased after the training. For processed milkfish, the total production also increased after the training.

**Table 27. Volume, price and value of production before and after B-SAFE, milkfish, before and after B-SAFE**

Item	Before B-SAFE	After B-SAFE
Milkfish		
Volume of production (fresh)		
mt of 2-pcs/ kg milkfish/harvest	340.00	406.67
mt of 3-pcs/ kg milkfish/harvest	549.00	519.00
mt of 4-6pcs/ kg milkfish/harvest	266.67	172.00
Other size	26.60	28.57
Number of production cycle/farm/year	3.07	2.47
Price (in PhP)/kg		
2-pcs/ kg	96.00	101.67
3-pcs/ kg	118.00	136.00
4-6pcs/ kg	77.20	83.33
Other size	12.00	13.33
Volume of milkfish fry and fingerling production (pcs)		
Fry	27,777.78	36,666.67
Size 8	3,888.89	8,888.89
Size 10	5,000.00	9,055.56
Size 12	3,777.78	6,444.44
Size 14	10,055.56	8,000.00
Size 17	17,555.56	5,777.78
Number of production cycle per month	2.11	2.67
Price of fry and fingerlings (in PhP/piece)		
Fry	2.05	1.39

Item	Before B-SAFE	After B-SAFE
Size 8	3.89	5.44
Size 10	4.06	5.78
Size 12	4.17	4.17
Size 14	4.11	4.89
Size 17	3.40	3.67
Volume of processed milkfish (packs/month)		
Deboned bangus	500.00	500.00
Bangus shanghai	200.00	1,000.00
Price of processed milkfish (in PHP/pack)		
Deboned bangus	120.00	120.00
Bangus shanghai	25.00	25.00

## 3.5. Revisiting the Theory of Change, Results Framework and Assumptions

### 3.5.1. Theory of Change and Results Framework

The TOC and RF are provided in **Annex 1**. The theory is built around two reinforcing pillars: (1) GOP regulatory agencies' capacity in risk-based SPS systems; and (2) SPS-compliant supply chain linkages. There are five foundational outcomes which B-SAFE are expected to generate, three are on improvement of capacity (of government agency, people in production and people in trade), the other two are on improvement in policy and regulations and leveraging public sector resources.

A participatory systems analysis (PSA) tool was employed to examine the relationships among the five foundational outcomes and the role that each of these play in the system. A better understanding of such role is crucial in appraising the focus and direction that the project has made thus far and in gauging the significance of B-SAFE's accomplishments as viewed against a systems perspective.

Any factor or element in a given system plays a distinct role depending on the degree by which it interacts or influences the other factors/elements in the system. It is therefore crucial to understand the role that each factor plays to get a better handle at how changes in the system can be affected. In the present case of the food safety system, B-SAFE intends to effect improvements by strengthening at least five elements namely, the capacity of the regulating agencies, the capacity of people in production, the capacity of people in trade, the policy/regulation governing the system and the resources that gets into the system from the public and private sector. The project theorizes that if improvements can be made in these five elements the country's food safety system will improve. However, while these five elements are undeniably important, the role that each play in the system is unclear.

An element in a system can fall in any of the following classifications depending on its influence on the other elements:

Critical Element: Accelerator or catalyst and changes many things quickly

Motor or Lever:	Drives the system. An active factor which is usually the entry-point for intervention
Symptom:	Greatly influenced by other factors. Not much power to change the system. Intervention is akin to addressing the symptom, not the problem
Buffer:	Low importance in the context

The results of the PSA analysis are shown in **Table 28** (PSA Matrix) and **Figure 6** (PSA Quadrant). As shown, the capacity of regulating agencies is a critical factor while policy/regulation and leveraging public resource are motors or levers. The capacity of producers and capacity of traders are buffers, which means these are of low importance in the context. The logical interpretation of these results is as follows:

“To affect change (i.e., improvement) in the food system, improving the policy/regulation and resources are the entry points as these are the drivers in the system. These are the factors that would initiate the process of change. Once initiated, improving the capacity of the regulatory agencies will accelerate such change. Improving the capacity of the producers and traders is of low importance in the context, which means improving such capacity alone without improving the policies/regulations and the capacity of regulators would not affect any significant change in the system”.

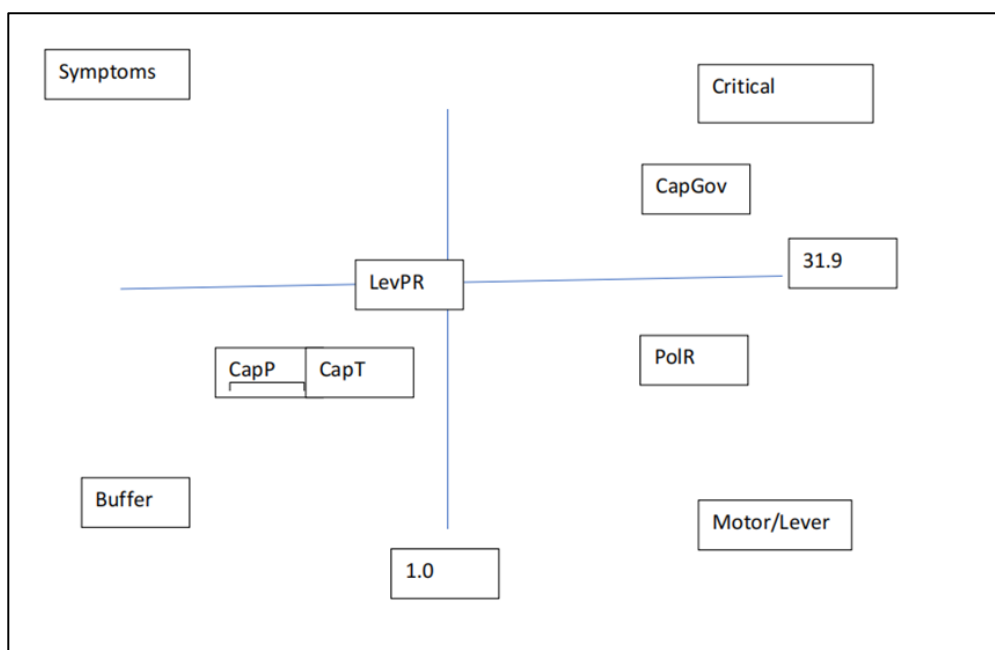
Given the above logical narrative, the direction and focus of B-SAFE during the early phase of implementation are on point. Much of the initiatives of B-SAFE during the first half of the project life were focused on supporting policy/regulation reforms and building the capacity of the regulatory agencies. However, the project should also realize that it is missing on another important element, which is the need to leverage public sector resources. This element is another important lever that could enhance project success.

**Table 28. PSA matrix**

	CapGov	CapP	CapT	PolR	LevPR	AS	DI
CapGov	0	2	2	2	2	8	33.6
CapP	0.1	0	0.5	0.5	1	2.1	10.5
CapT	0.1	1	0	0.5	1	2.6	11.7
PolR	2	1	1	0	2	6	24
LevPR	2	1	1	1	0	5	30
PS	4.2	5	4.5	4	6		
AR	1.9	0.4	0.6	1.5	0.8		

Note: CapGov (capacity of regulatory agencies); CapP (capacity of producers); CapT (capacity of traders); PolR (policies and regulations); LevPR (leveraging public sector resources)

**Figure 6. PSA Quadrant**



### 3.5.2. Critical Assumptions of the Project

The project has seven critical assumptions which must be realized for its TOC to hold:

1. Public sector commitment to harmonize regulatory framework and invest in enforcement remain strong;
2. Expanded domestic and export market opportunities are sufficient to incentivize the private sector to invest in SFS and food safety compliance;
3. The GOP can establish itself as honest broker to deliver evidence-based information campaign on the safety of biotechnology;
4. A significant outbreak of foodborne disease (FBD) can be competently managed and contained by regulatory agencies;
5. Philippines' major trading partners don't impose unjustified export bans;
6. Trade relations with US, Europe and ASEAN remain stable; and
7. Applicable international standards remain consistent during the life of the project

There appears to be no significant development in the external environment of B-SAFE which may have adverse implications on the critical assumptions of the project. The pandemic was not anticipated during the period of project design; hence it is not part of the critical assumptions. It was the pandemic, however, which proved to be the greatest challenge to effective project implementation. The slow pace of implementation can be attributed almost entirely to the pandemic which started to wreak havoc right at the onset of project implementation.

The commitment of the public sector to improve the food safety system in the country remains very strong. This is evident from the fact that all the FSRAs eagerly collaborated with the activities of B-SAFE, especially on capacity needs assessment and in participating in the various trainings of the project. The enactment of the Food Safety Act alone, is enough evidence of the continuing commitment of the government to improve food safety.



The global trade environment is vibrantly bouncing back after almost three years of disruption brought about by the pandemic. The export market continues to offer huge agribusiness opportunities to those who can comply with the necessary standards. International trade governance continues to remain strong under the WTO. The WTO Ministerial Conference in June 2022 adopted a multilateral Declaration on SPS, which would push members to take stronger science-based approaches in assessing trade of food and agricultural products.

Trade relations with US, Europe and ASEAN have remained strong especially as the adverse impact of the pandemic on commodity trade and product movement is consistently easing out. ASEAN Free Trade Area (AFTA) remains strong and trade opportunities have expanded as ASEAN forges free trade with Canada, New Zealand and other countries. These expanding opportunities provide huge incentives for the producers and traders of agriculture and food products to comply with the necessary SPS and other food safety standards.

The disruptions being brought about by international conflicts, such as the Ukraine-Russia war had not been anticipated by the project thus, is not part of the critical assumptions. This conflict has led to serious increases in energy cost as well as prices of farm inputs, particularly fertilizer. Escalation of this conflict would have enormous disruptive consequences, especially on international trade. Thus far, the conflict is not serious enough to adversely constrain B-SAFE from achieving its goals.

## 4. Conclusion: Answer to the Evaluation Questions

The study concludes by answering the evaluation questions specified in the TOR for this work. The evaluation questions are organized along the OECD-DAC evaluation criteria of relevance, effectiveness, efficiency, sustainability and impact.

### 4.1.1. Relevance

#### **1. How accurate have the critical assumptions underpinning the project proven to be in practice? Were other critical factors unaccounted for?**

There appears to be no significant development in the external environment of B-SAFE which may have adverse implications on the critical assumptions of the project outlined above in Section 3.5.2.

#### **2. To what extent are project activities addressing the needs of project participants?**

Thus far, the project has adequately addressed the needs of the FSRAs for capacity development with the completion of the capacity needs assessment, the formulation of the capacity development agenda and the conduct of various trainings designed to improve the technical capacity of these agencies. Extent refers to scale or size, thus it is concluded that since correctly identifying the capacity needs is already half of the work needed to develop such capacity, then the project has adequately addressed the capacity need during the first half of the project's LOP. This is not to mention that the project has already carried out a number of capacity development trainings for which favorable feedback were derived from the participants. Among the notable accomplishments of the project on top of capacity needs assessment and formulation of capacity needs agenda were the improvement in DA and FDA's understanding of the principles of risk-based management, the introduction of P-IMA as a prioritization framework for agencies regulating exported products, such as BFAR, BPI, NMIS and BAI as well as the assistance on the various policy initiatives on biotechnology.

However, the contribution of B-SAFE to address the needs to improve the various DA laboratories has so far been limited. The project intends to complete a benefit-cost analysis for the improvement of the

laboratories and assessing the comparative advantage of the DA in providing laboratory.

The accomplishments of B-SAFE in addressing the needs of people in production and trade are still limited, but undoubtedly significant as identified in earlier sections of this report.

In summary, B-SAFE has adequately addressed the needs of people in government and has so far significantly addressed the needs of people in production and trade, albeit much remains to be done to really address the needs of the latter. As of the evaluation period, the accomplishments of B-SAFE against its targets for people in government was already between 50 percent to 83 percent, while the accomplishments for people in production and trade was still low at around 4 percent of the target. This low level of accomplishment is could entirely be attributed to the pandemic, as well as the delays caused by the need to comply with MC 16. It should be noted though, that the project has already put in place all the groundwork needed to accelerate the accomplishments in this area, especially with the easing of the pandemic situation.

***3. Do private sector project participants, (i.e., producers and people in trade) find the project activities are contributing to improved Sanitary and Phytosanitary Standards (SPS) in production and management of their supply chains?***

There is enough empirical evidence to conclude that the private sector participants find the project activities are contributing to improved SPS in production and management of their supply chains. From the validation survey and using the Likert Scale to examine the relevance of the project to improving production and improvement of food safety, the study found that overwhelming majority of respondents viewed the trainings provided by the project as highly relevant. In all four commodities, the distribution of responses was highly skewed to the highest value (i.e., 5 which indicates highly relevant). The qualitative component of the study, which involved KIIs and FGDs of people in production and trade, also revealed that project participants were highly appreciative of the trainings and other interventions provided by the project as these help increase their production and enable them to comply with the needed standards.

***4. To what extent are project activities as implemented thus far aligned with the USDA Food for Progress objectives? To date, what areas of project implementation are contributing most to USDA Food for Progress objectives?***

The FFPr objectives to which B-SAFE is designed to contribute are on increase agricultural productivity and expanded trade of agricultural products. All project activities detailed in this report are completely aligned with the FFPr objectives. The strategy of B-SAFE to improve SPS in production and management of supply chains coupled with improvement in the capacity of food safety regulatory agencies will open enormous opportunity for expansion of Philippines agricultural exports. In addition, the project is promoting improved management practices and techniques designed to improve the productivity of corn, coconut sugar, milkfish and swine across intervention areas.

To date, the areas of the project contributing most to the FFPr objectives are the capacity enhancement of the people in government and people in production and trade. The project has already conducted numerous trainings for these stakeholders which were found to be highly relevant and effective based on the KIIs, FGDs, and survey conducted.

**5. To what extent is the project addressing the Government of the Philippine's national strategies and plans for agricultural development and trade?**

Two of the prominent agricultural development programs of the country are food security and export competitiveness. B-SAFE is significantly contributing to these programs. Food security refers to the availability and access to safe food—a concept to which the development of an effectively functioning food safety system is an imperative. Moreover, compliance to SPS and other international food safety standards is an important requisite to achieving export competitiveness.

The project has already laid the groundwork for an effective functioning food safety system in the country. The capacity needs of FSRAs have already been identified and prioritized, including those agencies directly involved in regulating exported and imported agricultural products. More importantly, significant accomplishments have already been achieved through trainings and other technical assistance to address the capacity gaps. The works involving the various supply chains may have lagged in relation to targets due to the pandemic. Nevertheless, significant accomplishments have also been achieved already through the trainings and technical assistance provided by the project.

**6. Do B-SAFE's partner regulatory agencies find project activities are contributing to the following:**

- *Improving their capacity to manage risk-based systems?*
- *Promoting awareness as well as the safe and responsible use of biotechnology in the Philippines?*
- *Enhancing regulatory standards and processes?*
- *Enhancing domestic and export market linkages?*

***Why (or why not) do the agencies feel that way? How are project activities contributing to this change?***

Except for enhancing domestic and export market linkages, there is ample evidence from the study that the project is contributing to the enumerated areas above. The KIIs conducted for the FSRAs (see section 4 of this report) are replete with quotes from the respondents indicating the importance of the B-SAFE interventions in managing risk-based systems, promoting awareness for the responsible use of biotechnology and enhancing regulatory standards and processes. The accomplishments of the project are focused thus far on capacity enhancement for people in government, production and trade. It will probably take a longer time for such improvements in capacity to manifest as concrete improvements in the food safety system and enhance domestic and export market linkages. What the project has accomplished so far are foundational in nature—extremely necessary for the improvement of the food safety system but will require longer time for the benefits to actually be realized.

**7. Are there unanticipated opportunities or challenges that may require revisions to B-SAFE's strategy or reallocation of project resources?**

The evaluation did not find any unanticipated opportunities or challenges that may require revisions to B-SAFE's strategy or reallocation of project resources. It was observed that the project adopted an “open” framework when it comes to providing support to the FSRAs and those in the different supply chains. The project did not come with a pre-identified fixed set of interventions for the FSRAs and those in the different supply chains. The project typically started with extensive exploratory activities designed to identify the gaps or areas where the project could have the greatest added value. This

strategy appeared to be effective as the project is now addressing areas where it can have the greatest impact. With this strategy, it was impossible to miss unanticipated opportunities or challenges.

**8. *Is the project's technical assistance to both the public and private sector being planned and implemented to complement each other to address the project's twin objectives? Can activities be more complementary?***

B-SAFE's technical assistance to the public and private sectors are highly complementary. The complementation is clear even in the project design (i.e., TOC and RF) and foundational outcomes the project intends to generate. The technical assistance to the FSRAs is intended to improve the capacity of these agencies to regulate for food safety while that for the private sector is to enhance compliance to the regulations.

#### **4.1.2. Effectiveness**

**1. *How has the COVID 19 pandemic affected project implementation to date? How has the project adapted to COVID related restrictions (e.g., adapting project plans and operations, adjusting to B-SAFE's technical approach)?***

The COVID 19 pandemic is the single most important factor which constrained the project from achieving its targets, especially those involving the various supply chains. As presented in Section 3.2 of this report, the average accomplishments of the project for the 14 performance indicators as of September 2022, was only 18.5 percent, which is low for a project halfway into its project life. The lowest cumulative accomplishments were for those relating to people in the private sector, because of the difficulties encountered in reaching these stakeholders at the height of the movement restrictions due to the pandemic.

Interestingly though, the project is on target for people in government. This is because of the adjustments made to cope with movement restrictions such as conducting the project activities virtually. As a strategy, the project focused much of its work on the FSRAs during the height of the pandemic. It also did extensive groundwork and preparatory activities on the various supply chains, such as conducting virtual consultations with various groups. Initially, many of the trainings were conducted virtually, but a blended approach was started when the pandemic began to ease.

**2. *Have there been any improvements in technical capacity of food safety regulatory agencies (including phytosanitary, veterinary services, food control)? How have these changes been attained? If not, why not?***

There is clear evidence suggesting that the technical capacity of some FSRAs have already improved as a result of B-SAFE's interventions. The project conducted a baseline assessment of the FSRAs capacity. A reassessment was made after the interventions (mostly trainings and technical assistance) to determine improvements. It was found that BPI and FDA improved in the areas of risk analysis and inspection (from partially to mostly in place) while BAI moved one level up on both areas (surveillance and laboratory quality assurance). This is attributed to the newly issued and revisions of administrative orders (AO) that aim to institutionalize risk categorization, assessment, and management at the agency level, which were prompted and informed by B-SAFE's capacity building activities.

BAI has a risk analysis team that spearheads the implementation of risk management as part of its compliance to ISO 9001:2015. In addition, it is regularly updating its bulletin on the prevalence of animal diseases such as ASF and Avian Influenza, which has been effective in implementing risk-based measures to prevent spread of diseases.

BFAR expressed that there is a continuous improvement of their system including development of a database on categories of species based on identified risk, which will help them carry out risk analysis. FPA is likewise in the process of revising its GMP checklist, which it hopes will facilitate their inspections particularly for the establishments seeking applications for a license to operate. Both agencies recognize that these initiatives require policies and additional resources, which they expect to happen in the succeeding year.

**3. *How has the focus on improving organizational capacity (including knowledge management) affected the technical capacities of food safety regulatory agencies?***

The capacity assessment carried out by B-SAFE, which forms the basis of B-SAFE interventions covered governance at the system level (system block or the board level), the organizational level as well as capacity at the technical level. The system block covered the FSRCB while the organization block covered FSRCB and all the FSRAs. The technical block covered only the FSRAs. It is therefore clear that the approach of B-SAFE was not only focus on organizational capacity but also covered the system and technical levels. The evaluation found this approach effective based on the feedbacks from the FSRAs staff. There were also concrete evidence of technical capacity improvement of some agencies such as BAI, BPI and FDA.

**4. *For each of the four commodities, what are the key supply chain constraints to expanding production and trade? How well has the project addressed these key constraints to date?***

**4.1. Swine**

The key constraint was African Swine Fever (ASF). Batangas is one of the leading pork producers in the Philippines, but the outbreak of ASF significantly reduced the swine population to 26 percent in 2021 as reported by UNIBAT. Based on the key informant interviews with UNIBAT, Europhil, SIDC and the Local Government of Lipa City, about 50-70 percent of smallholders stopped operations in 2021 and 2022 not because they were necessarily affected by ASF but because the movement of swine was restricted, and they feared another ASF outbreak.

To revive the industry, DA is implementing a swine repopulation program and local government units are continuing their monitoring and border control. Results of the validation survey (Section 3.4 of this report) indicate that B-SAFE is handling the problem very well to date. Almost all swine grower respondents were aware of B-SAFE and its interventions. There was a very high appreciation of the trainings provided by the project and many of the training participants (67%) claimed they are already practicing some of what they learned from the trainings.

**4.2. Milkfish**

The major supply chain constraints are the (1) high reliance on imported milkfish fry, (2) non-compliance of identified processing facilities to food safety standards like GMP and HACCP, and (3) non-compliance of fish farmers to GAqP. To address these constraints, B-SAFE has been working with the following key players in the milkfish supply chain:

- ISDA-AC to address the problem on fingerling supply
- The Ladies Group of Binmaley Residents to address non-compliance to food safety standards like GMP and HACCP
- The BUCFPI also for compliance to standards

In addition, B-SAFE has supported the KP-SPC, a toll processing facility for deboners of milkfish in Dagupan City and neighboring towns, to get HACCP certification.

B-SAFE is also working towards operational efficiency in milkfish fingerling production. For processing and trade, B-SAFE is assisting BUCAFPI to obtain an LTO. The KP-SPC, the toll processing facility in Dagupan City recently obtained Class B HACCP certification as a result of the project.

The KIIs, FGDs and survey results (see section 3.4) showed that all the milkfish grower respondents were aware of B-SAFE and its interventions. They had very high recall of the various topics discussed and more than 80 percent claimed they are now applying what they have learned from the trainings. They also found the trainings to be highly relevant, effective, and timely.

### **4.3. Coconut Sugar**

The major challenge is that coconut sugar is a sensitive and difficult product to produce. It is labor intensive and requires strict conformity to certain procedures and standards from tapping of coconut sap to processing of sap into sugar prescribed in the Philippine National Standards for coconut sugar production. This means that the product must conform to quality and safety standards as far as the end users or consumers are concerned. However, the current production practices do not meet the quality and safety standards for coconut sugar. Another issue is the lack of adequate certification-compliant facilities and equipment for coconut sugar production. These are the main concerns that must be addressed for a producer to secure a LTO and FDA registration to guarantee that coconut sugar is safe for human consumption.

B-SAFE's supply chain project on coconut sugar is mainly focused on the production system as well provision of services towards securing FDA's LTO. In improving the coconut sugar production system, B-SAFE conducted trainings on GMP and OSH, SSOP, ICS for GAP and HACCP. The cooperative from Linabu, Balingasag, Misamis Oriental coconut sugar is already FDA approved, organic certified, and Halal certified. A coconut sugar processor already has LTO certification. B-SAFE assisted a coconut sugar processor and a cooperative in completing the documents needed for LTO application.

The survey showed (see section 3.4) that the most recalled area discussed under the GAP on coconut sap production was on hygienic practices in tapping coconut sap (86%) and proper cleaning of equipment/materials in tapping (95%). About 50 percent and 55 percent of the respondents also reported to have applied these in coconut sap tapping. All those who attended the training believed that GAP is important in improving productivity, ensuring food safety and improving quality of coconut sap production. On GMP for coconut sugar processing, 14 respondents attended this training and a high percentage reported recall on the topics discussed; with almost about half of those recalling the topic also reported adopting the practice. The same was observed for the GMP on coconut syrup processing.

The coconut sugar producer respondents in the survey found all the trainings (see section 3.4.3 of this report) as highly relevant, effective, and timely. This suggests that B-SAFE is handling the interventions on coconut sugar effectively.

### **4.4. Corn**

The major supply chain constraint in corn is aflatoxin contamination. The four options considered by B-SAFE to address these are: (1) support corn farmers who will produce aflatoxin-free corn; (2) support farmers selling corn on the cob; (3) strengthen food-grade yellow corn supply chains; and (4) divert corn farms for corn silage.

The project carried out a number of exploratory and preparatory activities to define its interventions on the corn industry in Bukidnon. The project has already forged a partnership with Syngenta Philippines Inc. for the establishment of learning centers in the province to provide technical trainings on production technologies, including corn silage and post-harvest operations. It is also working with a cooperative from Cabanglasan, Bukidnon, which expressed interest to avail of B-SAFE's technical assistance through trainings on GAP, improved harvest and post-harvest techniques, and corn on the cob trading and processing. For corn silage, B-SAFE is working with the Spring Dairy Farm which operates a small-scale silage production farm as the main source of feed rations for both their dairy herd and beef cattle.

Among the notable accomplishments of the project thus far are the conduct of several trainings on proper handling, treatment and use of improved corn seed and varieties, improved corn production techniques and technologies, corn harvest and post-harvest processing technologies and corn silage production and management. All these trainings were considered by farmers as highly relevant, effective, and timely (see section 3.4.3 of this report).

### **4.1.3. Efficiency**

#### ***1. Are project participants engaging with project interventions as anticipated?***

The evaluation found that participants both from the FSRAs and the various supply chains were eagerly participating in the project. Many of the participants in the FSRA trainings have already cascaded the trainings, albeit still with technical assistance from B-SAFE. They have also participated actively in consultation meetings organized by the project. Similarly, many of the training participants from the four supply chains have already started applying the learnings they obtained (see section 3.4.3 of this report).

Senior management of the DA and the different FSRAs have been very cooperative with the project. Among others, this includes the ATI Assistant Director who avidly agreed to host the SPS Online Learning Platform, the DA Undersecretary for Planning who facilitated many of the initiatives of the project, the DA Biotech Program Director who worked together with the project on policy initiatives and the former DA Secretary himself who supported many of the key initiatives of the project.

#### ***2. Are project resources adequate to achieving B-SAFE's life of project targets?***

It is evident that the project needs an extension in time to achieve the targets. Such extension is reasonable and necessary considering that the primary reason for the project delays was the pandemic. The extension period should focus more on supply chain interventions and accelerate all activities that build on the groundwork which have been completed thus far. It is suggested that a catch-up plan with detailed work and financial plan be prepared for this purpose.

Adequacy of project resources will have to be gauged against the detailed workplan of the project including the catch-up plan if extension will be granted. The evaluation is not in a position to make this assessment at present.

#### ***3. How well has the project tapped the resources of its partners in implementing planned activities?***

The success of the project in leveraging public funds is still limited. This is an area where the project needs to catch-up considering that this activity is an important driver (see section 5 of this report) in improving the food safety system. The project has made some achievements in this, such as in tapping the resources of ATI (e.g., ATI regional facilities) in the blended SPS learning platform and tapping the expertise of the MAOs and private sector partners who served as resource persons in some of the trainings.

The project's LOP target for leveraging resources/investment is \$1,100,000, but its accomplishment as of September 2022 was only 3 percent of the LOP target. This was from a B-SAFE grantee, which invested \$37,262 for the construction of their nursery facilities and an initial purchase of milkfish fries. Other possible sources include investments to be made by grantees who already had submitted proposals to B-SAFE for funding and the GOP.

#### **4.1.4. Sustainability**

- 1. Does B-SAFE's strategy for sustainability and long-term impact remain feasible? If not, why? Are additional efforts needed, or are changes to the strategy recommended? If so, what approaches might better ensure continuation of activities after project completion?***

The major interventions of the project are on capacity building of the FSRAs and the various players in the four supply chains. Capacity development is one of the most sustainable types of interventions as benefits from such can be expected to continue long after the project ends. In addition, the project has successfully put in place policy measures that will ensure the continuation of some of its initiatives. In the case of RIA, there is already an issuance from the DA Secretary for FSRAs to institutionalize this assessment. Similarly, in the case of the prioritized capacity gaps that must be addressed in the various FSRAs, a high-level ERG has been created to ensure that works to address the capacity gaps will be pursued.

- 2. How replicable and scalable are the project's interventions (for instance, combating ASF) in other parts of the country?***

The interventions of B-SAFE are replicable and scalable in other parts of the country. The various trainings conducted for the FSRAs and supply chain actors can be replicated in other areas and can cover bigger number of participants. The commodity-specific interventions can also be replicated and scaled up and out. For example, the planned intervention on silage production can be done in other corn growing areas, more so with the other corn production technologies. The same is true for the interventions in coconut sugar, which are applicable wherever coconuts are grown. The intervention on milkfish (fingerling production) can be replicated in other areas. The DA local offices can sustain these interventions. On swine, the interventions of B-SAFE together with the DA and local governments of Batangas to manage ASF can serve as a prime example of how to effectively manage the disease. Strict compliance to the national and local protocols led to the declaration of Batangas as the first province in the country to be ASF free. B-SAFE, in collaboration with the local government units, DA and BAI, has introduced an ASF virus surveillance system that is being piloted in selected towns/cities in the province. It is also working on the establishment of an ASF-free and disease-free artificial insemination and breeding center. This can be replicated in other parts of the country.

- 3. How have project interventions to date affected targeted regulatory agencies and commercial supply chain and cold chain actors? Are project interventions having the expected effect on identified constraints?***



For the FSRAs, one notable effect was the improvement in organizational and technical capacity, such as those achieved by BPI, FDA, BAI and BFAR. The institutionalization of RIA has also affected the operations of these agencies as such assessment is now part of the administrative requirement before any policy or regulation reform is made. The KIIs and FGDs (see section 4 of this report) also revealed that the interventions are having favorable effects on the FSRA participants in the various trainings (based on positive feedback). The same is true for the supply chain actors who participated in the trainings. Many of these participants stated they are now applying at least some of what they learned from the trainings.

The expected effect or outcome from the various trainings is the improvement in the knowledge and skills of the participants. From the KIIs, FGDs, and survey, it was learned that such has been achieved by the training participants from the FSRAs and the various supply chains (see sections 3.3 and 3.4 of this report).

4. ***Are there any unintended consequences of project interventions to date? If negative, what are the specific consequences and what has been/can be done to mitigate them? If positive, what has been done/can be done to scale up and document them?***

The evaluation did not find any unintended consequences thus far.

## 5. Recommendations

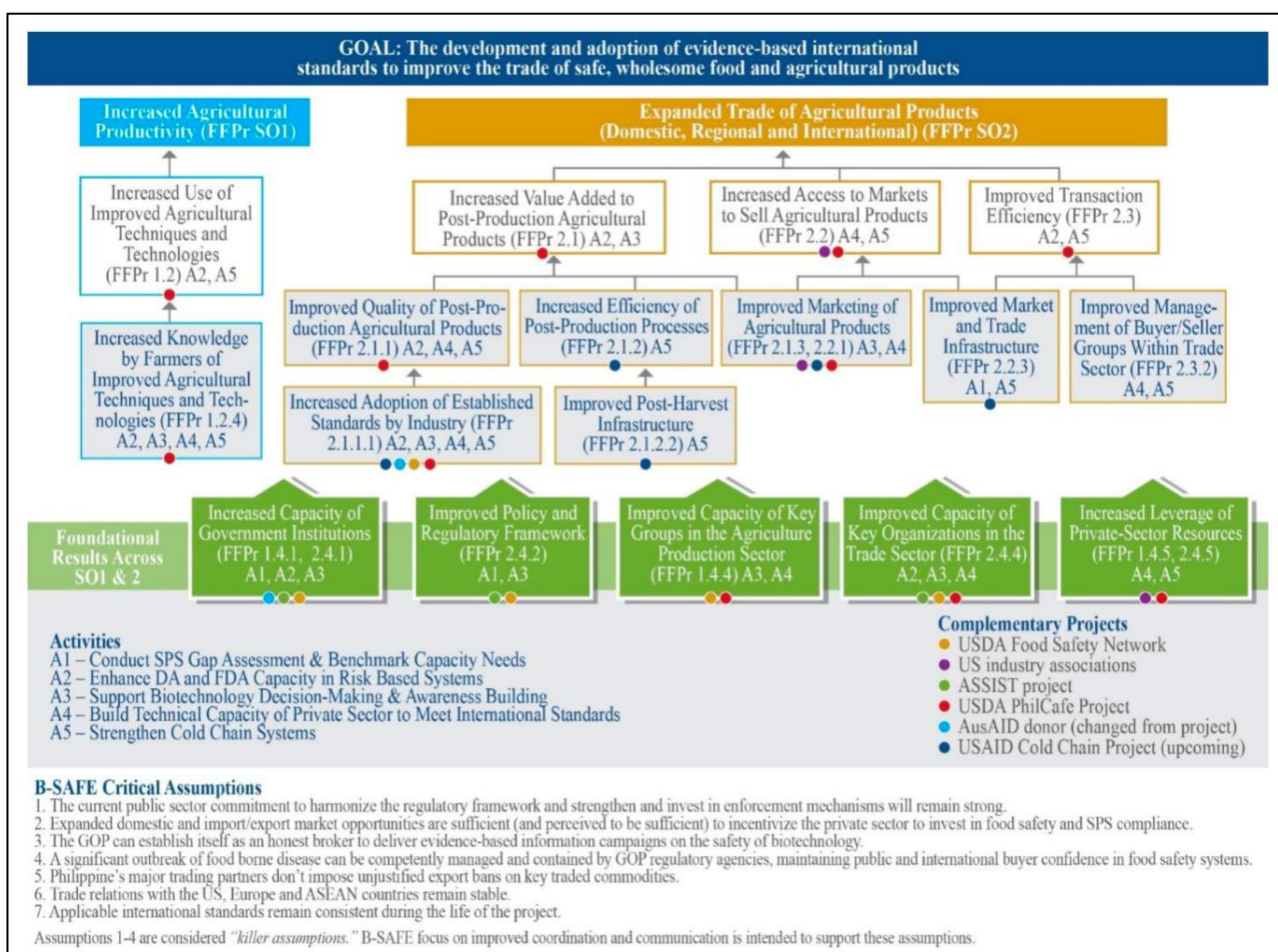
1. **Extend project implementation to offset COVID-related delays as well as the delay caused by MC 16** – Extend the project implementation period by another 2 to 3 years to make-up for the adverse impact of the pandemic and MC 16 on project operations. An extension of just one year may not be enough considering the field challenges being faced by the project. In addition, the evaluation recommends the project to look into other policy problems not earlier considered in the original project workplan. B-SAFE has already laid down the foundations for accelerated accomplishments should an extension be provided. A detailed work and financial plan should be prepared for this proposed extension.
2. **Focus more on interventions to improve the four supply chains**--The remaining implementation period including the extended time, if granted, should focus more on the interventions to improve the four supply chains. More focused work should be done favoring areas where the project can have maximum impact. In corn, for instance, the project has yet to determine which of the four options to focus. Focusing support on those who sell corn on the cob and engage in silage production are appropriate focus areas. In milkfish, more focus should be placed on processing, albeit the interventions to improve fingerling supply should continue. The current focus of interventions on coco-sugar should continue, especially in assisting firms comply with the needed standards. Also, more assistance should be provided to sap tappers as this is where the project can have maximum social impact. The current interventions on swine are appropriate.
3. **Intensify trainings especially for people in production and trade.** This will impact positively on almost all performance indicators of the project. B-SAFE has been successful in the conduct of trainings as evidenced by the favorable training participant feedback and assessment of the training participants covered in the survey. More trainings should be done during the remaining project life.
4. **Include process documentation of the works being done on the various supply chains for future replication.** The project is into development works where process is as important as

outputs. The whole process should be documented as it happens, including the context and circumstances of the events, to accurately pin down what works and does not work to inform future replication activities.

5. **Provide more assistance to improve the various laboratories involved in food safety regulation.** The project should consider all possible assistance channels to improve the various laboratories involved in food safety regulation. This is a concrete area where B-SAFE can make a lasting impact. Much has been done already by the project to improve the understanding and appreciation of people in government of the various concepts and tools to improve food safety regulation. In fact, this area (i.e., improving the capacity of people in government) is where the project scored impressive performance despite the pandemic. More focus should now be given on improving the laboratories and facilities needed to ensure a highly functional food system regulation in the country.
6. **Focus on strategies to effectively leverage public sector resources.** B-SAFE should focus on strategies to effectively leverage public sector resources. This factor was found to be among the drivers of the improvements required for effective food system regulation. The possibility of B-SAFE conducting the cost and benefit analysis for laboratory improvement is a powerful one. This is necessary if the flow of public and private resources for the improvement of laboratories and other facilities is to be facilitated. The study to examine the comparative advantage of government in offering laboratory services is also imperative. The various strategies to leverage public sector resources should be linked to this. Explore tapping public-private partnerships focusing on the improvement of laboratories and the provision of laboratory services.
7. **Help develop the overall government communication plan and strategies for biotechnology in the country.** The policy work on biotechnology appears to have been completed already with the revision of JDC 1, issuance of NCBP Resolution No. 1 and the DA Memorandum Circular to implement the resolution. The remaining period should be devoted to helping the government serve as honest broker of biotechnology information. The project has already collaborated with ISAAA in various information dissemination activities. It should continue to collaborate with this and other entities to develop the overall Government Communication Plan and Strategies for Biotechnology in the country.
8. **Consider working on other policy issues affecting the food safety system.** B-SAFE should consider working on other emerging policy issues/initiatives (especially if extension is granted) which directly impact food safety system regulations in the Philippines. The evaluation discovered some issues to be addressed by policy reforms such as the overlapping functions of some agencies (e.g., BAI, NMIS, and NDA) and the need to update existing policies such as FAO 221 Series of 2003 on the regulation in the importation of live fish and aquaculture products.

# Annexes

## Annex 1. Results Framework



## Annex 2. B-SAFE Indicators and Targets

No.	Indicator Title	Type (Output/Outcome)	Baseline Value	LOP Target	Target through September 2022
SI-22	Number of individuals participating in USDA food security programs	Output	0	10,963	6,357
SI-23	Number of individuals benefiting indirectly as a result of USDA assistance	Output	0	45,065	26,236
SI-21	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance	Output	0	9,687	5,338
SI-4	Number of individuals in the agriculture system who have applied improved management practices or technologies with USDA assistance	Outcome	7,234	4,855	2,210
SI-11	Number of host government or community-derived risk management plans formally proposed, adopted, implemented or institutionalized with USDA assistance	Output	16	10	10
SI-12	Percent of USDA-assisted organizations with improved performance	Outcome	0	75%	50%
SI-9	Number of technologies, practices, and approaches under various phases of research, development, and uptake as a result of USDA assistance	Output (phases 1-3) Outcome (phase 4)	0	10	8
SI-13	Number of public-private partnerships formed as a result of USDA assistance	Output	0	17	9
SI-17	Number of policies, regulations and/or administrative procedures in each of the following stages of development	Output (stages 1-2) Outcome (stages 3-5)	0	6	6
SI-18	Value of annual sales of farms and firms receiving USDA assistance	Outcome	US\$ 670,287,491	US\$90,399,240	US\$ 13,952,336
SI-19	Volume of commodities sold by farms and firms receiving USDA assistance	Outcome	315,473 MT	51,960 MT	8,337 MT
SI-14	Value of new USG commitments and new public and private sector investment leveraged by USDA to support food security and nutrition	Outcome	0	US\$1,000,000	US\$600,000
CI-1	Number of individuals using improved packaging, equipment, transportation, or cold storage as a result of B-SAFE investment	Outcome	163	319	163
CI-2	Number of farms/firms/ laboratories with GAP, GMP, HACCP, or ISO certification as a result of USDA assistance	Outcome	1,292	22	13

## Annex 3. Evaluation Questions

Criteria	Evaluation Questions	Data Sources
<b>Relevance</b>	<i>How accurate have the critical assumptions underpinning the project proven to be in practice? Were other critical factors unaccounted for?</i>	KIIs
	<i>To what extent are project activities addressing the needs of project participants?</i>	FGDs/VS
	<i>Do private sector project participants, (i.e., producers and people in trade) find the project activities are contributing to improved Sanitary and Phytosanitary Standards (SPS) in production and management of their supply chains?</i>	KIIs/FGDs
	<i>To what extent are project activities as implemented thus far aligned with the USDA Food for Progress objectives? To date, what areas of project implementation are contributing most to USDA Food for Progress objectives?</i>	Document review / KIIs
	<i>To what extent is the project addressing the Government of the Philippine's national strategies and plans for agricultural development and trade?</i>	KIIs
	<i>Do B-SAFE's partner regulatory agencies find project activities are contributing to the following:</i>	
	<ul style="list-style-type: none"> <li>• <i>Improving their capacity to manage risk-based systems?</i></li> </ul>	KIIs
	<ul style="list-style-type: none"> <li>• <i>Promoting awareness as well as the safe and responsible use of biotechnology in the Philippines?</i></li> </ul>	KIIs
	<ul style="list-style-type: none"> <li>• <i>Enhancing regulatory standards and processes?</i></li> </ul>	KIIs
	<ul style="list-style-type: none"> <li>• <i>Enhancing domestic and export market linkages?</i></li> </ul>	KIIs
	<i>Why (or why not) do the agencies feel that way? How are project activities contributing to this change?</i>	KIIs
	<i>Are there unanticipated opportunities or challenges that may require revisions to B- SAFE's strategy or reallocation of project resources?</i>	KIIs / FGDs
	<i>Is the project's technical assistance to both the public and private sector being planned and implemented to complement each other to address the project's twin objectives? Can activities be more complementary?</i>	Document review / KIIs
<b>Effectiveness</b>	<i>How has the COVID 19 pandemic affected project implementation to date? How has the project adapted to COVID related restrictions (e.g., adapting project plans and operations, adjusting to B-SAFE's technical approach)?</i>	Document review / KIIs
	<i>Public Sector:</i>	
	<i>Have there been any improvements in technical capacity of food safety regulatory agencies (including phytosanitary, veterinary services, food control)? How have these changes been attained? If not, why not?</i>	Organizational Capacity Assessment Tool (OCA) / KIIs
	<i>How has the focus on improving organizational capacity (including knowledge management) affected the technical capacities of food safety regulatory agencies?</i>	Organizational Capacity Assessment Tool (OCA) / KIIs
	<i>Private Sector:</i>	
	<i>For each of the four commodities, what are the key supply chain constraints to expanding production and trade? How well has the project addressed these key constraints to date?</i>	KIIs/VS
	<i>For each of the four commodities, what are the barriers to adoption of improved management practices and technologies? Has the project been able to help participants address these barriers? If so, how? If not, what could the project do to address barriers to adoption?</i>	KIIs / FGDs/VS
	<i>For each of the four commodities, have B- SAFE supported interventions helped partners access new domestic and/or international markets? If so, what enabled them to access these markets?</i>	KIIs / FGDs/VS
	<i>Are project participants engaging with project interventions as anticipated?</i>	KIIs / FGDs
	<i>Are project resources adequate to achieving B-SAFE's life of project targets?</i>	Document review / KIIs
<b>Efficiency</b>	<i>How well has the project tapped the resources of its partners in implementing planned activities?</i>	
	<ul style="list-style-type: none"> <li>• <i>What collaborations/ partnerships have been formed in the implementation of specific commodities?</i></li> </ul>	Document review

Criteria	Evaluation Questions	Data Sources
	<ul style="list-style-type: none"> <li>What resources (i.e., cash and in-kind) from the private and public sectors have been mobilized to date?</li> </ul>	Document review
	<ul style="list-style-type: none"> <li>To what extent have the objectives of the partnerships been realized?</li> </ul>	Document review / Survey data / KIIs
	<ul style="list-style-type: none"> <li>What has been immediate measurable results (i.e., market access, increased value of and volume of sales, improved product packaging, food safe products?) of these partnerships in addressing SPS and food safety issues in terms of increasing production and value of sales?</li> </ul>	Document review / Survey data / KIIs
	<ul style="list-style-type: none"> <li>What are the limitations of engaging the public and private sector in addressing specific SPS and food safety issues? How can these limitations be addressed through the project? What opportunities exist to improve the design of these partnerships?</li> </ul>	Document review / KIIs
<b>Sustainability</b>	Does B-SAFE's strategy for sustainability and long-term impact remain feasible? If not, why? Are additional efforts needed, or are changes to the strategy recommended? If so, what approaches might better ensure continuation of activities after project completion?	Document review / KIIs
	How replicable and scalable are the project's interventions (for instance, combating ASF) in other parts of the country?	KIIs
<b>Impact</b>	How have project interventions to date affected targeted regulatory agencies and commercial supply chain and cold chain actors? Are project interventions having the expected effect on identified constraints?	KIIs/VS
	Are there any unintended consequences of project interventions to date? If negative, what are the specific consequences and what has been/can be done to mitigate them? If positive, what has been done/can be done to scale up and document them?	KIIs/VS

## Annex 4. Participatory Systems Analysis

### Theoretical Foundation

Participatory Systems Analysis (PSA) is a tool used in problem analysis. Every problem has a specific context, i.e., biophysical, socio-cultural, economic, institutional and political which should be well understood in formulating potential solutions. Assessment of the problem involving the stakeholders who know the context well enough, is the first step. A common method is the problem tree, which requires the selection of a core problem (the stem), defining causes (the roots) and consequences (the branches). But focusing on only one problem with linear and causal relationships is critical.

The elements of a context - i.e., people, institutions, resources, etc. - are highly inter-connected and not all elements and interrelations are known, even to insiders. Stakeholders with their different agendas represent an additional degree of uncertainty and unpredictability. A problem within such a system usually has complex causes and consequences, and also a "solution" to it will create multiple, positive and negative side-effects. Consequently, a problem cannot be solved with a "repair-shop mentality", i.e., tackling only the most obvious cause.

Because the reactions of a system cannot be precisely predicted, a project cannot be expected to provide simple solutions. It can only provide various "impulses", such as enhancing co-operation and training stakeholders, introducing a new technology, etc. in order to stimulate partners to move the context in a certain direction. Because it is not certain whether these impulses will finally lead to the desired changes, there is a need to observe and assess the changes constantly to decide which impulses to give next.

Analyzing a context is a form of systems or network analysis. It is conducted with stakeholders to involve a variety of different backgrounds, knowledge and experience. It may be difficult to agree on a common picture of a context in the short run. But the debate about different perceptions of the same context helps to avoid predetermined thinking at an early stage.

### Participatory Systems Analysis

A network or systems analysis is more appropriate than a simple cause-effect analysis for understanding how a context functions, why problems occur, why an intervention does or does not lead to achieving a goal, etc. However, a sound scientific systems analysis would be too costly and too complicated. In this sense, the PSA presented here is a manageable compromise.

PSA led to interesting results in several workshops. A variety of stakeholders defined important elements of a project context and their relationships during a participatory exercise, based on their specific backgrounds, knowledge, expertise and experiences. After some initial astonishment and learning about how different perceptions of the same context can be, PSA always stimulated fascinating discussions among participants. It is a good starting point for obtaining more complex views of reality, particularly for people with little experience in systems thinking. PSA is a first step in moving away from "repair-shop thinking" towards more flexible management of an unpredictable project context.

PSA complements problem analysis (e.g., problem tree), it serves as a basis for further planning, and finally, it helps to structure the planning matrix. It is designed to evaluate the relationships among relevant elements within a project context. It reveals which elements can be potential starting points for project activities, and which ones may require further investigation and better understanding.



PSA is neither a mathematical model nor a scientific method and does not reveal a "right" or "wrong" way of looking at a context. Rather it reflects the perceptions and knowledge of the participants. The more seriously the elements are chosen and their relationships are evaluated, the more realistic will be the results.

#### Steps

- Framing the success (performance) metrics of the system*
- Identification of the factors or elements affecting the performance of the system*
- Using PSA matrix, examine influences and cross-influences among the factors using prescribed rating system (based on group consensus) and Calculatine the active sum, passive sum, degree of influence and activity ratio*

#### Rating System:

No Influence (Nil) : 0.1  
 Weak Influence : 0.5  
 Moderate Influence : 1.0  
 Strong Influence : 2.0

After the ratings were entered into the causality matrix, the passive sum, active sum, degree of influence and activity ratio were computed and also entered into the matrix. These are computed as follows:

Passive sum – is the vertical sum of the ratings of each element

Active sum – is the horizontal sum of the ratings of each element

Activity ratio – is the quotient of the active sum and the passive sum

Degree of influence – is the product of the passive sum and active sum

#### Causality Matrix (example)

Elements	FR	RM	PC	IP	SCP	M&E	PP	IS	Active Sum	Degree of Influence
FR		0.5	2	1	0.5	2	2	2	10.00	76
RM	2		2	1.5	2	2	2	2	13.5	68.85
PC	0.5	0.5		0.1	0.5	2	2	0.1	5.7	38.19
IP	2	0.5	1		0.1	2	2	2	9.6	72.96
SCP	1.5	1.5	1	1.5		2	2	0.1	9.6	54.72
M&E	0.1	1	0.5	1	2		1	1	6.6	67.32
PP	1	1	0.1	2	0.5	0.1		0.1	4.8	55.2
IS	0.5	0.1	0.1	0.5	0.1	0.1	0.5		1.9	13.87
Passive sum	7.6	5.1	6.7	7.6	5.7	10.2	11.5	7.3	61.7	447.11
activity ratio	1.3	2.6	0.9	1.3	1.7	0.6	0.42	0.26		



d. Plot the results using the PSA Quadrant

In plotting the results of the ratings into the PSA quadrant, the vertical and horizontal axes values were first determined. For the horizontal axis, the value was determined by dividing the highest degree of influence by 2 and adding 30 to this number (i.e.  $[76/2]+30$ ). Thus, the value of the degree of influence axis (y axis) is 68, while the activity ratio is 1.

The quadrants are labelled as follows:

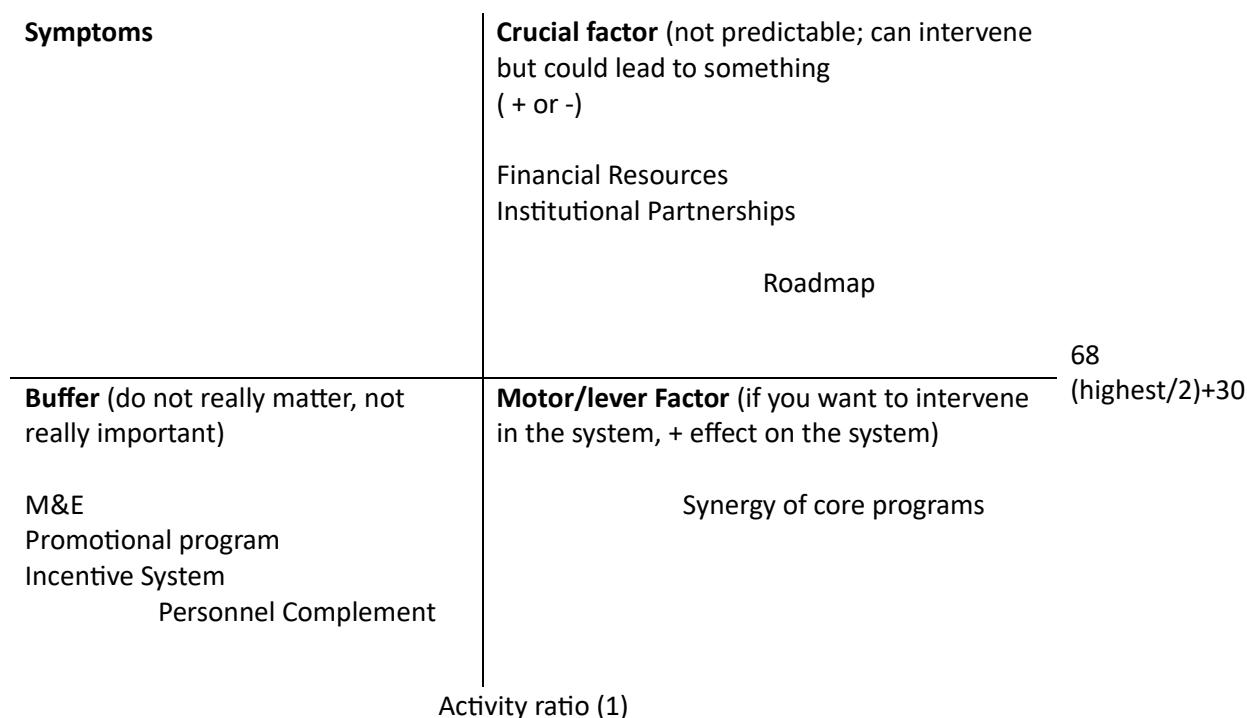
**Symptom** - A symptom is an element that is greatly influenced by other elements but may not have much power to change the system itself. Symptoms can be useful indicators of context changes, but development activities in this sector may only amount to a "treatment of the symptom, not the cause".

**Buffer (noise)** A buffer is characterized by low importance in the context. It is rather unremarkable because it neither influences other elements much nor is it influenced much by others. Development activities in this sector are expected to have little impact on the context.

**Critical element (crucial)**- A critical element is an accelerator or catalyst in the system. It changes many things quickly, but may also create many unexpected and undesired side effects. Development activities in this sector can be highly uncertain, and impacts may be unpredictable. Therefore, critical elements have to be treated very carefully. It is particularly important when formulating impact hypotheses for this sector.

**Motor or Lever** - A motor or lever is an active element with predictable impacts. This is the most interesting sector for development activities.

From causality matrix, the elements are plotted according to the ratings of the participants. The quadrant is shown below:



Example of PSA Quadrant

## Annex 5. Ethics in Human Subject Research Training Certificates





## CERTIFICATE OF COMPLETION

This is to certify that  
**Airyne Almendral**  
has successfully completed the course  
**Ethics in Human Subject Research Training**  
offered by Winrock International on January 20, 2023 with a score of 80%.

Niraj Ramasrinivasan, Ph.D. (Senior Director, AGILE)



## CERTIFICATE OF COMPLETION

This is to certify that  
**Rodel Maghirang**  
has successfully completed the course  
**Ethics in Human Subject Research Training**  
offered by Winrock International on February 21, 2023 with a score of 90%.

Niraj Ramasrinivasan, Ph.D. (Senior Director, AGILE)



## CERTIFICATE OF COMPLETION

This is to certify that  
**Oliver Abanto**  
has successfully completed the course  
**Ethics in Human Subject Research Training**  
offered by Winrock International on February 23, 2023 with a score of 80%.

Niraj Ramasrinivasan, Ph.D. (Senior Director, AGILE)



## CERTIFICATE OF COMPLETION

This is to certify that  
**Erlene Manohar**  
has successfully completed the course  
**Ethics in Human Subject Research Training**  
offered by Winrock International on February 23, 2023 with a score of 90%.

Niraj Ramasrinivasan, Ph.D. (Senior Director, AGILE)



## CERTIFICATE OF COMPLETION

This is to certify that  
**Wilfredo Yap**  
has successfully completed the course  
**Ethics in Human Subject Research Training**  
offered by Winrock International on February 25, 2023 with a score of 80%.

Niraj Ramasrinivasan, Ph.D. (Senior Director, AGILE)



## CERTIFICATE OF COMPLETION

This is to certify that  
**Melinda Villar**  
has successfully completed the course  
**Ethics in Human Subject Research Training**  
offered by Winrock International on March 29, 2023 with a score of 90%.

Niraj Ramasrinivasan, Ph.D. (Senior Director, AGILE)



## CERTIFICATE OF COMPLETION

This is to certify that  
**Ivy Marimon**  
has successfully completed the course  
**Ethics in Human Subject Research Training**  
offered by Winrock International on March 29, 2023 with a score of 90%.

Niraj Ramasingh, Ph.D. (Senior Director, AGILE)



## CERTIFICATE OF COMPLETION

This is to certify that  
**Elezar Estenzo**  
has successfully completed the course  
**Ethics in Human Subject Research Training**  
offered by Winrock International on March 30, 2023 with a score of 60%.

Niraj Ramasingh, Ph.D. (Senior Director, AGILE)



## CERTIFICATE OF COMPLETION

This is to certify that  
**Marc Lorenz Estenzo**  
has successfully completed the course  
**Ethics in Human Subject Research Training**  
offered by Winrock International on March 30, 2023 with a score of 80%.

Niraj Ramasingh, Ph.D. (Senior Director, AGILE)



## CERTIFICATE OF COMPLETION

This is to certify that  
**Angeline Mejia**  
has successfully completed the course  
**Ethics in Human Subject Research Training**  
offered by Winrock International on March 30, 2023 with a score of 80%.

Niraj Ramasingh, Ph.D. (Senior Director, AGILE)



## CERTIFICATE OF COMPLETION

This is to certify that  
**Freddie Lou Canilang**  
has successfully completed the course  
**Ethics in Human Subject Research Training**  
offered by Winrock International on March 29, 2023 with a score of 90%.

Niraj Ramasingh, Ph.D. (Senior Director, AGILE)



## CERTIFICATE OF COMPLETION

This is to certify that  
**Lorna Mabilangan**  
has successfully completed the course  
**Ethics in Human Subject Research Training**  
offered by Winrock International on March 30, 2023 with a score of 80%.

Niraj Ramasingh, Ph.D. (Senior Director, AGILE)



## CERTIFICATE OF COMPLETION

This is to certify that

**Susan Consigo**

has successfully completed the course

**Ethics in Human Subject Research Training**

offered by Winrock International on March 30, 2023 with a score of 90%.

A handwritten signature in black ink, appearing to read 'Nity Ramasethjatoov'.

Nity Ramasethjatoov, Ph.D. (Senior Director, AGILE)

## Annex 6. Guide Questions

### KII Guide Questions

#### CONSENT FORM (KII)

Data Privacy Notice Form No. 1



**Asian Social Project Services, Inc. (ASPSI)**

#### **Data Gathering from Human Subjects**

Asian Social Project Services, Inc. (ASPSI) is an international consultancy and training service provider working on project implemented by Winrock International and funded by the Food for Progress Program of the United States Department of Agriculture (USDA) entitled **“Midterm Evaluation for the Building Safe Agricultural Food Enterprises (B-SAFE) Project in the Philippines”**. The purpose of the research is to provide in-depth assessment of project performance.

This project includes collecting information from you such as your name, position, organization/ agency and municipality. There may be risk of your individual responses being disclosed due to measures we are taking to secure your information. When collecting this data, ASPSI commits that:

- Your private information will be protected and kept secure. It will only be used for this project and will be deleted from our systems once it is no longer needed.
- Your personally identifying information will be removed from any data collected that will be provided to the USDA.
- Your information, without your name or identifying information, may be used in future research studies or be given out to another investigator for future research without getting additional informed consent from you.

**Participation in this project is entirely voluntary, and you may decide not to participate at any time.**

Should you have any questions or concerns about this project or this document, please feel free to ask any questions you may have at this time or contact ASPSI.

Address: 3rd Floor, MG Building 10001 Mt. Halcon St., Los Baños Subd.,  
Batong Malake, Los Baños, Laguna 4030, Philippines  
E-mail: [aspsiglobal@gmail.com](mailto:aspsiglobal@gmail.com)  
Phone: 63-49-536-3448

I, \_\_\_\_\_, voluntarily agree to participate in this project and allow my data to be collected as stated above. I warrant that I am at least 18 years of age and that I am competent in my own name insofar as this consent is concerned.

\_\_\_\_\_  
Signature over printed name

\_\_\_\_\_  
Date

**MIDTERM EVALUATION FOR THE BUILDING SAFE AGRICULTURAL FOOD ENTERPRISES  
(B-SAFE) PROJECT IN THE PHILIPPINES**

**Key Informant Interview Guide**

Private Sector

(Commodity/Industry: Corn)

Name of Respondent	
Position	
Organization/Agency	
City/Municipality	
Date of Interview	

**1. Producer**

1. What is the importance of using good agricultural practices?
2. What are the advantages of using high quality seeds? Are these readily available during the corn planting season? What are the reasons for not using these seeds and application of GAP?
3. Do you think there is enough incentive for corn growers to invest in compliance with food safety standards? (Probe on the specific incentives that encourage you to adopt: price for the market, support of the govt (i.e. facilities, credit window, technical assistance provided, trainings on biosafety, access to other local/domestic markets, etc.)
  - 3.1 Can you cite specific cases where the corn growers have made specific investments to comply with food safety standards?

**2. B-SAFE Support and Assistance**

1. Are you aware of B-SAFE?
  - 1.1 What interventions are provided by B-SAFE to support improved farm production practices?
  - 1.2 If trainings are provided, what are these? Is the training effective? In what way?
 

Probe effectiveness in terms of comprehensiveness, accurate, appropriate resource persons, adequate time allocation, hands-on activities are provided)
2. Please rank the training in terms of your level of agreement/disagreement with the relevant statements. Use the following scale to indicate your level of agreement/ disagreement:
 

1. Strongly disagree   2- Disagree   3-Neutral   4-Agree   5-Strongly Agree

<b>Training 1. Proper handling, treatment, and use of improved corn seed varieties, and on the improved corn production techniques and technologies</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time to understand the lectures and exercises		

The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 2. Corn harvest and post-harvest processing technology</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time to understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 3. Corn silage production</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time to understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		

3. Were you able to apply the knowledge gained from the training in improving production? What are the constraints for inability to apply/utilize the new knowledge from the training? How do you plan to resolve these constraints? Did you seek assistance from B-SAFE?



**MIDTERM EVALUATION FOR THE BUILDING SAFE AGRICULTURAL FOOD ENTERPRISES  
(B-SAFE) PROJECT IN THE PHILIPPINES**

**Key Informant Interview Guide**

Private Sector

(Commodity/Industry: Coconut sugar)

Name of Respondent	
Position	
Organization/Agency	
City/Municipality	
Date of Interview	

1. How important is the compliance to standards in the coconut sugar industry (e.g., HACCP, GMP)?
  - 1.1 On trading of coconut sugar
    - a. Standards have to be complied in order to export (e.g., Europe export standards)
    - b. Identify countries with restrictions/ certification requirement? What are these standards?
    - c. How much (volume) of exports in other countries. Identify percentage of exports to other countries:
      - 1- Asia
      - 2- Europe
  - 1.2 Food safety of coconut sugar
    - a. What are the associated risks of non-compliance to food safety standards?
    - b. What are the risk management strategies to address the risks?
    - c. What are the requirements to manage the risks (e.g., effective monitoring of contaminants/diseases)
    - d. What are the other necessary requirements to effectively implement the risk management strategies?
2. Do you think there is enough incentive for coconut sugar growers to invest in compliance with food safety standards? (Probe on the specific incentives that encourage you to adopt: price for the market, support of the govt (i.e. facilities, credit window, technical assistance provided, access to the export or other local markets through the trainings on HACCP, SPS, etc.)
  - 2.1. Can you cite specific cases where the coconut sugar growers have made specific investments to comply with food safety standards?

**B-SAFE Support and Assistance**

1. Are you aware of B-SAFE?
  - 1.1 What interventions are provided by B-SAFE to support the effective implementation of risk management strategies?
  - 1.2 If trainings are provided, what are these? Is the training effective? In what way?

Probe effectiveness in terms of comprehensiveness, accurate, appropriate resource persons, adequate time allocation, hands-on activities are provided)

2. Please rank the training in terms of your level of agreement/disagreement with the relevant statements.  
Use the following scale to indicate your level of agreement/ disagreement:

1- Strongly disagree 2- Disagree 3-Neutral 4-Agree 5-Strongly Agree

Training 1. Training on GMP and OSH for Linabu Agrarian Multi-Purpose Cooperative in Balingasag, Misamis Oriental (January 2022)		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time to understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
Training 2. Training on GMP and OSH for T2G at the Coconut Sugar Processing Center located in Jasaan, Misamis Oriental (February 2022)		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time to understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
Training 3. GMP and HACCP (May 18-19, 2022), (July 25-26, 2022), (July 27, 2022)		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		

The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time to understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 4. Sanitation Standard Operation Procedures (SSOP) of GMP (May 20, 2022)</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time to understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 5. Internal Control System for Good Agricultural Practices (GAP) and Organic Coconut sugar (May 26-27, 2022), (July 28-29, 2022)</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time to understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		

3. Were you able to apply the knowledge gained from the training in improving production, processing and trading of coconut sugar?

- 3.1 What are the constraints for inability to apply/utilize the new knowledge from the training? How do you plan to resolve these constraints? Did you seek assistance from B-SAFE?
4. What other assistance were provided by B-SAFE apart from training? How did it help improve or enhance your production/processing/ trading activities?

**MIDTERM EVALUATION FOR THE BUILDING SAFE AGRICULTURAL FOOD ENTERPRISES  
(B-SAFE) PROJECT IN THE PHILIPPINES**

**Key Informant Interview Guide**  
Private Sector

(Commodity/Industry: Swine)

Name of Respondent	
Position	
Organization/Agency	
City/Municipality	
Date of Interview	

**1. Producers**

1. What percentage of all producers in the area were affected by ASF? What do you think caused the outbreak?
2. What approaches are being done by the LGU to address the outbreak? Are these being strictly followed?
3. How important is application of good agricultural practices to swine production? Do you think this will prevent the occurrence of ASF?
4. Do you think there is enough incentive for swine growers to invest in compliance with food safety standards? (Probe on the specific incentives that encourage you to adopt: price for the market, support of the govt (i.e. facilities, credit window, technical assistance provided, access to the export or other domestic markets through the trainings on GAHP)

4.1 Can you cite specific cases where the swine growers have made specific investments to comply with food safety standards?

**2. B-SAFE Support and Assistance**

1. Are you aware of B-SAFE?

1.1 What interventions are provided by B-SAFE to support the effective implementation of risk management strategies to prevent recurrence of ASF?

1.2 If trainings are provided, what are these? Is the training effective? In what way?

Probe effectiveness in terms of comprehensiveness, accurate, appropriate resource persons, adequate time allocation, hands-on activities are provided.

2. Please rank the training in terms of your level of agreement/disagreement with the relevant statements. Use the following scale to indicate your level of agreement/ disagreement:

1. Strongly disagree 2- Disagree 3-Neutral 4-Agree 5-Strongly Agree

<b>Training 1. Fundamentals in Swine Genetics, Breeding, Selection and Artificial Insemination</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		

The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time to understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 2. Fundamentals of Swine Genetics, Breeding Systems, Selection Techniques, and Artificial Insemination</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time to understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 3. For the Pilot-testing ASF virus surveillance and monitoring system in Batangas</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time to understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 4. Hygienic meat handling and good manufacturing practices (GMP)</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		

The allocated time is appropriate to provide ample time to understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		

3. Were you able to apply the knowledge gained from the training? What are the constraints for inability to apply/utilize the new knowledge from the training? How do you plan to resolve these constraints? Did you seek assistance from B-SAFE?

**MIDTERM EVALUATION FOR THE BUILDING SAFE AGRICULTURAL FOOD ENTERPRISES  
(B-SAFE) PROJECT IN THE PHILIPPINES**

**Key Informant Interview Guide**  
Private Sector

(Commodity/Industry: Milkfish)

Name of Respondent	
Position	
Organization/Agency	
City/Municipality	
Date of Interview	

**1. Producer**

1. How important is compliance to food safety standards (GAGP, HACCP) among producers of milkfish?

1.1 What are the risks in non-compliance? (e.g. overfeeding which could result to poor water quality/raises level of pollution), therefor low production)

1.2 What benefits are gained in complying with food safety standards?

2. Do you think you are producing milkfish in optimal level? What interventions do you need to enhance your production?

3. Do you think there is enough incentive for milkfish growers to invest in compliance with food safety standards? (Probe on the specific incentives that encourage you to adopt: price for the market, support of the govt (i.e. facilities, credit window, technical assistance provided, access to the export or other domestic markets through the trainings on HACCP, GMP, GAqP)

3.1 Can you cite specific cases where the milkfish growers have made specific investments to comply with food safety standards?

**2. B-SAFE Support and Assistance**

1. Are you aware of the B-SAFE program?

1.1 What interventions do they provide to milkfish producers and processors in your area? Do you think these are sufficient?

1.2 If trainings are provided, what are these? Is the training effective? In what way?  
Probe effectiveness in terms of comprehensiveness, accurate, appropriate resource persons, adequate time allocation, hands-on activities are provided)

2. Please rank the training in terms of your level of agreement/disagreement with the relevant statements. Use the following scale to indicate your level of agreement/ disagreement:

1. Strongly disagree 2- Disagree 3-Neutral 4-Agree 5-Strongly Agree

<b>Training 1. Improve milkfish supply chain functioning (topics on GAqP, particularly on land preparation and water quality maintenance)</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		



The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time to understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 2. HACCP</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time to understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		

1.3 What other interventions do milkfish producers need in your area to improve productivity?

### 3. Processor/Trader

1. How important is compliance to food safety standards (GMP, HACCP) among processors of milkfish?

1.1 What are the risks in non-compliance, e.g. contamination, inability to market the produce abroad?

1.2 Have you encountered rejection of your product from traders due to non-compliance to standard?  
How much is your losses?

2. Apart from practicing GMP, what other interventions are needed by processors in your area to improve product quality and acceptability to both local and international market?

### 4. B-SAFE Support and Assistance

1. Are you aware of the B-SAFE program?

1.1 What interventions do they provide to milkfish processors in your area? Do you think these are sufficient? If not, what other interventions are needed?

## KII GUIDE QUESTION

### MIDTERM EVALUATION FOR THE BUILDING SAFE AGRICULTURAL FOOD ENTERPRISES (B-SAFE) PROJECT IN THE PHILIPPINES

#### Key Informant Interview Guide

Philippine Regulatory Agencies: Bureau of Agriculture and Fisheries Standards (BAFS)

Name of Respondent	
Position	
Organization/Agency	
City/Municipality	
Date of Interview	

#### A. Implementation of Sanitary and Phytosanitary Standards and Food Safety

1- For BAFS focusing on standards as key area

1.1 What are the key areas in your agency that have to be strengthened so that it can effectively perform its role in the development of standards?

- \_\_\_ Technical capacity (skills/knowledge) of the staff
- \_\_\_ Number of staff
- \_\_\_ Facilities, infrastructure, equipment
- \_\_\_ Policies

1.2 If technical skills, what are the technical skills needed? Please identify.

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_

What are the current activities being done to mitigate the limited capacity of the staff and what specific enhancement are still needed?

If limited number of staff, what are the major issues and challenges in terms of developing and implementing the standards?

Are the issues associated with technical skills and number of staff part of the human resources plan/program? What are the key capacity areas indicated in the plan?

1.3 If facilities/infrastructure/equipment, what are the facilities needed? Please enumerate.

How did you address the issues associated with the limited facilities/infrastructure/equipment.

1.4 If policies, what are the policies needed to support the effective performance of the roles related to the development of standards? (Probe on the possible changes/modifications of policies with other trading partners, e.g. adoption of standards based on the Codex Alimentarius, etc.)

How did you address the need for these policies? What were the critical activities conducted to develop the policies to support the development of standards required at the local and international levels?

## B. B-SAFE Support and Assistance

- 1.1 Are you aware of the B-SAFE Project? What is your understanding of its objectives and interventions?
- 1.2 What are the interventions provided by B-SAFE to address the identified capacity gaps in your organization/ agency?
- 1.3 Were there capacity building/trainings provided? If yes, what are the trainings/ capacity building initiatives provided?
- 1.4 How important are the trainings/capacity building initiatives provided?
- 1.5 How effective was the delivery of the trainings/capacity building initiatives provided? (Probe on effectiveness in terms of comprehensiveness, accuracy, appropriateness of the resource persons, adequacy of time allocation, and hands-on activities are provided)
- 1.6 Please rank the training<sup>10</sup> effectiveness using the following scale:

1- Strongly disagree 2- Disagree 3- Neutral 4- Agree 5- Strongly Agree

<b>Training 1. Virtual training on "International Sanitary and Phytosanitary (SPS) and Food Safety Standards"</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		

- 1.7 What are the major changes/effects/initial impacts of the B-SAFE interventions in the effective performance of your role in developing standards?

For the good effects/initial impacts, are you able to sustain the adoption of these interventions? What are the activities done to sustain the adoption of these interventions? (Probe on the strategies for sustainability e.g. institutionalization of policies/training or capability activities, provision of equipment, etc.)

What do you think are the major factors towards sustainability of the B-SAFE interventions in support of your role to develop standards?

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<sup>10</sup> The interviewer will only consider the trainings attended by the interviewee.

If the interventions were not sustained, what are the factors that contributed to their discontinuance?

What strategies can you recommend to sustain the B-SAFE interventions?

- 1.8 Are there unintended effects that resulted to issues and challenges? Please identify. How did you address these issues and challenges? What are your recommendations to prevent/mitigate these issues and challenges?

## KII GUIDE QUESTION

### MIDTERM EVALUATION FOR THE BUILDING SAFE AGRICULTURAL FOOD ENTERPRISES (B-SAFE) PROJECT IN THE PHILIPPINES

#### Key Informant Interview Guide

Philippine Regulatory Agencies: Bureau of Animal Industry (BAI) and Bureau of Fisheries and Aquatic Resources (BFAR)

Name of Respondent	
Position	
Organization/Agency	
City/Municipality	
Date of Interview	

#### A. Implementation of Sanitary and Phytosanitary Standards and Food Safety

##### 1- For BAI and BFAR focusing on ensuring animal health as key area

1.1 What are the key areas in your agency that have to be strengthened so that it can effectively perform its role in ensuring animal health (e.g. enforcing quarantine laws, monitoring compliance to GAHP/GAqP etc.) particularly for swine/milkfish?

- \_\_\_ Technical capacity (skills/knowledge) of the staff
- \_\_\_ Number of staff (check adequacy of staff in terms of number)
- \_\_\_ Facilities, infrastructure, equipment
- \_\_\_ Policies (looking into possible conflicting policies)

1.2 If technical skills, what are the technical skills needed? Please identify.

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. others: \_\_\_\_\_

What are the current activities being done to mitigate the limited capacity of the staff and what specific enhancement are still needed?

What are the major issues and challenges given limited number of staff in terms of ensuring animal health?

Are the issues associated with technical skills and number of staff part of the human resources plan/program? What are the key capacity areas indicated in the plan?

1.3 If facilities/infrastructure/equipment, what are the facilities needed? Please enumerate.

\_\_\_\_\_

How did you address the issues associated with the limited facilities/infrastructure/ equipment?

\_\_\_\_\_

1.4 If policies, what are the policies needed to support the effective performance of the roles in ensuring animal health?

How did you address the need for these policies? What were the critical activities conducted to develop the policies to support your roles in ensuring animal health?

\_\_\_\_\_

Are there conflicting policies to support the implementation/enforcement of policies on animal health? What are these conflicting policies? (Probe on the need for harmonization of policies addressing the regulatory framework. What are the measures done, were the revisions/measures applied institutionalized?)

How important are these policies to be resolved to implement strategies in ensuring animal health?

What are the activities done to address the issues on conflicting policies? Who are the key persons/units to address such issues?

## B. B-SAFE Support and Assistance

1.1 Are you aware of the B-SAFE Project? What is your understanding of its objectives and interventions?

1.2 What are the interventions provided by B-SAFE to address the identified capacity gaps in your organization/ agency? (Probe on the capacity building initiatives for the Regulatory Impact Assessment, risk management)

1.3 Are there capacity building/trainings provided? If yes, what are the trainings/ capacity building initiatives provided?

1.4 How important are the trainings/capacity building initiatives provided?

1.5 How effective was the delivery of the trainings/capacity building initiatives provided? (Probe on effectiveness in terms of comprehensiveness, accuracy, appropriateness of the resource persons, adequacy of time allocation, and hands-on activities are provided)

1.6 Please rank the training<sup>11</sup> effectiveness using the following scale:

1- Strongly disagree 2- Disagree 3- Neutral 4- Agree 5- Strongly Agree

Training 1. HACCP Training of Trainers		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
Training 2. Virtual training on "International Sanitary and Phytosanitary (SPS) and Food Safety Standards"		
Statement	Effectiveness rating	Cite/describe reasons for the rating

<sup>11</sup> The interviewer will only consider the trainings attended by the interviewee.

The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 3. Risk-based Training Series</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 4. DA Risk Training</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 5. Cascaded Training on ISO 17025:2017</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		

The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 6. Fundamentals of Swine Genetics, Breeding System, Selection Techniques, and Artificial Insemination</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 7. Inception Workshop of the Technical Working Group for the Development of 5-year National Strategic Plan for DA Laboratories</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 8. Implementation Course Training on ISO/IEC 17020:2012</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		



The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 9. Introductory Course Training on ISO/IEC 17020:2012</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 10. USDA Food Safety Network Online Course: Food Safety Module</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 11. ISO 17025:2017 Internal Audit Course Training</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 12. Training on Fingerling Production: Garungan Rearing Methods and Techniques</b>		

Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 13. Cascaded Training on ISO 17025:2017</b>		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 14. Training on ISO 17025:2018</b>		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 15. Webinar on Biotechnology and Regulation in the Philippines</b>		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		

The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 16.</b> Webinar on Philippine Biosafety System, Organic Agriculture, and Coexistence		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 17.</b> Webinar-training for PBI on conduct of the Technical Consultation for the Evaluation and Determination (TCED) on the regulatory status of a PBI product		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		

1.7 What are the major changes/effects/initial impacts of the B-SAFE interventions in the effective performance of your role in ensuring animal health?

For the good effects/initial impacts, are you able to sustain the adoption of these interventions?  
What are the activities done to sustain the adoption of these interventions? (Probe on the

strategies for sustainability e.g. institutionalization of policies/training or capability activities, provision of equipment, etc.)

What do you think are the major factors towards sustainability of the B-SAFE interventions in support of your role to ensure animal health?

If the interventions were not sustained, what are the factors that contributed to their discontinuance?

What strategies can you recommend to sustain the B-SAFE interventions?

- 1.8 Are there unintended effects that resulted to issues and challenges? Please identify.  
How did you address these issues and challenges?  
What are your recommendations to prevent/mitigate these issues and challenge

## KII GUIDE QUESTION

### MIDTERM EVALUATION FOR THE BUILDING SAFE AGRICULTURAL FOOD ENTERPRISES (B-SAFE) PROJECT IN THE PHILIPPINES

#### Key Informant Interview Guide

Philippine Regulatory Agencies: Bureau of Plant Industry (BPI) and Fertilizer and Pesticide Authority (FPA)

Name of Respondent	
Position	
Organization/Agency	
City/Municipality	
Date of Interview	

#### A. Implementation of Sanitary and Phytosanitary Standards and Food Safety

1- For BPI and FPA focusing on ensuring plant health as key area

1.1 What are the key areas in your agency that have to be strengthened so that it can effectively perform its role in establishing protocols and guidelines, monitoring compliance such that surveillance are performed to evaluate/check MRLs for different chemicals (e.g. pesticides), and enforcing regulatory policies and plant quarantine protocols (if any) especially on corn and coconut sugar?

- \_\_\_ Technical capacity (skills/knowledge) of the staff
- \_\_\_ Number of staff (check adequacy of staff in terms of number)
- \_\_\_ Facilities, infrastructure, equipment
- \_\_\_ Policies: \_\_\_ 1- role in formulating policies (looking into possible conflicting policies)
- \_\_\_ 2- role in advocating for policies

1.2 If technical skills, what are the technical skills needed? Please identify.

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_

What are the current activities being done to mitigate the limited capacity of the staff and what specific enhancement are still needed?

What are the major issues and challenges given limited number of staff in terms of effectively performing your roles to ensure quality plant health?

Are the issues associated with technical skills and number of staff part of the human resources plan/program? What are the key capacity areas indicated in the plan?

1.3 If facilities/infrastructure/equipment, what are the facilities needed? Please enumerate. \_\_\_\_\_

How did you address the issues associated with the limited facilities/infrastructure/equipment. \_\_\_\_\_

1.4 If policies, what are the policies needed to support the effective performance of your roles? How did you address the need for these policies? What were the critical activities conducted to develop/formulate the policies to support your roles in ensuring plant health? (Probe on the need for harmonization of policies addressing the regulatory framework. What are the measures done, were the revisions/measures applied institutionalized?)

Are there conflicting policies to support the implementation/enforcement of policies on plant regulatory policies, quarantine laws, MRL standards, etc.? What are these conflicting policies? How important are these policies to be resolved to implement strategies in ensuring plant health? What are the activities done to address the issues on conflicting policies? Who are the key persons/units to address such issues? What are the advocacy initiatives done to support the implementation/adoption of the policies?

## B. B-SAFE Support and Assistance

- 1.1 Are you aware of the B-SAFE Project? What is your understanding of its objectives and interventions?
- 1.2 What are the interventions provided by B-SAFE to address the identified capacity gaps in your organization/ agency in ensuring establishment, compliance and enforcement of plant regulatory policies, MRL standards, and plant quarantine laws?
- 1.3 Are there capacity building/trainings provided? If yes, what are the trainings/ capacity building initiatives provided?
- 1.4 How important are the trainings/capacity building initiatives provided?
- 1.5 How effective was the delivery of the trainings/capacity building initiatives provided? (Probe on effectiveness in terms of comprehensiveness, accuracy, appropriateness of the resource persons, adequacy of time allocation, and hands-on activities are provided)
- 1.6 Please rank the training<sup>12</sup> effectiveness using the following scale:

1- Strongly disagree 2- Disagree 3- Neutral 4- Agree 5- Strongly Agree

Training 1. Cascaded Training on ISO 17025:2017		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
Training 2. DA Risk Training		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		

<sup>12</sup> The interviewer will only consider the trainings attended by the interviewee.

The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 3. HACCP Training of Trainers</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 4. Risk-based Training Series</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 5. ISO 17025:2017 Internal Audit Course Training</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		

The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 6. HACCP Accreditation Preliminary Training for KOICA-Seafood Processing Complex</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 7. HACCP Training for KP-SPC</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 8. Cascaded Training on ISO 17025:1994</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		



The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 9. Inception Workshop of the Technical Working Group for the Development of 5-year National Strategic Plan for DA Laboratories</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 10. Training on Comparative Advantage</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 11. Training on ISO 17025:2018</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		

The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		

1.7 What are the major changes/effects/initial impacts of the B-SAFE interventions in the effective performance of your roles?

For the good effects/initial impacts of B-SAFE interventions, are you able to sustain the adoption of these interventions? What are the activities done to sustain the adoption of these interventions? (Probe on the strategies for sustainability e.g. institutionalization of policies/training or capability activities, provision of equipment, etc.)

What do you think are the major factors towards sustainability of the B-SAFE interventions in support of your roles?

If the interventions were not sustained, what are the factors that contributed to their discontinuance?

What strategies can you recommend to sustain the B-SAFE interventions?

1.8 Are there unintended effects that resulted to issues and challenges? Please identify. How did you address these issues and challenges?  
What are your recommendations to prevent/mitigate these issues and challenges?

## KII GUIDE QUESTION

### MIDTERM EVALUATION FOR THE BUILDING SAFE AGRICULTURAL FOOD ENTERPRISES (B-SAFE) PROJECT IN THE PHILIPPINES

#### Key Informant Interview Guide

##### Philippine Regulatory Agencies: Food and Drug Administration (FDA)

Name of Respondent	
Position	
Organization/Agency	
City/Municipality	
Date of Interview	

#### C. Implementation and Monitoring of Food Safety Standards/Protocols

1. What are the key areas that have to be strengthened so that you can effectively perform your role in ensuring food safety (e.g., product quality and safety regulation/testing, establish efficacy standards, monitor compliance to standards, etc.) particularly on swine, milkfish, corn, coconut sugar and respective products from these commodities?

- \_\_\_ Technical capacity (skills/knowledge) of the staff
- \_\_\_ Number of staff (check adequacy of staff in terms of number)
- \_\_\_ Facilities, infrastructure, equipment
- \_\_\_ Policies (looking into possible conflicting policies)

2. If technical skills, what are the technical skills needed? Please identify.

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_

What are the current activities being done by your agency to mitigate the limited capacity of the staff and what specific enhancement are still needed?

3. If number of staff, what are the major issues and challenges given limited number of staff in terms of ensuring animal health?

Are the issues associated with technical skills and number of staff part of the human resources plan/program? What are the key capacity areas indicated in the plan?

4. If facilities/infrastructure/equipment, what are the facilities needed? Please enumerate. \_\_\_\_\_

How did you address the issues associated with the limited facilities/infrastructure/equipment. \_\_\_\_\_

5. If policies, what are the policies needed to support the effective performance of the roles in ensuring animal health? Probe on the existing policies related to Regulatory Impact Assessment, Guidelines on Good Manufacturing Practices, etc.

How did you address the need for these policies? What were the critical activities conducted to develop the policies to support your roles in ensuring safety and quality of food and food products? \_\_\_\_\_

Are there conflicting policies in the implementation/enforcement/monitoring of policies on food safety? What are these conflicting policies? (Probe on the need for harmonization of policies)

addressing the regulatory framework. What are the measures done, were the revisions/measures applied institutionalized?)

How important are these policies to be resolved to implement strategies in ensuring animal health?

What are the activities done to address the issues on conflicting policies (if any)? Who are the key persons/units to address such issues?

## B. B-SAFE Support and Assistance

1. Are you aware of the B-SAFE Project? What is your understanding of its objectives and interventions?

1.1 What are the interventions provided by B-SAFE to support initiatives in ensuring food safety is regulated and monitored?

1.2 Are there capacity building/trainings provided? If yes, what are the trainings/ capacity building initiatives provided? (Probe on the capacity building initiatives for the Regulatory Impact Assessment, risk management)

1.3 How important are the trainings/capacity building initiatives provided?

1.4 How effective was the delivery of the trainings/capacity building initiatives provided? (Probe on effectiveness in terms of comprehensiveness, accuracy, appropriateness of the resource persons, adequacy of time allocation, and hands-on activities are provided).  
Probe also on the effectiveness of the trainings conducted online.

1.5 Please rank the training<sup>13</sup> effectiveness using the following scale:

1- Strongly disagree 2- Disagree 3- Neutral 4- Agree 5- Strongly Agree

Training 1. Virtual training on "International Sanitary and Phytosanitary (SPS) and Food Safety Standards"		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
Training 2. HACCP Training of Trainers		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		

<sup>13</sup> The interviewer will only consider the trainings attended by the interviewee.

The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 3. Training on Risk Assessment, Management and Communication &amp; Product Recall</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 4. Training on ISO 17025:2018</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 5. FDA North Luzon Cluster Cascaded Training on ISO 17020:2012</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		

The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 6. Introductory Course Training on ISO/IEC 17020:2012</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 7. Introductory Course Training on Food Safety Scheme Certification</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 8. Risk-based Food Control Training</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		

The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 9. Cascaded Training on Food Safety Standard Certification v5.1</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 10. Cascaded Training on ISO:17020</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 11. USDA Food Safety Network Online Course: Food Safety Module</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>

The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		

2. What are the important interventions on policy formulation and implementation? Probe on the activities (e.g. workshops, public consultations, etc.) to support the revision of Guidelines on Current Good Manufacturing Practice [GMP] in Manufacturing, Packing, Repacking, or Holding Food.

What are the major changes/effects/initial impacts of the B-SAFE interventions in the effective performance of your role in ensuring regulation of food safety? Probe on the initial effects of the initiative to institutionalized risk-based approach to food safety.

For the good effects/initial impacts, are you able to sustain the adoption of these interventions? What are the activities done to sustain the adoption of these interventions? (Probe on the strategies for sustainability e.g. institutionalization of policies/training or capability activities, provision of equipment, etc.)

What do you think are the major factors towards sustainability of the B-SAFE interventions in support of your role to ensure food safety?

If the interventions were not sustained, what are the factors that contributed to their discontinuance?

What strategies can you recommend to sustain the B-SAFE interventions?

3. Are there unintended effects that resulted to issues and challenges? Please identify.  
How did you address these issues and challenges?  
What are your recommendations to prevent/mitigate these issues and challenges?



## KII GUIDE QUESTION

### MIDTERM EVALUATION FOR THE BUILDING SAFE AGRICULTURAL FOOD ENTERPRISES (B-SAFE) PROJECT IN THE PHILIPPINES

#### Key Informant Interview Guide

##### Philippine Regulatory Agencies: National Meat Inspection Service (NMIS)

Name of Respondent	
Position	
Organization/Agency	
City/Municipality	
Date of Interview	

#### A. Implementation and Regulation of Food Safety Standards/Protocols on Meat Inspection and Meat Hygiene

1. What are the key areas that have to be strengthened so that you can effectively perform your role in ensuring quality and hygienic meat (e.g., meat and meat products inspection, accreditation licensing and regulation, development of meat standards and safety protocols, etc.)?

- \_\_\_ Technical capacity (skills/knowledge) of the staff
- \_\_\_ Number of staff (check adequacy of staff in terms of number)
- \_\_\_ Facilities, infrastructure, equipment
- \_\_\_ Policies (looking into possible conflicting policies)

2. If technical skills, what are the technical skills needed? Please identify.

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_

What are the current activities being done by your agency to mitigate the limited capacity of the staff and what specific enhancement are still needed?

3. If number of staff, what are the major issues and challenges given limited number of staff in terms of ensuring animal health?

Are the issues associated with technical skills and number of staff part of the human resources plan/program? What are the key capacity areas indicated in the plan?

4. If facilities/infrastructure/equipment, what are the facilities needed? Please enumerate. \_\_\_\_\_

How did you address the issues associated with the limited facilities/infrastructure/equipment. \_\_\_\_\_

5. If policies, what are the policies needed to support the effective performance of the roles in ensuring safe and quality meat and meat products? Probe on the existing policies related to meat inspection, adoption of cold chain system, etc.

How did you address the need for these policies? What were the critical activities conducted to develop the policies to support your roles in ensuring safe and quality meat and meat products? \_\_\_\_\_

Are there conflicting policies in the implementation/enforcement/monitoring of policies on meat safety? What are these conflicting policies? (Probe on the need for harmonization of policies)

addressing the regulatory framework. What are the measures done, were the revisions/measures applied institutionalized?)

How important are these policies to be resolved to implement strategies in ensuring safety and quality of meat?

What are the activities done to address the issues on conflicting policies (if any)? Who are the key persons/units to address such issues?

## B. B-SAFE Support and Assistance

1. Are you aware of the B-SAFE Project? What is your understanding of its objectives and interventions?

1.1 What are the interventions provided by B-SAFE to support initiatives in ensuring meat safety and quality is regulated and monitored?

1.2 Are there capacity building/trainings provided? If yes, what are the trainings/ capacity building initiatives provided? (Probe on the capacity building initiated on Regulatory Impact Assessment and risk management e.g. identification of food borne diseases, etc.)

1.3 How important are the trainings/capacity building initiatives provided?

1.4 How effective was the delivery of the trainings/capacity building initiatives provided? (Probe on effectiveness in terms of comprehensiveness, accuracy, appropriateness of the resource persons, adequacy of time allocation, and hands-on activities are provided).

Probe also on the effectiveness of the trainings conducted online.

Note: A list of all trainings/capacity building provided to NMIS will serve as basis in rating/ ranking

1.5 Please rank the training<sup>14</sup> effectiveness using the following scale:

1- Strongly disagree      2- Disagree      3- Neutral      4- Agree      5- Strongly Agree

Training 1. Cascaded Training on Food Safety Standard Certification v5.1		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
Training 2. Cascaded Training on ISO 17025:2017		

<sup>14</sup> The interviewer will only consider the trainings attended by the interviewee.

Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 3. DA Risk Training</b>		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 4. HACCP Training of Trainers</b>		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 5. Inception Workshop of the Technical Working Group for the Development of 5-year National Strategic Plan for DA Laboratories</b>		

Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 6. Risk-based Training Series</b>		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 7. Training on Food Safety Practices on Hygienic Meat Handling</b>		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 8. Training on ISO 17025:2018</b>		

Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 9. Training on Risk Assessment, Management and Communication &amp; Product Recall</b>		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 10. USDA Food Safety Network Online Course: Food Safety Module</b>		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 11. Virtual training on "International Sanitary and Phytosanitary (SPS) and Food Safety Standards"</b>		

Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		

2. What are the major changes/effects/initial impacts of the B-SAFE interventions in the effective performance of your role in ensuring regulation of meat safety? Probe on the initial effects of the initiative to institutionalized risk-based approach to meat safety.

For the good effects/initial impacts, are you able to sustain the adoption of these interventions? What are the activities done to sustain the adoption of these interventions? (Probe on the strategies for sustainability e.g. institutionalization of policies/training or capability activities, provision of equipment, etc.)

What do you think are the major factors towards sustainability of the B-SAFE interventions in support of your role to ensure meat safety/quality?

If the interventions were not sustained, what are the factors that contributed to their discontinuance?

What strategies can you recommend to sustain the B-SAFE interventions?

3. Are there unintended effects that resulted to issues and challenges? Please identify.  
How did you address these issues and challenges?  
What are your recommendations to prevent/mitigate these issues and challenges?

## **FGD Guide Questions**

### **CONSENT FORM (FGD)**

Data Privacy Notice Form No. 2



**Asian Social Project Services, Inc. (ASPSI)**

### **Focus Group Discussion of Participants [Traders/ Producers]**

**Name of Project:** Building Safe Agricultural Food Enterprises (B-SAFE) Project in the Philippines

**Lead Consultant:** Dr. Ernesto O. Brown

#### **Introduction**

We would like to request your participation in an evaluation study. Your participation involves being in a brief, 30-45-minute group discussion to learn about your experiences and perspectives as a participant in this project, including what you know about the B-SAFE. You will be in this group discussion with other beneficiaries from your area.

We want to ensure that you understand the purpose of this discussion, the type of questions we will ask, and how we will handle the information you provide to us, before you decide to participate. If you have any questions, please feel free to ask us now or during the discussion, should you decide to participate.

#### **Information About the Study and Group Discussion**

We are interested in learning about your project experiences, including your possible participation in the B-SAFE activities for traders/producers, your perspectives about these activities, how the program is working for you and perhaps other beneficiaries/stakeholders, and any suggestions you might have about how the program might be improved for participants.

The group discussion we would like to do is part of a research study, which involves interviews and group discussions with many other participants and stakeholders. The study is looking at how the B-SAFE program are helping participants, and for ways that they may be improved.

Your participation is completely voluntary and there is no penalty for refusing to take part. Your decision to participate, or not, in this focus group will not affect your participation in the B-SAFE program. You may also decide to not answer specific questions and/or even decide to stop participating at any time, for any reason. You are not obliged to give a reason for not answering questions or for deciding to stop participating in the discussion.

## **How You Were Identified**

You were identified as a participant in this program who might provide useful comments and feedback about your experiences as a trader/producer including if you have also participated in B-SAFE activities.

## **Possible Risks and Benefits**

There is a small chance that one or more of the discussion questions might make you feel uncomfortable. If this occurs, you should feel free to not answer that question. Although we will not add your name to the written report, there is always a chance someone may find out what you have said, but we think this chance is low.

To protect you and other group members we ask that you do not talk about what was said in the group discussion with others who were not in the group. Since we cannot stop group members from telling others what was said, others outside the group may learn something about you.

There is no direct benefit to you in participating, however, your comments will help us, the evaluators, and the B-SAFE staff better understand how well overall development programs and the B-SAFE program are working for participants, and possible ways that the programs might be improved.

## **Confidentiality**

We will record our conversation if you consent to it, or we will take handwritten notes if you do not consent. We assure you that the transcript of the recording or the handwritten notes will not be disseminated to anyone outside of the evaluation team and will only be used to develop reports. The notes will be destroyed once the reports have been finalized.

We will not include your name in any written evaluation reports. Our reports will include information about the comments received from many participants. Names of individual participants will not be revealed. Your comments will be combined with those of other participants we are talking to in a report.

We also ask that all of you participating in this discussion not reveal to outside of this group any information shared during this discussion, including the names and personal identification of those participating.

## **Compensation**

There will be no compensation for your participation in the study.

## **Contact for Questions**

If you have any questions about this research, you may contact the data management specialist in this research study.



If you have any questions or concerns about how you were treated during the discussion or your rights as a participant, you may contact ASPSI at email [aspsiglobal@gmail.com](mailto:aspsiglobal@gmail.com).

Do you have any questions?

### **Giving of Consent**

I have read this consent form and I understand its contents and what is being requested of me. I voluntarily consent to participate in this study and allow my data to be collected as stated above.

Please print clearly:

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

**MIDTERM EVALUATION FOR THE BUILDING SAFE AGRICULTURAL FOOD ENTERPRISES  
(B-SAFE) PROJECT IN THE PHILIPPINES**

**Focus Group Discussion  
Private Sector**

(Commodity/Industry: **Corn Producers**)

Name of Respondent	
Position	
Organization/Agency	
City/Municipality	
Date of Interview	

**A- Compliance to Food Safety Standards**

1- What are the food safety standards in producing corn? Probe on the awareness and knowledge of the group on food safety standards (e.g., GAP, biosecurity, biosafety, etc.)

- a. How are standards being implemented in corn production? Describe the procedures on food safety being adopted including the requirements (e.g., GAP certification, biosecurity permits, use of certified seeds, etc.)
- b. Are you able to comply? If yes, what are the necessary requirements towards adoption? Is B-SAFE able to support you in addressing this requirements?
- c. If No, what are the challenges/issues towards compliance?

2- How important is compliance to food safety standards in developing the corn industry?

- a. Is compliance being monitored? Describe the monitoring procedures including policies governing compliance and monitoring.
- b. What are the associated risks of non-compliance to food safety standards? Probe on the issues and challenges in compliance and the associated sanctions/penalties, if there is failure to comply.
- c. What are the strategies in addressing and managing the risks (e.g. using genetically modified varieties (GMOs)). Probe on how certain requirements/strategies affect production/postharvest strategies, costs, and other operations of corn production.

3- On willingness of producers to implement food safety measures and access to technology

Please rank in terms of your level of agreement on the following statements. Use the following scale to indicate your level of agreement:

1 - Strongly disagree; 2 - Disagree 3- Neutral 4 - Agree 5 - Strongly Agree

Statement	Level of Agreement	Reason for the Rating
The willingness of farmers to implement biosafety measures depends on their financial and technical capacity		
Farmers are more likely to implement biosafety measures if they are provided with incentives		
Large farms have greater access to information and more aware of clean production technologies than small farms		

Maintaining good plant health and food safety is the responsibility of both the private sector and the government		
Having biosecurity measures in the farm production system can be difficult to sustain over a longer period given the associated cost involved		

## B. B-SAFE Support and Assistance

1- Are you aware of B-SAFE? Probe on the respondents' understanding of the goals and interventions of B-SAFE.

1.1 What interventions are provided by B-SAFE to support improvement in productivity, adherence to food safety standards and adoption of risk management strategies?

Are these interventions able to address the need for compliance to the identified food safety standards.

1.2 If trainings are provided, probe the effectiveness in terms of comprehensiveness, accuracy, appropriateness of resource persons, adequacy of time allocation and provision of hands-on activities)

Collectively, please rank the training in terms of your level of agreement/disagreement with the relevant statements. Use the following scale to indicate your level of agreement/ disagreement:

1- Strongly disagree 2- Disagree 3-Neutral 4-Agree 5-Strongly Agree

Training 1. Proper handling, treatment, and use of improved corn seed varieties, and on the improved corn production techniques and technologies		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
Training 2. Corn silage production		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		

The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 3. Corn harvest and post-harvest processing technology</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		

2- Were you able to apply the knowledge gained from the training(s) in improving production of corn?

2.1 If yes, what are the most significant improvement observed in the production of corn?

2.2 If no, what are the constraints for inability to apply/utilize the new knowledge from the trainings?

How do you plan to resolve these constraints? Did you seek assistance from B-SAFE?

What other important assistance were provided by B-SAFE apart from training? How did it help improve or enhance your production/processing/ trading activities (e.g., provision of equipment, etc.)

### C. Sustainability of Adoption of Food Safety Standards

- 1- Do you think there are key areas that you have to strengthen so that you will continue to adopt/adhere to food safety standards?
- 2- Do you think there is enough incentive for corn producers to invest in complying with food safety standards? Probe on specific investments and sustainability strategies to comply with food safety standards (e.g., human resources, equipment, etc.) safety standards?
- 3- Identify other support services and source(s) of support to sustain the adoption of food safety standards. Probe on challenges/issues towards sustainability of adoption.

**MIDTERM EVALUATION FOR THE BUILDING SAFE AGRICULTURAL FOOD ENTERPRISES  
(B-SAFE) PROJECT IN THE PHILIPPINES**

**Focus Group Discussion**

Private Sector

(Commodity/Industry: **Coconut sugar Producers**)

Name of Respondent	
Position	
Organization/Agency	
City/Municipality	
Date of Interview	

**A. Compliance to Food Safety Standards**

1- What are the food safety standards you know in producing coconut sugar?

- a. Probe on the awareness and knowledge of the group on food safety standards (e.g., GAP, HACCP, GMP, etc.).
- b. How are these standards being implemented in coconut sugar production? Describe the procedures on food safety being adopted including the requirements (e.g., certification).

Are you able to comply? If yes, what are the necessary requirements towards adoption? Is B-SAFE able to support you in addressing this requirements?

If No, what are the challenges/issues towards compliance?

- c. Do you think these are necessary requirements towards adoption of food safety standards?

2- How important is the compliance to food safety standards in the coconut sugar industry?

- a. Identify the advantages of adopting the food safety standards in coconut sugar production. Probe on incentives to comply.
- b. Is compliance being monitored? Describe the monitoring procedures including policies governing compliance and monitoring. Also, probe on what agencies are monitoring and implementing the policies.
- c. What are the associated risks of non-compliance to food safety standards? Probe on the issues and challenges in compliance and the associated sanctions/penalties if there is failure to comply.
- d. What are the strategies in addressing and managing the risks?
- e. Are there disadvantages/issues/problems associated with the imposed policies/regulations on food safety? Probe on how certain requirements/policies affect the operations of coconut sugar production.

3- On willingness of producers to implement food safety measures and access to technology

Please rank in terms of your level of agreement on the following statements. Use the following scale to indicate your level of agreement:

1 - Strongly disagree; 2 - Disagree 3- Neutral 4 - Agree 5 - Strongly Agree

Statement	Level of Agreement	Reason for the Rating
The willingness of farmers to implement biosafety measures depends on their capacity financial and technical capacity		
Farmers are more likely to implement biosafety measures if they are provided with incentives		
Large farms have greater access to information and more aware of clean production technologies than small farms		
Maintaining good plant health and food safety is the responsibility of both the private sector and the government		
Having biosecurity measures in the farm production system can be difficult to sustain over a longer period given the associated cost involved		

## B. B-SAFE Support and Assistance

1- Are you aware of B-SAFE? Probe on the respondents' understanding of the goals and interventions of B-SAFE.

1.1 What interventions are provided by B-SAFE to support improvement in productivity, adherence to food safety standards and adoption of risk management strategies?

Are these interventions able to address the need for compliance to the identified food safety standards.

1.2 If trainings are provided, probe the effectiveness in terms of comprehensiveness, accuracy, appropriateness of resource persons, adequacy of time allocation and provision of hands-on activities)

Collectively, please rank the training in terms of your level of agreement/disagreement with the relevant statements. Use the following scale to indicate your level of agreement/ disagreement:

1- Strongly disagree 2- Disagree 3-Neutral 4-Agree 5-Strongly Agree

Training 1. Training on GMP and OSH for Linabu Agrarian Multi-Purpose Cooperative in Balingasag, Misamis Oriental.		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		

The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 2.</b> Training on GMP and OSH for T2G at the Coconut Sugar Processing Center located in Jasaan, Misamis Oriental		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 3.</b> GMP and HACCP		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 4.</b> Sanitation Standard Operation Procedures (SSOP) of GMP		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		

The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 5. Internal Control System for Good Agricultural Practices (GAP) and Organic Coconut sugar</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 6. GMP</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 7. HACCP</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		



The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		

2- Were you able to apply the knowledge gained from the training(s) in improving production, processing and trading of coconut sugar?

2.1 If yes, what are the most significant improvement observed in the production, processing and marketing/trading coconut sugar?

2.2 If no, what are the constraints for inability to apply/utilize the new knowledge from the trainings? How do you plan to resolve these constraints? Did you seek assistance from B-SAFE?

3- What other important assistance were provided by B-SAFE apart from training? How did it help improve or enhance your production/processing/ trading activities (e.g., provision of equipment, etc.)?

### **C. Sustainability of Adoption of Food Safety Standards**

1- Do you think there are key areas that you have to strengthen so that you will continue to adopt/adhere to food safety standards?

2- Do you think there is enough incentive for coconut sugar producers to invest in complying with food safety standards? Probe on specific investments and sustainability strategies to comply with food safety standards (e.g., human resources, equipment, etc.)?

3- Identify other support services and source(s) of support to sustain the adoption of food safety standards. Probe on challenges/issues towards sustainability of adoption.

**MIDTERM EVALUATION FOR THE BUILDING SAFE AGRICULTURAL FOOD ENTERPRISES  
(B-SAFE) PROJECT IN THE PHILIPPINES**

**Focus Group Discussion**

Private Sector

(Commodity/Industry: **Swine Producers**)

Name of Respondent	
Position	
Organization/Agency	
City/Municipality	
Date of Interview	

**A. Compliance to Food Safety Standards**

1- What are the food safety standards you know in hog production?

- a. Probe on the awareness and knowledge of the group on food safety standards (e.g. GAHP, biosecurity measures against ASF, GMP, HACCP, etc.)
- b. How are these standards being implemented in hog production? Describe the procedures on food safety being adopted including the requirements (e.g., certification)?

Are you able to comply? If yes, what are the necessary requirements towards adoption? Is B-SAFE able to support you in addressing this requirements?

If No, what are the challenges/issues towards compliance?

- c. Do you think these are necessary requirements towards adoption of food safety standards?

2- How important is compliance to food safety standards in the hog industry?

- a. Identify the advantages of adopting the food safety standards in hog production. Probe on incentives to comply.
- b. Is compliance being monitored? Describe the monitoring procedures including policies governing compliance and monitoring. Also, probe on what agencies are monitoring and implementing the policies.
- c. What are the associated risks of non-compliance to food safety standards? Probe on the issues and challenges in compliance and the associated sanctions/penalties if there is failure to comply.
- d. What are the strategies in addressing and managing the risks?
- e. Are there disadvantages/issues/problems associated with the imposed policies/regulations on food safety? Probe on how certain requirements/policies affect the operations of hog production

3- On willingness of producers to implement food safety measures and access to technology

Please rank in terms of your level of agreement on the following statements. Use the following scale to indicate your level of agreement:

1 - Strongly disagree; 2 - Disagree 3- Neutral 4 - Agree 5 - Strongly Agree

Statement	Level of Agreement	Reason for the Rating
The willingness of hog raisers to implement biosafety measures depends on their financial and technical capacity		
Hog raisers are more likely to implement biosafety measures if they are provided with incentives		
Large hog farms have greater access to information and more aware of clean production technologies than small hog farms		
Maintaining good plant health and food safety is the responsibility of both the private sector and the government		
Having biosecurity measures in the farm production system can be difficult to sustain over a longer period given the associated cost involved		

## B. B-SAFE Support and Assistance

1-Are you aware of B-SAFE? Probe on the respondents' understanding of the goals and interventions of B-SAFE.

1.1 What interventions are provided by B-SAFE to support improvement in productivity, adherence to food safety standards and adoption of risk management strategies?

Are these interventions able to address the need for compliance to the identified food safety standards.

1.2 If trainings are provided, probe the effectiveness in terms of comprehensiveness, accuracy, appropriateness of resource persons, adequacy of time allocation and provision of hands-on activities)

Collectively, please rank the training in terms of your level of agreement/disagreement with the relevant statements. Use the following scale to indicate your level of agreement/ disagreement:

1- Strongly disagree 2- Disagree 3-Neutral 4-Agree 5-Strongly Agree

Training 1. Fundamentals in Swine Genetics, Breeding, Selection and Artificial Insemination		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
Training 2. For the Pilot-testing ASF virus surveillance and monitoring system in Batangas		

Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		

2- Were you able to apply the knowledge gained from the training(s) in improving production of swine?

2.1 If yes, what are the most significant improvement observed in hog production?

2.2 If no, what are the constraints for inability to apply/utilize the new knowledge from the trainings?  
How do you plan to resolve these constraints? Did you seek assistance from B-SAFE?

3- What other important assistance were provided by B-SAFE apart from training? How did it help improve or enhance your production/processing/ trading activities (e.g., provision of equipment, etc.)?

### C. Sustainability of Adoption of Food Safety Standards

1- Do you think there are key areas that you have to strengthen so that you will continue to adopt/adhere to food safety standards?

2- Do you think there is enough incentive for hog producers to invest in complying with food safety standards? Probe on specific investments and sustainability strategies to comply with food safety standards (e.g., human resources, equipment, etc.)?

3- Identify other support services and source(s) of support to sustain the adoption of food safety standards. Probe on challenges/issues towards sustainability of adoption.

**MIDTERM EVALUATION FOR THE BUILDING SAFE AGRICULTURAL FOOD ENTERPRISES  
(B-SAFE) PROJECT IN THE PHILIPPINES**

**Focus Group Discussion**

Private Sector

(Commodity/Industry: **Milkfish Producers**)

Name of Respondent	
Position	
Organization/Agency	
City/Municipality	
Date of Interview	

**A. Compliance to Food Safety Standards**

1- What are the food safety standards you know in milkfish production?

- a. Probe on the awareness and knowledge of the group on food safety standards (e.g., GAqP, HACCP, etc.).
- b. How are these standards being implemented in milkfish production? Describe the procedures on food safety being adopted including the requirements (e.g. certification)

Are you able to comply? If yes, what are the necessary requirements towards adoption? Is B-SAFE able to support you in addressing this requirements?

If No, what are the challenges/issues towards compliance?

- c. Do you think these are necessary requirements towards adoption of food safety standards?

2- How important is compliance to food safety standards in the milkfish industry?

- a. Identify the advantages of adopting the food safety standards in milkfish production. Probe on incentives to comply.
- b. Is compliance being monitored? Describe the monitoring procedures including policies governing compliance and monitoring. Also, probe on what agencies are monitoring and implementing the policies.
- c. What are the associated risks of non-compliance to food safety standards? Probe on the issues and challenges in compliance and the associated sanctions/penalties, if there is failure to comply.
- d. What are the strategies in addressing and managing the risks?
- e. Are there disadvantages/issues/problems associated with the imposed policies/regulations on food safety? Probe on how certain requirements/policies affect the operations of milkfish production.

3- On willingness of producers to implement food safety measures and access to technology

Please rank in terms of your level of agreement on the following statements. Use the following scale to indicate your level of agreement:

1 - Strongly disagree; 2 - Disagree 3- Neutral 4 - Agree 5 - Strongly Agree

Statement	Level of Agreement	Reason for the Rating
The willingness of fish farmers to implement biosafety measures depends on their financial and technical capacity		
Fish farmers are more likely to implement biosafety measures if they are provided with incentives		
Large fish farms have greater access to information and more aware of clean production technologies than small fish farms		
Maintaining good animal/fish health and food safety is the responsibility of both the private sector and the government		
Having biosecurity measures in the fish farm production system can be difficult to sustain over a longer period given the associated cost involved		

## B. B-SAFE Support and Assistance

1- Are you aware of B-SAFE? Probe on the respondents' understanding of the goals and interventions of B-SAFE.

1.2 What interventions are provided by B-SAFE to support improvement in productivity, adherence to food safety standards and adoption of risk management strategies?

Are these interventions able to address the need for compliance to the identified food safety standards.

1.3 If trainings are provided, probe the effectiveness in terms of comprehensiveness, accuracy, appropriateness of resource persons, adequacy of time allocation and provision of hands-on activities)

Collectively, please rank the training in terms of your level of agreement/disagreement with the relevant statements. Use the following scale to indicate your level of agreement/ disagreement:

1- Strongly disagree 2- Disagree 3-Neutral 4-Agree 5-Strongly Agree

Training 1. Improve milkfish supply chain functioning (topics on GAqP, particularly on land preparation and water quality maintenance)		
Statement	Effectiveness rating	Cite/describe reasons for the rating
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		

The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		
<b>Training 2. HACCP</b>		
<b>Statement</b>	<b>Effectiveness rating</b>	<b>Cite/describe reasons for the rating</b>
The training provided by B-SAFE is important		
The training provided is comprehensive		
The training provided is accurate		
The resource persons are very knowledgeable of the topics/areas covered in the training		
The allocated time is appropriate to provide ample time understand the lectures and exercises		
The hands-on activities are very helpful in understanding the training topics/areas		

- 2- Were you able to apply the knowledge gained from the training(s) in improving production of milkfish?
- 2.1 If yes, what are the most significant improvement observed in milkfish production?
- 2.2 If no, what are the constraints for inability to apply/utilize the new knowledge from the trainings?
- How do you plan to resolve these constraints? Did you seek assistance from B-SAFE?
- 3- What other important assistance were provided by B-SAFE apart from training? How did it help improve or enhance your production/processing/ trading activities (e.g., provision of equipment, etc.)?

### **C. Sustainability of Adoption of Food Safety Standards**

- 1- Do you think there are key areas that you have to strengthen so that you will continue to adopt/adhere to food safety standards?
- 2- Do you think there is enough incentive for milkfish producers to invest in complying with food safety standards? Probe on specific investments and sustainability strategies to comply with food safety standards (e.g., human resources, equipment, etc.)?
- 3- Identify other support services and source(s) of support to sustain the adoption of food safety standards. Probe on challenges/issues towards sustainability of adoption.

## Annex 7. Survey Questionnaires



**Asian Social Project Services, Inc. (ASPSI)**

### **COCONUT SUGAR SURVEY INSTRUMENT**

#### **Data Gathering from Human Subjects (Consent Form)**

**Winrock International**, a non-governmental organization based in the United States of America, with funding from the United States Department of Agriculture (USDA), is working on the **Building Safe Agricultural Food Enterprises Project** also known as **B-SAFE**. Winrock has engaged **Asian Social Project Services, Inc. (ASPSI)**, an international consultancy and training service provider in the Philippines, to lead the implementation of the research entitled **“Midterm Evaluation for the Building Safe Agricultural Food Enterprises (B-SAFE) Project in the Philippines”**. The purpose of the research is to provide in-depth assessment of the project’s performance.

This research includes collecting information from you such as your name, position, organization/ agency and municipality. While there is minimal risks of your individual responses being disclosed due to measures we are taking in collecting the data, we are committed in ensuing the following security measures to safeguard all collected information:

- Your private information will be protected and kept secure. It will only be used for this research and will be deleted from our systems once it is no longer needed.
- Your personally identifying information will be removed from any data collected that will be provided to the USDA.
- Your information, without your name or identifying information, may be used in future research studies or be given out to another investigator for future research without getting additional informed consent from you.

**Participation in this research is entirely voluntary, and you may decide not to participate at any time.**

Should you have any questions or concerns about this research or this document, please feel free to ask any questions you may have at this time or contact ASPSI.

Address: 3rd Floor, MG Building 10001 Mt. Halcon St., Los Baños Subd.,  
Batong Malake, Los Baños, Laguna 4030, Philippines  
E-mail: aspsiglobal@gmail.com  
Phone: 63-49-536-3448

I, \_\_\_\_\_, voluntarily agree to participate in this survey and allow my data to be collected as stated above. I warrant that I am at least 18 years of age and that I am competent in my own name insofar as this consent is concerned.

\_\_\_\_\_  
Signature over printed name

\_\_\_\_\_  
Date



Questionnaire No: \_\_\_\_\_

Enumerator/Interviewer: \_\_\_\_\_ Date of Interview: \_\_\_\_\_

I. SOCIO-ECONOMIC PROFILE	
1. Type of respondent:	<input type="checkbox"/> Coco sap tapper <input type="checkbox"/> Coconut sugar processor <input type="checkbox"/> Both tapper and processor
2. Name of Respondent (Last Name, First Name):	
3. Address:	Barangay: _____ Municipality: _____
4. Contact Number:	
5. Birth Year (YYYY):	
6. Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other: _____ <input type="checkbox"/> Preferred not to be specified
7. Ethnicity:	<input type="checkbox"/> Cebuano <input type="checkbox"/> Ilonggo <input type="checkbox"/> Tagalog <input type="checkbox"/> Ilocano <input type="checkbox"/> Others (specify) _____
8. Highest educational attainment:	<input type="checkbox"/> No grade completed <input type="checkbox"/> Elementary undergraduate and below <input type="checkbox"/> Elementary graduate <input type="checkbox"/> High school undergraduate <input type="checkbox"/> High school graduate <input type="checkbox"/> Post secondary undergraduate/Vocational <input type="checkbox"/> Post secondary graduate/Vocational <input type="checkbox"/> College undergraduate <input type="checkbox"/> College graduate <input type="checkbox"/> Others, specify _____
9. Total household size (including the respondent):	
10. How long have you been engaged in farming? _____ years (with reference to coconut sugar processing)	
11. Membership to farmers' organization/cooperative: <input type="checkbox"/> Yes <input type="checkbox"/> No	
12. Name of organization	
II. FARM PROFILE	
13. Total land area planted with coconut (in hectares)	
14. Tenurial status of area planted under coconut	<input type="checkbox"/> Owner <input type="checkbox"/> Tenant <input type="checkbox"/> Leasehold/Rentee <input type="checkbox"/> Others (specify)
III. AWARENESS and APPLICATION of B-SAFE INTERVENTION(S)	
15. Prior to today's interview, are you aware of B-SAFE?	<input type="checkbox"/> Yes <input type="checkbox"/> No
16. If YES, how did you initially learn about B-SAFE?	Note: Respondent can provide multiple answers  <input type="checkbox"/> Through the cooperative/organization <input type="checkbox"/> Through the MAO/PAO <input type="checkbox"/> Winrock actively approached the organization <input type="checkbox"/> Others (specify) _____
17. What do you know about the project and its activities?	Note: Respondent can provide multiple answers  <input type="checkbox"/> Provides trainings on improving techniques in coco sap tapping <input type="checkbox"/> Provides trainings on processing coconut sugar

	<input type="checkbox"/> Provides equipment (i.e. oven, sifter, etc.) <input type="checkbox"/> Provides support in processing certification (i.e. FDA Certification, etc.) <input type="checkbox"/> Linking farmers to market/traders <input type="checkbox"/> Others (specify) _____
18. Have you attended any B-SAFE training(s) on coco sap tapping/coconut sugar processing?	<input type="checkbox"/> Yes <input type="checkbox"/> No
19. If YES, what was the training(s) about?	<p>Note: Respondent can provide multiple answers.</p> <input type="checkbox"/> 1. Good agricultural practices in coco sap production/tapping (i.e., fertilization of coconut trees, use of hybrid varieties, hygienic practices in tapping coco sap, etc.) <input type="checkbox"/> 2. Good manufacturing practices (i.e., hygienic practices of coconut sugar processing, maintaining quality of coconut sugar, use of improved equipment, etc.) <input type="checkbox"/> 3. Others (specify) _____
20. Who/what agency delivered the training?	<p>Note: Respondent can provide multiple answers.</p> <input type="checkbox"/> MAO/PAO <input type="checkbox"/> Experts from State Universities and Colleges (SUCs) <input type="checkbox"/> NGOs/Private Partners <input type="checkbox"/> Others (specify) _____
21. Which training topic area(s) did you find most useful?	<p>Note: Respondent can provide multiple answers.</p> <input type="checkbox"/> 1. Good agricultural practices in coco sap production/tapping (i.e., fertilization of coconut trees, use of hybrid varieties, hygienic practices in tapping coco sap, etc.) <input type="checkbox"/> 2. Good manufacturing practices (i.e., hygienic practices of coconut sugar processing, maintaining quality of coconut sugar, use of improved equipment, etc.) <input type="checkbox"/> 3. Others (specify) _____
22. Did you apply the areas/topics you find useful in the next production cycle?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings
<b>IV. DETAILS OF THE SPECIFIC B-SAFE INTERVENTION(S) APPLIED</b>	
<b>On Trainings identified in Q19</b>	
23. Good agricultural practices in coco sap production/tapping (raw material handling)	<p>What specific areas/modules on GAP were provided during the training?</p> <p>Note: Respondent can provide multiple answers.</p> <input type="checkbox"/> 1. Productivity-increasing/sustainable harvesting techniques (i.e., fertilization of coconut trees, use of hybrid varieties, hygienic practices in tapping coco sap, etc.) <input type="checkbox"/> 2. Proper wearing of personal protective equipment (PPE) in tapping coco sap <input type="checkbox"/> 3. Proper cleaning of equipment/materials in tapping (i.e., sap containers, etc.) <input type="checkbox"/> 4. Proper use and calibration of equipment (i.e., pH meter, etc.) <input type="checkbox"/> 5. Hygienic handling of coco sap <input type="checkbox"/> 6. Others (specify) _____
	<p>Do you think this is important in terms of the following:</p> <p>Note: Respondent can provide multiple answers.</p> <input type="checkbox"/> 1. In improving productivity of coconut sap: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 2. In ensuring food safety in coco sap tapping: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 3. In improving quality of coco sap: <input type="checkbox"/> Yes <input type="checkbox"/> No
	Were you able to apply the learnings in the next production cycle?

	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings</p> <p>If YES, what are the key practices on GAP applied following the B-SAFE training(s)?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. Productivity-increasing/sustainable harvesting techniques (i.e. fertilization of coconut trees, use of hybrid varieties, hygienic practices in tapping coco sap, etc.)</p> <p><input type="checkbox"/> 2. Proper wearing of personal protective equipment (PPE) in tapping coco sap</p> <p><input type="checkbox"/> 3. Proper cleaning of equipment/materials in tapping (i.e., sap containers, etc.)</p> <p><input type="checkbox"/> 4. Proper use and calibration of equipment (i.e., pH meter, etc.)</p> <p><input type="checkbox"/> 5. Hygienic handling of coco sap</p> <p><input type="checkbox"/> 6. Others (specify) _____</p> <p>If NO, why have you NOT applied the practices following the B-SAFE trainings?</p> <p><input type="checkbox"/> 1. _____</p> <p><input type="checkbox"/> 2. _____</p> <p><input type="checkbox"/> 3. _____</p> <p><input type="checkbox"/> 4. _____</p> <p><input type="checkbox"/> 5. _____</p> <p><input type="checkbox"/> 6. _____</p>
<p>24. On Good Manufacturing Practices (GMP) in processing coconut sugar</p>	<p>What specific areas/modules on GMP in processing coconut sugar were provided during the training?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. Sanitation protocols and maintaining cleanliness of working/processing areas</p> <p><input type="checkbox"/> 2. Proper cleaning of equipment/utensils</p> <p><input type="checkbox"/> 3. Maintaining quality of coconut sugar</p> <p><input type="checkbox"/> 4. Safety and health protocols in processing</p> <p><input type="checkbox"/> 5. Others (specify) _____</p> <hr/> <p>Do you think this is important in terms of the following:</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. In ensuring food safety in coconut sugar processing: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> 2. In improving quality of coconut sugar: <input type="checkbox"/> Yes <input type="checkbox"/> No.</p> <hr/> <p>Were you able to apply the learnings in the next production cycle?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings</p> <p>If YES, what are the key practices applied following the B-SAFE trainings?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. Sanitation protocols and maintaining cleanliness of working/processing areas</p> <p><input type="checkbox"/> 2. Proper cleaning of equipment/utensils</p> <p><input type="checkbox"/> 3. Maintaining quality of coconut sugar</p> <p><input type="checkbox"/> 4. Safety and health protocols in processing</p> <p><input type="checkbox"/> 5. Others (specify) _____</p> <p>If NO, why have you NOT applied the practices following the B-SAFE trainings?</p> <p><input type="checkbox"/> 1. _____</p> <p><input type="checkbox"/> 2. _____</p> <p><input type="checkbox"/> 3. _____</p> <p><input type="checkbox"/> 4. _____</p> <p><input type="checkbox"/> 5. _____</p>

<b>On Other Intervention(s)</b>	
25. On FDA Certification	<p>Did B-SAFE support your organization's FDA Certification? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, what were the specific area(s) of support provided? Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1- Provision of information on the necessary documentary requirements  <input type="checkbox"/> 2- Checking and validation of documentary requirements  <input type="checkbox"/> 3- Submission of documentary requirements to FDA  <input type="checkbox"/> 4- Assessment of facilities to qualify for FDA Certification  <input type="checkbox"/> 5- Provision of equipment to qualify for FDA Certification  <input type="checkbox"/> 6- Others (specify) _____</p> <p>What is the current status of the FDA certification support?</p> <p><input type="checkbox"/> On going processing of certification  <input type="checkbox"/> Certification received/granted  <input type="checkbox"/> Do not know (B-SAFE has not yet provided status)  <input type="checkbox"/> Others, specify _____</p>
26. On Organic Coconut sugar Certification	<p>Did B-SAFE support your organization's Organic Coconut sugar Certification? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, what were the specific area(s) of support provided? Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1- Provision of information on the necessary documentary requirements  <input type="checkbox"/> 2- Checking and validation of documentary requirements  <input type="checkbox"/> 3- Submission of documentary requirements to organic certifying body  <input type="checkbox"/> 4- Assessment of facilities to qualify for Organic Coconut sugar Certification  <input type="checkbox"/> 5- Provision of equipment to qualify for Organic Coconut sugar Certification  <input type="checkbox"/> 6- Others (specify) _____</p> <p>What is the current status of the organic coconut sugar certification support?</p> <p><input type="checkbox"/> On going processing of certification  <input type="checkbox"/> Certification received/granted  <input type="checkbox"/> Do not know (B-SAFE has not yet provided status)  <input type="checkbox"/> Others, specify _____</p>
27. On provision of equipment/facilities	<p>Did B-SAFE support your organization's requirement for improved facilities/equipment? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable</p> <p>If YES, what were the facilities/equipment provided? Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> Coconut sugar processing equipment (i.e. oven, sifter, etc.)  <input type="checkbox"/> Improvement of processing area (i.e. water system, source of solar power, etc.)  <input type="checkbox"/> Others (specify) _____</p> <p>What is the current status of the B-SAFE facilities/equipment support?</p> <p><input type="checkbox"/> Request/proposal has been submitted to B-SAFE  <input type="checkbox"/> Requested facilities/equipment received/granted  <input type="checkbox"/> Do not know (B-SAFE has not yet provided status)  <input type="checkbox"/> Others, specify _____</p>
28. In your opinion, what is the percentage of producers/processors in your area/organization have adopted	_____ percentage

the technologies provided by B-SAFE?		
<b>V. CONDUCT OF THE TRAININGS</b>		
Please rate the training in terms of your level of agreement with the following statements. Use the following scale to indicate your level of agreement: <div style="text-align: center;">1 - Strongly disagree; 2 - Disagree 3- Neutral 4 - Agree 5 - Strongly Agree</div>		
29. Training #1. Good Agricultural Practices in Coco Sap Tapping  Did you attend this training? [ <input type="checkbox"/> ] Yes [ <input type="checkbox"/> ] No If YES, please rate the training. If NO, please proceed to the next question		
<b>Statement</b>	<b>Rating</b>	<b>Cite/describe reasons for the rating</b>
<b>On relevance:</b>		
The training provided by B-SAFE was important in improving the production /sustainable harvesting of coco sap		
The training provided by B-SAFE was important in ensuring safe/clean coco sap		
The training provided was comprehensive		
The training provided was accurate		
<b>On effectiveness:</b>		
The knowledge gained from the training was applied in the next production/cropping period		
The knowledge gained from the training was <b>too early</b> to be applied in the next production/cropping period		
The hands-on/practical/field activities were helpful in understanding the training topics/areas		
<b>On timeliness:</b>		
The allocated time was appropriate to ensure an understanding of the lectures and exercises		
The timing of the training was appropriate, given it was conducted before the next production/cropping season		
<b>On Resource Persons:</b>		
The resource persons/trainers/instructors were knowledgeable of the topics/areas covered in the training		
The resource persons/trainers/instructors used language that was simple and easy to understand		
The resource persons/trainers/instructors used vernacular/local language		
30. Training #2. Good Manufacturing Practices (GMP) in Processing Coconut sugar  Did you attend this training? [ <input type="checkbox"/> ] Yes [ <input type="checkbox"/> ] No If YES, please rate the training. If NO, please proceed to the next question		
<b>Statement</b>	<b>Rating</b>	<b>Cite/describe reasons for the rating</b>
<b>On relevance:</b>		

The training provided by B-SAFE was important in improving quality of coconut sugar		
The training provided by B-SAFE was important in ensuring safe/clean coconut sugar processing		
The training provided was comprehensive		
The training provided was accurate		
<b>On effectiveness:</b>		
The knowledge gained from the training was applied in the next production/cropping period		
The knowledge gained from the training was <b>too early</b> to be applied in the next production period		
The hands-on/practical/field activities were helpful in understanding the training topics/areas		
<b>On timeliness:</b>		
The allocated time was appropriate to ensure an understanding of the lectures and exercises		
The timing of the training was appropriate, given it was conducted before the cropping season		
<b>On Resource Persons:</b>		
The resource persons/trainers/instructors were very knowledgeable of the topics/areas covered in the training		
The resource persons/trainers/instructors used language that was simple and easy to understand		
The resource persons/trainers/instructors used vernacular/local language		
<b>VI. IMPLICATIONS OF B-SAFE INTERVENTION(S) TO VOLUME AND VALUE OF PRODUCTION</b>		
<b>BEFORE B-SAFE</b> refers to one month production period before B-SAFE interventions		
<b>AFTER B-SAFE</b> refers to one month production period after B-SAFE interventions		
31. Were you able to produce coco sap and/or coconut sugar after receiving interventions from B-SAFE? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, please proceed with the next questions If No, the survey ends here.		
32. On volume of coco sap	What was the volume of coco sap produced <b>BEFORE B-SAFE</b> intervention(s)? _____ li/tree/day How many are the productive trees in your farm <b>BEFORE B-SAFE</b> intervention(s)? _____	
	What was the volume of coco sap produced <b>AFTER B-SAFE</b> intervention(s)? _____ li/tree/day How many are the productive trees in your farm <b>AFTER B-SAFE</b> intervention(s)?	
	In a scale of 1-10, 10 being highest, what do you think is the contribution of B-SAFE to the improvement of your production? _____	
	Cite other reasons that may have contributed to production difference. Note: Respondent can provide multiple answers.  <input type="checkbox"/> Training was already provided by other agencies (i.e. DA, other technicians, etc.) <input type="checkbox"/> Practices were observed from other processors, etc. <input type="checkbox"/> Others, specify _____	
	Have you experienced rejection of coco sap BEFORE B-SAFE interventions? <input type="checkbox"/> Yes <input type="checkbox"/> No	

	<p>If YES, cite reasons for coco sap rejection  Note: Respondent can provide multiple answers  <input type="checkbox"/> Coco sap does not meet the required pH  <input type="checkbox"/> Presence of residues/other matters in the coco sap  <input type="checkbox"/> Others, specify _____</p> <p>What is the volume of the coco sap rejected _____  No. of times the coco sap produced was rejected _____</p>
	<p>Have you experienced rejection of coco sap AFTER B-SAFE interventions?  <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
	<p>If YES, cite reasons for coco sap rejection  Note: Respondent can provide multiple answers</p>
	<p><input type="checkbox"/> Coco sap does not meet the required pH  <input type="checkbox"/> Presence of residues/other matters in the coco sap  <input type="checkbox"/> Others, specify _____</p>
	<p>What is the volume of the coco sap rejected _____  No. of times the coco sap produced was rejected _____</p>
33. On value of coco sap	<p>What was the selling price of coco sap <b>BEFORE B-SAFE</b> intervention(s)?  PhP_____/li</p>
	<p>What was the selling price AFTER B-SAFE intervention(s)? PhP_____/li</p>
34. On volume of coconut sugar production	<p>What was the volume of coconut sugar produced <b>BEFORE B-SAFE</b> intervention(s)?  _____ mt/month</p> <p>What was the volume of coconut sugar produced <b>AFTER B-SAFE</b> intervention(s)?  _____ mt/month</p> <p>What were the type of coconut sugar produced <b>BEFORE B-SAFE</b> interventions?  Note: Respondent can provide multiple answers</p> <p><input type="checkbox"/> Light brown coconut sugar  <input type="checkbox"/> Medium brown coconut sugar  <input type="checkbox"/> Dark brown coconut sugar</p> <p>Who determines the type of coconut sugar to produce?  <input type="checkbox"/> Buyers  <input type="checkbox"/> Processors  <input type="checkbox"/> Others, specify _____</p> <p>Does color affects the following property of coconut sugar?  <input type="checkbox"/> Taste  <input type="checkbox"/> Shelf life  <input type="checkbox"/> Moisture content  <input type="checkbox"/> Others, specify _____</p> <p>What were the type of coconut sugar produced <b>AFTER B-SAFE</b> interventions?  Note: Respondent can provide multiple answers</p> <p><input type="checkbox"/> Light brown coconut sugar  <input type="checkbox"/> Medium brown coconut sugar  <input type="checkbox"/> Dark brown coconut sugar</p> <p>Who determines the type of coconut sugar to produce?  <input type="checkbox"/> Buyers  <input type="checkbox"/> Processors</p>

	<p><input type="checkbox"/> Others, specify _____</p> <p>Does color affects the following property of coconut sugar?</p> <p><input type="checkbox"/> Taste</p> <p><input type="checkbox"/> Shelf life</p> <p><input type="checkbox"/> Moisture content</p> <p><input type="checkbox"/> Others, specify _____</p>
	<p>In a scale of 1-10, 10 being highest, what do you think is the contribution of B-SAFE to the improvement of your coconut sugar production? _____</p>
	<p>Cite other reasons that may have contributed to production difference. Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> Training was already provided by other agencies (i.e. DA, other technicians, etc.)</p> <p><input type="checkbox"/> Practices were observed from other processors, etc.</p> <p><input type="checkbox"/> Others, specify _____</p>
35. On value of coconut sugar production	<p>What was the selling price <b>BEFORE B-SAFE</b> intervention(s)? PhP_____/mt</p>
	<p>What was the selling price <b>AFTER B-SAFE</b> intervention(s)? PhP_____/mt</p>
	<p>If there is difference in price, what do you think are the factors that affected the selling price of coconut sugar? Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> Improvement in quality of coconut sugar</p> <p><input type="checkbox"/> Improvement in the production of coconut sugar</p> <p><input type="checkbox"/> Others, specify _____</p>

**END OF SURVEY**



## CORN SURVEY INSTRUMENT

Questionnaire No: \_\_\_\_\_

Enumerator/Interviewer: \_\_\_\_\_ Date of Interview: \_\_\_\_\_

<b>I. SOCIO-ECONOMIC PROFILE</b>	
1. Name of Respondent (Last Name, First Name):	
2. Address:	Barangay: _____ Municipality: _____
3. Contact Number:	
4. Birth Year (YYYY):	
5. Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Others: _____ <input type="checkbox"/> Preferred not to be specified
6. Ethnicity:	<input type="checkbox"/> Cebuano <input type="checkbox"/> Ilonggo <input type="checkbox"/> Tagalog <input type="checkbox"/> Ilocano <input type="checkbox"/> Others (specify) _____
7. Highest educational attainment:	<input type="checkbox"/> No grade completed <input type="checkbox"/> Elementary undergraduate and below <input type="checkbox"/> Elementary graduate <input type="checkbox"/> High school undergraduate <input type="checkbox"/> High school graduate <input type="checkbox"/> Post secondary undergraduate/Vocational <input type="checkbox"/> Post secondary graduate/Vocational <input type="checkbox"/> College undergraduate <input type="checkbox"/> College graduate <input type="checkbox"/> Others, specify _____
8. Total household size (including the respondent):	
9. How long have you been engaged in farming? _____ years (with reference to corn farming)	
10. Membership to farmers' organization/cooperative: <input type="checkbox"/> Yes <input type="checkbox"/> No	
11. Name of organization	
<b>II. FARM PROFILE</b>	
12. Total land area planted under corn (in hectares)	
13. Tenurial status of area planted under corn	<input type="checkbox"/> Owner <input type="checkbox"/> Tenant <input type="checkbox"/> Leashold/Rentee <input type="checkbox"/> Others (specify)
<b>III. AWARENESS and APPLICATION of B-SAFE INTERVENTION(S)</b>	
14. Prior to today's interview, are you aware of B-SAFE?	<input type="checkbox"/> Yes <input type="checkbox"/> No
15. If YES, how did you initially learn about B-SAFE?	Note: Respondent can provide multiple answers  <input type="checkbox"/> Through the cooperative/organization <input type="checkbox"/> Through the MAO/PAO <input type="checkbox"/> Winrock actively approached the organization <input type="checkbox"/> Others (specify) _____
16. What do you know about the project and its activities?	Note: Respondent can provide multiple answers  _____ _____ _____

	<input type="checkbox"/> Provides trainings on improved corn production techniques (proper handling, treatment and use of improved corn seed varieties, land preparation, planting, fertilization, weed control, IPM, etc.) <input type="checkbox"/> Provides trainings on corn harvest and post-harvest technology <input type="checkbox"/> Provides trainings on improved corn silage technology training <input type="checkbox"/> Provides trainings on corn trade and market training <input type="checkbox"/> Provides equipment (i.e. mechanical dryer, harvester-sheller, etc.) <input type="checkbox"/> Linking farmers to market/traders <input type="checkbox"/> Others (specify) _____
17. Have you attended any B-SAFE training on corn production?	<input type="checkbox"/> Yes <input type="checkbox"/> No
18. If YES, what was the training(s) about?	<p>Note: Respondent can provide multiple answers.</p> <input type="checkbox"/> 1. Soil management/analysis <input type="checkbox"/> 2. Appropriate land preparation techniques <input type="checkbox"/> 3. Preparation and application of organic inputs <input type="checkbox"/> 4. Use of combine harvester-sheller <input type="checkbox"/> 5. Use of mechanical dryer <input type="checkbox"/> 6. Determining moisture content (MC) <input type="checkbox"/> 6. Use of aflatoxin tester <input type="checkbox"/> 7. Silage-making <input type="checkbox"/> 8. Others (specify) _____
19. Who/what agency delivered the training?	<p>Note: Respondent can provide multiple answers.</p> <input type="checkbox"/> MAO/PAO <input type="checkbox"/> Experts from State Universities and Colleges (SUCs) <input type="checkbox"/> NGOs/Private Partners <input type="checkbox"/> Others (specify) _____
20. Which training topic area(s) did you find most useful?	<p>Note: Respondent can provide multiple answers.</p> <input type="checkbox"/> 1. Soil management/analysis <input type="checkbox"/> 2. Appropriate land preparation techniques <input type="checkbox"/> 3. Preparation and application of organic inputs <input type="checkbox"/> 4. Use of combine harvester-sheller <input type="checkbox"/> 5. Use of mechanical dryer <input type="checkbox"/> 6. Determining moisture content (MC) <input type="checkbox"/> 6. Use of aflatoxin tester <input type="checkbox"/> 7. Silage-making <input type="checkbox"/> 8. Others (specify) _____
21. Did you apply the areas/topics you find useful in the next production cycle?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings
<b>IV. DETAILS OF THE SPECIFIC B-SAFE INTERVENTION(S) APPLIED</b>	
<b>On training areas identified in Q18</b>	
22. Soil management/analysis	<p>Do you think the conduct of soil analysis is important in determining the nutrient requirement/amount of fertilizers needed to improve the quality of soil?</p> <input type="checkbox"/> Yes <input type="checkbox"/> No <p>Note: Respondent can provide multiple answers.</p> <p>If YES, how can you access soil analysis facilities/services?</p> <input type="checkbox"/> Through the MAO/PAO <input type="checkbox"/> Through technicians from input suppliers

	<input type="checkbox"/> Through private provider, NGOs/farmers paying <input type="checkbox"/> Through soil test kit issued in cooperatives/organization <input type="checkbox"/> Others (specify) _____  If NO, why is soil analysis not important? <input type="checkbox"/> Farmer is knowledgeable of the soil condition of his farm <input type="checkbox"/> Fertilizer recommendation can be derived from other sources <input type="checkbox"/> Others, (specify) _____
	Were you able to apply the learnings in soil analysis in the next production cycle? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings
	Note: Respondent can provide multiple answers.  If YES, what practices on soil management were applied? <input type="checkbox"/> Adjusted the amount of fertilizers applied to corn <input type="checkbox"/> Stop the use of selected fertilizers <input type="checkbox"/> Others, (specify) _____  If NO, why have you not use the results of the soil analysis? <input type="checkbox"/> No financial resources to buy inputs (e.g. fertilizers) <input type="checkbox"/> Needs additional labor <input type="checkbox"/> Others, (specify) _____
23. Appropriate land preparation techniques	What specific areas/modules on land preparation techniques were provided during the training?  Note: Respondent can provide multiple answers. <input type="checkbox"/> 1. Plowing and harrowing were done on prescribed number of times <input type="checkbox"/> 2. Stop zero tillage <input type="checkbox"/> 3. Others, specify _____
	Do you think the module on land preparation techniques is important in improving corn production? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Were you able to apply the learnings in the next production cycle? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings
	Note: Respondent can provide multiple answers.  If YES, what practices on land preparation were applied following the B-SAFE training(s)? <input type="checkbox"/> 1. Plowing and harrowing were done on prescribed number of times <input type="checkbox"/> 2. Stop zero tillage <input type="checkbox"/> 3. Others, specify _____  If NO, why have you NOT applied the land preparation practices following the B-SAFE training(s)? <input type="checkbox"/> 1. Prescribed land preparation techniques is laborious <input type="checkbox"/> 2. Prescribed land preparation techniques require high cost <input type="checkbox"/> 3. Zero tillage is more applicable in the farm terrain (sloping farm areas) <input type="checkbox"/> 4. Others, specify _____
24. Preparation and application of organic inputs	What specific areas/modules on preparation and application of organic inputs were provided during the training(s)?

	<p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. Preparation/making of plant juices (e.g. plant foliar)</p> <p><input type="checkbox"/> 2. Preparation/making of compost</p> <p><input type="checkbox"/> 3. Health benefits from using organic inputs</p> <p><input type="checkbox"/> 4. Others, (specify) _____</p>
	<p>Do you think the use of organic inputs is important in terms of the following:</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. Improving the soil quality: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> 2. Improving the environmental conditions of the farm: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> 3. Improving the health of farmers: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> 4. Reducing the cost of inputs: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> 5. Others (specify) _____</p>
	<p>Were you able to apply the learnings in the next production cycle?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings</p> <p>Note: Respondent can provide multiple answers.</p> <p>If YES, what practices on preparing/applying organic inputs were applied following the B-SAFE training(s)?</p> <p><input type="checkbox"/> 1. Preparation/making of plant juices (e.g., plant foliar)</p> <p><input type="checkbox"/> 2. Preparation/making of compost</p> <p><input type="checkbox"/> 3. Health benefits from using organic inputs</p> <p><input type="checkbox"/> 4. Others, (specify) _____</p> <p>If NO, why have you NOT applied the practices following the B-SAFE trainings?</p> <p><input type="checkbox"/> 1. Preparation and application of organic inputs are laborious</p> <p><input type="checkbox"/> 2. Preparation and application of organic inputs require high cost</p> <p><input type="checkbox"/> 3. Others, specify _____</p>
25. Use of combine harvester-sheller	<p>Do you think the use of mechanical/ combine harvester-sheller is important in improving the quality of corn produced? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
	<p>Note: Respondent can provide multiple answers.</p> <p>If YES, what do you think are the benefits/advantages in using mechanical/ combine harvester-sheller?</p> <p><input type="checkbox"/> 1. Shorten harvesting time</p> <p><input type="checkbox"/> 2. Avoid further/increased damage from aflatoxin</p> <p><input type="checkbox"/> 3. Decreased harvesting-shelling time</p> <p><input type="checkbox"/> 4. Decreased harvesting-shelling cost</p> <p><input type="checkbox"/> 5. Others (specify) _____</p> <p>If NO, what do you think are the disadvantages of using mechanical/ combine harvester-sheller?</p> <p><input type="checkbox"/> 1. It results to mixed harvest (clean and aflatoxin-damaged corn grains)</p> <p><input type="checkbox"/> 2. Poor quality grains (e.g., broken grains)</p> <p><input type="checkbox"/> 3. Others (specify) _____</p>
	<p>If the standing crop of corn is already damaged with aflatoxin, can you still use combine harvester-sheller? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>

	<p>If YES, what is the extent of aflatoxin infestation in the standing corn crop where combine harvester-sheller can still be used? _____ percent</p> <p>If YES, do you practice selective manual harvesting to remove the aflatoxin-damaged standing corn crop? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If NO, why is combine harvester-sheller cannot be used on aflatoxin-damaged standing corn crop?</p> <p>Note: Respondent can provide multiple answers</p> <p><input type="checkbox"/> 1. It results to mixed harvest (clean and aflatoxin-damaged corn grains)</p> <p><input type="checkbox"/> 2. Poor quality grains (e.g., broken grains)</p> <p><input type="checkbox"/> 3. Others (specify) _____</p>
26. Use of mechanical dryer	<p>Did you apply the learnings/techniques in using combine harvester-thresher in the next production cycle?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings</p> <p>Note: Respondent can provide multiple answers.</p> <p>If NO, why have you NOT use combine harvester-thresher following the B-SAFE trainings?</p> <p><input type="checkbox"/> 1. There is no available combine harvester-thresher</p> <p><input type="checkbox"/> 2. High cost of using combine harvester-thresher</p> <p><input type="checkbox"/> 3. Results to poor quality of grains</p> <p><input type="checkbox"/> 4. Others, specify _____</p>
	<p>Do you think the use of mechanical dryer is important in avoiding aflatoxin damage? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Note: Respondent can provide multiple answers.</p> <p>If YES, what do you think are the benefits from using mechanical dryer?</p> <p><input type="checkbox"/> 1. Shorten drying time</p> <p><input type="checkbox"/> 2. Avoid further/increased damage from aflatoxin</p> <p><input type="checkbox"/> 3. Improves the quality of grains</p> <p><input type="checkbox"/> 4. Others (specify) _____</p> <p>If NO, what do you think are the disadvantages of using mechanical dryer?</p> <p><input type="checkbox"/> 1. High costs in drying</p> <p><input type="checkbox"/> 2. Poor quality grains (e.g., broken grains)</p> <p><input type="checkbox"/> 3. Others (specify) _____</p> <p>What is your current practice in drying corn?</p> <p><input type="checkbox"/> 1. Sun drying</p> <p><input type="checkbox"/> 2. Mechanical drying</p> <p><input type="checkbox"/> 3. Both sun and mechanical drying</p> <p><input type="checkbox"/> 4. Not drying corn (selling wet grains)</p> <p>Is there a need for mechanical dryer? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>How can you access mechanical dryer?</p> <p><input type="checkbox"/> 1. Through the cooperative/organization</p> <p><input type="checkbox"/> 2. Through the government facilities</p>

	<input type="checkbox"/> 3. Through the private sector <input type="checkbox"/> 4. Others (specify) _____
	<p>Were you able to apply the learnings in using mechanical dryer in the next production cycle?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings</p> <p>Note: Respondent can provide multiple answers.          If NO, why have you NOT use mechanical dryer following the B-SAFE trainings?</p> <p><input type="checkbox"/> 1. There is no available mechanical dryer  <input type="checkbox"/> 2. High cost of using mechanical dryer  <input type="checkbox"/> 3. Results to poor quality of grains  <input type="checkbox"/> 4. Others, specify _____</p>
27. Determining moisture content (MC)	<p>Do you think monitoring the moisture content (MC) of corn is important to determine the quality of the corn grains? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
	<p>Do you think high MC of corn is a problem? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Why is it a problem? Note: Respondent can provide multiple answers</p> <p><input type="checkbox"/> High MC of corn causes aflatoxin damage  <input type="checkbox"/> High MC of corn is priced lower  <input type="checkbox"/> Others, specify _____</p>
	<p>How do you determine the MC of your corn?          Note: Respondent can provide multiple answers</p> <p><input type="checkbox"/> Through the MC meter owned by the cooperative/organization  <input type="checkbox"/> Through the MC meter owned by the farmer  <input type="checkbox"/> Through the MC meter of traders/buyers  <input type="checkbox"/> Others, (specify) _____</p>
	<p>What are the disadvantages of selling corn with high MC?          Note: Respondent can provide multiple answers</p> <p><input type="checkbox"/> 1. Low prices  <input type="checkbox"/> 2. High incidence of aflatoxin  <input type="checkbox"/> 3. Others (specify) _____</p>
28. Use of aflatoxin tester	<p>Do you think determining the aflatoxin-level of harvested corn is important to determine the quality of the corn grains? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
	<p>Do you have an aflatoxin tester? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Do you think your cooperative/organization needs an aflatoxin tester?  <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
	<p>Is aflatoxin testing a requirement for selling corn grains? <input type="checkbox"/> Yes <input type="checkbox"/> No          If NO, proceed to the next question.</p> <p>Note: Respondent can provide multiple answers          If YES, how can you access testing/tester for aflatoxin?</p> <p><input type="checkbox"/> Through the cooperative/organization  <input type="checkbox"/> Through the government facilities  <input type="checkbox"/> Through the private sector</p>

	<input type="checkbox"/> Others (specify) _____  Based on the test, what is an acceptable level of aflatoxin? _____ percent Have you experienced rejection of corn due to high aflatoxin content? <input type="checkbox"/> Yes <input type="checkbox"/> No  If YES, what did you do with the rejected corn? <input type="checkbox"/> Used as animal feed <input type="checkbox"/> Disposed through burning <input type="checkbox"/> Disposed through dumping in the farm <input type="checkbox"/> Others (specify) _____
29. Silage making	Is making corn silage, in terms of the following, an important module included in the training?  <input type="checkbox"/> 1. As an alternative source of income: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 2. Use of crop residues: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 3. Animal feeds: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Others, specify _____  Are you practicing corn silage making? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, where do you market the silage? <input type="checkbox"/> Animal/livestock raisers <input type="checkbox"/> Co-farmers <input type="checkbox"/> Others (specify) _____
30. On provision of equipment/facilities	Did B-SAFE support your organization's requirement for improved facilities/equipment? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, what were the facilities/equipment provided? Note: Respondent can provide multiple answers.  <input type="checkbox"/> Soil analysis kit <input type="checkbox"/> MC tester <input type="checkbox"/> Aflatoxin tester <input type="checkbox"/> Combine harvester-thresher <input type="checkbox"/> Mechanical dryer <input type="checkbox"/> Others (specify) _____  What is the current status of the B-SAFE facilities/equipment support?  <input type="checkbox"/> Request has been submitted to B-SAFE <input type="checkbox"/> Requested facilities/equipment received/granted <input type="checkbox"/> Do not know (B-SAFE has not yet provided status) <input type="checkbox"/> Others, specify _____
31. In your opinion, what is the percentage of producers/processors in your area/organization have adopted the technologies provided by B-SAFE?	_____ percentage
<b>V. CONDUCT OF THE TRAININGS</b>	
Please rate the training in terms of your level of agreement on the following statements. Use the following scale to indicate your level of agreement:  1 - Strongly disagree; 2 - Disagree 3- Neutral 4 - Agree 5 - Strongly Agree	
32. Training #1. Proper handling, treatment, and use of improved corn seed varieties, and on the improved corn production techniques and technologies	

Did you attend this training? [ <input type="checkbox"/> ] Yes [ <input type="checkbox"/> ] No If YES, please rate the training. If NO, please proceed to the next question		
Statement	Rating	Cite/describe reasons for the rating
<b>On relevance:</b>		
The training provided by B-SAFE was important in improving the production of corn		
The training provided by B-SAFE was important in ensuring food safety in corn production		
The training provided was comprehensive		
The training provided was accurate		
<b>On effectiveness:</b>		
The knowledge gained from the training was applied in the next production/cropping period		
The knowledge gained from the training was <b>too early</b> to be applied in the next production/cropping period		
The hands-on/practical/field activities were helpful in understanding the training topics/areas		
<b>On timeliness:</b>		
The allocated time was appropriate to ensure an understanding of the lectures and exercises		
The timing of the training was appropriate, given it was conducted before the cropping season		
<b>On Resource Persons:</b>		
The resource persons/trainers/instructors were very knowledgeable of the topics/areas covered in the training		
The resource persons/trainers/instructors used language that was simple and easy to understand		
The resource persons/trainers/instructors used vernacular/local language		
33. Training #2. Corn silage production  Did you attend this training? [ <input type="checkbox"/> ] Yes [ <input type="checkbox"/> ] No If YES, please rate the training If NO, please proceed to the next question		
Statement	Rating	Cite/describe reasons for the rating
<b>On relevance:</b>		
The training provided by B-SAFE was important in improving the production of silage		
The training provided was comprehensive		
The training provided was accurate		
<b>On effectiveness:</b>		
The knowledge gained from the training was applied in the next production/cropping period		
The knowledge gained from the training was <b>too early</b> to be applied in the next production/cropping period		
The hands-on/practical/field activities were helpful in understanding the training topics/areas		
<b>On timeliness:</b>		



The allocated time was appropriate to ensure an understanding of the lectures and exercises		
The timing of the training was appropriate, given it was conducted before the cropping season		
<b>On Resource Persons:</b>		
The resource persons/trainers/instructors were very knowledgeable of the topics/areas covered in the training		
The resource persons/trainers/instructors used language that was simple and easy to understand		
The resource persons/trainers/instructors used vernacular/local language		
<b>VI. IMPLICATIONS OF B-SAFE INTERVENTION(S) TO VOLUME AND VALUE OF PRODUCTION</b>		
<b>BEFORE B-SAFE</b> refers to one production period before B-SAFE interventions <b>AFTER B-SAFE</b> refers to one production period after B-SAFE interventions		
34. Were you able to produce corn after receiving interventions from B-SAFE? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, please proceed with the next questions If No, the survey ends here.		
35. On volume of corn production	What was the volume of corn produced <b>BEFORE B-SAFE</b> intervention(s)? _____ mt/ha	
	What was the volume of corn produced <b>AFTER B-SAFE</b> intervention(s)? _____ mt/ha	
	In a scale of 1-10, 10 being highest, what do you think is the contribution of B-SAFE to the improvement of your production? _____	
	Cite other reasons that may have contributed to production difference. Note: Respondent can provide multiple answers.  <input type="checkbox"/> Training was already provided by other agencies (i.e. DA, other technicians, etc.) <input type="checkbox"/> Practices were observed from other processors, etc. <input type="checkbox"/> Others, specify _____	
36. On value of corn production	What was the selling price BEFORE B-SAFE intervention(s)? PhP _____/mt	
	What was the selling price AFTER B-SAFE intervention(s)? PhP _____/mt	
	If there is difference in price, what do you think are the factors that affected the selling price of corn? Note: Respondent can provide multiple answers. <input type="checkbox"/> Improvement in quality of grains <input type="checkbox"/> Improvement in the production of corn <input type="checkbox"/> Others, specify _____	

**END OF SURVEY**

## SWINE SURVEY INSTRUMENT

Questionnaire No: \_\_\_\_\_

Enumerator/Interviewer: \_\_\_\_\_ Date of Interview: \_\_\_\_\_

<b>I. SOCIO-ECONOMIC PROFILE</b>	
1. Type of respondent:	<input type="checkbox"/> Hog Producer <input type="checkbox"/> Meat Processor <input type="checkbox"/> Both producer and meat processor
2. Name of Respondent (Last Name, First Name):	
3. Address:	Barangay: _____ Municipality: _____
4. Contact Number:	
5. Birth Year (YYYY):	
6. Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Others: _____ <input type="checkbox"/> Preferred not to be specified
7. Ethnicity:	<input type="checkbox"/> Cebuano <input type="checkbox"/> Ilonggo <input type="checkbox"/> Tagalog <input type="checkbox"/> Ilocano <input type="checkbox"/> Others (specify) _____
8. Highest educational attainment:	<input type="checkbox"/> No grade completed <input type="checkbox"/> Elementary undergraduate and below <input type="checkbox"/> Elementary graduate <input type="checkbox"/> High school undergraduate <input type="checkbox"/> High school graduate <input type="checkbox"/> Post secondary undergraduate/Vocational <input type="checkbox"/> Post secondary graduate/Vocational <input type="checkbox"/> College undergraduate <input type="checkbox"/> College graduate <input type="checkbox"/> Others, specify _____
9. Total household size (including the respondent):	
10. How long have you been engaged in farming/processing? _____ years (with reference to swine production/meat processing)	
11. Membership to farmers' organization/cooperative: <input type="checkbox"/> Yes <input type="checkbox"/> No	
12. Name of organization	
<b>II. FARM PROFILE</b>	
13. Total farm size in terms of sow-level, fatteners, etc.	_____ sow-level _____ number of fatteners _____ number of boars
<b>III. AWARENESS and APPLICATION of B-SAFE INTERVENTIONS</b>	
14. Prior to today's interview, are you aware of B-SAFE?	<input type="checkbox"/> Yes <input type="checkbox"/> No
15. If YES, how did you initially learn about B-SAFE?	Note: Respondent can provide multiple answers  <input type="checkbox"/> Through the cooperative/organization <input type="checkbox"/> Through the MAO/PAO <input type="checkbox"/> Winrock actively approached the organization <input type="checkbox"/> Others (specify) _____

16. What do you know about the project and its activities?	<p>Note: Respondent can provide multiple answers</p> <p><input type="checkbox"/> Provides trainings on productivity-improving technologies</p> <p><input type="checkbox"/> Provides trainings on processing meat</p> <p><input type="checkbox"/> Provide trainings on genetics, breeding and animal selection techniques</p> <p><input type="checkbox"/> Provided hands-on training on ASF virus PCR-testing</p> <p><input type="checkbox"/> Support to policy advocacy/formulation to address ASF</p> <p><input type="checkbox"/> Others (specify) _____</p>
17. Have you attended any B-SAFE training(s) on swine production/meat processing?	<input type="checkbox"/> Yes <input type="checkbox"/> No
18. What was the training(s) about?	<p>Note: Respondent can provide multiple answers</p> <p><input type="checkbox"/> ASF management through the surveillance system</p> <p><input type="checkbox"/> Clustering of farms</p> <p><input type="checkbox"/> Artificial insemination for repopulation</p> <p><input type="checkbox"/> Good manufacturing practices (i.e. hygienic processing of meat, etc.)</p> <p><input type="checkbox"/> Good animal husbandry (GAHP) (i.e. humane handling of animals from farm to slaughtering)</p> <p><input type="checkbox"/> Genetics, breeding and animal selection techniques</p> <p><input type="checkbox"/> Others (specify) _____</p>
19. Who/what agency delivered the training?	<p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> MAO/PAO   <input type="checkbox"/> Experts from State Universities and Colleges (SUCs)</p> <p><input type="checkbox"/> NGOs/Private Partners   <input type="checkbox"/> Others (specify) _____</p>
20. Which training topic area(s) did you find most useful?	<p>Note: Respondent can provide multiple answers</p> <p><input type="checkbox"/> ASF management through the surveillance system</p> <p><input type="checkbox"/> Clustering of farms</p> <p><input type="checkbox"/> Artificial insemination for repopulation</p> <p><input type="checkbox"/> Good manufacturing practices (i.e. hygienic processing of meat, etc.)</p> <p><input type="checkbox"/> Good animal husbandry (GAHP) (i.e. humane handling of animals from farm to slaughtering)</p> <p><input type="checkbox"/> Genetics, breeding and animal selection techniques</p> <p><input type="checkbox"/> Others (specify) _____</p>
21. Did you apply the areas/topics you find useful in the next production cycle?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>IV. DETAILS OF THE SPECIFIC B-SAFE INTERVENTION(S) APPLIED</b>	
<b>On Trainings identified in Q18</b>	
22. ASF management through the surveillance system	<p>What specific areas on ASF management were taught during the training?</p> <p>Note: Respondent can provide multiple answers</p> <p><input type="checkbox"/> Surveillance of ASF occurrence</p> <p><input type="checkbox"/> Use of virus PCR-testing for ASF</p> <p><input type="checkbox"/> Proper handling of animals</p> <p><input type="checkbox"/> Others (specify) _____</p>

	Do you think this is important in controlling the spread of ASF? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Were you able to apply the learnings in soil analysis in the next production cycle? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings
	If YES, what are the key practices applied following the B-SAFE training(s)? Note: Respondent can provide multiple answers  <input type="checkbox"/> Surveillance of ASF occurrence <input type="checkbox"/> Use of virus PCR-testing for ASF <input type="checkbox"/> Proper handling of animals <input type="checkbox"/> Others (specify) _____  If NO, why have you NOT applied the practices following the B-SAFE trainings? <input type="checkbox"/> 1. _____ <input type="checkbox"/> 2. _____ <input type="checkbox"/> 3. _____ <input type="checkbox"/> 4. _____
23. Clustering of farms	Do you think clustering of farms is important in controlling the spread of ASF? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Note: Respondent can provide multiple answers.  If YES, what do you think are the benefits/advantages in clustering farms? <input type="checkbox"/> Biosecurity measures is tightened <input type="checkbox"/> Immediately controls the spread of ASF <input type="checkbox"/> Consensus decision among farms is achieved <input type="checkbox"/> Others, specify _____  If NO, what do you think are the disadvantages in clustering farms? <input type="checkbox"/> There is mix of clean and infected farms <input type="checkbox"/> Increased difficulty in moving animals <input type="checkbox"/> Others, specify _____
24. Artificial insemination for repopulation/Genetics	What specific area(s) on AI were taught during the training? Note: Respondent can provide multiple answers  <input type="checkbox"/> Use of equipment <input type="checkbox"/> Use of quality genetic material and animal selection techniques <input type="checkbox"/> Proper handling of animals <input type="checkbox"/> Others (specify) _____
	Do you think this is important in increasing production of animals? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Were you able to apply the learnings in soil analysis in the next production cycle? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings
	If YES, what are the key practice(s) applied following the B-SAFE training(s)? Note: Respondent can provide multiple answers  <input type="checkbox"/> Use of equipment <input type="checkbox"/> Use of quality genetic material and animal selection techniques <input type="checkbox"/> Proper handling of animals <input type="checkbox"/> Others (specify) _____

	<p>If NO, why have you NOT applied the practices following the B-SAFE trainings?</p> <p><input type="checkbox"/> 1. _____</p> <p><input type="checkbox"/> 2. _____</p> <p><input type="checkbox"/> 3. _____</p>
25. Good manufacturing practices (i.e., hygienic processing of meat, etc.)	<p>What specific areas/modules on good manufacturing practices (GMP) in processing meat were provided during the training?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. Proper wearing of personal protective equipment (PPE)</p> <p><input type="checkbox"/> 2. Proper cleaning of processing area</p> <p><input type="checkbox"/> 3. Proper cleaning of equipment/utensils</p> <p><input type="checkbox"/> 4. Maintaining quality of meat products</p> <p><input type="checkbox"/> 5. Others (specify) _____</p> <p>Do you think this is important in terms of the following:</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. In increasing production of meat products: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> 2. In improving quality of meat products: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> 3. In ensuring food safety in processing meat: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Were you able to apply the learnings in soil analysis in the next production cycle?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings</p> <p>If YES, what are the key practices applied following the B-SAFE trainings?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. Proper wearing of personal protective equipment (PPE)</p> <p><input type="checkbox"/> 2. Proper cleaning of processing area</p> <p><input type="checkbox"/> 3. Proper cleaning of equipment/utensils</p> <p><input type="checkbox"/> 4. Maintaining quality of meat products</p> <p><input type="checkbox"/> 5. Improved preservation techniques</p> <p><input type="checkbox"/> 6. Others (specify) _____</p> <p>If NO, why have you NOT applied the practices following the B-SAFE trainings?</p> <p><input type="checkbox"/> 1. _____</p> <p><input type="checkbox"/> 2. _____</p> <p><input type="checkbox"/> 3. _____</p> <p><input type="checkbox"/> 4. _____</p> <p><input type="checkbox"/> 5. _____</p>
26. Good animal husbandry (GAHP) (i.e. humane handling of animals from farm to slaughtering)	<p>What specific areas/modules on GAHP in processing meat were provided during the training?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. Humane handling of animals from farm to slaughtering house</p> <p><input type="checkbox"/> 2. Proper cleaning of farm/production areas</p> <p><input type="checkbox"/> 3. Proper preparation of feeds</p> <p><input type="checkbox"/> 4. Improved genetics, breeding and animal selection</p> <p><input type="checkbox"/> 5. Others (specify) _____</p> <p>Do you think this is important in terms of the following:</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. In increasing production/number of swine: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> 2. In improving quality of live animals: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Were you able to apply the learnings in soil analysis in the next production cycle?</p>

	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings If YES, what are the key practices applied following the B-SAFE trainings? Note: Respondent can provide multiple answers.  <input type="checkbox"/> 1. Humane handling of animals from farm to slaughtering house <input type="checkbox"/> 2. Proper cleaning of farm/production areas <input type="checkbox"/> 3. Proper preparation of feeds <input type="checkbox"/> 4. Others (specify) _____  If NO, why have you NOT applied the practices following the B-SAFE trainings? <input type="checkbox"/> 1. _____ <input type="checkbox"/> 2. _____ <input type="checkbox"/> 3. _____ <input type="checkbox"/> 4. _____	
<b>On Other Intervention(s)</b>		
27. On provision of equipment/facilities	Did B-SAFE support your organization's requirement for improved facilities/equipment? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable If YES, what were the facilities/equipment provided? Note: Respondent can provide multiple answers.  <input type="checkbox"/> AI laboratory <input type="checkbox"/> ASF test kits <input type="checkbox"/> Others (specify) _____	
	What is the current status of the B-SAFE facilities/equipment support?  <input type="checkbox"/> Request has been submitted to B-SAFE <input type="checkbox"/> Requested facilities/equipment received/granted <input type="checkbox"/> Do not know (B-SAFE has not yet provided status) <input type="checkbox"/> Others, specify _____	
28. In your opinion, what is the percentage of producers/processors in your area/organization have adopted the technologies provided by B-SAFE?	_____ percentage	
<b>V. CONDUCT OF THE TRAININGS</b>		
Please rate the training in terms of your level of agreement on the following statements. Use the following scale to indicate your level of agreement:  1 - Strongly disagree; 2 - Disagree 3- Neutral 4 - Agree 5 - Strongly Agree		
29. Training #1. Meat processing/handling		
Did you attend this training? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, please rate the training. If NO, please proceed to the next question		
<b>Statement</b>	<b>Rating</b>	<b>Cite/describe reasons for the rating</b>
<b>On relevance:</b>		
The training provided by B-SAFE was important in improving the production of meat products		
The training provided by B-SAFE was important in ensuring safe/clean meat processing		
The training provided was comprehensive		
The training provided was accurate		
<b>On effectiveness:</b>		

The knowledge gained from the training was applied in the next production period		
The knowledge gained from the training was <b>too early</b> to be applied in the next production/cropping period		
The hands-on/practical/field activities were helpful in understanding the training topics/areas		
<b>On timeliness:</b>		
The allocated time was appropriate to ensure an understanding of the lectures and exercises		
The timing of the training was appropriate, given it was conducted before the next production of swine		
<b>On Resource Persons:</b>		
The resource persons/trainers/instructors were knowledgeable of the topics/areas covered in the training		
The resource persons/trainers/instructors used language that was simple and easy to understand		
The resource persons/trainers/instructors used vernacular/local language		
30. Training #2. Fundamentals in Swine Genetics, Breeding, Selection and Artificial Insemination  Did you attend this training? [ <input type="checkbox"/> ] Yes [ <input type="checkbox"/> ] No If YES, please rate the training. If NO, please proceed to the next question		
<b>Statement</b>	<b>Rating</b>	<b>Cite/describe reasons for the rating</b>
<b>On relevance:</b>		
The training provided by B-SAFE was important in improving the production of swine/animals		
The training provided by B-SAFE was important in ensuring safe/clean production of swine/animals		
The training provided was comprehensive		
The training provided was accurate		
<b>On effectiveness:</b>		
The knowledge gained from the training was applied in the next production period		
The knowledge gained from the training was <b>too early</b> to be applied in the next production/cropping period		
The hands-on/practical/field activities were helpful in understanding the training topics/areas		
<b>On timeliness:</b>		
The allocated time was appropriate to ensure an understanding of the lectures and exercises		
The timing of the training was appropriate, given it was conducted before the next production of swine		
<b>On Resource Persons:</b>		
The resource persons/trainers/instructors were knowledgeable of the topics/areas covered in the training		
The resource persons/trainers/instructors used language that was simple and easy to understand		

The resource persons/trainers/instructors used vernacular/local language		
31. Training #3. Pilot-testing ASF virus surveillance and monitoring system in Batangas  Did you attend this training? [ <input type="checkbox"/> ] Yes [ <input type="checkbox"/> ] No If YES, please rate the training. If NO, please proceed to the next question		
<b>Statement</b>	<b>Rating</b>	<b>Cite/describe reasons for the rating</b>
<b>On relevance:</b>		
The training provided by B-SAFE was important in improving the production of swine/animals		
The training provided by B-SAFE was important in controlling ASF		
The training provided was comprehensive		
The training provided was accurate		
<b>On effectiveness:</b>		
The knowledge gained from the training was applied in the next production period		
The knowledge gained from the training was <b>too early</b> to be applied in the next production/cropping period		
The hands-on/practical/field activities were helpful in understanding the training topics/areas		
<b>On timeliness:</b>		
The allocated time was appropriate to ensure an understanding of the lectures and exercises		
The timing of the training was appropriate, given it was conducted before the next production of swine		
<b>On Resource Persons:</b>		
The resource persons/trainers/instructors were knowledgeable of the topics/areas covered in the training		
The resource persons/trainers/instructors used language that was simple and easy to understand		
The resource persons/trainers/instructors used vernacular/local language		
<b>VI. IMPLICATIONS OF B-SAFE INTERVENTION(S) TO VOLUME AND VALUE OF PRODUCTION</b>		
<b>BEFORE B-SAFE</b> refers to one production period before B-SAFE interventions <b>AFTER B-SAFE</b> refers to one production period after B-SAFE interventions		
32. Were you able to produce swine/hogs and/or meat products after receiving interventions from B-SAFE? [ <input type="checkbox"/> ] Yes [ <input type="checkbox"/> ] No If Yes, please proceed with the next questions If No, the survey ends here.		
33. On volume of animal production	What was the volume/number of animals produced <b>BEFORE B-SAFE</b> intervention(s)? _____ sow/production period _____ fatteners/production period _____ boars/production period _____ piglets/production period	
	What was the volume/number of animals produced <b>AFTER B-SAFE</b> intervention(s)?	



	<p>_____ sow/production period</p> <p>_____ fatteners/production period</p> <p>_____ boars/production period</p> <p>_____ piglets/production period</p>
	In a scale of 1-10, 10 being highest, what do you think is the contribution of B-SAFE to the improvement of your production? _____
	<p>Cite other reasons that may have contributed to production difference.</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> Training was already provided by other agencies (i.e. DA, other technicians, etc.)</p> <p><input type="checkbox"/> Practices were observed from other farms/producers, etc.</p> <p><input type="checkbox"/> Others, specify _____</p>
34. On value of animal production	<p>What was the selling price of animals <b>BEFORE B-SAFE</b> intervention(s)?</p> <p>PhP _____/sow</p> <p>PhP _____/fattener</p> <p>PhP _____/boar</p> <p>PhP _____/piglet</p>
	<p>What was the selling price of animals <b>AFTER B-SAFE</b> intervention(s)?</p> <p>PhP _____/sow</p> <p>PhP _____/fattener</p> <p>PhP _____/boar</p> <p>PhP _____/piglet</p>
	<p>If there is difference in price, what do you think are the factors that affected the selling price of swine?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> Improvement in quality of animal</p> <p><input type="checkbox"/> Improvement in the production of swine</p> <p><input type="checkbox"/> Others, specify _____</p>
35. On volume meat products	<p>What was the volume of meat products produced <b>BEFORE B-SAFE</b> intervention(s)?</p> <p>_____ mt/production period</p>
	<p>What was the volume of meat products produced <b>AFTER B-SAFE</b> intervention(s)?</p> <p>_____ mt/production period</p>
	In a scale of 1-10, 10 being highest, what do you think is the contribution of B-SAFE to the improvement of your production? _____
	<p>Cite other reasons that may have contributed to production difference.</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> Training was already provided by other agencies (i.e. DA, other technicians, etc.)</p> <p><input type="checkbox"/> Practices were observed from other farms/producers, etc.</p> <p><input type="checkbox"/> Others, specify _____</p>
36. On value of meat products	<p>What was the selling price of meat products <b>BEFORE B-SAFE</b> intervention(s)?</p> <p>PhP _____/kg of meat</p>
	<p>What was the selling price of animals <b>AFTER B-SAFE</b> intervention(s)?</p> <p>PhP _____/kg of meat</p>
	<p>If there is difference in price, what do you think are the factors that affected the selling price of meat products?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> Improvement in quality of animal/meat</p> <p><input type="checkbox"/> Improvement in the production of meat products</p> <p><input type="checkbox"/> Others, specify _____</p>

**END OF SURVEY**

## MILKFISH SURVEY INSTRUMENT

Questionnaire No: \_\_\_\_\_

Enumerator/Interviewer: \_\_\_\_\_ Date of Interview: \_\_\_\_\_

<b>I. SOCIO-ECONOMIC PROFILE</b>	
1. Type of respondent:	<input type="checkbox"/> Milkfish producer <input type="checkbox"/> Milkfish processor <input type="checkbox"/> Both producer and processor <input type="checkbox"/> Specify _____
2. Name of Respondent (Last Name, First Name):	
3. Address:	Barangay: _____ Municipality: _____
4. Contact Number:	
5. Birth Year (YYYY):	
6. Gender:	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Others: _____ <input type="checkbox"/> Preferred not to be specified
7. Ethnicity:	<input type="checkbox"/> Cebuano <input type="checkbox"/> Ilonggo <input type="checkbox"/> Tagalog <input type="checkbox"/> Ilocano <input type="checkbox"/> Others (specify) _____
8. Highest educational attainment:	<input type="checkbox"/> No grade completed <input type="checkbox"/> Elementary undergraduate and below <input type="checkbox"/> Elementary graduate <input type="checkbox"/> High school undergraduate <input type="checkbox"/> High school graduate <input type="checkbox"/> Post secondary undergraduate/Vocational <input type="checkbox"/> Post secondary graduate/Vocational <input type="checkbox"/> College undergraduate <input type="checkbox"/> College graduate <input type="checkbox"/> Others, specify _____
9. Total household size (including the respondent):	
10. How long have you been engaged in farming? _____ years (with reference to milkfish production/processing)	
11. Membership to farmers' organization/cooperative: <input type="checkbox"/> Yes <input type="checkbox"/> No	
12. Name of organization	
<b>II. FARM PROFILE</b>	
13. Total area under milkfish culture (in hectares)	
14. Tenurial status of area for milkfish culture	<input type="checkbox"/> Owner <input type="checkbox"/> Leasehold/Rentee <input type="checkbox"/> Others (specify)
15. If milkfish processor	Scale of enterprise/MSME <input type="checkbox"/> Micro <input type="checkbox"/> Small <input type="checkbox"/> Medium
<b>III. AWARENESS and APPLICATION of B-SAFE INTERVENTIONS</b>	
16. Prior to today's interview, are you aware of B-SAFE?	<input type="checkbox"/> Yes <input type="checkbox"/> No
17. If YES, how did you initially learn about B-SAFE?	Note: Respondent can provide multiple answers  <input type="checkbox"/> Through the cooperative/organization <input type="checkbox"/> Through the MAO/PAO <input type="checkbox"/> Winrock actively approached the organization <input type="checkbox"/> Others (specify) _____

18. What do you know about the project and its activities?	<p>Note: Respondent can provide multiple answers</p> <p><input type="checkbox"/> Provides trainings on productivity-improving technologies and improving food safety</p> <p><input type="checkbox"/> Provides trainings on processing milkfish</p> <p><input type="checkbox"/> Provides equipment (i.e. vacuum sealer, etc.)</p> <p><input type="checkbox"/> Provides support in processing certification (i.e. FDA Certification)</p> <p><input type="checkbox"/> Linking farmers to market/traders</p> <p><input type="checkbox"/> Others (specify) _____</p>
19. Have you attended any B-SAFE training on production and processing?	<input type="checkbox"/> Yes <input type="checkbox"/> No
20. What was the training(s) about?	<p><input type="checkbox"/> Modules/techniques on Good Aquaculture Practices (GAqP) (productivity-enhancing technologies, etc.)</p> <p><input type="checkbox"/> Good manufacturing practices (GMP) in processing milkfish (i.e. hygienic deboning)</p> <p><input type="checkbox"/> Hazard Analysis Critical Control Point (HACCP) in processing milkfish</p> <p><input type="checkbox"/> Others (specify) _____</p>
21. Who/what agency delivered the training?	<p><input type="checkbox"/> MAO/PAO <input type="checkbox"/> Experts from State Universities and Colleges (SUCs)</p> <p><input type="checkbox"/> NGOs/Private Partners <input type="checkbox"/> Others (specify) _____</p>
22. Which training topic area(s) did you find most useful?	<p><input type="checkbox"/> Modules/techniques on Good Aquaculture Practices (GAqP) (productivity-enhancing technologies, etc.)</p> <p><input type="checkbox"/> Good manufacturing practices (GMP) in processing milkfish (i.e. hygienic deboning)</p> <p><input type="checkbox"/> Hazard Analysis Critical Control Point (HACCP) in processing milkfish</p> <p><input type="checkbox"/> Others (specify) _____</p>
23. Did you apply the areas/topics you find useful?	<input type="checkbox"/> Yes <input type="checkbox"/> No

#### IV. DETAILS OF THE SPECIFIC B-SAFE INTERVENTIONS APPLIED

##### On Trainings identified in Q19

24. Good aquaculture practices (GAqP)	<p>What specific areas/modules on GAqP were provided during the training?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. Improvement in fry/fingerling production (e.g., garungan rearing techniques)</p> <p><input type="checkbox"/> 2. Biosecurity measures in the farm (i.e. fence, proper storage for feeds, etc.)</p> <p><input type="checkbox"/> 3. Hygienic disposal of solid and liquid wastes</p> <p><input type="checkbox"/> 4. Improved cage culture techniques</p> <p><input type="checkbox"/> 5. Others (specify) _____</p>
	<p>Do you think this is important in improving the production of milkfish?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
	<p>Do you think this is important in ensuring food safety in the production of milkfish?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
	<p>Were you able to apply the learnings on GAqP in the next production cycle?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings</p>
	<p>If YES, what are the key practices on GAqP applied following the B-SAFE training(s)?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. Improvement in fry/fingerling production (e.g., garungan rearing techniques)</p>

	<p> <input type="checkbox"/> 2. Biosecurity measures in the farm (i.e. fence, proper storage for feeds, etc.)  <input type="checkbox"/> 3. Hygienic disposal of solid and liquid wastes  <input type="checkbox"/> 4. Improved cage culture techniques  <input type="checkbox"/> 5. Others (specify) _____         </p> <p>If NO, why have you NOT applied the practices following the B-SAFE trainings?</p> <p> <input type="checkbox"/> 1. _____  <input type="checkbox"/> 2. _____  <input type="checkbox"/> 3. _____  <input type="checkbox"/> 4. _____         </p>
25. On Good Manufacturing Practices (GMP) in processing	<p>What specific areas/modules on GMP in processing milkfish products were provided during the training?</p> <p>Note: Respondent can provide multiple answers.</p> <p> <input type="checkbox"/> Proper wearing of personal protective equipment (PPE) in processing  <input type="checkbox"/> Proper cleaning of processing areas  <input type="checkbox"/> Proper cleaning of equipment/utensils  <input type="checkbox"/> Maintaining quality of milkfish products  <input type="checkbox"/> Use of cold chain system (i.e. icing, cold storage, etc.)  <input type="checkbox"/> Post harvest practices: classification, grading and sorting milkfish  <input type="checkbox"/> Maturity indexing  <input type="checkbox"/> Others (specify) _____         </p> <p>Do you think GMP is important in terms of the following:</p> <p>Note: Respondent can provide multiple answers.</p> <p> <input type="checkbox"/> 1. In improving production of milkfish products: <input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> 2. In ensuring food safety in milkfish processing: <input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> 3. In improving quality of milkfish products: <input type="checkbox"/> Yes <input type="checkbox"/> No.         </p> <p>Were you able to apply the learnings on GMP in the next production cycle?</p> <p> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings         </p> <p>If YES, what are the key practices applied following the B-SAFE trainings?</p> <p>Note: Respondent can provide multiple answers.</p> <p> <input type="checkbox"/> Proper wearing of personal protective equipment (PPE) in processing  <input type="checkbox"/> Proper cleaning of processing areas  <input type="checkbox"/> Proper cleaning of equipment/utensils  <input type="checkbox"/> Maintaining quality of milkfish products  <input type="checkbox"/> Use of cold chain system (i.e. icing, cold storage, etc.)  <input type="checkbox"/> Post harvest practices: classification, grading and sorting milkfish  <input type="checkbox"/> Maturity indexing  <input type="checkbox"/> Others (specify) _____         </p> <p>If NO, why have you NOT applied the practices following the B-SAFE trainings?</p> <p> <input type="checkbox"/> 1. _____  <input type="checkbox"/> 2. _____  <input type="checkbox"/> 3. _____  <input type="checkbox"/> 4. _____  <input type="checkbox"/> 5. _____         </p>
25a. On HACCP	<p>What specific areas/modules on HACCP in processing milkfish products were provided during the training?</p>

	<p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> conduct hazard analysis and identify preventative measures;</p> <p><input type="checkbox"/> identify critical control points (CCP)</p> <p><input type="checkbox"/> establish critical limits</p> <p><input type="checkbox"/> monitor each critical control points (CCP)</p> <p><input type="checkbox"/> establish corrective action to be undertaken when a critical limit deviation occurs</p> <p><input type="checkbox"/> establish a record keeping system</p> <p><input type="checkbox"/> establish verification procedures</p> <p><input type="checkbox"/> Others (specify) _____</p> <hr/> <p>Do you think HACCP is important in terms of the following:</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> 1. In improving production of milkfish products: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> 2. In ensuring food safety in milkfish processing: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> 3. In improving quality of milkfish products: <input type="checkbox"/> Yes <input type="checkbox"/> No.</p> <hr/> <p>Were you able to apply the learnings on HACCP in the next production cycle?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Too soon to apply learnings</p> <hr/> <p>If YES, what are the key practices applied following the B-SAFE trainings?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> conduct hazard analysis and identify preventative measures;</p> <p><input type="checkbox"/> identify critical control points (CCP)</p> <p><input type="checkbox"/> establish critical limits</p> <p><input type="checkbox"/> monitor each critical control points (CCP)</p> <p><input type="checkbox"/> establish corrective action to be undertaken when a critical limit deviation occurs</p> <p><input type="checkbox"/> establish a record keeping system</p> <p><input type="checkbox"/> establish verification procedures</p> <p><input type="checkbox"/> Others (specify) _____</p> <p>If NO, why have you NOT applied the practices following the B-SAFE trainings?</p> <p><input type="checkbox"/> 1. _____</p> <p><input type="checkbox"/> 2. _____</p> <p><input type="checkbox"/> 3. _____</p> <p><input type="checkbox"/> 4. _____</p> <p><input type="checkbox"/> 5. _____</p>
<b>On Other Intervention(s)</b>	
26. On FDA Certification	<p>Did B-SAFE supported your organization's FDA Certification? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <hr/> <p>If Yes, what were the specific area(s) of support provided?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> Provision of information on the necessary documentary requirements</p> <p><input type="checkbox"/> Checking and validation of documentary requirements</p> <p><input type="checkbox"/> Submission of documentary requirements to FDA</p> <p><input type="checkbox"/> Assessment of facilities to qualify for FDA Certification</p> <p><input type="checkbox"/> Provision of equipment to qualify for FDA Certification</p> <p><input type="checkbox"/> Linking to other markets (i.e. exporters, etc.)</p> <p><input type="checkbox"/> Others (specify) _____</p> <hr/> <p>What is the current status of the FDA certification support?</p>

	<input type="checkbox"/> On going processing of certification <input type="checkbox"/> Certification received/granted <input type="checkbox"/> Do not know (B-SAFE has not yet provided status) <input type="checkbox"/> Others, specify _____	
27. On provision of equipment/facilities	Did B-SAFE supported your organization's requirement for improved facilities/equipment?  <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable	
	If YES, what were the facilities/equipment provided? Note: Respondent can provide multiple answers  <input type="checkbox"/> Cold chain equipment (i.e. cold storage, etc.) <input type="checkbox"/> Improvement of processing area <input type="checkbox"/> Others (specify) _____	
	What is the current status of the B-SAFE facilities/equipment support?  <input type="checkbox"/> Request has been submitted to B-SAFE <input type="checkbox"/> Requested facilities/equipment received/granted <input type="checkbox"/> Do not know (B-SAFE has not yet provided status) <input type="checkbox"/> Others, specify _____	
28. In your opinion, what is the percentage of producers/processors in your area/organization have adopted the interventions provided by B-SAFE?	_____ percentage	
<b>V. CONDUCT OF THE TRAININGS</b>		
Please rate the training in terms of your level of agreement on the following statements. Use the following scale to indicate your level of agreement:  1 - Strongly disagree; 2 - Disagree 3- Neutral 4 - Agree 5 - Strongly Agree		
29. Training #1. Improve milkfish supply chain functioning (topics on GAqP, particularly on land preparation and water quality maintenance, aquaculture management)  Did you attend this training? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, please rate the training. If NO, please proceed to the next question		
<b>Statement</b>	<b>Rating</b>	<b>Cite/describe reasons for the rating</b>
<b><i>On relevance:</i></b>		
The training provided by B-SAFE was important in improving the production of milkfish		
The training provided by B-SAFE was important in ensuring safe/clean milkfish production		
The training provided was comprehensive		
The training provided was accurate		
<b><i>On effectiveness:</i></b>		
The knowledge gained from the training was applied in the next production-cycle		
The knowledge gained from the training was <b>too early</b> to be applied in the next production/cropping period		

The hands-on/practical/field activities were helpful in understanding the training topics/areas		
<b>On timeliness:</b>		
The allocated time was appropriate to ensure an understanding of the lectures and exercises		
The timing of the training was appropriate, given it was conducted before the next production		
<b>On Resource Persons:</b>		
The resource persons/trainers/instructors were knowledgeable of the topics/areas covered in the training		
The resource persons/trainers/instructors used language that was simple and easy to understand		
The resource persons/trainers/instructors used vernacular/local language		
30. Training #2. Good Manufacturing Practices in Milkfish Processing		
<b>Statement</b>	<b>Rating</b>	<b>Cite/describe reasons for the rating</b>
<b>On relevance:</b>		
The training provided by B-SAFE was important in improving the processing of milkfish		
The training provided by B-SAFE was important in ensuring safe/clean milkfish processing		
The training provided was comprehensive		
The training provided was accurate		
<b>On effectiveness:</b>		
The knowledge gained from the training was applied in the next production-cycle		
The knowledge gained from the training was <b>too early</b> to be applied in the next production/cropping period		
The hands-on/practical/field activities were helpful in understanding the training topics/areas		
<b>On timeliness:</b>		
The allocated time was appropriate to ensure an understanding of the lectures and exercises		
The timing of the training was appropriate, given it was conducted before the next production cycle		
<b>On Resource Persons:</b>		
The resource persons/trainers/instructors were knowledgeable of the topics/areas covered in the training		
The resource persons/trainers/instructors used language that was simple and easy to understand		
The resource persons/trainers/instructors used vernacular/local language		
30a. Training #3. HACCP		
<b>Statement</b>	<b>Rating</b>	<b>Cite/describe reasons for the rating</b>
<b>On relevance:</b>		
The training provided by B-SAFE was important in improving the processing of milkfish		
The training provided by B-SAFE was important in ensuring safe/clean milkfish processing		
The training provided was comprehensive		
The training provided was accurate		
<b>On effectiveness:</b>		

The knowledge gained from the training was applied in the next production-cycle		
The knowledge gained from the training was <b>too early</b> to be applied in the next production/cropping period		
The hands-on/practical/field activities were helpful in understanding the training topics/areas		
<b>On timeliness:</b>		
The allocated time was appropriate to ensure an understanding of the lectures and exercises		
The timing of the training was appropriate, given it was conducted before the next production cycle		
<b>On Resource Persons:</b>		
The resource persons/trainers/instructors were knowledgeable of the topics/areas covered in the training		
The resource persons/trainers/instructors used language that was simple and easy to understand		
The resource persons/trainers/instructors used vernacular/local language		
<b>VI. IMPLICATIONS OF B-SAFE INTERVENTION(S) TO VOLUME AND VALUE OF PRODUCTION</b>		
<b>BEFORE B-SAFE</b> refers to one production period before B-SAFE interventions		
<b>AFTER B-SAFE</b> refers to one production period after B-SAFE interventions		
31. Were you able to produce milkfish and/or milkfish products after receiving interventions from B-SAFE? [ <input type="checkbox"/> ] Yes [ <input type="checkbox"/> ] No If Yes, please proceed with the next questions If No, the survey ends here.		
32. On VOLUME of milkfish production	What was the volume of milkfish produced <b>BEFORE B-SAFE</b> intervention(s)? _____ kg of 2-pcs milkfish/harvest period _____ kg of 3-pcs milkfish /harvest period _____ kg of 4-6pcs milkfish/harvest period _____ kg of other size, please specify _____ _____ kg of other size, please specify _____  Number of production cycle/farm/year _____	
	What was the volume of milkfish produced <b>AFTER B-SAFE</b> intervention(s)? _____ mt of 2-pcs milkfish/kg per harvest period _____ kg of 3-pcs milkfish/kg per harvest period _____ kg of 4-6pcs milkfish/kg per harvest period _____ kg of other size, please specify _____ _____ kg of other size, please specify _____  Number of production cycle/farm/year _____	
	In a scale of 1-10, 10 being highest, what do you think is the contribution of B-SAFE to the improvement of your production? _____	
	Cite other reasons that may have contributed to production difference. Note: Respondent can provide multiple answers.  [ <input type="checkbox"/> ] Training was already provided by other agencies (i.e. DA, other technicians, etc.) [ <input type="checkbox"/> ] Practices were observed from other farms/producers, etc. [ <input type="checkbox"/> ] Others, specify _____	
	What was the selling price of the milkfish produced <b>BEFORE B-SAFE</b> intervention(s)?	



<p>33. On VALUE of milkfish production</p>	<p> <input type="text"/> PhP/kg of 2-pcs milkfish/kg  <input type="text"/> PhP/kg of 3-pcs milkfish/kg  <input type="text"/> PhP/kg of 4-6pcs milkfish/kg  <input type="text"/> PhP/kg of other size, please specify <input type="text"/>  <input type="text"/> PhP/kg of other size, please specify <input type="text"/> </p> <p>What was the selling price of the milkfish produced <b>AFTER B-SAFE</b> intervention(s)?</p> <p> <input type="text"/> PhP/kg of 2-pcs milkfish/kg  <input type="text"/> PhP/kg of 3-pcs milkfish/kg  <input type="text"/> PhP/kg of 4-6pcs milkfish/kg  <input type="text"/> PhP/kg of other size, please specify <input type="text"/>  <input type="text"/> PhP/kg of other size, please specify <input type="text"/> </p> <p>If there is difference in price, what do you think are the factors that affected the selling price of milkfish?  Note: Respondent can provide multiple answers.  <input type="checkbox"/> Improvement in quality of milkfish  <input type="checkbox"/> Improvement in the production of milkfish  <input type="checkbox"/> Others, specify <input type="text"/></p>
<p>34. On VOLUME of milkfish fry and fingerling production</p>	<p>Are you producing the following, <b>BEFORE B-SAFE</b> intervention(s)?</p> <p>1. Fry <input type="checkbox"/> Yes <input type="checkbox"/> No  If YES, proceed to the next question on volume of production of fry/fingerling  If NO where do you source your fry?  <input type="checkbox"/> Wild  <input type="checkbox"/> Local producer  <input type="checkbox"/> Imported from other country (e.g. Indonesia)  <input type="checkbox"/> Others, please specify <input type="text"/></p> <p>2. Fingerling <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If YES, what was the volume of milkfish fry/fingerling production, in terms of number (pieces)?</p> <p> <input type="text"/> fry/production period  <input type="text"/> size 8 fingerlings/production period  <input type="text"/> size 10 fingerlings/production period  <input type="text"/> size 12 fingerlings/production period  <input type="text"/> size 14 fingerlings/production period  <input type="text"/> size 17 fingerlings/production period  <input type="text"/> Other size of fingerling, please identify <input type="text"/> </p> <p>Number of production cycle/farm/year <input type="text"/></p> <p>Are you producing the following, <b>AFTER B-SAFE</b> intervention(s)?</p> <p>3. Fry <input type="checkbox"/> Yes <input type="checkbox"/> No  If YES, proceed to the next question on volume of production of fry/fingerling  If NO where do you source your fry?  <input type="checkbox"/> Wild  <input type="checkbox"/> Local producer  <input type="checkbox"/> Imported from other country (e.g. Indonesia)  <input type="checkbox"/> Others, please specify <input type="text"/></p> <p>4. Fingerling <input type="checkbox"/> Yes <input type="checkbox"/> No</p>

	<p>If YES, what was the volume of milkfish fry/fingerling production, in terms of number (pieces)?</p> <p>_____ fry/production period</p> <p>_____ size 8 fingerlings/production period</p> <p>_____ size 10 fingerlings/production period</p> <p>_____ size 12 fingerlings/production period</p> <p>_____ size 14 fingerlings/production period</p> <p>_____ size 17 fingerlings/production period</p> <p>_____ Other size of fingerling, please identify _____</p> <p>Number of production cycle/farm/year _____</p> <p>In a scale of 1-10, 10 being highest, what do you think is the contribution of B-SAFE to the improvement of your fry/fingerling production? _____</p> <p>Cite other reasons that may have contributed to fry/fingerling production difference.</p> <p>Note: Respondent can provide multiple answers.</p> <p>[ ] Training was already provided by other agencies (i.e. DA, other technicians, etc.)</p> <p>[ ] Practices were observed from other farms/producers, etc.</p> <p>[ ] Others, specify _____</p>
<p>35. On VALUE of milkfish fry and fingerling production</p>	<p>What was the selling price of the fry/fingerling produced <b>BEFORE B-SAFE</b> intervention(s)?</p> <p>_____ PhP/fry</p> <p>_____ PhP/size 8 fingerling</p> <p>_____ PhP/size 10 fingerling</p> <p>_____ PhP/size 12 fingerling</p> <p>_____ PhP/size 14 fingerling</p> <p>_____ PhP/size 17 fingerling</p> <p>_____ PhP/other size of fingerling, please specify _____</p> <p>What was the selling price of the fry/fingerling produced <b>AFTER B-SAFE</b> intervention(s)?</p> <p>_____ PhP/fry</p> <p>_____ PhP/size 8 fingerling</p> <p>_____ PhP/size 10 fingerling</p> <p>_____ PhP/size 12 fingerling</p> <p>_____ PhP/size 14 fingerling</p> <p>_____ PhP/size 17 fingerling</p> <p>_____ PhP/other size of fingerling, please specify _____</p> <p>If there is difference in price, what do you think are the factors that affected the selling price of milkfish fry/fingerling?</p> <p>Note: Respondent can provide multiple answers.</p> <p>[ ] Improvement in quality of milkfish fry/fingerling</p> <p>[ ] Improvement in the production of milkfish fry/fingerling</p> <p>[ ] Others, specify _____</p>
<p>36. On VOLUME of processed milkfish</p>	<p>What were the milkfish products produced <b>BEFORE B-SAFE</b> intervention(s)?</p> <p>Note: Respondent can provide multiple answers.</p> <p>[ ] Deboned/boneless milkfish/"bangus"</p> <p>[ ] Milkfish/"bangus" shanghai</p> <p>[ ] "Relyenong" milkfish/"bangus"</p> <p>[ ] Others, specify _____</p>

	<p>What was the volume of processed milkfish <b>BEFORE B-SAFE</b> intervention(s)?</p> <p>_____ pcs of deboned/boneless milkfish/"bangus" per month</p> <p>_____ pcs of Milkfish/"bangus" shanghai per month</p> <p>_____ pcs of "Relyenong" milkfish/"bangus" per month</p> <p>_____ pcs of other product, specify _____ per month</p> <hr/> <p>What were the milkfish products produced <b>AFTER B-SAFE</b> intervention(s)?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> Deboned/boneless milkfish/"bangus"</p> <p><input type="checkbox"/> Milkfish/"bangus" shanghai</p> <p><input type="checkbox"/> "Relyenong" milkfish/"bangus"</p> <p><input type="checkbox"/> Others, specify _____</p> <p>What was the volume of processed milkfish <b>BEFORE B-SAFE</b> intervention(s)?</p> <p>_____ pcs of deboned/boneless milkfish/"bangus" per month</p> <p>_____ pcs of Milkfish/"bangus" shanghai per month</p> <p>_____ pcs of "Relyenong" milkfish/"bangus" per month</p> <p>_____ pcs of other product, specify _____ per month</p> <hr/> <p>In a scale of 1-10, 10 being highest, what do you think is the contribution of B-SAFE to the improvement of your milkfish processing? _____</p> <hr/> <p>Cite other reasons that may have contributed to fry/fingerling production difference.</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> Training was already provided by other agencies (i.e. DA, other technicians, etc.)</p> <p><input type="checkbox"/> Practices were observed from other farms/producers, etc.</p> <p><input type="checkbox"/> Others, specify _____</p>
37. On value of processed milkfish	<p>What was the selling price of processed milkfish <b>BEFORE B-SAFE</b> intervention(s)?</p> <p>_____ PhP/pc of deboned/boneless milkfish/"bangus"</p> <p>_____ PhP/pc of Milkfish/"bangus" shanghai</p> <p>_____ PhP/pc of "Relyenong" milkfish/"bangus"</p> <p>_____ PhP/pc of other product, specify _____</p> <hr/> <p>What was the selling price of processed milkfish <b>AFTER B-SAFE</b> intervention(s)?</p> <p>_____ PhP/pc of deboned/boneless milkfish/"bangus"</p> <p>_____ PhP/pc of Milkfish/"bangus" shanghai</p> <p>_____ PhP/pc of "Relyenong" milkfish/"bangus"</p> <p>_____ PhP/pc of other product, specify _____</p> <hr/> <p>If there is difference in price, what do you think are the factors that affected the selling price of processed milkfish?</p> <p>Note: Respondent can provide multiple answers.</p> <p><input type="checkbox"/> Improvement in quality of processed milkfish products</p> <p><input type="checkbox"/> Improvement in the production of milkfish products</p> <p><input type="checkbox"/> Others, specify _____</p>

**END OF SURVEY**

## Annex 8. Themes and sub-themes used in thematic analysis

Theme	Sub-Theme	Description
<b>Relevance</b>	Addressing productivity needs of clients/farmers	The project was designed to address the needs of the farmers/clients to improve productivity and achieve sustainable production
	Addressing market/trade needs of clients/farmers	The project was designed to address the needs of the farmers/clients to expand markets/trade
	Addressing farmer constraints (e.g., certification, inputs, equipment, facilities, capacity)	The project was designed to address the farmer/industry constraints  This also discussed issues/problems of farmers.
	Addressing beneficiary/client needs	The project was designed to address/meet beneficiary/farmer/FSRA needs
	Helps in exploring available opportunities	The project was designed to support/assist in exploring available opportunities
<b>Effectiveness</b>	Contributed to productivity and sustainable production of farmers/clients	The project has addressed or has indication that it was able to meet the needs on productivity improvement and sustainable production of farmers/clients
	Contributed to market/trade needs of clients/farmers	The project has addressed or has indication that it was able to meet the market/trade needs of clients/farmers
	Was able to address constraints (e.g., certification, inputs, equipment, facilities, capacity)	The project was able to address farmers/clients' constraints
	Magnitude of effect (i.e., increase/expansion of area of coverage, improvement of quality of products)	There were indications of project effects in terms of increase in area of production, improved quality of products, etc.
	Timeliness of intervention (e.g., late provision, on time delivery of interventions, etc.)	The project was able to be effective given that the delivery of interventions was provided on time. This code also highlights other quotes pertaining to issues and problems on timeliness.
<b>Efficiency</b>	Partnerships and linkages	Highlights the project contribution to forging partnerships and linkages to address the issues and problems of farmers/clients.  This also indicates statements/quotes related to issues/problems on partnerships and linkages
	Personnel and human resources	Highlights the importance and issues/problems/constraints on staff/human resources
	Temporal	Pertains to efficiency in relation to time (temporal) (e.g., extension activities)
	Financial resource use	This code pertains to efficiency in relation to financial/capital (e.g., availability of funds, releases, capital for production, etc.)
<b>Sustainability</b>	Institutionalization of practices/interventions/recommendations	This code pertains to the institutionalization of the practices/interventions/recommendations provided by the project (e.g., biosecurity measures, GAP, GAHP, GAqP and GMP practices, etc.)  Institutionalization of
	Policy formulation/conflicts	This code pertains to formulation of policies and conflict of policies on food safety which B-SAFE supported

	Replicability/continuity of project interventions	This code pertains to the current practices/techniques that were replicated at the farmer/client level. Indications that re-echo or sharing of learnings are provided to other farmers/clients
<b>Impact</b>	Adoption of interventions/techniques	This code pertains to the adoption or indications of adoption of interventions/techniques
	Replicability/continuity of project interventions	This code pertains to the current practices/techniques that were replicated at the farmer/client level. Indications that re-echo or sharing of learnings are provided to other farmers/clients
	Income/profitability improvement	This code pertains to initial impacts on improved income/profitability
	Social impact (e.g., health improvement)	This code pertains to initial social impacts
	Environmental impact	This code pertains to initial environmental impacts
	Technological impact	This code pertains to initial impacts/effects due to the technologies introduced

## Annex 9. Reassessment results of the FSRAs Done in October 2022

AGENCY	RATING (2021)	RATING (2022)
<b>BFAR (OIE Tool)</b>		
Surveillance (Risk Analysis)	Level 2	Level 2
Laboratory Quality Assurance	Level 2	Level 2
<b>BAI (OIE Tool)</b>		
Surveillance (Risk Analysis)	Level 2	Level 3
Laboratory Quality Assurance	Level 1	Level 2
<b>BPI (FAO Tool)</b>		
<b>RISK ANALYSIS &amp; INSPECTION:</b>		
Criteria for risk categorization and prioritization established for food inspection	Level 2	Level 3
Presence of functioning risk-based inspection mechanism with well-defined standard operating procedures	Level 2	Level 3
Presence of functioning food safety certification systems with well-defined standard operating procedures	Level 2	Level 3
<b>LABORATORY:</b>		
Accessible and capable diagnostic and analytical laboratories	Level 2	Level 2
Accessible and capable testing laboratories	Level 2	Level 2
Presence of institution(s) responsible for the collection, collation and interpretation of data on food safety issues (including microbiological, chemical, natural and environmental) at the national level	Insufficient information to make an assessment	Level 2
<b>FDA (FAO Tool)</b>		
<b>RISK ANALYSIS &amp; INSPECTION</b>		
Criteria for risk categorization and prioritization established for food inspection	Level 2	Level 2
Presence of functioning risk-based inspection mechanism with well-defined standard operating procedures	Level 2	Level 2
Presence of functioning food safety certification systems with well-defined standard operating procedures	Level 2	Level 3
<b>LABORATORY:</b>		
Accessible and capable diagnostic and analytical laboratories	Level 2	Level 2
Accessible and capable testing laboratories	Level 2	Level 2
Presence of institution(s) responsible for the collection, collation and interpretation of data on food safety issues (including microbiological, chemical, natural and environmental) at the national level	Insufficient information to make an assessment	Level 2
<b>FPA (FAO Tool)<sup>15</sup></b>		
<b>RISK ANALYSIS &amp; INSPECTION</b>		
Criteria for risk categorization and prioritization established for food inspection	Insufficient information to make an assessment	Level 2
Presence of functioning risk-based inspection mechanism with well-defined standard operating procedures	Insufficient information to make an assessment	Level 2
Presence of functioning food safety certification systems with well-defined standard operating procedures	Insufficient information to make an assessment	Level 2

<sup>15</sup> In 2021, FPA was assessed using the critical competencies under the OIE tool as some of it were relevant particularly those that refer to ensuring public health. During the presentation of the 2021 results to the EWG meeting, FPA requested for them to be reassessed using the FAO tool to also cover areas on risk categorization and inspection of fertilizer and pesticide products.

AGENCY	RATING (2021)	RATING (2022)
<b>LABORATORY:</b>		
Accessible and capable diagnostic and analytical laboratories	Level 3	Level 3
Accessible and capable testing laboratories	Level 3	Level 3
Presence of institution(s) responsible for the collection, collation and interpretation of data on food safety issues (including microbiological, chemical, natural and environmental) at the national level	Insufficient information was collected to assign a level	Level 4
<b>NMIS (FAO Tool)</b>		
<b>RISK ANALYSIS &amp; INSPECTION</b>		
Criteria for risk categorization and prioritization established for food inspection	Level 1	Level 2
Presence of functioning risk-based inspection mechanism with well-defined standard operating procedures	Level 2	Level 2
Presence of functioning food safety certification systems with well-defined standard operating procedures	Level 2	Level 3
<b>LABORATORY:</b>		
Accessible and capable diagnostic and analytical laboratories	Level 2	Level 3
Accessible and capable testing laboratories	Level 2	Level 3
Presence of institution(s) responsible for the collection, collation and interpretation of data on food safety issues (including microbiological, chemical, natural and environmental) at the national level	Insufficient information was collected to assign a level	Level 2

## Annex 10. Individuals receiving training (DA and FDA)

Course Title	Course and Dates	DA	FDA	Total
ISO/IEC 17025:2017 (Laboratory Management System)	<ul style="list-style-type: none"> <li>Awareness Course (April 22, 2022)</li> <li>Implementation Course (April 27-29, 2022)</li> <li>Internal Audit Course (May 5-6, 2022)</li> </ul>	56	39	95
Food Safety Scheme Certification	<ul style="list-style-type: none"> <li>Introductory Course (June 3, 2022)</li> <li>Implementation Course (June 13-15, 2022)</li> <li>Internal Audit Course (June 20-21, 2022)</li> </ul>	43	48	91
ISO/IEC 17020:2012 (Conformity Assessment)	<ul style="list-style-type: none"> <li>Introductory Course (June 9, 2022)</li> <li>Implementation Course (June 22-24, 2022)</li> <li>Internal Audit Course (June 29-30, 2022)</li> </ul>	46	74	120
<b>Total</b>		<b>145</b>	<b>162</b>	<b>307</b>

## Annex 11. Participants in cascaded training activities

Agency	Number of Cascaded Training Participants (FY 2022: April 1, 2022 – September 30, 2022)		
	ISO 17025	FSSC v.5.1.	ISO 17020
DA (total)	145	86	18
FPA	16		
BAI	12		
BFAR	34		
BPI	9		
NMIS	9	68	
Philippine Coconut Authority (PCA)	9		
Food Development Center (FDC)	38		
National Dairy Authority (NDA)	18	18	18
FDA	32	35	52
Total Unique Participants	<b>177</b>	<b>121</b>	<b>70</b>

## Annex 12. Training Requirements of Coconut sugar Producers and Processors in Misamis Oriental

Private Sector Group	Training
Coconut sugar private sector group 1	<ul style="list-style-type: none"> <li>Training on GMP and Occupational Safety and Health (OSH), January 2022 (32 participants)</li> <li>Sanitation Standard Operating Procedures (SSOP) of GMP, July 27, 2022</li> <li>Internal Control System for Good Agricultural Practices (GAP) and Organic Coconut sugar, July 28-29, 2022 (78 participants)</li> </ul>
Coconut sugar private sector group 2	<ul style="list-style-type: none"> <li>Training on GMP and OSH, February 2022 (52 participants)</li> </ul>
Coconut sugar private sector group 3	<ul style="list-style-type: none"> <li>Sanitation Standard Operating Procedures (SSOP) of GMP, May 20, 2022 (50 participants)</li> <li>Training on GMP, May 18, 2022 (51 participants)</li> </ul>
Coconut sugar private sector group 4	<ul style="list-style-type: none"> <li>GMP and HACCP, May 18-19, 2022; July 25-26, 2022 and July 27, 2022 (36 participants)</li> </ul>



### Annex 13. Trainings provided by B-SAFE, corn industry, Bukidnon

Training	Stakeholders and Date Conducted
Proper handling, treatment, and use of improved corn seed and varieties, and on the improved corn production techniques and technologies	Corn private sector group 1, May 17-18, 2022
	Corn private sector group 2 and 3, July 26-27, 2022
	Corn private sector group 4, 5, 6, and 7, July 28-29, 2022
Corn harvest and post-harvest processing technology	Corn private sector group 4, 5, 6, and 7, July 27, 2022
	Corn private sector group 1, September 28, 2022
Corn silage production and management	Corn private sector group 8, 9, 10, 11, 12, and 13, May 19, 2022 and July 16, 2022
Improved Corn Production: Session on Proper Handling, Treatment and Use of Improved Corn Seed Varieties and Session on Land Preparation, Planting Fertilization, Weed Control	Corn private sector group 14, Nov 15, 2022
	Corn private sector group 15, Nov 16, 2022
	Corn private sector group 16, Feb 2 to 3, 2023
Compliance to Standards on Corn Trading Through Post Harvest Handling and Processing Technologies	Corn private sector group 2, Feb 8, 2023
	Corn private sector group 4, Feb 9, 2023
Training of Trainers on Corn Production	Training Service Providers, Agricultural Extension Workers and Corn Technicians Government extension workers, March 1 to 3, 2023

## Annex 14. List of Trainings conducted by B-SAFE

Training	Commodity	Date	Type of Training	Organizer/ Training Partners	Number of Participants
Fundamentals in Swine Genetics, Breeding, Selection and Artificial Insemination	Swine	September 29, 2021	Virtual training	B-SAFE, ITCPH and UNIBAT	238 (swine producers, members of academe, business sector)
Fundamentals of Swine Genetics, Breeding Systems, Selection Techniques, and Artificial Insemination		September 23, 2022	Virtual and In-person training	DA and International Training Center on Pig Husbandry	<b>Webinar:</b> 420 participants from the public sector (e.g., DA, LGUs, city/municipal veterinarian, and agricultural offices), the private sector (e.g., breeders, traders), and the academe. <b>In-person training:</b> 42 local hog farmers
For the Pilot-testing ASF virus surveillance and monitoring system in Batangas		September 2, 2022	In-person training	Microbiome Life Science Pte. Ltd.	14 veterinary staff from 3 cities (Batangas City, Lipa City, and Tanauan City) and 5 municipalities (Ibaan, San Juan, Nasugbu, Garcia, and Rosario), Regional Animal Diseases Diagnostic Laboratory staff, and representatives from the private sector.
Hygienic meat handling and good manufacturing practices (GMP)		2022	In-person training	B-SAFE	35 Tanauan City public meat inspectors and vendors, as well as 75 members of the SIDC.
Improve milkfish supply chain functioning (topics on GAqP, particularly on land preparation and water quality maintenance)	Milkfish	March 8-9, 2021	In-person training	BFAR Region 1, ISDA-AC	50 participants (15 women and 35 men)
HACCP		2022	In-person training	B-SAFE, KOICA-funded Korea-Philippines Seafood Processing Complex (KP-SPC)	115 chain players
Proper handling, treatment, and use of improved corn seed varieties, and	Corn	May 17-18, 2022	In-person training	B-SAFE, Cabanglasan Paradise Farmers Multi-Purpose Cooperative	118 participants

Training	Commodity	Date	Type of Training	Organizer/ Training Partners	Number of Participants
on the improved corn production techniques and technologies		Jul 26-27, 2022	In-person training	B-SAFE, Kadingilan Pay-as Agrarian Reform Beneficiaries Association (KAPARBA) and Bukidnon Farmers Inc. Employees Agrarian Reform Cooperative	39 participants
		Jul 28-29, 2022	In-person training	Mantibugao Agrarian Reform Beneficiaries Farmers’ Cooperative, Laturan Agri Producers Cooperative,	50 participants
Corn harvest and post-harvest processing technology		Sep 27, 2022	In-person training	B-SAFE with LGUs and National Dairy Authority (NDA)	24 participants
		Sep 28, 2022	In-person training	B-SAFE, Cabanglasan Paradise Farmers Multi-Purpose Cooperative and Tagiptip Agrarian Reform Beneficiaries Association	76 participants
Corn silage production		May 19, 2022	In-person training	B-SAFE, Kauyagan Savers Multi-Purpose Cooperative, Spring Dairy Farm, Impasug-ong Samahang Nayon Multi-PurposeCooperative,	19 participants
		Jul 6, 2022	In-person training	Kapanglaw Agricultural Neighborhood Association, Peace & Equity Foundation, and Kaanib Foundation Inc.	26 participants
Training on GMP and OSH for Linabu Agrarian Multi-Purpose Cooperative in Balingasag, Misamis Oriental.	Cocosugar	January 2022	In-person training	B-SAFE, Linabu Agrarian Multi-Purpose Cooperative	32 participants

Training	Commodity	Date	Type of Training	Organizer/ Training Partners	Number of Participants
Training on GMP and OSH for T2G at the Coconut Sugar Processing Center located in Jasaan, Misamis Oriental		February 2022	In-person training	B-SAFE, T2G	52 participants
GMP and HACCP		May 18-19, 2022	In-person training	Global Mindanaw Agri-Ventures Corp. and Global Mindanaw Polytechnic, Inc.	51 participants
Sanitation Standard Operation Procedures (SSOP) of GMP		May 20, 2022	In-person training	Global Mindanaw Agri-Ventures Corp. and Global Mindanaw Polytechnic, Inc.	50 participants
Internal Control System for Good Agricultural Practices (GAP) and Organic Coconut sugar		May 26-27, 2022	In-person training	LAMPCO	41 participants
GMP		July 25-26, 2022	In-person training	Agay-ayan Multi-Purpose Cooperative	36 participants
HACCP		July 27, 2022	In-person training	Trunk to Gold Agribusiness Corp. and Pagsaka Agri Cooperative	30 participants
Internal Control System for GAP and Organic Coconut Sugar		July 28-29, 2022	In-person training	LAMPCO	37 participants

### Non-commodity-based trainings

Training	Commodity	Date	Type of Training	Organizer/ Training Partners	Number of Participants
Training of Trainers on Hazard Analysis Critical Control Point	<b>Non-Commodity Based</b>	September 27-28, 2021	Virtual training	B-SAFE	total of 35 participants from (a) DA Regional Office X; (b) DA Regional Office 4A; (c) DA Regional Office 1; (d) Food Development Center; (e) Bureau of Animal Industry; (f) National Meat Inspection Service; (g) Bureau of Plant Industry; (h) National Dairy Authority;

Training	Commodity	Date	Type of Training	Organizer/ Training Partners	Number of Participants
					(i) Philippine Coconut Authority; (j) Fertilizer and Pesticide Authority; and (k) FDA.
Trainings on SPS and Food Safety Standards		October 26, 2021	Virtual training	B-SAFE, DA's Food Safety Focal Group and the Office of the Assistant Secretary for Regulations	172 participants (83 from public sector, 53 from the private sector, 36 from civil society and academe)
Training on Risk Assessment and Management and Product Recall		November 19 & 22, 2021	Virtual training	B-SAFE, FDA and select DA's FSRAs	45 individuals (29 from FDA; 9 from DA's Food Development Center (FDC); 2 each from NDA, NMIS, and PCA; and 1 from Sugar Regulatory Administration
Import Risk Analysis Training		December 1-2, 2021	Virtual training	Centre for Agriculture and Bioscience International	32 DA food safety regulators
Risk Analysis Training		March to April 2022		B-SAFE, DA	A total of 36 DA technical staff
Risk Categorization		March 17-18, 2022	In-person training	B-SAFE, DA	5 each from BPI, FPA and FDC; 4 each from the BAI, BFAR, and NMIS; 3 from the Policy Research Service; and 2 each from the PCA, NDA, and Sugar Regulatory Administration
Quantitative and Qualitative Risk Assessment		March 24-25, 2022			
Risk-Based Inspection		March 31-April 1, 2022			
Trainings on risk-based regulatory systems		April to August 2022		B-SAFE, DA, FDA	A total of 120 unique participants (46 DA, 74 FDA)
Training on ISO/IEC 17025:2017 (Laboratory Management)			In-person training	B-SAFE, DA, FDA	
Awareness Course		April 22, 2022			19 from DA; 14 from FDA
Implementation Course		April 27-29, 2022			18 from DA; 13 from FDA
Internal Audit Course		May 5-6, 2022			19 from DA; 12 from FDA
Training on Food Safety Scheme Certification v.5.1 (FSSC v.5.1)			In-person training	B-SAFE, DA, FDA	

Training	Commodity	Date	Type of Training	Organizer/ Training Partners	Number of Participants
Introductory Course		June 3, 2022			15 from DA; 16 from FDA
Implementation Course		June 13-15, 2022			14 from DA; 16 from FDA
Internal Audit Course		June 20-21, 2022			14 from DA; 16 from FDA
Training on ISO 17020:2012 (Conformity Assessment)			In-person training	B-SAFE, DA, FDA	
Introductory Course		June 9, 2022			16 from DA; 18 from FDA
Implementation Course		June 22-24, 2022			14 from DA; 16 from FDA
Internal Audit Course		June 29-30, 2022			11 from DA; 16 from FDA
Training on Risk-Based Food Control for FDA			In-person training	B-SAFE, DA, FDA	
Risk-Based Food Control		August 24-26, 2022			0 from DA; 40 from FDA

#### CASCADED TRAININGS

Training	Date	Type of Training	Organizer/ Training Partners	Number of Participants
Cascaded trainings with DA and FDA	August to September 2022			A total of 368 unique participants (249 DA, 119 FDA)
Training on ISO/IEC 17025:2017 (Laboratory Management)	August-September 2022	In-person training	B-SAFE, DA, FDA	145 from DA; 32 from FDA
Training on ISO 17020:2012 (Conformity Assessment)	August-September 2022	In-person training	B-SAFE, DA, FDA	86 from DA; 35 from FDA
Training on Food Safety Scheme Certification v.5.1 (FSSC v.5.1)	August-September 2022	In-person training	B-SAFE, DA, FDA	18 from DA; 52 from FDA

## Annex 15. List of identified technologies in PIRS

SI- 4: Number of individuals in the agriculture system who have applied improved management practices or technologies with USDA assistance		
USDA-specified categories	USDA-cited examples:	B-SAFE-specific examples
Crop genetics	Improved/certified seed that could be higher-yielding, higher in nutritional content (e.g., through bio-fortification, such as vitamin A-rich sweet potatoes or rice, high-protein maize), and/or more resilient to climate impacts (e.g. drought tolerant maize, or stress tolerant rice); improved germplasm.	Same examples, particularly in the case of rice and corn  Improved germplasm resistant to specific pests and diseases
Cultural practices	Context specific agronomic practices that do not fit in other categories, e.g. seedling production and transplantation; cultivation practices such as planting density, crop rotation, and mounding.	Same examples
Livestock management	Improved livestock breeds; livestock health services and products such as vaccines; improved livestock handling practices and housing; improved feeding practices; improved grazing practices, improved waste management practices, improved fodder crop, cultivation of dual-purpose crops	<ul style="list-style-type: none"> <li>• Same examples</li> <li>• Other examples include disease free genetic material; application of Artificial Insemination techniques in breeding; improved housing with appropriate biosecurity measures; locally manufactured improved feeds; Good Animal Husbandry Practices (GHAP) at all levels of hog production; and improved livestock enterprise management (e.g.) presence of business plans and financial plans, production records</li> </ul>
Wild-caught fisheries management	Sustainable fishing practices; improved nets, hooks, lines, traps, dredges, trawls; improved hand gathering, netting, angling, spearfishing, and trapping practices.	Will not be covered by B-SAFE
Aquaculture management	Improved fingerlings; improved feed and feeding practices; fish health and disease control; improved cage culture; improved pond culture; pond	<ul style="list-style-type: none"> <li>• Same examples</li> <li>• Other examples include improved stocking density and application of</li> </ul>

SI- 4: Number of individuals in the agriculture system who have applied improved management practices or technologies with USDA assistance		
USDA-specified categories	USDA-cited examples:	B-SAFE-specific examples
	preparation; sampling and harvesting; management of carrying capacity.	improved water quality monitoring techniques in ponds and fish cages
<b>Natural resource or ecosystem management</b>	Terracing, rock lines; fire breaks; biodiversity conservation; strengthening of ecosystem services, including stream bank management or restoration or re/afforestation; woodlot management.	<ul style="list-style-type: none"> <li>• Will not be covered by B-SAFE</li> </ul>
<b>Pest and disease management</b>	Integrated Pest Management; improved fungicides; appropriate application of fungicides; improved and environmentally sustainable use of cultural, physical, biological, and chemical insecticides and pesticides; crop rotation; aflatoxin prevention and control.	<p>Same examples, including application of Integrated Pest Management (IPM) in the prevention and control of Fall Army Worm</p> <p>Other examples include biosecurity measures in livestock production; testing and disease surveillance; clustering of smallholder farms into centralized management compliant to biosecurity protocols and measures; GAqP in milkfish farming as a measure for prevention and control of pests and diseases in ponds and sea-cages; improved dry storage management of inputs such as seeds, feed ingredients and newly harvested products to reduce pest infestation, mold growth, secured from contaminants and free from exposure to undesirable light, temperature, moisture and humidity that will promote microbial growth.</p>
<b>Soil-related fertility and conservation</b>	Integrated Soil Fertility Management; soil management practices that increase biotic activity and soil organic matter levels, such as soil amendments that increase fertilizer-use efficiency (e.g. soil organic matter, mulching);	<ul style="list-style-type: none"> <li>• Same examples</li> <li>• Other examples include improved coconut fertilization for increased sap production</li> </ul>



<b>SI- 4: Number of individuals in the agriculture system who have applied improved management practices or technologies with USDA assistance</b>		
<b>USDA-specified categories</b>	<b>USDA-cited examples:</b>	<b>B-SAFE-specific examples</b>
	improved fertilizer; improved fertilizer use practices; inoculant; erosion control.	
<b>Irrigation</b>	Drip, surface, and sprinkler irrigation; irrigation schemes.	<ul style="list-style-type: none"> <li>• Same examples</li> </ul>
<b>Agriculture water management - non-irrigation based</b>	Water harvesting; sustainable water use practices; practices that improve water quality.	<ul style="list-style-type: none"> <li>• Same examples</li> <li>• Other examples include improved water quality management for use in food processing facilities</li> </ul>
<b>Climate mitigation</b>	Technologies selected because they minimize emission intensities relative to other alternatives (while preventing leakage of emissions elsewhere). Examples include low- or no-till practices; restoration of organic soils and degraded lands; efficient nitrogen fertilizer use; practices that promote methane reduction; agroforestry; introduction/expansion of perennials; practices that promote greater resource use efficiency (e.g., drip irrigation, upgrades of agriculture infrastructure and supply chains).	<ul style="list-style-type: none"> <li>• Will not be covered by B-SAFE</li> </ul>
<b>Climate adaptation/ climate risk management</b>	Technologies promoted with the explicit objective of reducing risk and minimizing the severity of the impacts of climate change. Examples include drought and flood resistant varieties; short-duration varieties; adjustment of sowing time; agricultural/climate forecasting; early warning systems; diversification, use of perennial varieties; agroforestry; risk insurance.	<ul style="list-style-type: none"> <li>• Will not be covered by B-SAFE</li> </ul>
<b>Marketing and distribution</b>	Contract farming technologies and practices; improved input purchase technologies and practices; improved commodity sale technologies and practices; improved market	<ul style="list-style-type: none"> <li>• Same examples</li> <li>• Other examples include clustered farming or contract growing scheme; improved buyer and seller</li> </ul>

SI- 4: Number of individuals in the agriculture system who have applied improved management practices or technologies with USDA assistance		
USDA-specified categories	USDA-cited examples:	B-SAFE-specific examples
	information system technologies and practices.	relationships (e.g. marketing agreements), market linkage by and among players in the supply chain for corn, coco-sugar, milkfish and swine; application of improved dry and cold storage, logistics and distribution systems.
<b>Post-harvest handling and storage</b>	Improved transportation; decay and insect control; temperature and humidity control; improved quality control technologies and practices; sorting and grading, sanitary handling practices.	<ul style="list-style-type: none"> <li>• Same examples</li> <li>• Other examples include improved harvest and post-harvest techniques in corn e.g., varieties, crop maturity index, elevation where maize is planted; improved post-harvest processing such as shelling, drying and storage technologies using improved equipment and facilities; humane handling of hogs techniques during loading from the farm to unloading at the slaughterhouses or live hog consolidation areas (e.g. use of loading and unloading bays to promote animal comfort); improved techniques in milkfish, size and weight, maturity index, proper harvesting techniques with the use of improved tools and equipment; classification, sorting and grading fresh milkfish; application of proper icing, packing and transport using improved tools, equipment and cold chain systems; improved classification, sorting, grading techniques and handling of coconut sugar products compliant to food safety standards; use of improved dry storage</li> </ul>

SI- 4: Number of individuals in the agriculture system who have applied improved management practices or technologies with USDA assistance		
USDA-specified categories	USDA-cited examples:	B-SAFE-specific examples
<b>Value-added processing</b>	Improved packaging practices and materials including biodegradable packaging; food and chemical safety technologies and practices; improved preservation technologies and practices.	<ul style="list-style-type: none"> <li>• Same examples</li> <li>• Other examples include adoption of improved corn value-adding processing technologies for animal feed and for human consumption; for animal feeds, application of GMP in feed milling where corn is a major ingredient, proper labeling and storage; for human consumption, GMP and HACCP on various corn-based foods e.g., corn oil, flour, starch, syrup; improved slaughterhouse, meat cutting facilities management; improved butchering techniques (off-floor system); techniques and technologies in meat fabrication and processing, branding and packaging; use of cold chain systems and application of GMP and HACCP; application of cold chain systems in value-adding processing of milkfish; use of improved food processing techniques and technologies such as but not limited to deboning, smoking, drying, canning and bottling branding, labeling and packaging; application of GMP and HACCP in all levels of milkfish value adding processing; adoption of improved coco-sugar processing techniques and technologies using improved tools and equipment, improved labeling, branding and packaging;</li> </ul>
<b>Other</b>	Improved mechanical and physical land preparation; non-market- and non-climate related information technology; improved record keeping;	<ul style="list-style-type: none"> <li>• Same examples</li> </ul>

SI- 4: Number of individuals in the agriculture system who have applied improved management practices or technologies with USDA assistance		
USDA-specified categories	USDA-cited examples:	B-SAFE-specific examples
	improved budgeting and financial management; Improved capacity to repair agricultural equipment; improved quality of agricultural products or technology.	

## **Annex 16. List of some Trainings conducted for FSRAs which will aid the agencies in the preparation of the RMPs**

1. Training of Trainers on Hazard Analysis Critical Control Point participated by staff from (a) DA Regional Office X; (b) DA Regional Office 4A; (c) DA Regional Office 1; (d) Food Development Center (FDC); (e) BAI; (f) NMIS; (g) BPI; (h) National Dairy Authority; (i) Philippine Coconut Authority (PCA); (j) FPA; and (k) FDA; September 2021.
2. Trainings on SPS and Food Safety Standards participated by both public and private sector, and civil society and academe; October 2021.
3. Training on Risk Assessment and Management and Product Recall participated by staff from FDA; DA FDC; NDA, NMIS, and PCA; and Sugar Regulatory Administration; November 2021.
4. Import Risk Analysis Training; December 2021.
5. Risk Analysis Training for DA staff; March to April 2022.
6. Training on Risk Based Regulatory Systems for DA and FDA staff; April to August 2022
7. Training on Risk-Based Food Control for FDA for FDA staff; August 2022.

## **Annex 17. List of some activities that would assist the private sector enterprises who aspire to have HACCP and other similar accreditations**

1. Training for HACCP accreditation for a processing facility in Binmaley, Pangasinan.
2. Training on GMP and Occupational Safety and Health (OSH) for a multipurpose cooperative in Balingasag, Misamis Oriental for coconut sugar.
3. Training on GMP and OSH for an agribusiness corporation at the Coconut Sugar Processing Center located in Jasaan, Misamis Oriental.
4. GMP and HACCP, as well as SSOP of GMP for two (2) agri-ventures corporation for coconut sugar.
5. Internal Control System for GAP and Organic Coconut sugar, as well as Internal Control System for GAP and Organic Coconut Sugar for a multipurpose cooperative in Linabu.
6. GMP for coconut sugar for a multipurpose cooperative in Agay-ayan.
7. HACCP for coconut sugar for an agribusiness corporation and a cooperative in Misamis Oriental.

## Annex 18. Result of reassessment of the FSRAs

Agency	Rating (2021)	Rating (2022)
<b>BFAR (OIE Tool)</b>		
Surveillance (Risk Analysis)	Level 2	Level 2
Laboratory Quality Assurance	Level 2	Level 2
<b>BAI (OIE Tool)</b>		
Surveillance (Risk Analysis)	Level 2	Level 3
Laboratory Quality Assurance	Level 1	Level 2
<b>BPI (FAO Tool)</b>		
<b>RISK ANALYSIS &amp; INSPECTION:</b>		
Criteria for risk categorization and prioritization established for food inspection	Level 2	Level 3
Presence of <b>functioning risk-based inspection</b> mechanism with well-defined standard operating procedures	Level 2	Level 3
Presence of <b>functioning food safety certification systems</b> with well-defined standard operating procedures	Level 2	Level 3
<b>LABORATORY:</b>		
Accessible and capable diagnostic and analytical laboratories	Level 2	Level 2
Accessible and capable testing laboratories	Level 2	Level 2
Presence of institution(s) responsible for the collection, collation and interpretation of data on food safety issues (including microbiological, chemical, natural and environmental) at the national level	Insufficient information to make an assessment	Level 2
<b>FDA (FAO Tool)</b>		
<b>RISK ANALYSIS &amp; INSPECTION</b>		
Criteria for risk categorization and prioritization established for food inspection	Level 2	Level 2
Presence of functioning risk-based inspection mechanism with well-defined standard operating procedures	Level 2	Level 2
Presence of functioning food safety certification systems with well-defined standard operating procedures	Level 2	Level 3
<b>LABORATORY:</b>		
Accessible and capable diagnostic and analytical laboratories	Level 2	Level 2
Accessible and capable testing laboratories	Level 2	Level 2
Presence of institution(s) responsible for the collection, collation and interpretation of data on food safety issues (including microbiological,	Insufficient information to make an assessment	Level 2

Agency	Rating (2021)	Rating (2022)
chemical, natural and environmental) at the national level		
<b>FPA (FAO Tool)</b>		
<b>RISK ANALYSIS &amp; INSPECTION</b>		
Criteria for risk categorization and prioritization established for food inspection	Insufficient information to make an assessment	Level 2
Presence of functioning risk-based inspection mechanism with well-defined standard operating procedures	Insufficient information to make an assessment	Level 2
Presence of functioning food safety certification systems with well-defined standard operating procedures	Insufficient information to make an assessment	Level 2
<b>LABORATORY:</b>		
Accessible and capable diagnostic and analytical laboratories	Level 3	Level 3
Accessible and capable testing laboratories	Level 3	Level 3
Presence of institution(s) responsible for the collection, collation and interpretation of data on food safety issues (including microbiological, chemical, natural and environmental) at the national level	Insufficient information was collected to assign a level	Level 4

## Annex 19. List of trainings participated in by the key informants

	BFAR	BPI	FPA	NMIS	BAI	BAFS	FDA
Risk based Training Series	/	/	/	/			/
Cascaded Training on ISO 17025:2017	/						
Implementation Course Training on ISO/IEC 17020:2012			/		/		/
ISO 17025:2017 Internal Audit Course Training					/		
Virtual Training on International Sanitary and Phytosanitary (SPS) and Food Safety Standards						/	
Webinar on Philippine Biosafety System, Organic Agriculture, and Coexistence		/					
Virtual training on "International Sanitary and Phytosanitary (SPS) and Food Safety Standards"							/
Training on Risk Assessment, Management and Communication & Product Recall				/			/
HACCP Training of Trainers				/			/
USDA Food Safety Network Online Course Food Safety Module				/			

## Annex 20. Summary of ratings on trainings conducted by B-SAFE

Statement	BFAR		BAI		
	Risk-based Training Series	Cascaded Training on ISO 17025:2017	Implementation Course Training on ISO/IEC 17020:2012	ISO 17025:2017 Internal Audit Course Training	
The training provided by B-SAFE is important	5	4	5	5	5
The training provided is comprehensive	5	3		4	4
The training provided is accurate	5	4		5	5
The resource persons are very knowledgeable of the topics/areas covered in the training	5	4	5	5	5
The allocated time is appropriate to provide ample time to understand the lectures and exercises	5	5	5	4	4
The hands-on activities are very helpful in understanding the training topics/areas	5	4	4	5	5



Statement	BAFS	BPI	
	Virtual Training on International Sanitary and Phytosanitary (SPS) and Food Safety Standards	Risk-based Training Series	Webinar on Philippine Biosafety System, Organic Agriculture, and Coexistence
The training provided by B-SAFE is important	4	5	5
The training provided is comprehensive	4	5	5
The training provided is accurate	4	5	5
The resource persons are very knowledgeable of the topics/areas covered in the training	4	5	5
The allocated time is appropriate to provide ample time to understand the lectures and exercises	4	5	5
The hands-on activities are very helpful in understanding the training topics/areas		5	

Statement	FDA				
	Virtual training on "International Sanitary and Phytosanitary (SPS) and Food Safety Standards"	Training on Risk Assessment, Management and Communication & Product Recall	Training on ISO 17025:2017	HACCP Training of Trainers	Risk Analysis Training
The training provided by B-SAFE is important	5	5	5	5	5
The training provided is comprehensive	4	5	5	3	3
The training provided is accurate	5	5	5	4	4
The resource persons are very knowledgeable of the topics/areas covered in the training	5	5	5	5	3
The allocated time is appropriate to provide ample time to understand the lectures and exercises	4	4	5	3	3
The hands-on activities are very helpful in understanding the training topics/areas	4	4	5	3	3

Statement	FPA		NMIS			
	ISO 17020:2012	DA Risk Training	Risk-based Training Series	USDA Food Safety Network Online Course Food Safety Module	Training on Risk Assessment, Management and Communication & Product Recall	HACCP Training of Trainers
The training provided by B-SAFE is important	5	4	5	5	5	5
The training provided is comprehensive	5	5	5	5	5	4
The training provided is accurate	4	5	5	5	5	4
The resource persons are very knowledgeable of the topics/areas covered in the training	5	5	5		5	5
The allocated time is appropriate to provide ample time to understand the lectures and exercises	3	5	5	5	5	4
The hands-on activities are very helpful in understanding the training topics/areas	4		4		4	

## Annex 21. Quotes from Training Participants

### Relevance

Training Participant 1	The webinars by B-SAFE maybe just re-affirm or affirms, the early engagements, our current engagements within the ASEANS as far as MRL's are concerned that this is really the direction, or strategic direction that the region is going right now, so I think that it only highlighted and affirmed during this activity what is needed now and that the principles are consistent.
Training Participant 2	This ISO 17025 foundation course, implementation course and internal audit, it is important in our implementation in getting accredited for ISO 17025.
Training Participant 3	The webinar provided by B-SAFE is about the process of getting golden rice and BT-eggplant approved for commercialization. It is important because the public became aware of the process on how to commercialize GMO plants.
Training Participant 3	So, it's important because not all training can be provided or programmed by BPI. It's important that we also receive training from the outside, particularly because the resource person they invite are experts from the private sector so we can also see the perspective of private sectors with regards to food safety.
Training Participant 3	The risk-based training series provided by B-SAFE is important because the topics covered were from risk-based inspection, categorization and profiling. Those reflect the programmed activities we need to implement, thus it's very important. Aside from that, the participants in that training were newly-hired employees, so it's imperative that we need training regarding risk-based inspection, profiling, and analysis.
Training Participant 4	Of course, not everything is covered by the office when it comes to gaining new knowledge so if there's an outside training, it's a big help for the laboratories
Training Participant 4	The ISO 17025 training provided by B-SAFE is very useful to us here in the lab. It made us aware of the needed requirements in the lab. We now have in-depth knowledge on how our management system will be improved. The training was in-depth because we started from scratch and the training guided us what to do.
Training Participant 4	It's a good training because we learned how to get accredited by applying what we learned - what are the requirements, what are the processes.
Training Participant 4	Our resource person is knowledgeable and experienced. The personal traits and characteristics of an auditor were discussed.

Training Participant 4	As a laboratory, this training helps us to continuously maintain the process of testing to achieve a higher level of quality in the management system. Also, it helps the laboratory to demonstrate--in operating in a competent manner and generating valid results.
Training Participant 4	Yes, we do need trainings in terms of advanced food safety courses, like HACCP, advanced HACCP, and advanced GMP. We are also grateful that Winrock through B-SAFE has provided these The PITA of the European Union, is also providing technical related trainings they called TRTA, not only for the staff of CFRR but also for inspectors. And on top of that, we also have training needs assessment. Learning is a continuous process. So, I'm not sure how, at what point do we say that "hey, we don't need trainings anymore". I don't think no one can say that "no, I don't need training anymore".
Training Participant 4	These trainings are really important to further enhance the capability, the technical capacity of our staff, to update our knowledge and enhance our capability to implement food safety policies.
Training Participant 4	I think the trainings are relevant in terms of fulfilling our mandate in the implementation of the Food Safety Act. It serves as an update, the trainings are crucial not only to update our technical staff, but also to increase the existing knowledge on those regulations. And it will add not only knowledge but also experience, and also sharing of experiences and regulations, because the speakers also talk about regulations in other countries and in a way a useful exchange of information. The meaningful exchange of information is beneficial to both the speakers and the participants. And also, the knowledge gained would help us in crafting policies to further implement our mandate based on the Food Safety Act.
Training Participant 4	It is crucial, yes because they were provided these specific trainings that we really need. They asked us what trainings do we need to further enhance our capacity as food safety regulators. So, we were the ones who identified what are the specific trainings we need and all of the trainings that we requested are either conducted already or to be conducted within the span of B-SAFE, within the period of B-SAFE.
Training Participant 5	The training on ISO 17020 is an eye opener. There is something we need to follow, even if we are not certified-- or it seems that it is difficult to satisfy the requirements right away, we have these basic steps we can follow.
Training Participant 5	Ah, yes. We are thinking of writing a handbook that is just for us on inspection guide
Training Participant 5	Yes, yes, that Ma'am is the one it seems to be our guide for the inspection, to be uniform—for uniformity of inspection. Because when we were certified to ISO 17020, we need this document of processes/ procedures which the handbook will address.

	We have included a budget our 2024 to be able to pursue the certification because we really need to be ISO 17020 compliant. We are just starting to rewrite our systems procedure and have drafted the inspector's handbook that we plan to present to RFUs for their comments and suggestions.
Training Participant 5	The training provided is very helpful for our function in the laboratory because the approach is risk-based, which prioritizes risk. However, the concentration of risk analysis or risk assessment was on food. Ours is non-food. So, the approach to risk analysis is different from us compared to food.
Training Participant 5	Yes, Sir, but it helps us appreciate the whole value chain.
Training Participant 5	We now appreciate the importance of risk analysis. If you account for all the risks, it becomes costly, so you need to prioritize which risks have the biggest impact. That's basically the major learning from the training.
Training Participant 6	Yes, the HACCP Training of Trainers provided is important because NMIS has a pool of auditors.
Training Participant 6	The training provided about risk assessment is important
Training Participant 6	This training on risk assessment is very useful to us, the technical staff. We use this risk assessment in most of the procedures and operations, so we will really use this topic.
Training Participant 6	The training about risk assessment provided by B-SAFE really helped a lot because in our office, we also do risk assessments and we pass this to ISO, so we need to identify those risks in our system, operations, and procedures.
Training Participant 6	As what we've seen in the delivery of training that B-SAFE did, the design is now adjusting to the audience and their role in the industry.
Training Participant 6	The risk-based training is very accurate because there's no filter, and there was one instance where all of us were from the government, with no private sector involvement. We talked about real scenarios, real problems that have not been tackled for the longest time because they were considered difficult or complicated.
Training Participant 6	During the risk-based training, there were workshops, but they were a bit limited. It would be better if we can apply what we learn in real scenarios.
Training Participant 6	The information from the Food Safety Network Online Course is accurate, but that's because it's not a Philippines setting, it's a US setting.

Training Participant 6	The Food Safety Network Online Course is important because it entails the progress, where the awareness of the need for food safety came from, the efforts for food safety measures, up to the identification of the people involved, the scenarios, or the historical events that contributed to the improvement. It also entails why HACCP was implemented and how the traceability and product recall came about. So the module is important because it shows how the regulations came about.
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## Effectiveness

Training Participant 7	Yes, especially that it was conducted face-to face compared to online trainings that are less engaging. In terms of hands-on activities, they are very useful in a way that they are easy and we can easily adapt. So what we did in the training, we cascaded. It really helped those who are new to ISO 17025.
Training Participant 7	I'll just base it on our last risk analysis training. After our training, I realized the importance of making categorization because we can't inspect everything. In risk categorization, at least we can categorize where to focus and what is the risk, the highest risk and only focus there to solve our food safety concerns.
Training Participant 7	Even before, that's what we always do. Only recently, after the training, did I fully understand the importance of categorization and then doing the categorization will let us know where to focus and not waste our time.
Training Participant 7	It became easy to categorize and check which of these specific companies are riskier than the others. Also, on how we will deal with those risks, and then how to mitigate the risk.
Training Participant 7	Our training last time is actually very effective. During that time whenever we do our training, we really grasped everything that we learned from the day because that's all you thought about or you just focused on the topic within that day. It was very fun because the way it was delivered to us, it wasn't boring. It was a very effective way that we were all excited to learn new things. Also, there were activities. We all enjoyed and at the same time we all learned a lot.
Training Participant 7	Yes. Actually, I can remember that the resource speakers were very great because their work is focused on food safety. I also learned a lot during that time.

Training Participant 7	Well at first, I thought I cannot relate with the topic, but then they had specific workshops that dealt on what you do and there he compensated all aspects. At the same time, its not just on the part of BFAR that I understood, also the level of what others do in their risk analysis, like for example in DTI. There was sharing of their processes and contingency and their methods to do this risk analysis that we had an idea on where we can improve in BFAR.
Training Participant 7	I think after the training, that's when I realized the importance of doing the risk assessment, so now I actually carry it as of now when there is a list of companies that we have to inspect, I always think what can we do to conduct the assessment and categorized ...
Training Participant 7	Yes, more on our internal arrangement. We tend to highlight what are the highest risk of which and then do first what needs to be prioritized.
Training Participant 7	Well, I just hope that we can have more training in the future because the training we attended last time was also a big help since here in BFAR, we don't really have risk analysis trainings. Actually, I think if I'm not mistaken in all my 6 years in BFAR this was my second risk assessment training conducted for me and my work. As someone who really needs risk analysis, it is very important and I hope that B-SAFE will give us more trainings in the future.
Training Participant 3	We also imitated their training design in our other trainings—the style of their training. Because it's good because they made a reward system in the workshops so that the participants can be participative. We also adopted it in our trainings.
Training Participant 4	We have a lot of new staff, that's why we are thankful that we have B-SAFE because the training of our colleagues here in the office has been supplemented because before, we waited years before we could provide the training needs, but the hiring coincided with B-SAFE, so the training needs were filled.
Training Participant 6	Yes, the training helped us increased our knowledge even though we already have an idea about risk assessment.
Training Participant 6	Although we have regular or routine training programs from time-to-time, attending other capability training, especially the one provided by B-SAFE, is a big help because it adds to the improvement of our current training modules.
Training Participant 6	After we underwent training on risk categorization, there are now efforts here in the office on how to do risks-based inspections and where to start. The technical working groups are discussing how to approach risks-based inspection.

Training Participant 6	After the training, changes have also been made in terms of removing things that are not fit for human consumption. We now have awareness that not everything we condemn is actually unfit. Some can be used as feed, fertilizer, or specified risk materials that should never be back into the food chain.
Training Participant 6	The risk-based training is important because it taught us to review our risk-based inspection approach, whereas not all inspections are about meat safety, but also about meat quality. It also emphasized the importance of categorizing hazards and determining their significance during inspections.
Training Participant 5	<p>Yes, yes, that Ma'am is the one it seems to be our guide for the inspection, to be uniform—for uniformity of inspection. Because when we were certified to ISO 17020, we need this document of processes/ procedures which the handbook will address.</p> <p>We have included a budget our 2024 to be able to pursue the certification because we really need to be ISO 17020 compliant. We are just starting to rewrite our systems procedure and have drafted the inspector's handbook that we plan to present to RFUs for their comments and suggestions.</p>

### Impact of the training

Training Participant 6	The attendees in B-SAFE training like us, eventually incorporate the learnings into our current work in government. One thing I liked was the risk categorization.
Training Participant 3	What we learned in the training we've applied to the process we're doing here at BPI, regarding food safety. Because like for example the risk assessment, we have adopted what was taught in the training. We also adopted it in the assessment report that we are doing, as well as in our analysis.
Training Participant 3	We have included our learnings from the training in the policy we are making.
Training Participant 3	We also imitated their training design in our other trainings—the style of their training. Because it's good because they made a reward system in the workshops so that the participants can be participative. We also adopted it in our trainings.
Training Participant 7	Right now, we are able to adopt it like for example, in cannery and raw fish. In the case of canneries which are self-sustainable, the risk is relatively low. When we inspect it, the type of inspection was really thorough because it is sustainable. What is important is the analysis is complete and calibrated.



### Timeliness of the intervention

Training Participant 6	The allocated time is appropriate to provide ample time to understand lectures to me, but in the case of other attendees, they are still in the process of knowing HACCP.
Training Participant 6	The time allocated for the training was two days. It is appropriate because two days are already enough.
Training Participant 6	The online course on food safety network can be done during your own free time. The allocation of time was flexible.

## Annex 22. Likert Ratings

STATEMENT	COCONUT SUGAR						
	Key Informants						
	1			2	3		4
	GAP	SSOP	GMP	GMP and HACCP	SSOP	GMP	GMP
The training provided by B-SAFE is important	5	5	5	4	5	5	5
The training provided is comprehensive	5	5	5	5	5	5	5
The training provided is accurate	5	5	2	4	5	5	5
The resource persons are very knowledgeable of the topics/areas covered in the training	5	5	5	4	5	5	5
The allocated time is appropriate to provide ample time to understand the lectures and exercises	5	5	5	4	5	5	4
The hands-on activities are very helpful in understanding the training topics/areas	5	5	5	4	5	5	5

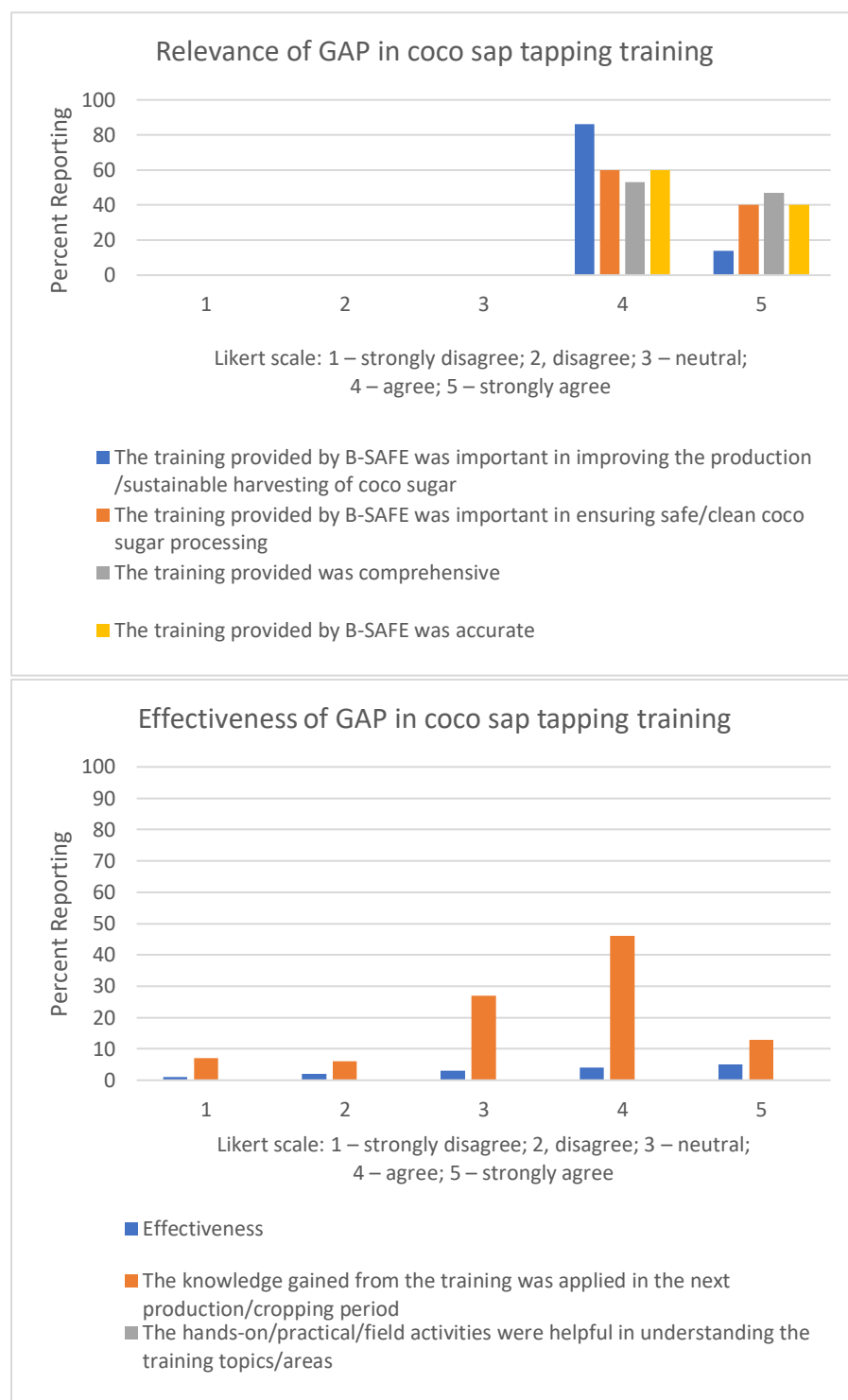
STATEMENT	CORN				
	Key Informants				
	1	2	3	4	5
	Corn harvest and post-harvest processing technology	Proper handling, treatment, and use of improved corn seed varieties, and on the improved corn production techniques and technologies			
The training provided by B-SAFE is important	4	4	5	4	5
The training provided is comprehensive	4	5	4	4	5
The training provided is accurate	4	5	5	4	5
The resource persons are very knowledgeable of the topics/areas covered in the training	4	5	5	4	5
The allocated time is appropriate to provide ample time to understand the lectures and exercises	4	5	4	4	5
The hands-on activities are very helpful in understanding the training topics/areas	4		5		5

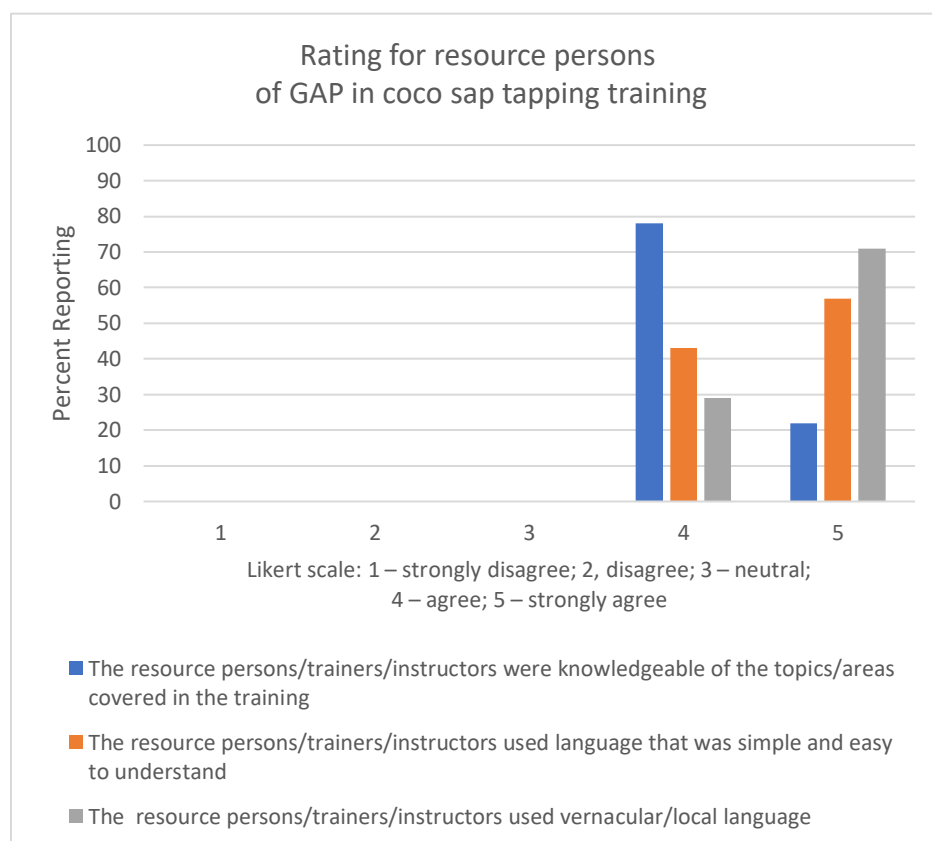
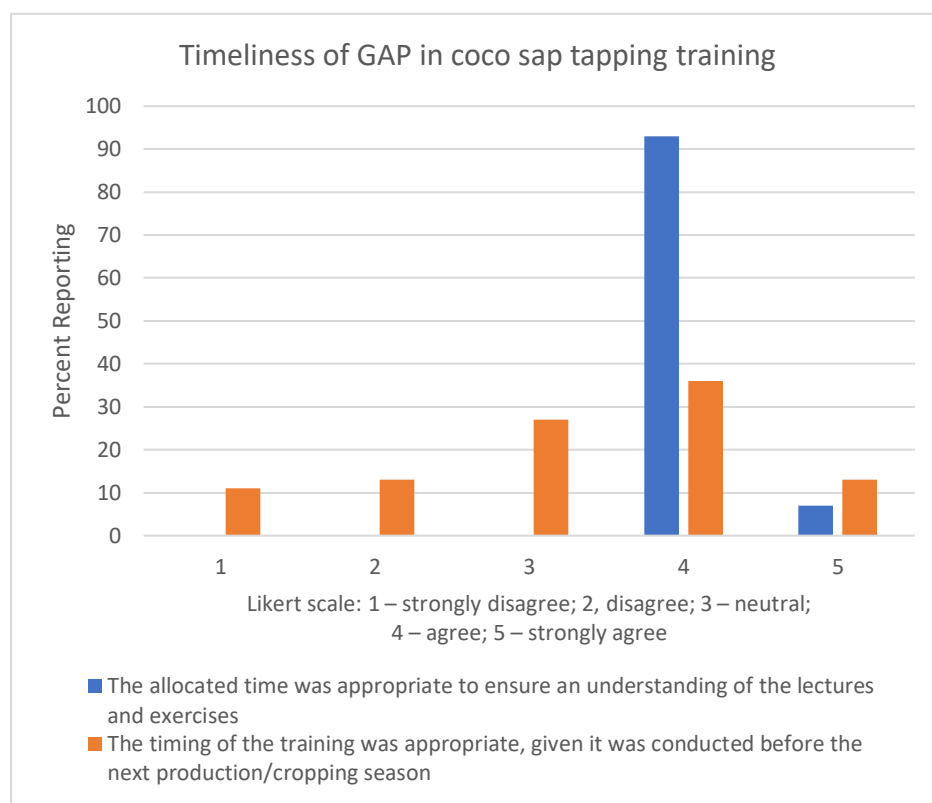
	MILKFISH				
STATEMENT	Key Informant				
	1	2	3		4
	Training on Fingerling Production: Garungan Rearing Method	GMP	Improve milkfish supply chain functioning (topics on GAqP, particularly on land preparation and water quality maintenance)	HACCP	Improve milkfish supply chain functioning (topics on GAqP, particularly on land preparation and water quality maintenance)
The training provided by B-SAFE is important	3	5	5	5	5
The training provided is comprehensive	4	4	4	5	4
The training provided is accurate	4	4	5	5	4
The resource persons are very knowledgeable of the topics/areas covered in the training	4	5	5	5	5
The allocated time is appropriate to provide ample time to understand the lectures and exercises	4	4	4	4	4
The hands-on activities are very helpful in understanding the training topics/areas			3		5

	SWINE	
STATEMENT	Key Informant	
	1	2
	Hygienic meat handling and good manufacturing practices (GMP)	Fundamentals in Swine Genetics, Breeding, Selection and Artificial Insemination
The training provided by B-SAFE is important	5	5
The training provided is comprehensive	5	3
The training provided is accurate	5	4
The resource persons are very knowledgeable of the topics/areas covered in the training	5	5
The allocated time is appropriate to provide ample time to understand the lectures and exercises	5	4
The hands-on activities are very helpful in understanding the training topics/areas	4	

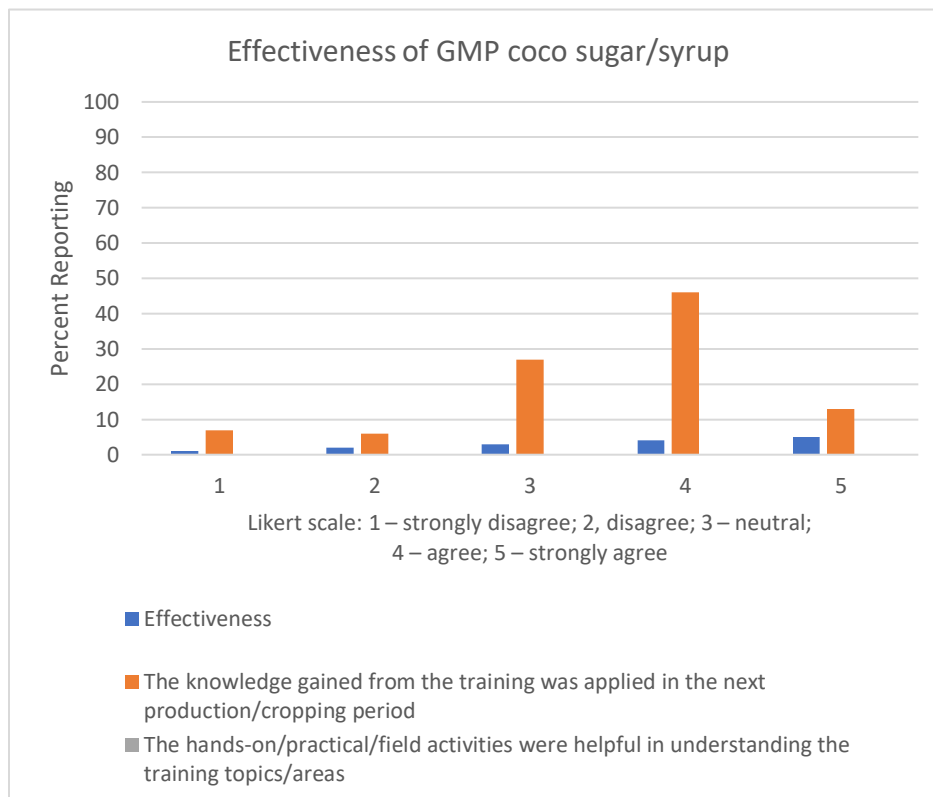
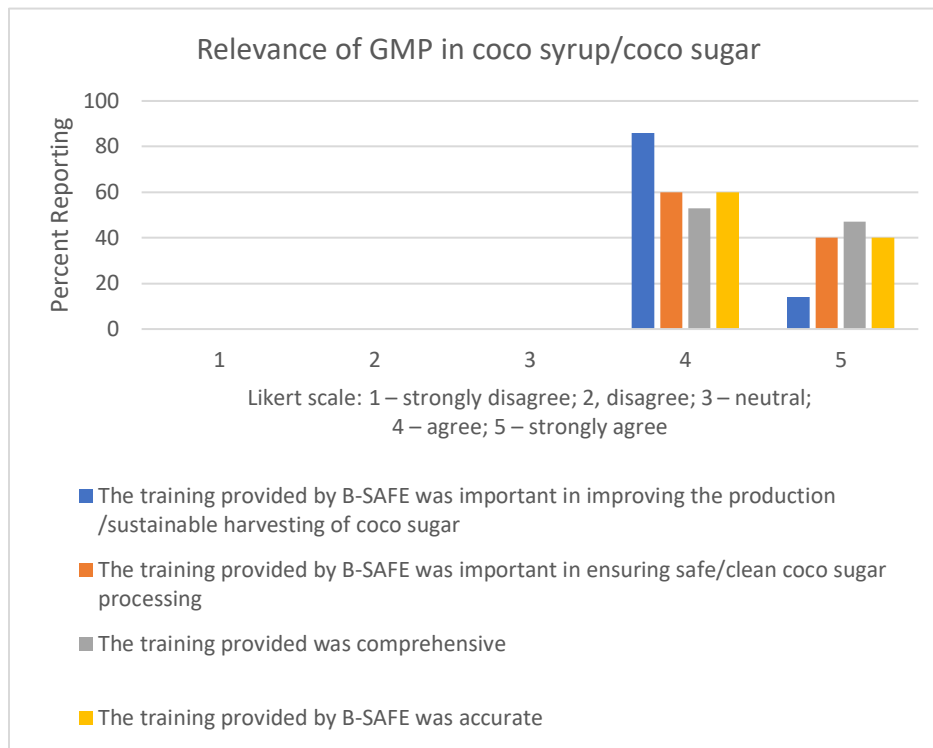
## Annex 23. Rating for Coconut sugar Trainings

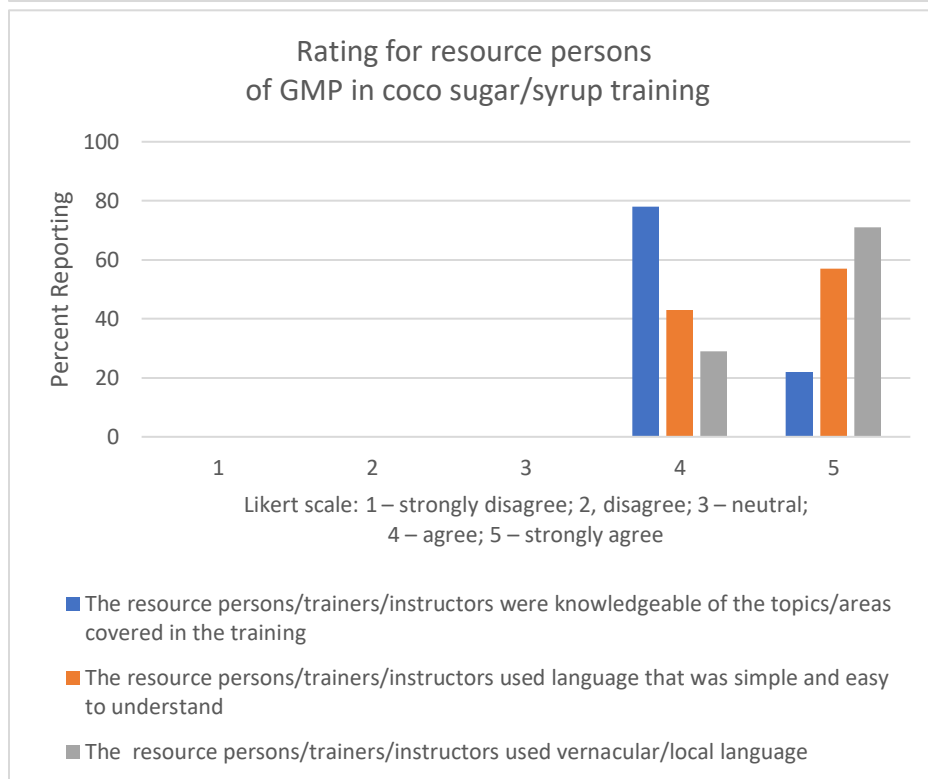
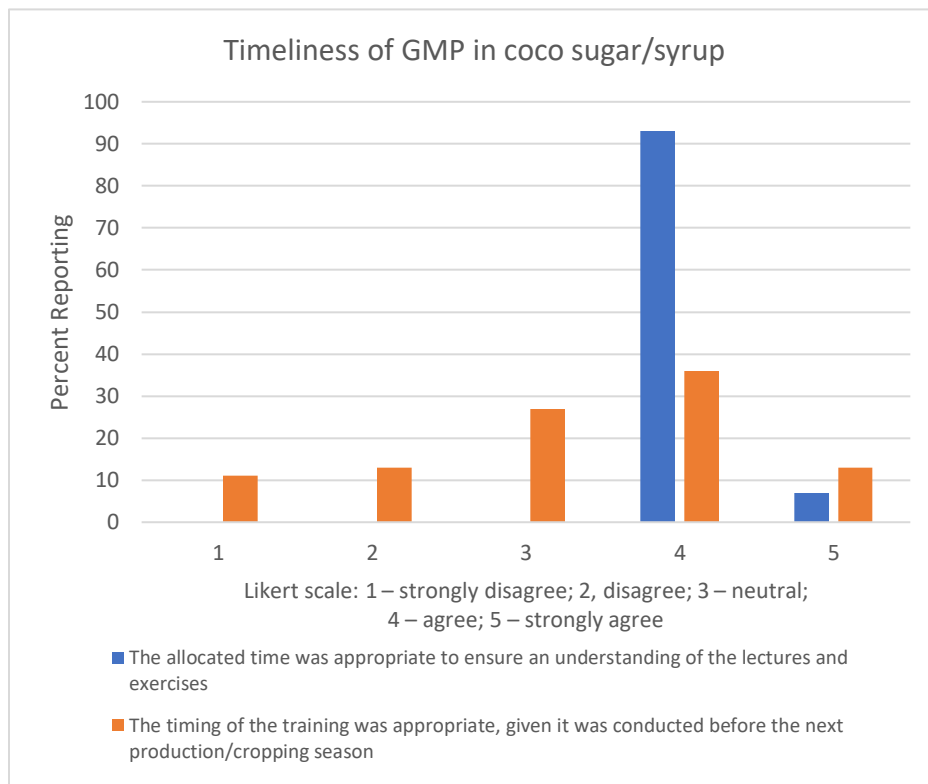
### Rating for training on Good Agricultural Practice (GAP) in coco sap tapping (n=22)





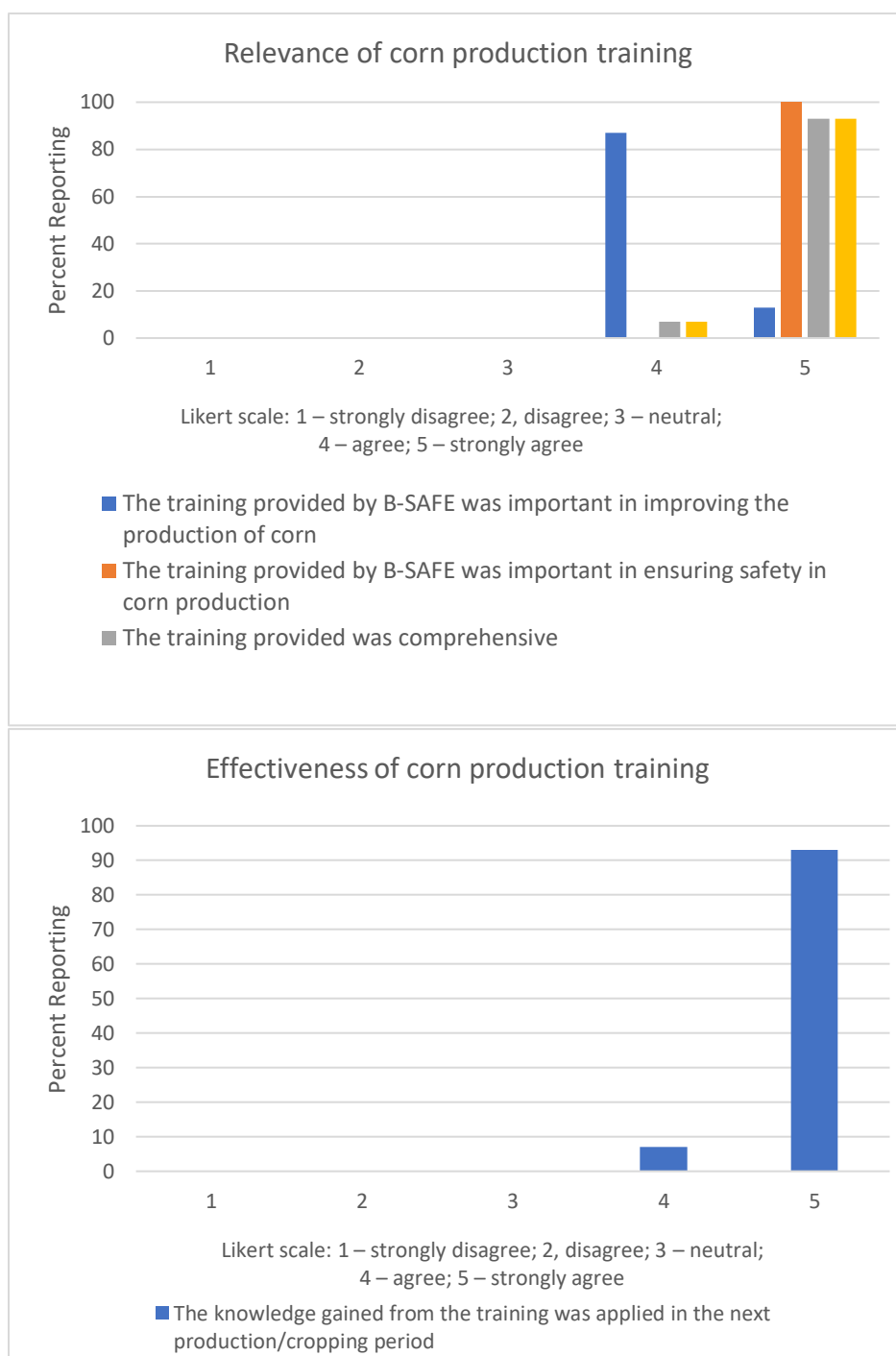
## Rating for training on Good Manufacturing Practice (GMP) in coconut sugar/coco syrup (n=15)



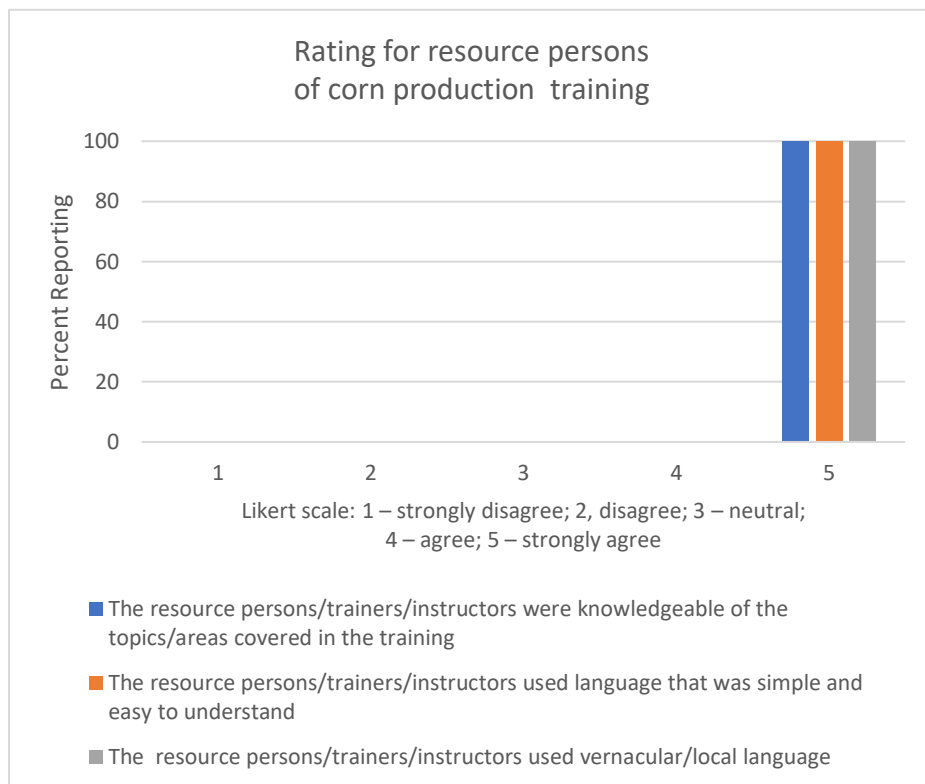
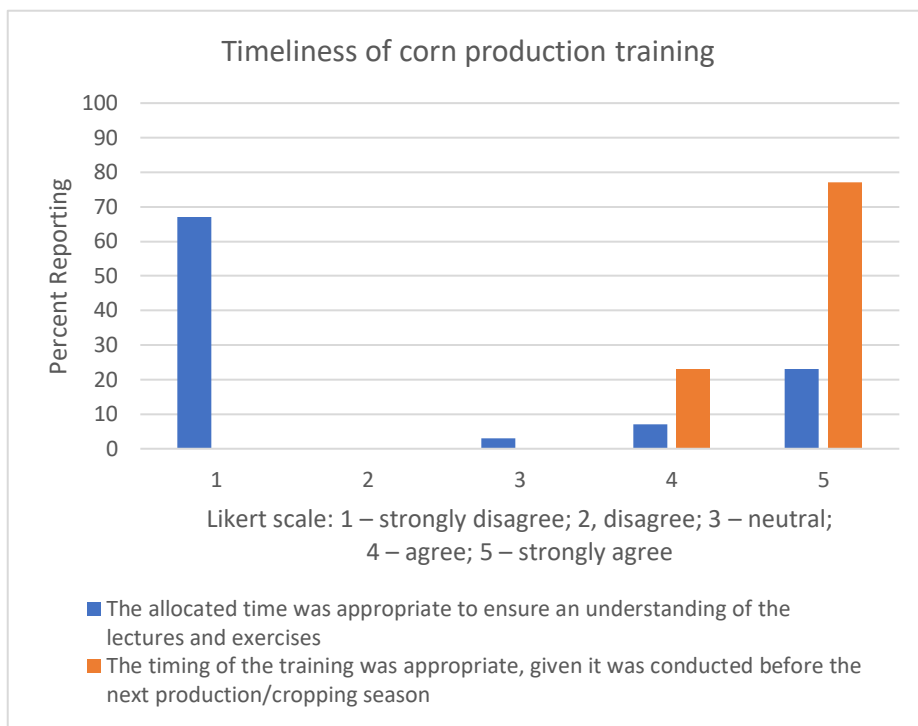


## Annex 24. Rating for Corn Trainings

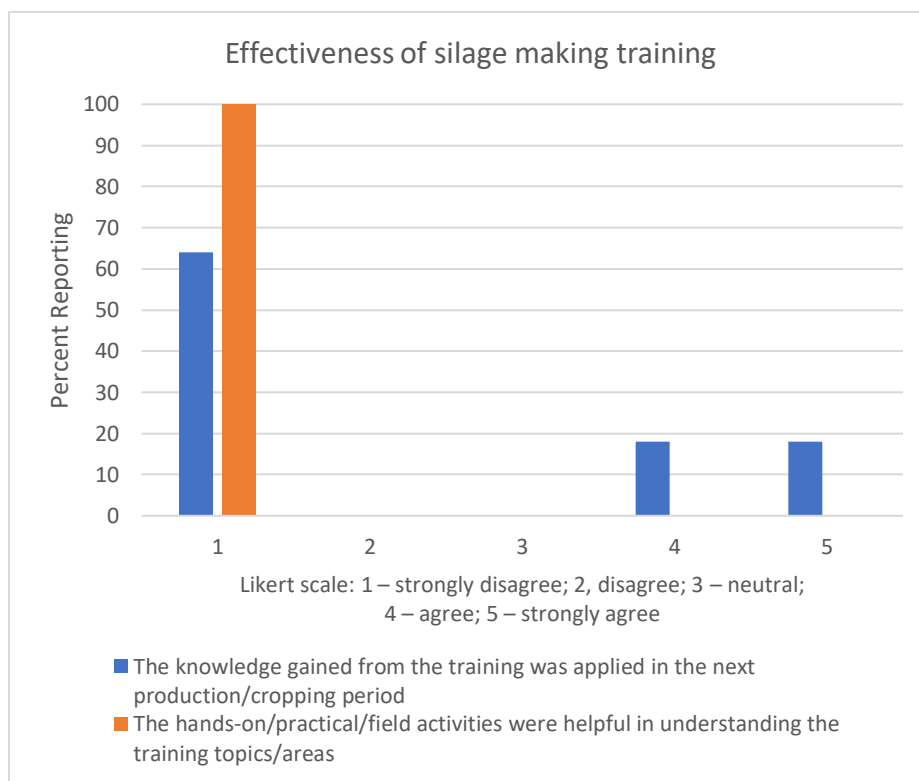
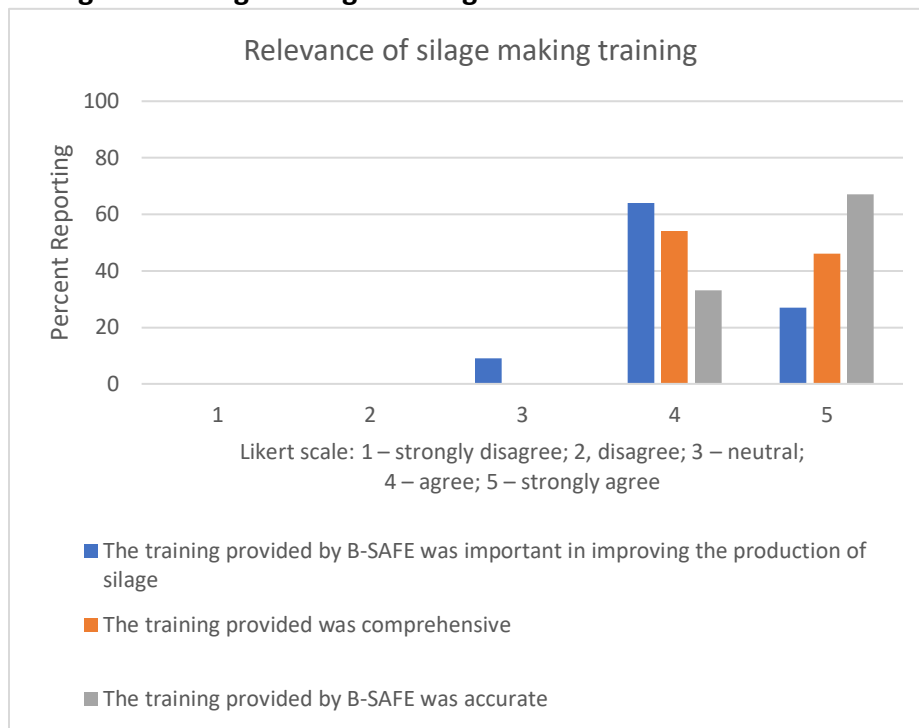
Rating for training on proper handling, treatment, and use of improved corn seed varieties and on the improved corn production techniques and technologies

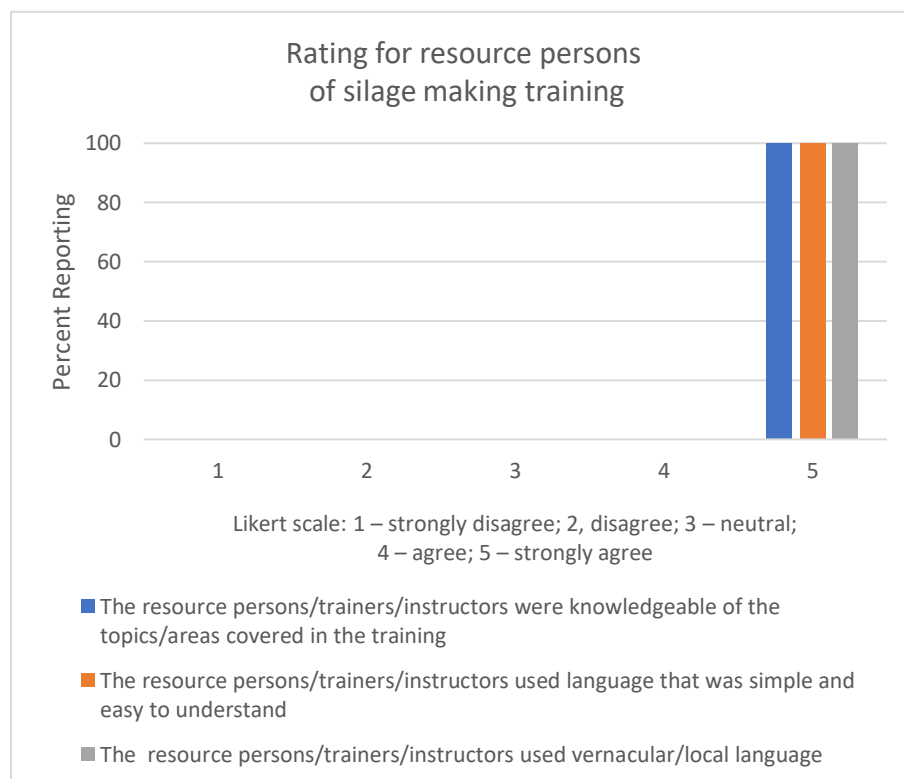
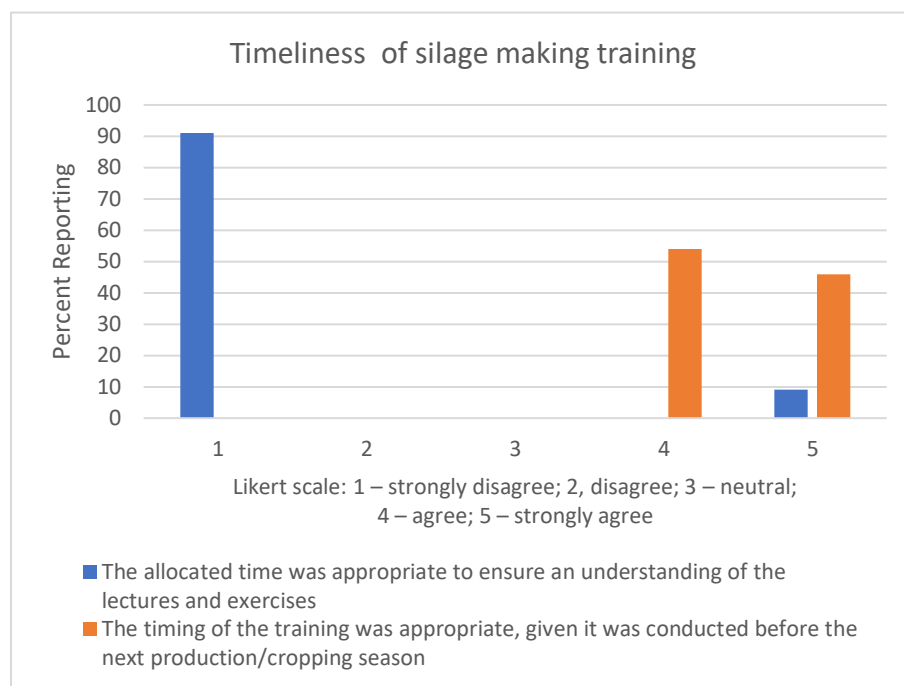






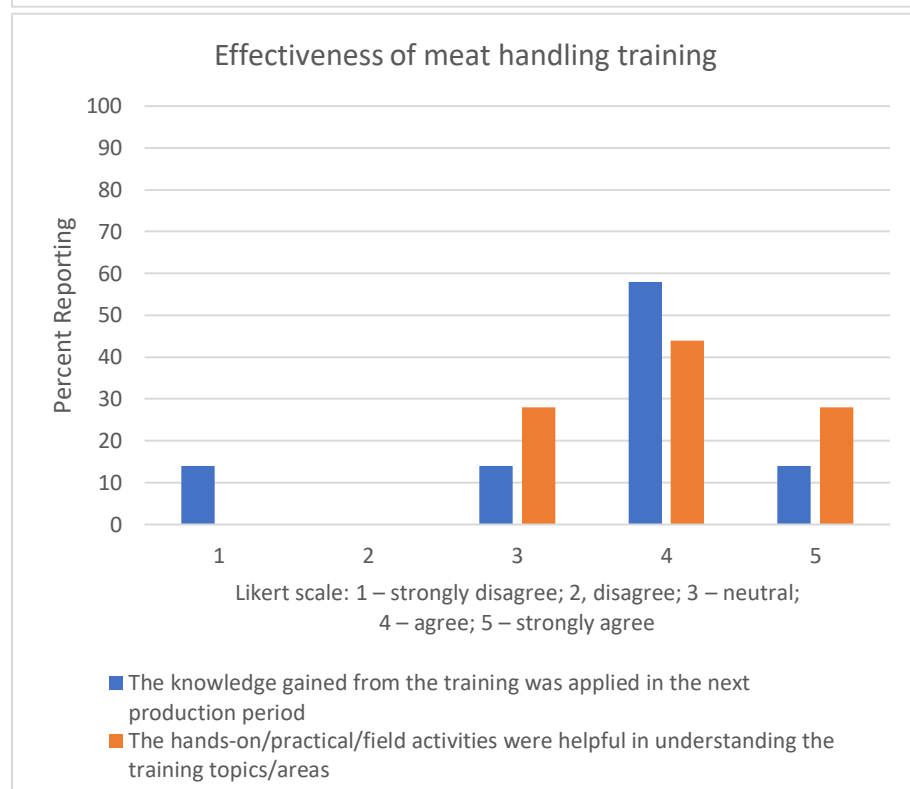
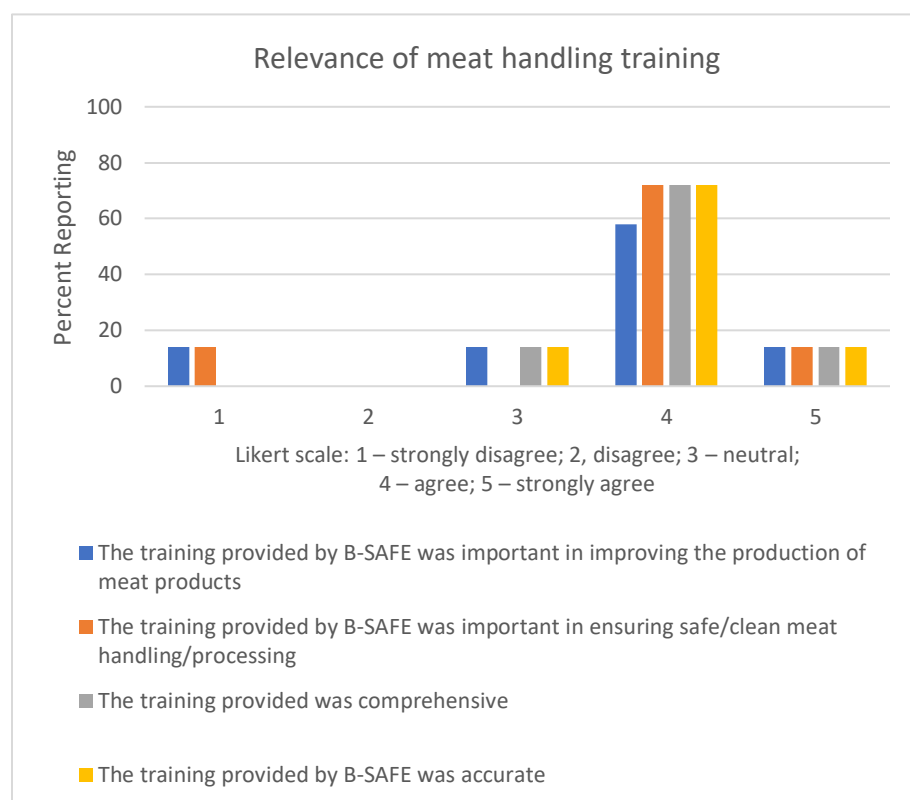
## Rating for training on silage making

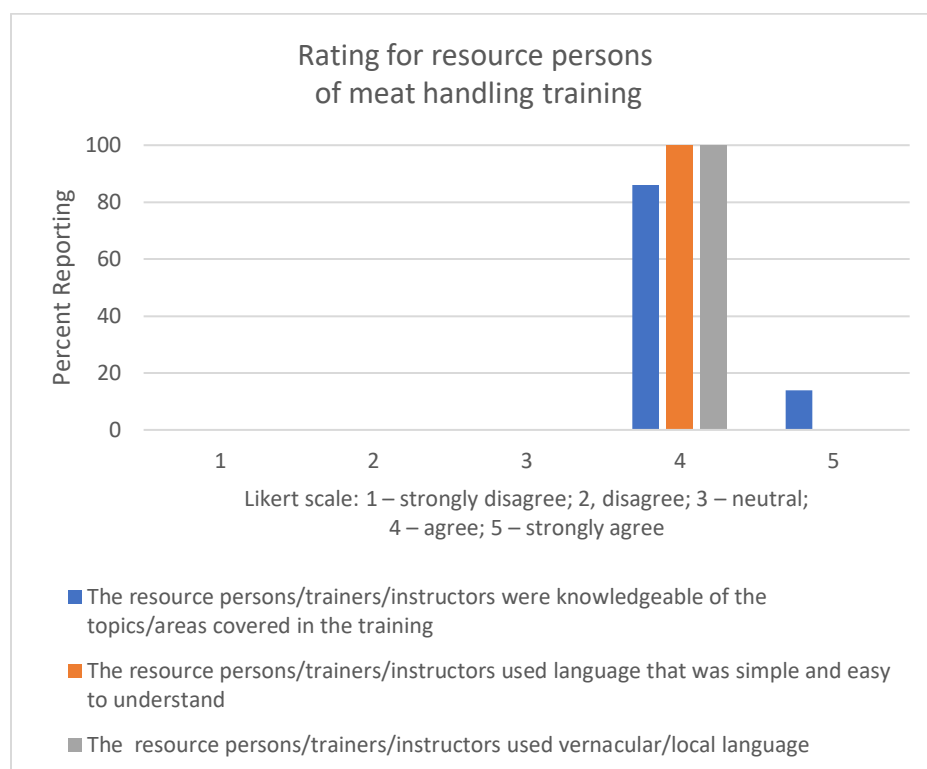
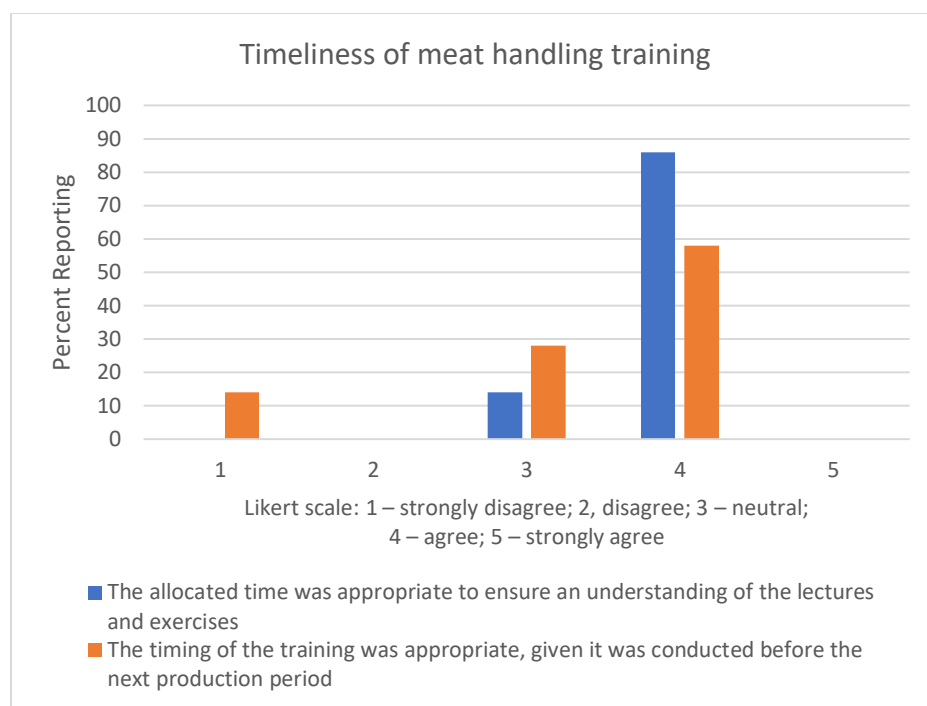




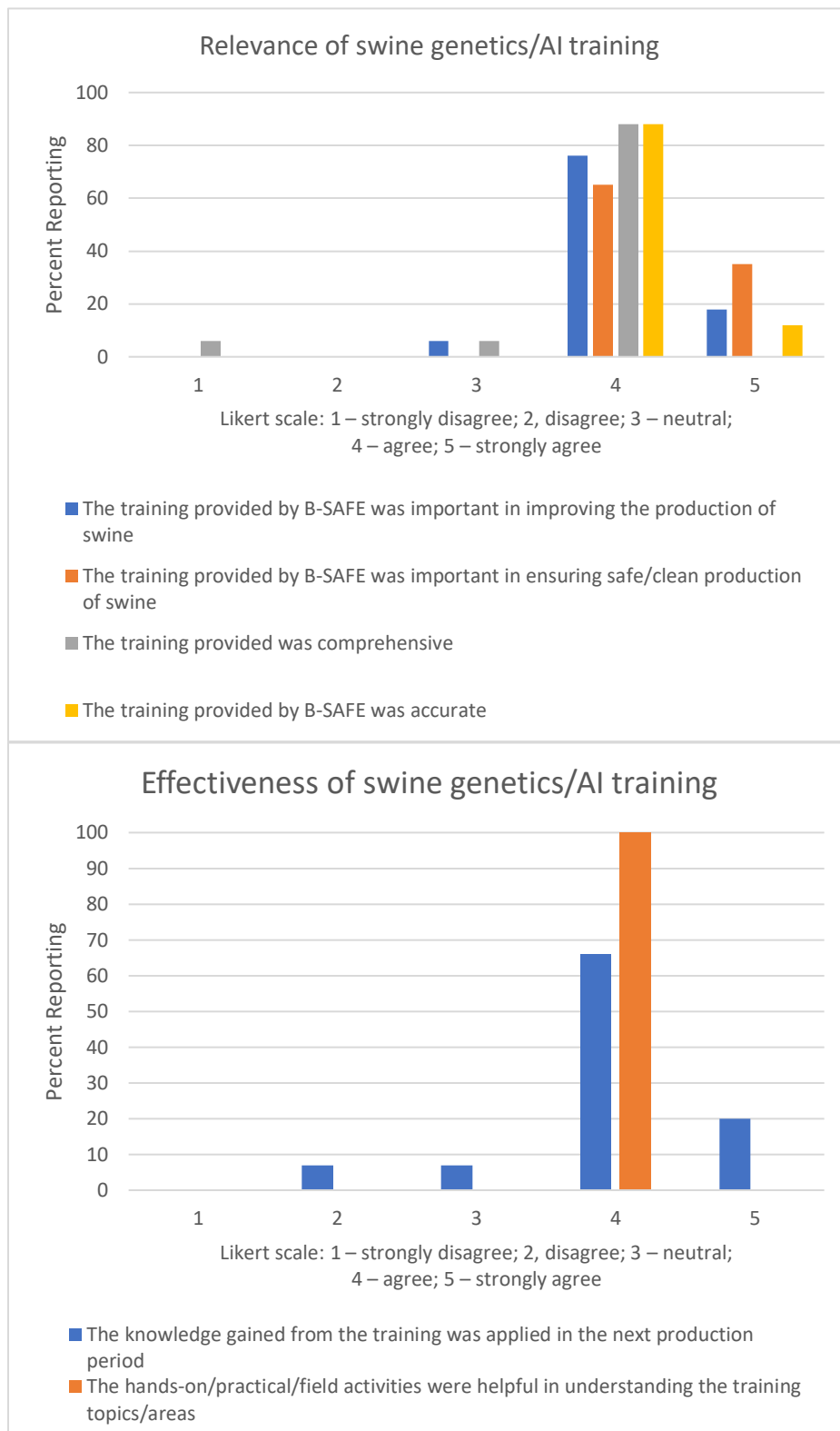
## Annex 25. Rating for Swine Trainings

### Rating for training on food safety practices on hygienic meat handling

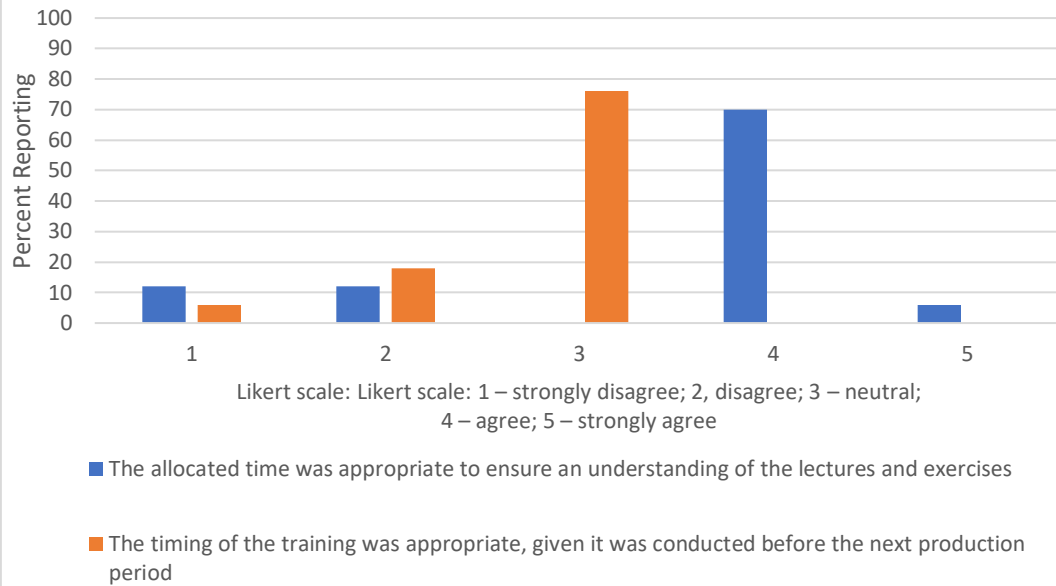




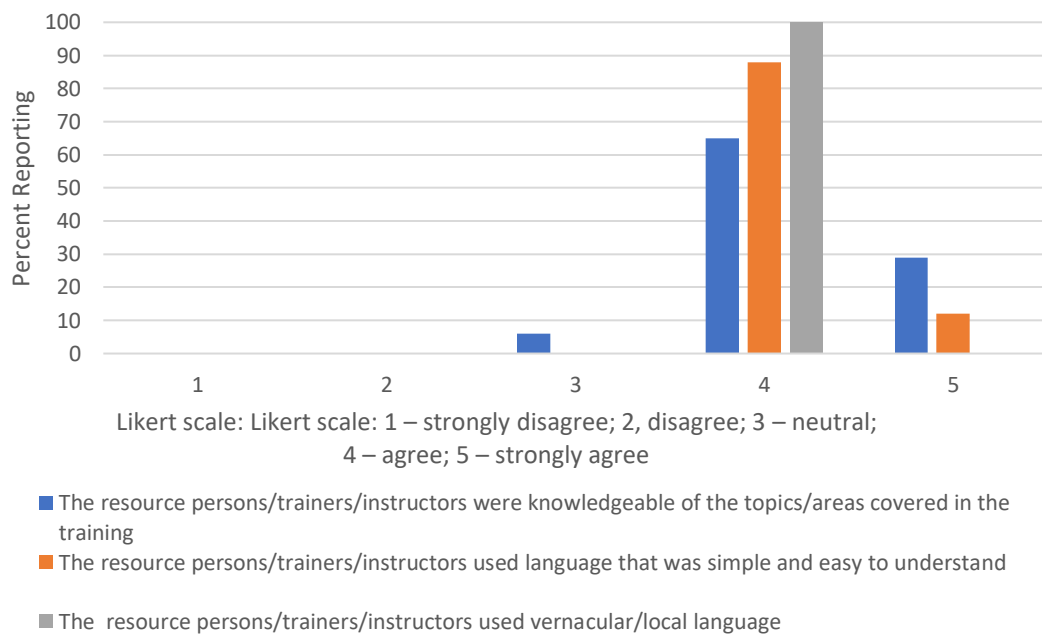
## Rating for training on Fundamentals in swine genetics, breeding, selection and artificial insemination



### Timeliness of swine genetics/AI training

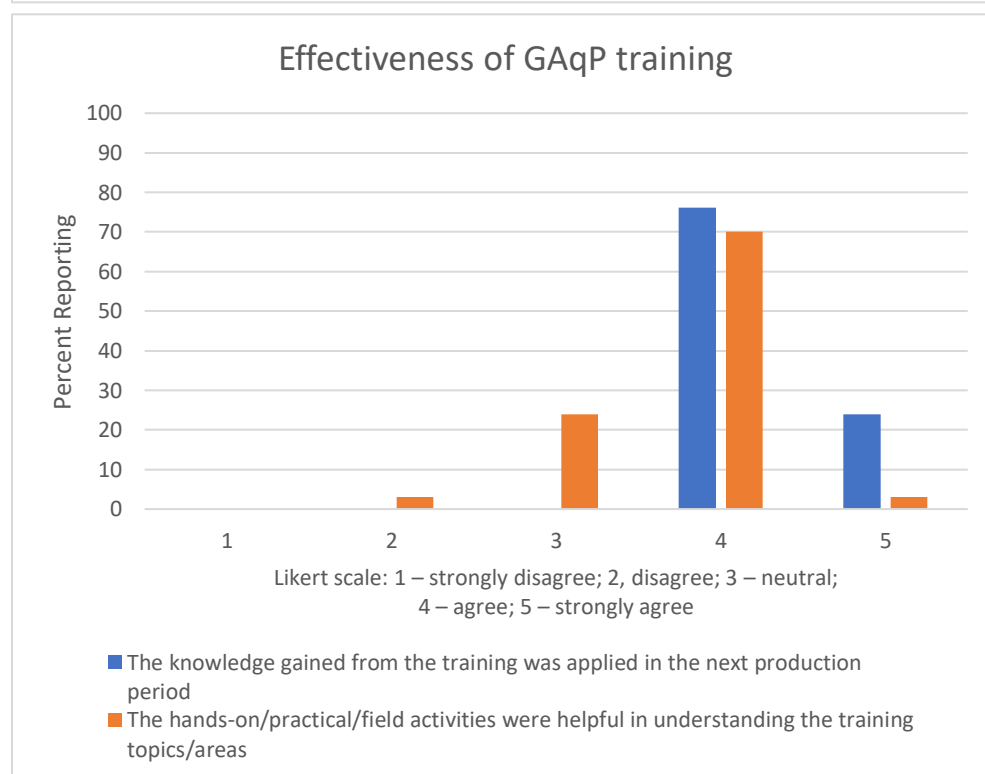
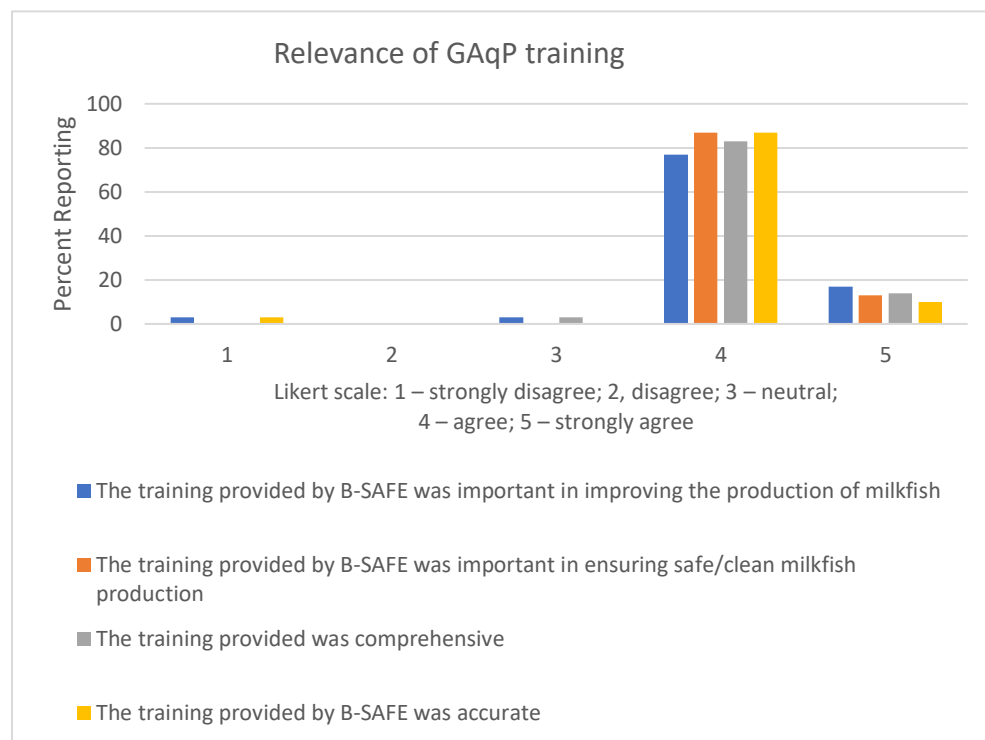


### Rating for resource persons of swine genetics/AI training

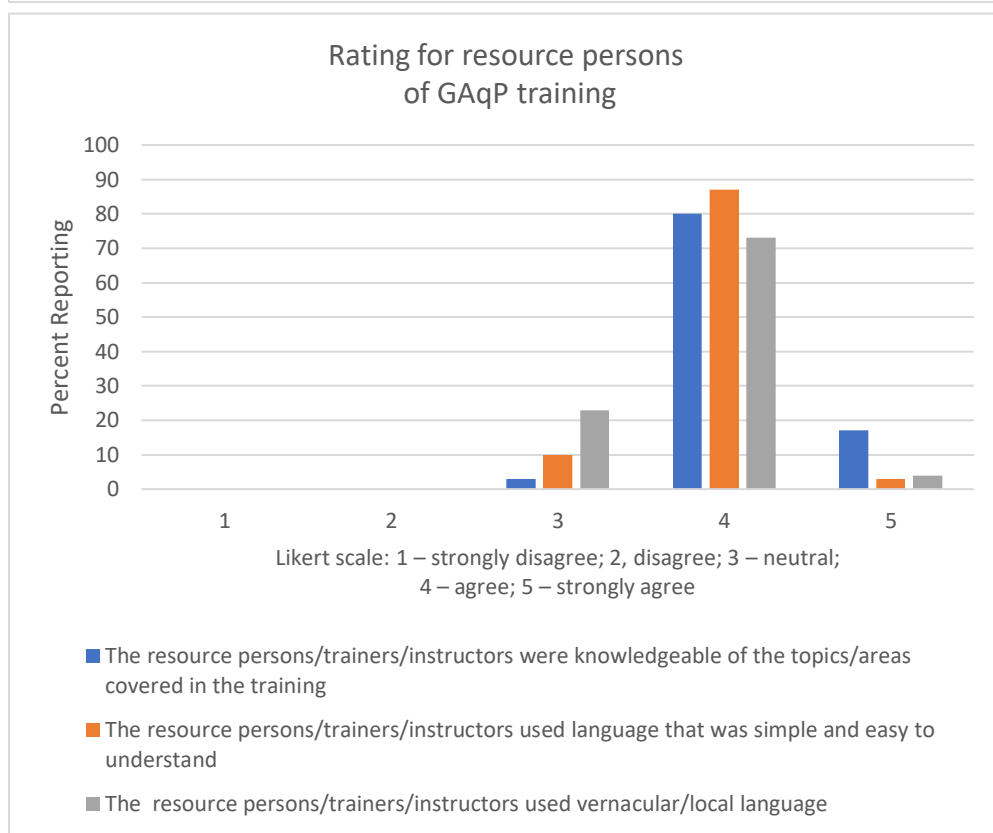
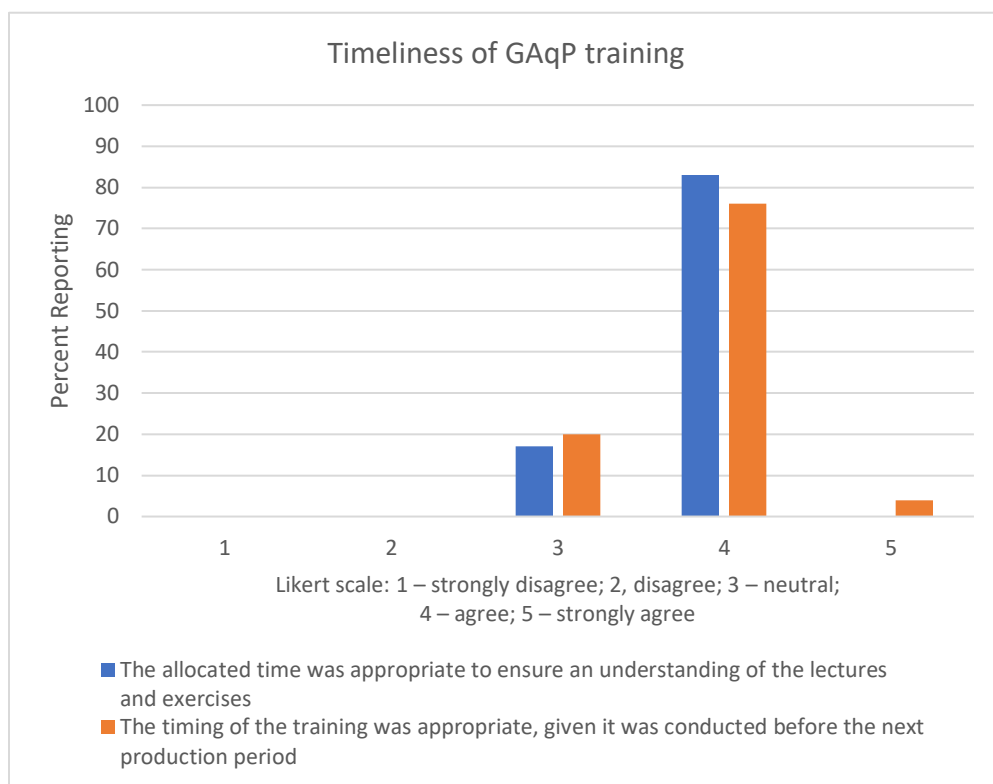


## Annex 26. Rating for Milkfish Training

Rating for the training Improve milkfish supply chain functioning (topics on GAqP, particularly on land preparation and water quality maintenance)







## Annex 27. Signed Conflict of Interest Forms



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### Conflict of Interest Form

On behalf of Asian Social Projects Services, Inc. (ASPSI), I certify, to the best of my knowledge and belief as of the date indicated below, that any of us in ASPSI either

- 1) have no actual or potential conflict of interest, personal or organizational, that could diminish our capacity to perform an impartial and objective evaluation, or that might otherwise result in an unfair advantage or personal gain, or
- 2) have fully disclosed all such conflicts to the Winrock International and will comply fully with any instructions to mitigate, avoid, or neutralize conflicts(s). We understand that we will also be under a continuing obligation to disclose, and act as instructed concerning, such conflicts discovered at any time prior to the completion of the evaluation.

<b>Name:</b> Ernesto O. Brown, PhD	<b>Signature:</b> 
<b>Title:</b> Project Team Leader	<b>Date:</b> November 22, 2022

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## ASIAN SOCIAL PROJECT SERVICES, INC.

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3rd Floor MG Building 10001 Mt. Halcon St., Los Baños Subd., Batong Malake, Los Baños, Laguna, Philippines 4030

### Conflict of Interest Form

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<b>Name:</b> Fezoil Luz C. Decena, PhD	<b>Signature:</b> 
<b>Title:</b> Quantitative Evaluation Specialist	<b>Date:</b> November 22, 2022



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<b>Name:</b> Anita G. Tidon, MSc	<b>Signature:</b> 
<b>Title:</b> Qualitative Evaluation Specialist	<b>Date:</b> November 22, 2022

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<b>Name:</b> Princess B. Ani, MSc	<b>Signature:</b> 
<b>Title:</b> Data Management Specialist cum Field Manager	<b>Date:</b> November 22, 2022