



FOOD SAFETY CAREERS:
What is it in Food Safety
R&D?

GOVERNMENT PERSPECTIVE

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PRESENTATION OUTLINE

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INTRODUCTION

- 2013 FOOD SAFETY ACT OF THE PHILIPPINES

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FOOD SAFETY R&D PROGRAMS

- DOST SUPPORT FOR THE FOOD SAFETY ACT
- DOST INTEGRATED FOOD SAFETY PROGRAM

3

FOOD SAFETY R&D WORKERS FRONTLINER

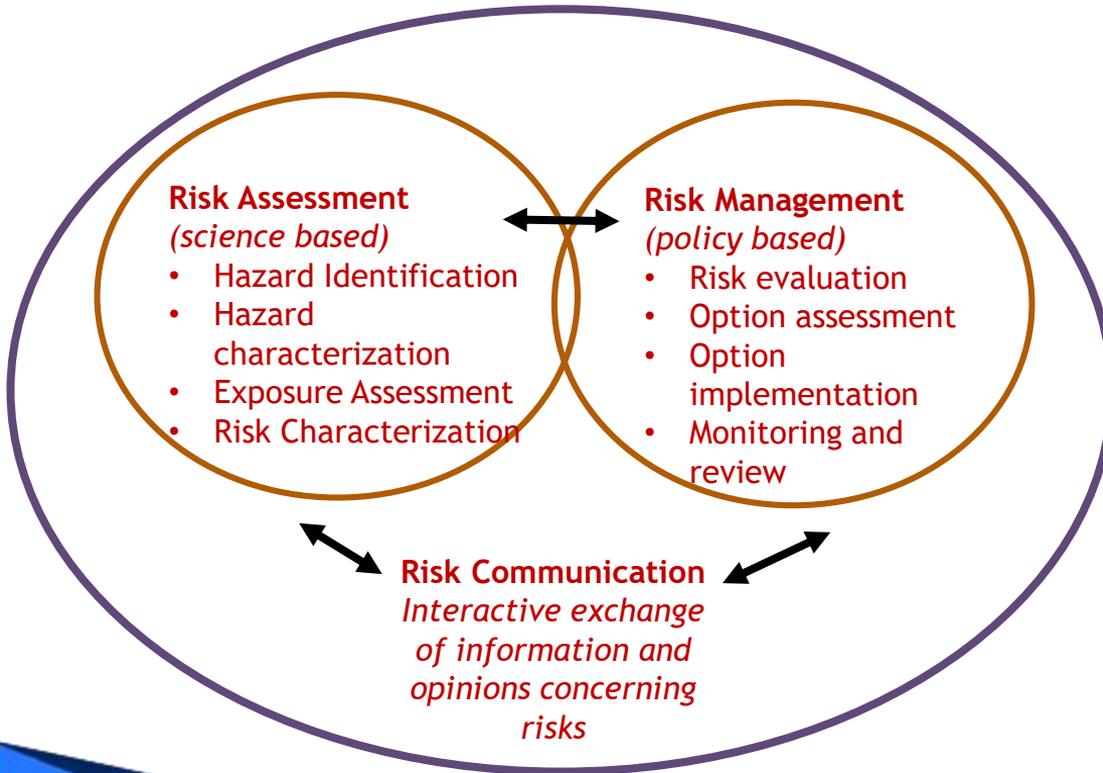
- INNOVATION
- POLICY ADVOCACIES
- INFORMATION

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R&D WORKER'S JOURNEY

- PURSUING THIS CAREER





Risk Analysis

A management tool for government bodies to define an appropriate level of public health protection and establish guidelines to ensure the supply of safe food (CODEX, 1997)

Risk Assessors

RDIs

Academe

Scientists



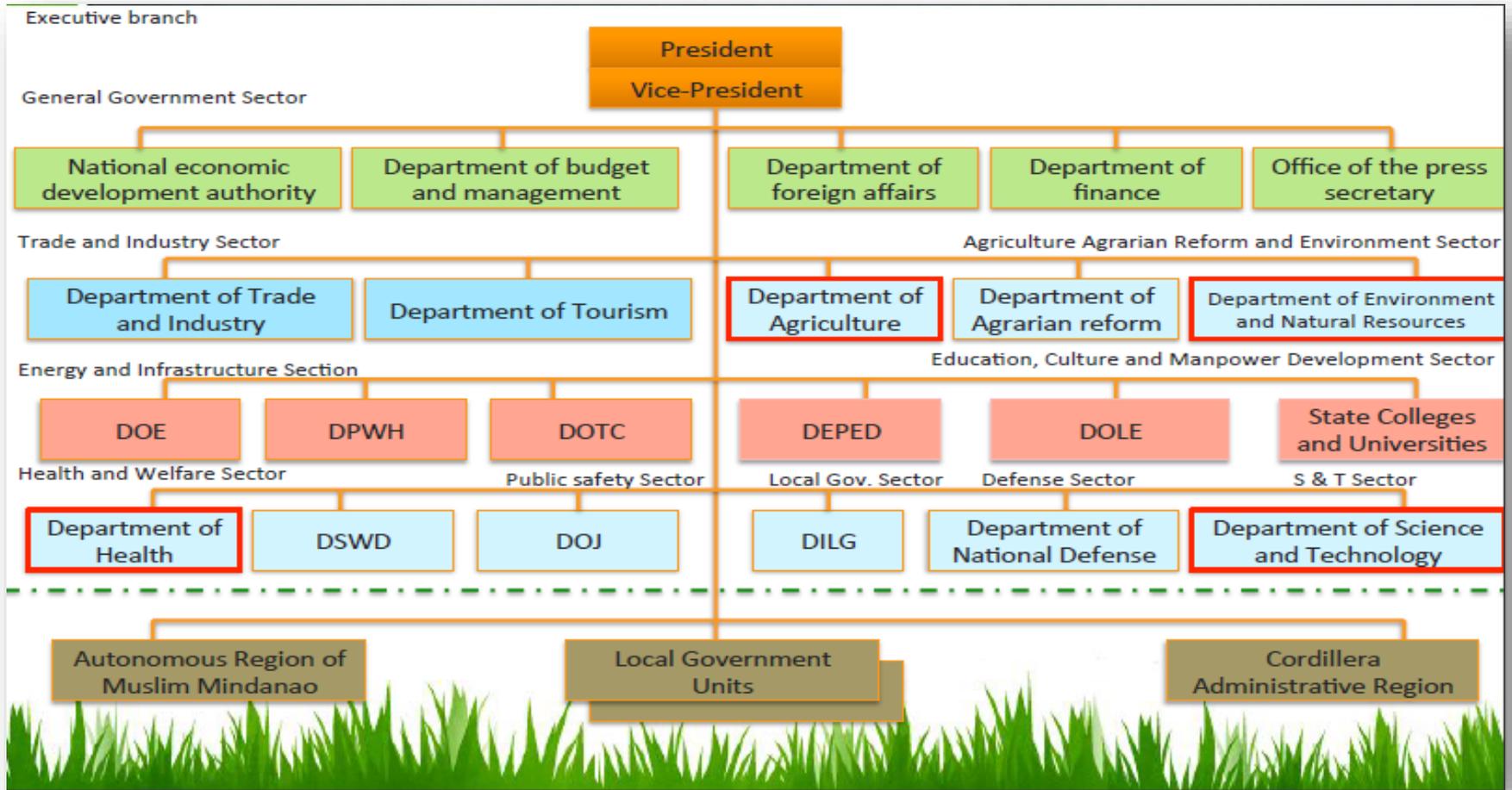
Risk Managers

DA

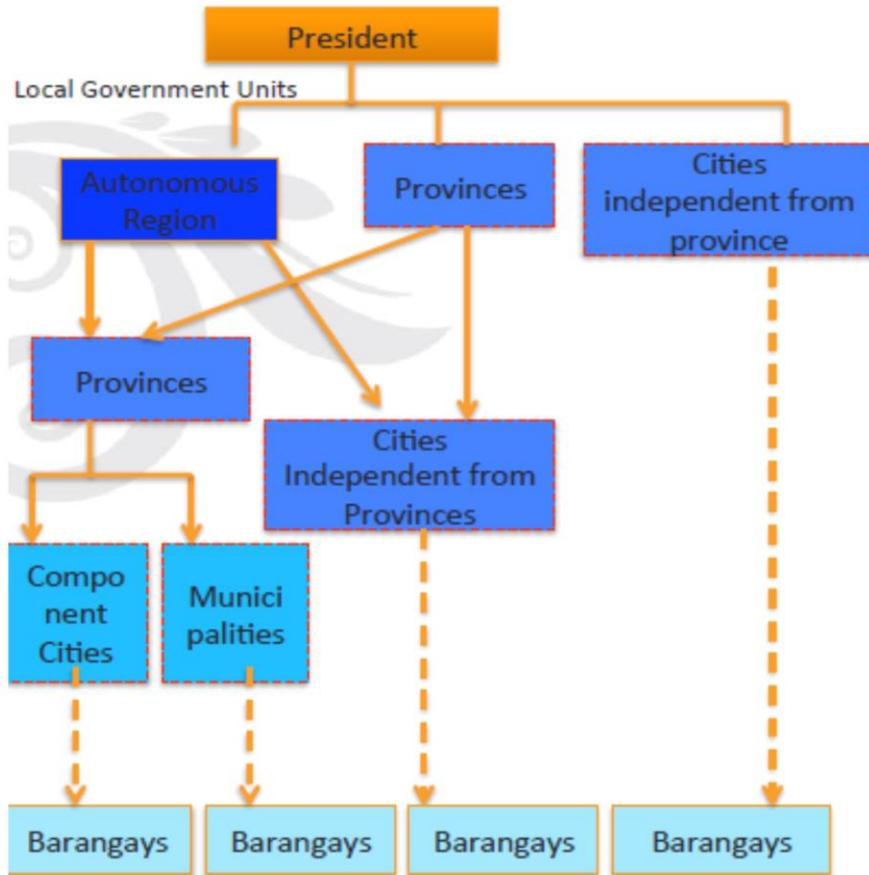
DOH

LGUs

- 2013 FOOD SAFETY ACT OF THE PHILIPPINES



2013 FOOD SAFETY ACT OF THE PHILIPPINES



REGIONAL SUMMARY
NUMBER OF PROVINCES, CITIES, MUNICIPALITIES AND BARANGAYS, BY REGION
AS OF JUNE 30,2020

| RegProvMunBgy | REGION | PROV. | CITIES | MUN. | BRGYS |
|---------------|--------------------------|-----------|------------|--------------|---------------|
| 130000000 | NCR | - | 16 | 1 | 1,710 |
| 140000000 | CAR | 6 | 2 | 75 | 1,178 |
| 010000000 | I (ILOCOS REGION) | 4 | 9 | 116 | 3,267 |
| 020000000 | II (CAGAYAN VALLEY) | 5 | 4 | 89 | 2,311 |
| 030000000 | III (CENTRAL LUZON) | 7 | 14 | 116 | 3,102 |
| 040000000 | IV-A (CALABARZON) | 5 | 20 | 122 | 4,019 |
| 170000000 | MIMAROPA | 5 | 2 | 71 | 1,460 |
| 050000000 | V (BICOL REGION) | 6 | 7 | 107 | 3,471 |
| 060000000 | VI (WESTERN VISAYAS) | 6 | 16 | 117 | 4,051 |
| 070000000 | VII (CENTRAL VISAYAS) | 4 | 16 | 116 | 3,003 |
| 080000000 | VIII (EASTERN VISAYAS) | 6 | 7 | 136 | 4,390 |
| 090000000 | IX (ZAMBOANGA PENINSULA) | 3 | 5 | 67 | 1,904 |
| 100000000 | X (NORTHERN MINDANAO) | 5 | 9 | 84 | 2,022 |
| 110000000 | XI (DAVAO REGION) | 5 | 6 | 43 | 1,162 |
| 120000000 | XII (SOCCSKSARGEN) | 4 | 5 | 45 | 1,195 |
| 160000000 | XIII (CARAGA) | 5 | 6 | 67 | 1,311 |
| 150000000 | ARMM | 5 | 2 | 116 | 2,490 |
| | TOTAL | 81 | 146 | 1,488 | 42,046 |

<https://dilg.gov.ph/facts-and-figures/Regional-and-Provincial-Summary-Number-of-Provinces-Cities-Municipalities-and-Barangays/32>

• 2013 FOOD SAFETY ACT OF THE PHILIPPINES

2013 FOOD SAFETY ACT OF THE PHILIPPINES

- To strengthen the **food safety** regulatory system in the country
- To protect consumer health
- To facilitate market access of local foods and **food products**, and for other purposes

Food Safety Regulation Coordinating Board (FSRCB) from DA, DOH, FDA, DILG, DTI, DOST and LGUs

Monitor and coordinate the performance and implementation of the mandates of the FSRAs in food safety regulation

- Coordinate crisis management and planning during food safety emergencies
- Continuously evaluate the effectiveness of enforcement of food safety regulations and research and training programs



- 2013 FOOD SAFETY ACT OF THE PHILIPPINES

Food Safety: From Farm to Fork



Production

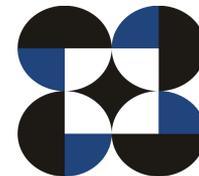
Processing

Transport & Distribution

Retail

Preparation and Consumption

FOOD BUSINESS OPERATORS



• 2013 FOOD SAFETY ACT OF THE PHILIPPINES

 FOOD SCIENCE & TECHNOLOGY

 CHEMISTRY & BIOCHEMISTRY

 MICROBIOLOGY

 VETERINARY SCIENCE

 MEDICINE

 EPIDEMIOLOGY

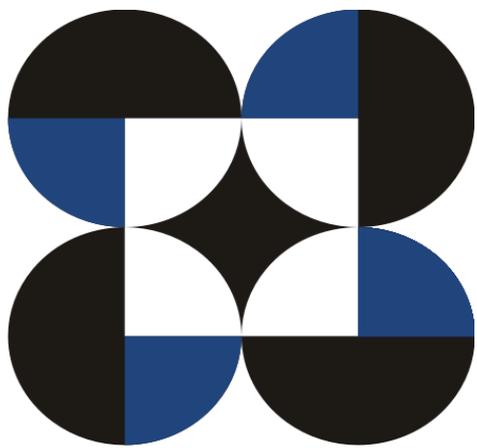
 AGRICULTURAL SCIENCES

 QUALITY ASSURANCE AUDITING

 FOOD LAW



- **DOST SUPPORT FOR THE FOOD SAFETY ACT**
- **DOST Integrated Food Safety Program**



Conduct researches especially on food safety-related problems and concerns in the Philippines.



Develop/recommend tools, guidelines, policy option, and the like to address food safety issues

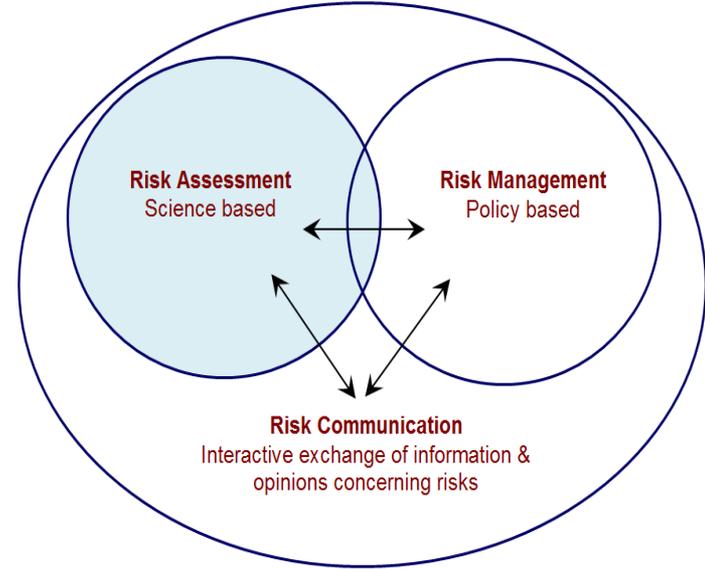


Share R&D results, knowledge and technologies and provide relevant S&T services



ARTICLE IV

Strengthening the scientific basis of the regulatory system



Article IV, Section 7:

Use of science-based risk analysis as the basic principle for food safety

Article IV, Section 9:

Standards shall be established on the basis of science, risk analysis, scientific advice from expert bodies, standards of other countries, existing PNS, and Codex, where these exist and are applicable

- DOST SUPPORT FOR THE FOOD SAFETY ACT
- DOST Integrated Food Safety Program

ARTICLE IX

Upgrading the capability of farmers, fisher folk, industries, consumers and government personnel in ensuring food safety

Article IX, Section 31:

Skills training and other instructional/educational activities shall be regularly provided to food business operators, food handlers, and government personnel.

ARTICLE X

Research on cost effective technologies and codes of practice for assisting farmers, fisher folk, MSMEs and other stakeholders to enable them to comply with food safety regulations

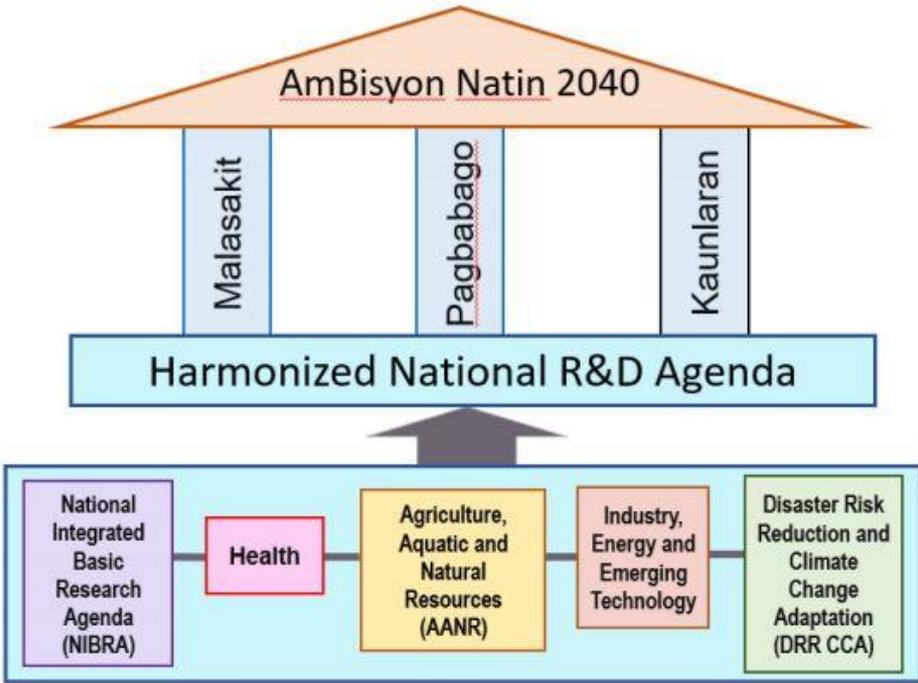
Article X, Section 35:

Results of research shall be used in the development of policies and improvement of food safety regulations.

FOOD SAFETY R&D PROGRAMS

- DOST SUPPORT FOR THE FOOD SAFETY ACT
- DOST Integrated Food Safety Program

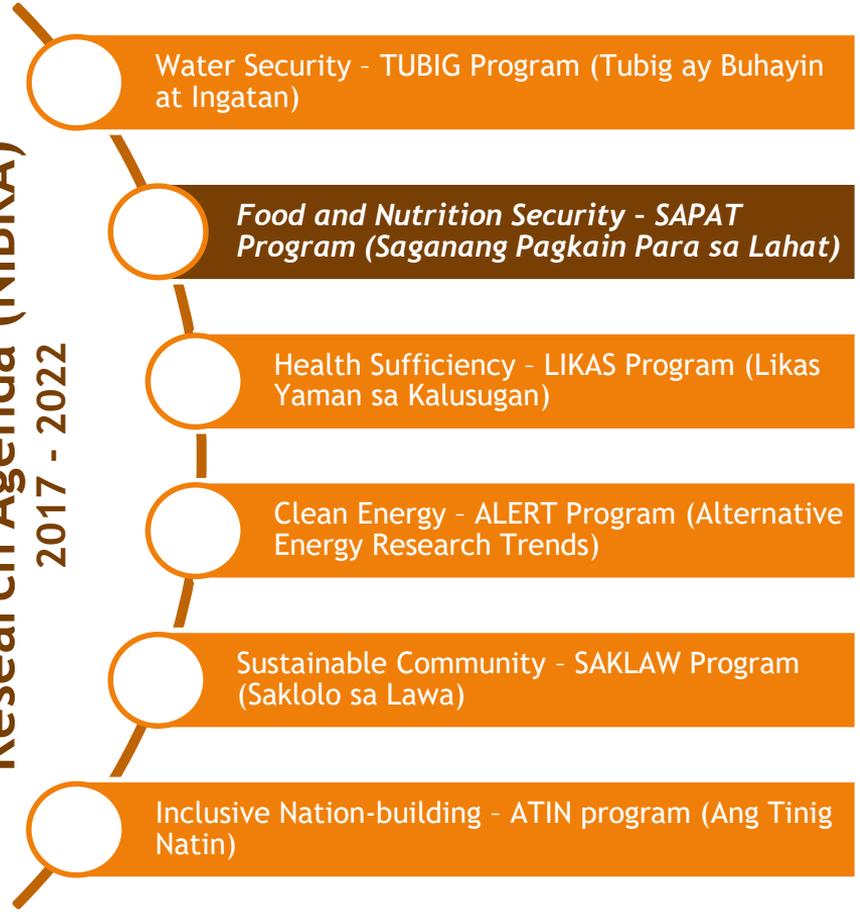
Harmonized National R&D Agenda (HNRDA) Framework



The Harmonized National Research and Development Agenda (HNRDA) is divided into five (5) sectors. It is aligned with *AmBisyon Natin 2040*, and is founded on the three pillars of *Malasakit, Pagbabago* and *Kaunlaran*.

National Integrated Basic Research Agenda (NIBRA)

2017 - 2022



FOOD SAFETY R&D PROGRAMS

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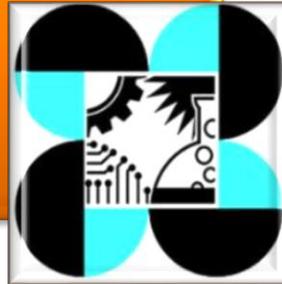
- Diagnostics
- Drug discovery and development
- Functional foods
- Hospital equipment and biomedical devices
- Information and communication technology for health
- Dengue
- **Nutrition and Food Quality and Safety**
- Disaster risk reduction
- Climate Change Adaptation
- Omic technologies for health (Platform technology across research priorities)

RESEARCH PRIORITIES
for HEALTH RESEARCH
and DEVELOPMENT



- **Food and Nutrition Security**
 - Nutritious, safe and affordable food for all, at all times
- **Countryside Development**
- **Competitive Industry**
- **Delivery of Social Services**
- **Intelligent Transportation Solutions**
- **Renewable Energy and Energy Storage Solutions**
- **Human Security**

RESEARCH PRIORITIES
for INDUSTRY, ENERGY
AND EMERGING
TECHNOLOGY



- DOST SUPPORT FOR THE FOOD SAFETY ACT
- DOST Integrated Food Safety Program

DOST Integrated Food Safety Program

O B J E C T I V E S



To provide science/evidence-based approach in enhancing and strengthening the Philippine Food Safety system;



To provide food safety related services to meet customer satisfaction;



To develop and implement effective systems, processes and protocols on food safety;



To develop and enhance human resource on food safety;



To develop and institute strategies and mechanisms to sustain the food safety program.

VISION 2022

Safe food for everyone, by everyone, through science, technology, and innovation

MISSION:
To harness science, technology, and innovation in ensuring safe food for everyone

Customer Perspective

Effective delivery of food safety related services to meet stakeholders' requirements

Increase awareness and compliance on food safety

Enhance or develop capability to conduct R&D to generate technologies, risk assessment, and other food safety related areas

Internal Process Perspective

Effective systems, processes, and protocols

Enhance collaboration (local and international inter-agency) and linkages to include LGUs in policy advocacy and development, IECs, capability building

Harmonize and intensify all DOST techno-transfer and IEC activities

Develop and implement a DOST-wide R&D and techno transfer agenda and action plans

Learning & Growth Perspective

Competent service providers (trainers, consultants, R&D, and techno-transfer personnel)

Develop and implement Human resource development program (scholarships, skills, etc)

Sustain accreditation and membership of DOST laboratories under OneLab

Financial Perspective

Secure funds for Food Safety Program from funding institutions

Financial sustainability of the Food Safety program by 2022

Ensure sound and cost-efficient financial management

Access funds from other agencies to support food safety program

Sharing of cost for Food Safety program
Use of income from laboratory services

FOOD SAFETY STRATEGY MAP

DOST
Integrated
Food Safety
Program

- DOST SUPPORT FOR THE FOOD SAFETY ACT
- DOST Integrated Food Safety Program

PROGRAM COMPONENTS

**DOST
Integrated
Food Safety
Program**

**INTEGRATED FOOD
SAFETY RESEARCH
AND DEVELOPMENT
PROGRAM**

**ENHANCEMENT OF
TESTING CAPABILITIES
ON FOOD SAFETY**

**HUMAN RESOURCE
DEVELOPMENT
PROGRAM ON FOOD
SAFETY**

**KNOWLEDGE/TECHNOLOGY
TRANSFER AND POLICY
ADVOCACY PROGRAM ON
FOOD SAFETY**



- INNOVATION
- POLICY ADVOCACIES
- INFORMATION



DOST-FNRI

Optimum nutrition to everybody through scientific, environmental friendly and global competitive technologies.

- INNOVATION
- POLICY ADVOCACIES
- INFORMATION

BACKGROUND



Food safety, nutrition and food security are inextricably linked. Unsafe food creates a vicious cycle of disease and malnutrition, particularly affecting infants, young children, elderly and the sick.



Access to sufficient amounts of **safe and nutritious food** is key to sustaining life and promoting good health.

Research and
Development
on Food Safety
& Quality

- INNOVATION
- POLICY ADVOCACIES
- INFORMATION

BACKGROUND



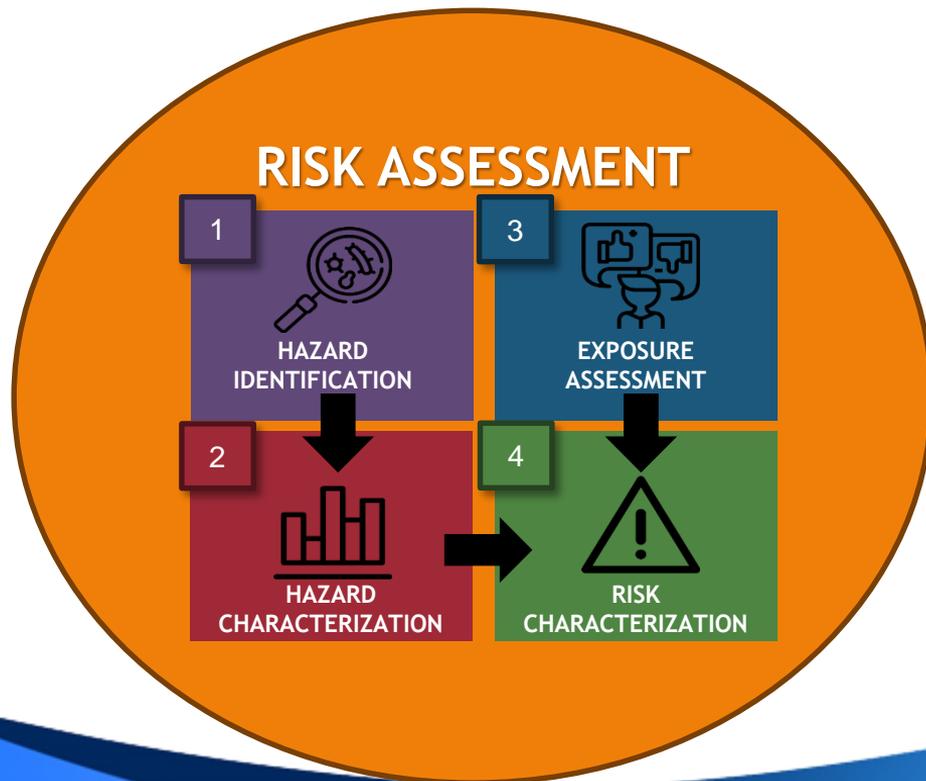
Consumer confidence in food relies on the effectiveness of checks and available assessment tools and researches to ensure the quality, safety, consistency, and authenticity of food in the Philippine food supply chain.



The focus on the integrity of food has increased globally in recent years, which consequently seeks planning and implementation of new regulations and higher standards on quality control and assurance.

Research and
Development
on Food Safety
& Quality

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RISK ASSESSMENT

(WHO/FAO, 2006)



- INNOVATION
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3



EXPOSURE ASSESSMENT

Estimation of the likelihood that the consumer will be exposed to a substance or hazard.

Major considerations in dietary exposure:

1. Hazard concentration/occurrence data
2. Food consumption data

FOOD SAFETY R&D WORKERS AS FRONTLINERS

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FOOD SAFETY R&D WORKERS AS FRONTLINERS

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IN PHOTO: Representatives of various health and food safety agencies share insights on FWBD.



<http://ritm.gov.ph/health-food-safety-agencies-launch-talks-on-food-and-waterborne-disease-monitoring/>

FOOD SAFETY R&D WORKERS AS FRONTLINERS

- INNOVATION
- POLICY
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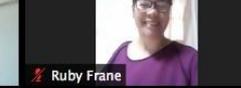
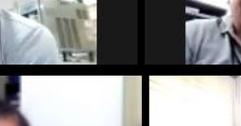
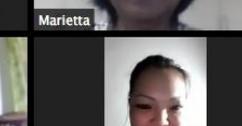
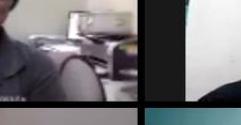
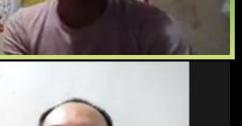
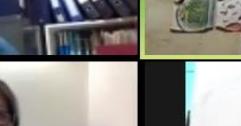


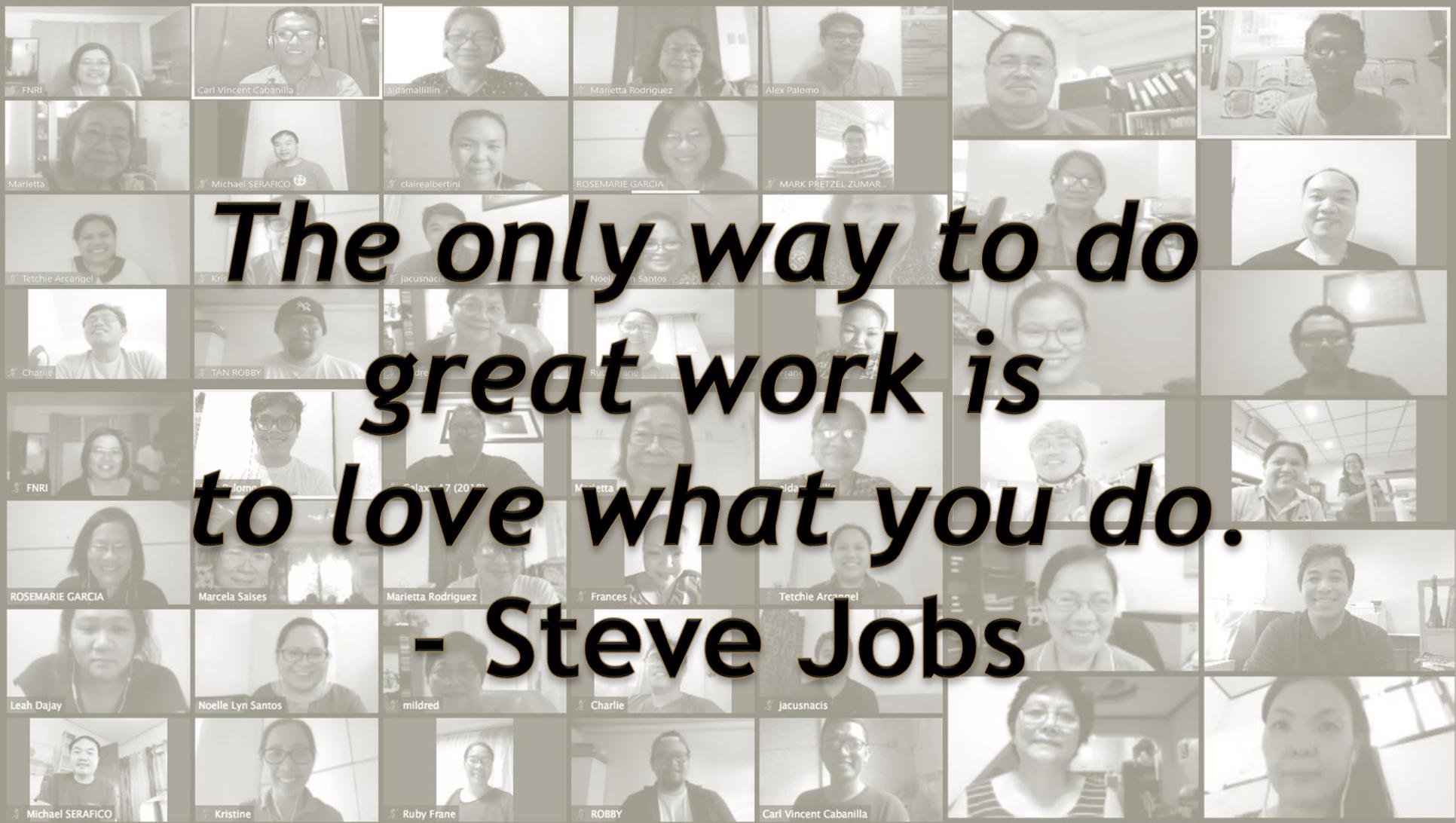
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2019 • 433







***The only way to do
great work is
to love what you do.***

- Steve Jobs



*Thank you for
your attention.*

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FOOD AND NUTRITION RESEARCH INSTITUTE

