

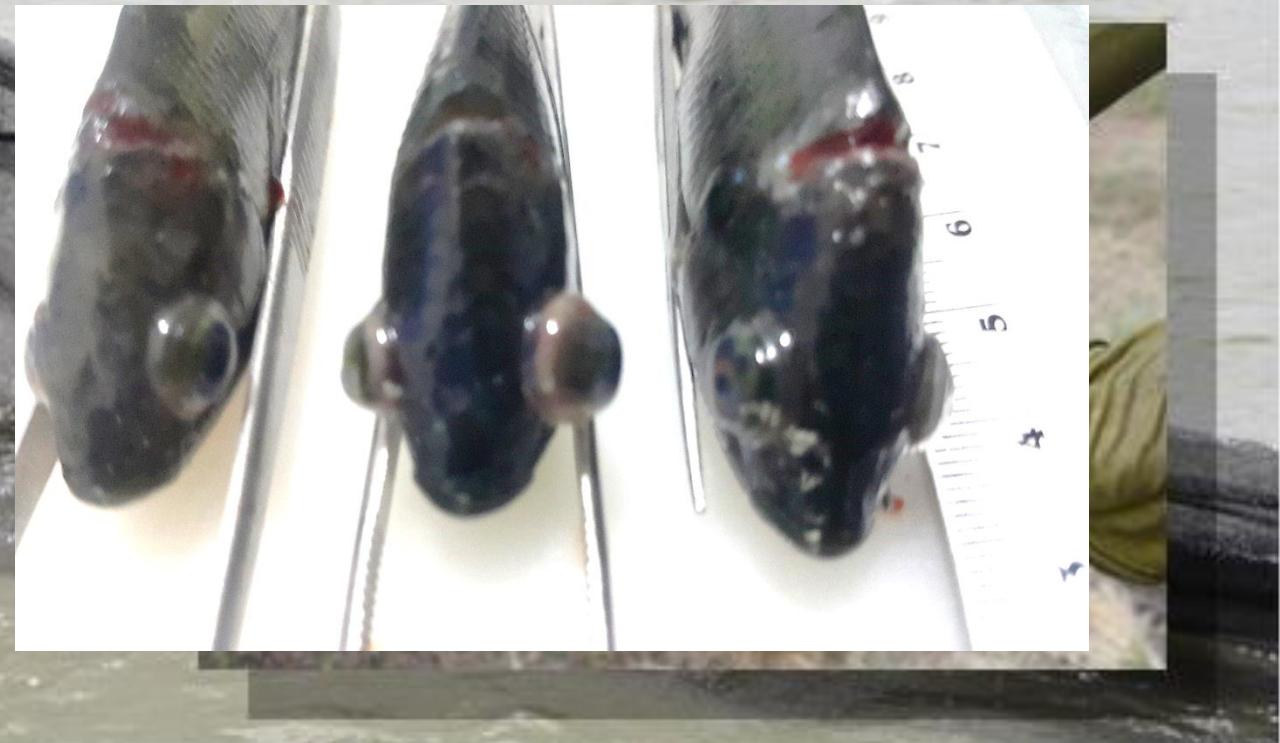


ELEMENTS OF NATIONAL ACTION PLAN ON TILV IN THE PHILIPPINES

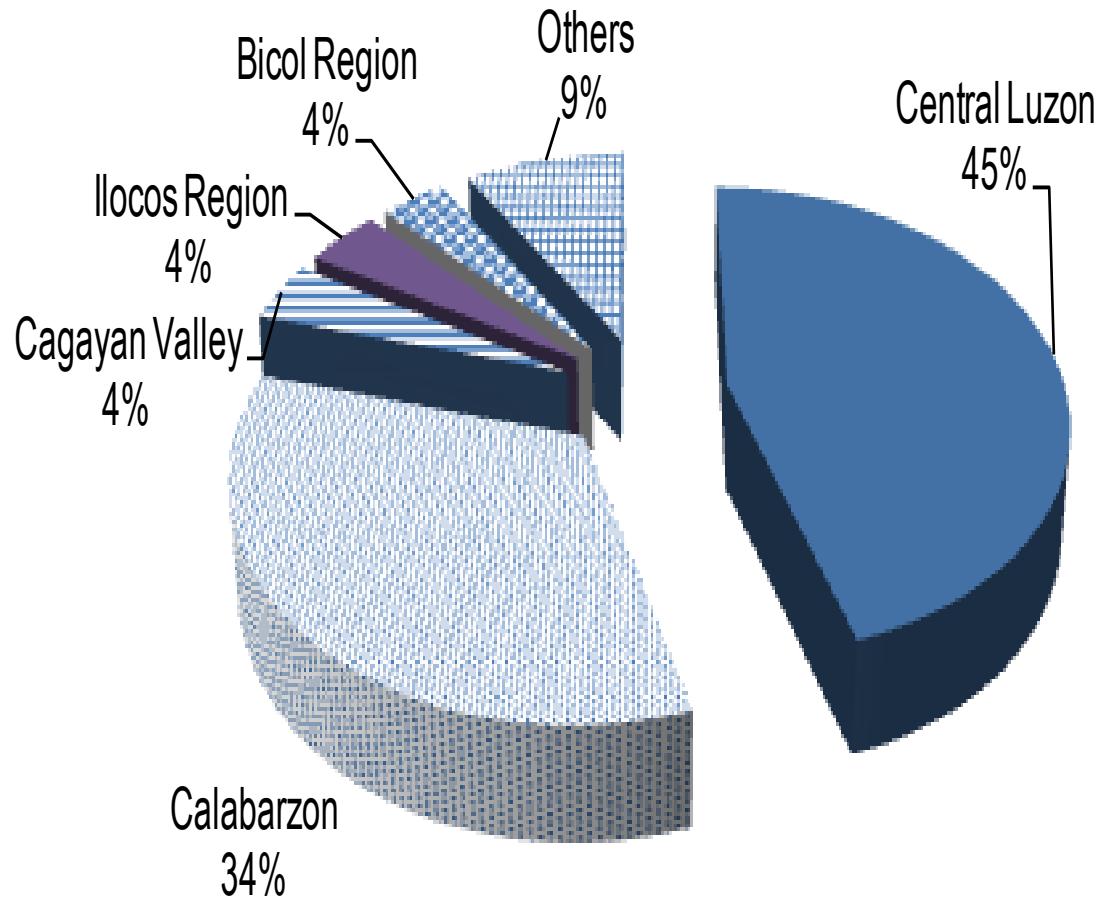
Gonzalo DV. Coloma, Jr

Marco M. Espiritu

Dan Joseph C. Logronio



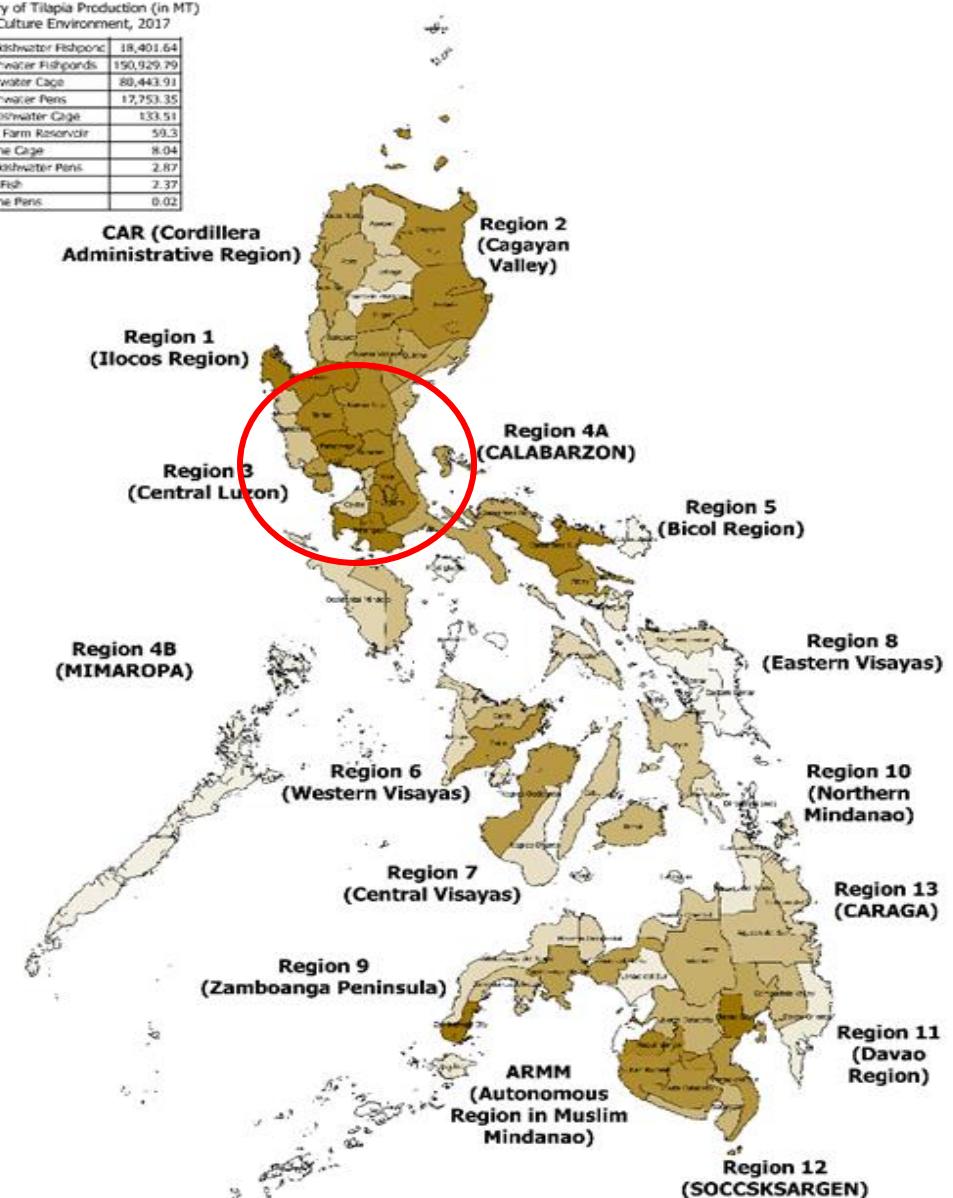
1. Farmed and Wild populations of Tilapia: Sectoral status



Major Tilapia producing regions in the Philippines

Summary of Tilapia Production (in MT)
by Culture Environment, 2017

Brackishwater Fishpond	18,401.64
Freshwater Fishponds	150,929.79
Freshwater Cage	89,443.91
Freshwater Pens	17,753.35
Brackishwater Cage	133.51
Small Farm Reservoir	59.3
Marine Cage	8.04
Brackishwater Pens	2.87
Rice Fish	2.37
Marine Pens	0.02



2. DIAGNOSTICS

Diagnostic Laboratory and Competence

15 Regional Fisheries Laboratory – 9 Regions with level 3 capabilities

1 National Fisheries Laboratory – Reference laboratory

1 Fisheries Biotech Center under NFRDI

Other Laboratories: SEAFDEC-AQD, Academes

Diagnostic Laboratories (outside Ph)

Kasetsart University in Thailand

National Taiwan University

National University of Singapore

King Mongkut University in Thailand

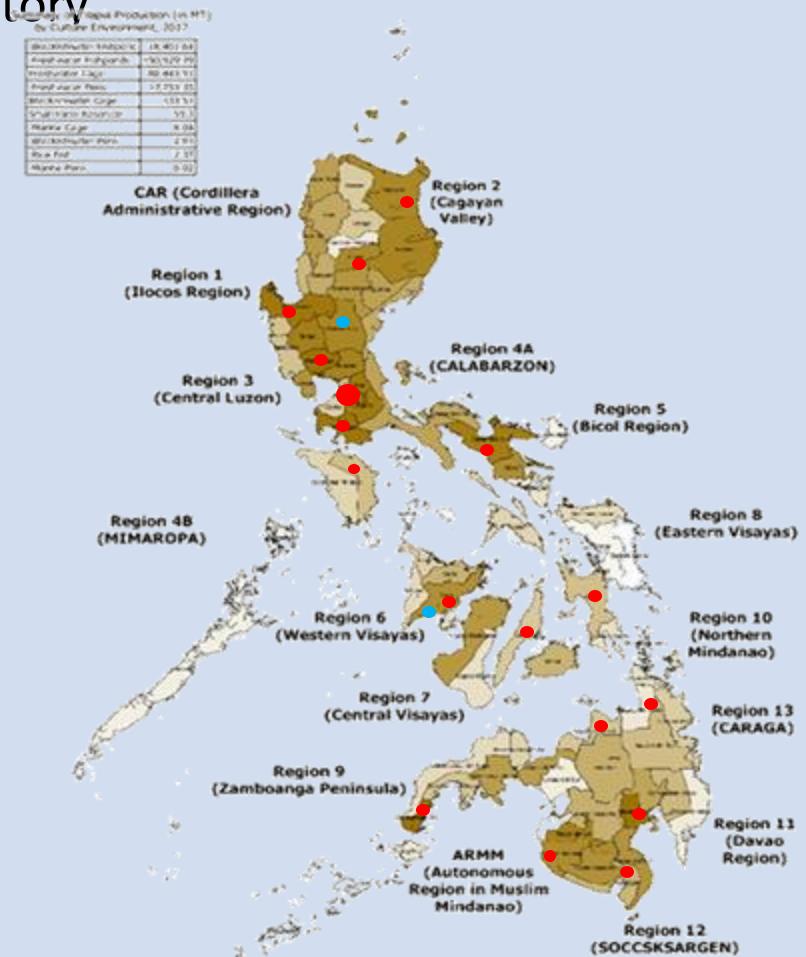
Diagnostic Tests

iiPCR

RT qPCR

Histopathology

Cell Culture



DEFINITION OF POPULATION

Population of interest	Tilapia (e.g. Tilapia, Oreochromis, Sarotherodon)
Targeted population	Wild and farmed
Population for sampling	Wild and farmed
Inclusion criteria	All stages of tilapia
Exclusion criteria	None

3. Surveillance: design and implementation

12 point step checklist

OBJECTIVE

To measure TiLV prevalence at national level in wild and farmed populations

To identify possible risk factors for spreading TiLV in order to develop a disease control program

- To prevent the spread of disease to farmed or wild populations
- To ensure that stakeholders and the public are informed of the issues involved in preventing or spread of TiLV through improper importation or movement of fish products

CASE / OUTBREAK DEFINITION

Suspect TiLV case:

A fish showing the following clinical signs: mass mortalities, abnormal swimming, exophthalmia, skin lesions, scale loss, lethargy, anorexia.

Confirmed case:

A fish showing the above mentioned clinical signs with positive results from histopathology (e.g. syncytial hepatitis in liver cells) and RT- PCR and/or qRT-PCR

SAMPLING

- **One stage sampling**
- Cultured fish: Simple random selection of farms will be performed. Seven thousand five hundred forty (7,540) farms will be randomly selected in Region III. One hundred forty nine (149) samples will be collected for each farm.
- Wild fish: 149 samples will be randomly collected for each natural bodies of water (e.g. Angat, Pantabangan dam)
- Sample tissues: Brain, liver, kidney and spleen will be collected from randomly collected fish

5. TiLV Outbreak Investigation

TiLV; mixed infection; unknown disease

For each region:

Surveillance team

Trained Provincial Fishery Offices with Pondside TiLV detection kit

Diagnostic team

Regional Fisheries Laboratory and National Fisheries Laboratory technical for molecular diagnostics and histopathology

Field support team

Organized Tilapia Hatchery and Grow-out Cooperatives

6. TiLV Management and Control:

Farm level biosecurity

Mandatory implementation of Philippine National Standard for
GAqP

Movement of Live Tilapia(domestic and international)

Health Certification for Transboundary movement of live tilapia
domestically

Quarantine (import/export)

Ban on the Importation of live tilapia (all stages) regardless of
country of origin

PHILIPPINE NATIONAL STANDARD

PNS/BAFS 135:2014
ICS 65.150

Code of Good Aquaculture Practices (GAqP)



BUREAU OF AGRICULTURE AND FISHERIES STANDARDS
BPI Compound Visayas Avenue, Diliman, Quezon City 1101 Philippines
Phone: (632) 920-6131; (632) 455-2856; (632) 467-9039; Telefax: (632) 455-2858
E-mail: bafpsda@yahoo.com.ph
Website: www.bafps.da.gov.ph
