

ASEAN REGIONAL TECHNICAL CONSULTATION ON AQUATIC EMERGENCY PREPAREDNESS AND RESPONSE SYSTEMS FOR EFFECTIVE MANAGEMENT OF TRANSBOUNDARY DISEASE OUTBREAKS IN SOUTHEAST ASIA

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BACKGROUND HISTORY

2

- Disease Diagnosis lab established in 1995
 - FAO project TCP/MYA/ 2523 1994
 - 197000 US \$ funded by FAO
 - Equipments and Training are assisted by FAO .
- On site Training by FAO experts on Bacteriology, Virology, Histopathology and Mycology and further studies in Japan, Thailand and Philippine (SEAFDEC)
 - PCR diagnosis equipment has been established in 2003

LEGISLATION FOR AQUATIC ANIMAL DISEASE CONTROL

Legislation

- ✓ Legislation and for control of quarantine pest and disease of aquatic animal has not yet endorsed.

Description of the related articles

- ✓ the Union Fisheries Law is under developing
- ✓ 10thDraft mentioned Laboratory Sector only but no specific diseases are included

Importation Control

Licensing

- Apply Import License from Ministry of Commerce

Import Permit

- According to Aquaculture Law, Department of Fisheries has to provide opinion letter for imported aquatic animals
- Health Certification from Competent Authorities of Oversea
 - Provide Sale Contract, Invoice, Packing List and sample animals for quarantine
- Provide Recommendation Letter for Imported Aquatic Animals Farm's for Disease Concern
- Collect Samples for specific disease detection
- Issue approval for aquaculture.

SURVEILLANCE AND MONITORING

- **Mobile teams** - assigned to monitor and surveillance of fish and shrimp ponds
- **Regular visit** to fish and shrimp farms for preventing and controlling diseases
- Established **check points** at international airport, seaport and border trade area – to check risk of import and export of fish and fish products

Export Inspection & Certification

- ✓ Need to do **Registration** at Department of Fisheries.
 - Including with Sale contract, Invoice & Packing List, Aquaculture License or Collected Area's License.

- **Mobile team visit** premise
 - for checking visual examination and suspected animals are checked at the Disease Diagnosis Laboratory
 - Inspected by competent Authority (CA) of DoF (Aquatic animal Health and Disease Control Section)

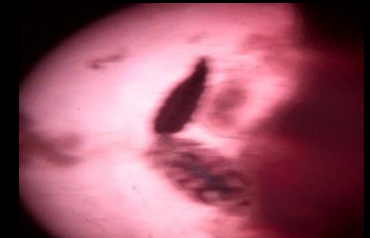
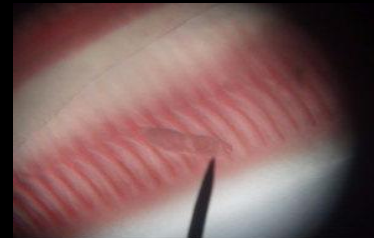
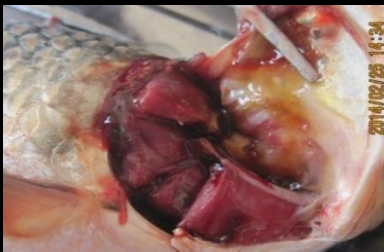
- Issue **Health Certificate**.

LABORATORY DIAGNOSTICS CAPABILITY

7

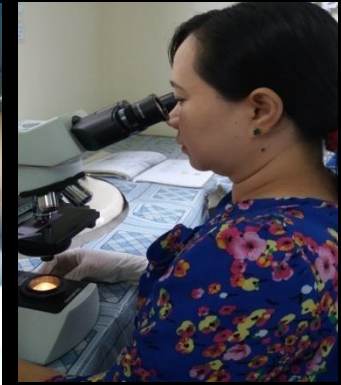
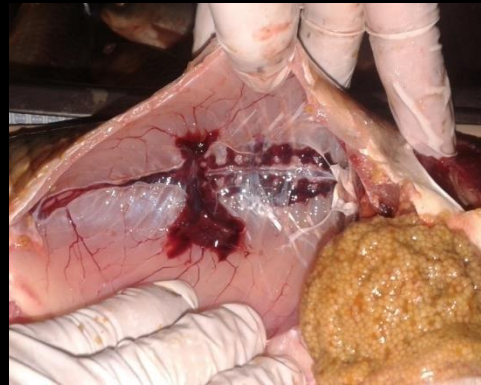
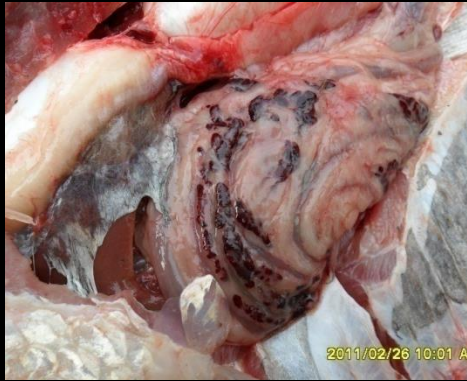
Level-I

- **Observation of animal and the environment clinical examination**
- **Post mortem examination**
 1. External examination
 2. Internal examination
- **Other examination**



LEVEL-II

- Examination of Parasitology, Histopathology, Mycology and Bacteriology in Lab.
- In complete capacity for Level - II.
- So we need training and advanced technology.



LEVEL-III

Disease Diagnostic Lab can detect the OIE listed disease with Real Time PCR and Conventional PCR.

Fish Diseases

- KHV (Koi Herpes Virus)
- RSIV (Red Sea Bream Iridovirus)
- VNN (Viral Nervous Necrosis)
- SVCV (Spring Viraemia of Carp)

Shrimp Diseases

- WSSV (White Spot Syndrome Virus)
- TSV (Taura Syndrome Virus)
- YHV/GAV (Yellow Head Virus)
- IHHNV (Infectious Hypodermal and Haematopoietic Necrosis Virus)
- HPV (Haepatopancreatic parvo-like Virus)
- IMNV (Infectious Myonecrosis Virus)
- EMS/AHPND (Early Mortality Syndrome)
- MrNV/XSV (Macrbrancium rosenbergii nodavirus / Extra small virus)



LABORATORY DIAGNOSTICS – TESTING CAPABILITY (PATHOGENS)

Viruses		Bacteria	Other
Fish	Crustacean	Fish	Parasites (Fish)
KHV RSIV VNN SVCV	WSSV TSV YHV/GAV IHNV HPV IMNV EMS/AHPND MrNV/XSV	Streptococcus sp: Aeromonas sp:	(Endo parasite & Ecto parasite)

TRANSBOUNDARY DISEASES

11

Transboundary List of diseases

Fin fish

- Gyrodactylus sp:
- Dactylogyrus sp:
- Argulus sp:
- Trichodina sp:
- Streptococcus sp:
- Aeromonas sp:

Crustacean

- MrNV / XSV
- WSSV

REPORTING OF DISEASE DETECTION

12

- Quarterly Aquatic Animal Disease Report (OIE & NACA)



Workshop on planning of MYSAP support of the Aquatic Animal Health and Disease Control Sector Yangon

22 May, 2018

SUMMARIES OF DISCUSSIONS IN THE WORKSHOP

- **Extension service** for fish farmers is crucial for develop aquaculture sector in Myanmar.
- **Capacity development** is needed to cover laboratory workload for aquatic animals disease control.
- **Limited budget** is hindered for extension service in rural area.
- Existing laboratories of DoF need to be **upgraded**.

SUMMARIES OF DISCUSSIONS IN THE WORKSHOP

- **only 8 staff** are working and more staff need for extension services.
- Need to **restructured the disease section**, water quality laboratory and Institute of Fisheries (IFT)
- **SOP for aquatic animals movement** and National Standard for GAqP in Myanmar is **not yet ready**

SUMMARIES OF DISCUSSIONS IN THE WORKSHOP

- Fish farms are away from DoF laboratories and more laboratories in rural area need to be established ??
- Regular extension service to fish farmers before the peak season and MYSAP and private sector should support for extension services.

SUMMARIES OF DISCUSSIONS IN THE WORKSHOP

- MYSAP will implement **2 years plan for support** the Aquatic Animal Health – focus on diagnostic and water quality management laboratories
- Need to upgrade current lab to meet the international standard laboratory.
- MYSAP will consider **technical support** to develop SOP and GAqP with standard procedures.

SUMMARIES OF DISCUSSIONS IN THE WORKSHOP

- MYSAP will **cooperate and conduct TOT trainings to staff**
 - from partner organizations as well as
 - the staff who attended TOT trainings will carry out training and extension services to fish farmers.
- DoF should **set up quarantine unit** for monitor live aquatic animals imported from abroad
 - in Yangon airport and Myawaddy where is an entry point from Thailand to Myanmar.

PRESENT ACTIVITIES ON CONTROL OF DISEASE

- The Department of Fisheries of Myanmar already initiated Good Aqua-culture Practices as national standard in fish and shrimp farming since 2011.
- The Department of Fisheries established as National Task Force for implementation of GAqP application in Myanmar
 - to follow up and practices on ASEAN's Standard on GAqP for shrimp farming in compliance with the current status of shrimp farming practice in Myanmar.

PRESENT ACTIVITIES ON CONTROL OF DISEASE

- Myanmar learns and **follow the Strategies Plan** on the Development and Implementation of ASEAN shrimp GAqP
- DoF **established the Directives and Regulation** for prohibiting the use of chemical in aquaculture
- Recently, cultured areas of about 4,439.55 hectares for fish, shrimp and soft-shelled crab farming have applied to get national GAqP certificates.

PRESENT ACTIVITIES ON CONTROL OF DISEASE

- For the trade promotion of the aquaculture products, **EU provided the awareness** training of GAqP, 7 times 41 DoF staff including 119 stakeholders in 2015-2016.
- **GAqP Extension Team was formed** on 30th June 2016
- Providing **extension and training course** throughout the country
- Provided trainings in **5 Regions and 4 States** (19 courses) 669 trainees have attended

ACTIVITIES RECORDS



COMMENT AND REQUEST

- Myanmar also need for **harmonized aquatic emergency preparedness and response system** for effective management of transboundary disease outbreaks in line with South-east Asia
- Myanmar **needs technical assistance**
- Need training on diagnostic capability especially at the bacteriology lab & histology lab (Level – II)
- **Technical Support in establishing quarantine system** is not yet and needed (importation and exportation for Live Aquatic Animals) monitoring and surveillance programs.