## **Training Course 1:**

## **Pathology of Aquatic Animal**

# **Background:**

Aquaculture is still the fastest growing food-production sector in the world. It provides a significant supplement to, and substitutes for, wild aquatic organisms and creates employment, generates income and provides opportunities for human development. However, disease is a primary constraint to the growth of many aquaculture species, and is now responsible for severely impeding both economic and socio-economic development in many countries of the world. Addressing health questions with both pro-active and reactive programs has, thus, become a primary requirement for sustaining aquaculture production and product trade. The course provide information related to characteristic of common diseases in aquatic animal, the diagnosis, prevention and treatment of diseases.

## **Learning outcome:**

- General knowledge of aquatic pathology
- Be able to diagnose diseases with clinical symptoms
- Skills in making pathological tests in the laboratory
- Control and treatment disease outbreak in aquaculture

#### Lecture: 4 days (3 hours/day)-Classroom

- Lecture 1: Parasitic disease
- Lecture 2: Bacterial disease
- Lecture 3: Fungal disease
- Lecture 4: Viral disease

#### Practical: 4 days- Disease Lab

- Day 1: Parasitology: Observe wet mount, fixative and stain samples (3 hours)
- Day 2: Bacteriology: Isolation, Staining, Motility, Biochemistry Test, Antibiotic Sensitivity Test (2 days, 3 hours/day)
- Day 3: Fungal: General observation, Isolation (2 days, 3 hours/day)
- Day 4: Virology: Histopathological observation, PCR Test (1 day, 6 hours).

**Final report including business plan**: Each trainee is required to prepare a report on what they practice at laboratory – The length of the report should be ranged from 5- 10 pages.

**Presentation of results by the group of trainees (Seminar Room)** 

At the end of practical session, group presentation will be organized, in which they will discuss what lesson they may technically learn from the training. - Wrap-up by Instructor (1 hour)

Feedback and evaluation by participants

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