



*The NFDB envisages 'National Fish Quality Management Network Programme' to address the Disease and Food Safety issues in Aquaculture* 

# Introduction

Aquaculture is the fastest growing food producing sector in the country. As in other farming systems, diseases are a major threat causing severe economic losses. Use of banned antibiotics, pesticides and toxicants to control various types of diseases and the use of some preservatives, violates the *'Food' Code*' or *'Codex Alimentarius'* and accumulation of their residues adversely impacts consumers' health.

In view of the food safety issues confronting aquaculture industry, it is proposed to put in place a network of well equipped laboratories for effective surveillance and screening of aquaculture inputs and products for presence of pathogens/parasites and various types of harmful additives / residues.

### Aim & Objectives

- To supplement the existing network of diagnostic laboratories by establishing new laboratories with enhanced competency and wider scope.
- To put in place a system for monitoring the residues of aquaculture drugs, environment contaminants, etc. in shrimp, scampi, freshwater fish, hatchery seed and feed samples through primary producers' enrolment.
- Establish IT enabled networking of Testing Laboratories, State Governments, and other Stakeholders

## **Implementing Agencies**

Interested Govt. Institute/Organization/ Private Agency/Firm/ Enterprise/ Existing AAH Laboratories involved in aquatic animal disease diagnosis and/or fish and fishery products quality analyses services can establish the labs and participate in the National Fish Quality Management Network Programme.

## Scope & Coverage

The envisaged programme would cover fish and shellfish hatcheries, seed, aquaculture farms, cages, rafts and other production facilities linked to shrimp, scampi, freshwater and brackish water fish farming, mussels, oysters and ornamental fish production units, markets and processing plants.

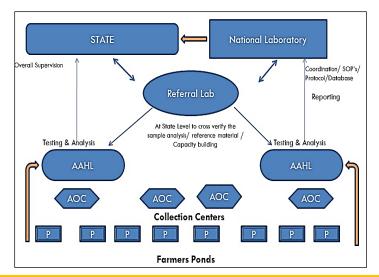
**Aquatic Animal Health Lab's (AAHL)** aim is to provide diagnostic support services with respect to water quality analysis, microbiological and molecular diagnosis of pathogens of national and international concern.

**Referral Lab's (RL)** aim is to evaluate fish samples for antibiotic, pesticide, preservative and biotoxicant residues as per *Codex Alimentarius Guidelines*, besides conducting disease diagnosis.

**Aqua One Center (AOC)** would enrol hatcheries, seed growers, and aqua farmers and provide advisory services, monitor water quality, growth and health.

**Sample Collection** would be undertaken routinely by the AOCs and sent to the AAHLs /RLs for passive surveillance to screen the OIE notifiable diseases and for residue analysis. In addition, AAHLs would undertake/organize sample collection for active surveillance in case of a disease outbreak.

The Institutional Framework and Functional Flow of Services under National Fish Quality Management Network Programme are as follows:



## **Components of the Laboratory**

Sl. No.	Aquatic Animal Health Laboratory	Referral Laboratory
1	Water Quality Lab	Water Quality Lab
2	Microbiology Lab	Microbiology Lab
3	Sterilization Room	PCR Lab
4	PCR Lab	Virology, Histo-Pathology Lab
5	Laboratory Furnishings	Residue Analysis Lab (LCMS/GCMS/HPLC etc.)
6	Operational Costs	Laboratory Furnishings & Operational Costs

# Probable Unit Cost & Pattern of Assistance

- 1. Setting up of Aquatic Animal Health Laboratory Unit cost Rs. 120 lakh
- 2. Setting up/Upgradation of Referral Laboratory subject to NFDB terms & conditions

Sl. No.	Category of Beneficiary	NFDB Assistance (%)
1	Central Govt. Institutions	100%
2	State Govt. Institutions (NE & Hilly Region)	80%
3	State Govt. Institutions (Other States)	50%
4	Woman Beneficiary (NE & Hilly Region)	54%
5	Woman Beneficiary (Other States)	36%
6	General Category Beneficiary	24%

# **Expected Outcome**

- The programme will lead to institutionalization of disease surveillance and fish quality monitoring and reporting system.
- There would be a shift from an unorganised quality management in domestic trade to structured and organized governance.
- The programme will strengthen disease reporting to OIE and NACA.

For further information Contact:

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