

# Hatcheries from eight districts are trained to provide water quality testing services to fish farmers

## Context

Water quality is identified as a major factor affecting pond productivity in fish farming. The quality of water can affect the fish feed conversion ratio and lead to high mortality of fish at all levels of the value chain from hatcheries, nurseries to table fish farms. Experts recommend water quality testing in fish ponds and maintenance of water quality before stocking with fingerlings for greater productivity.

The Directorate of Fisheries Development (DoFD) and other agriculture development offices provide water quality service but it is not always accessible to farmers. Since farmers have most amount of interaction with hatcheries or nurseries, provision of such embedded services through them was found to be a viable option. Many private hatcheries were found to be interested in having their own laboratory for water testing and fish health. Hence, Samarth-NMDP under its intervention '**Better Hatchery Management**' partnered with private hatcheries to initiate water testing services through them. Along with water testing services, the hatcheries will provide advisory services to farmers through their linkage with experts in fish sector including DADO (District Agriculture Development Office), Fisheries Development Centers (FDC), aqua-chemical companies and feed industries.

Eight partner hatcheries from eight districts: Siraha, Dhanusha, Bara, Nawalparasi, Rupandehi, Dang, Bardia, Kailali purchased water test kits comprising PH meter, DO meter, thermometer and ammonia kit from a common supplier who also provided a training on operation and maintenance of water test kits.

## Event Summary

Half-day training on water test kit operation by the supplier to the hatcheries was held on 3<sup>rd</sup> and 5<sup>th</sup> June, 2016, at Fisheries Development Centers (FDC) of Bhairahawa and Janakpur respectively. The main aim of the program is to train the hatcheries to operate water test kits and interpret results so that they can provide the same service to farmers. The supplier demonstrated the method of kit operation, and the technical expert Mr. Suresh Kumar Wagle highlighted the importance of water quality in pond management. Mr. Wagle also made a presentation on different parameters to be tested in water, their effects and the interpretation of test results received from water testing. A guideline on 'Water quality in aquaculture' was also handed over to the participants.

Other than the partner hatcheries, few other local hatcheries, an aqua chemical company and local agro vets (local medicine and aqua-chemical suppliers) also participated in the training programme and presented their products and services.

## What Next

More than eight hatcheries in eight different districts now have technical expertise in operating water test kits and will start providing water testing services to their customer farmers and nurseries. This will help farmers to understand the quality of their pond water and apply necessary measures of treatment to for optimum growth of fish. Since these hatcheries also have link with aqua-chemical companies, government agencies and experts, they can now can work together to solve farmers' issues related to water quality and fish diseases.

## Development Impact

Provision of water testing facilities at hatchery level is a new service that farmers will access. The major problem faced by farmers when stocking fingerlings in their ponds is high mortality rate as a result of difference in quality of water in hatchery/nursery and farmer's pond. With the provision of the water testing service, farmers can test their water and apply necessary measures before stocking. This will result in lower mortality of fingerlings and higher productivity with ultimate impact on higher profits to farmers and poverty reduction.

**(Pictures below)**



1 Water test kit PH meter, DO meter, Thermometer and ammonia kit



4 Training on how to operate the testing kit, Bhairahawa



2 Fish expert Suresh Kumar Wagle speaking about importance of water quality



5 Operation training in Janakpur



3 Participants from private hatcheries using test kit