

# Catalyzing the distribution of pure brood stock to private hatcheries

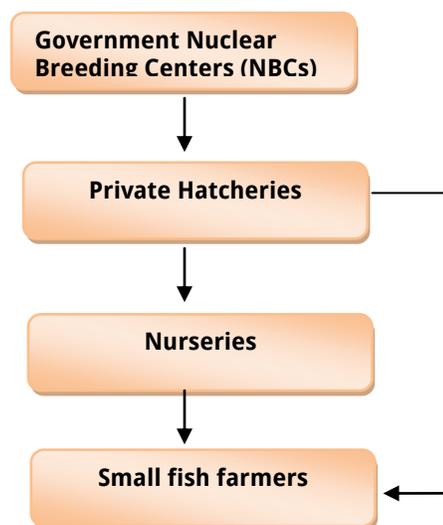
## Context

Even though seed is the single most important input for all fish farmers, very little had been done to retain the gene purity of the brood stock. This has led to in-breeding and cross-breeding of brood stock. Small fish farmers who access low quality seeds face high mortality and poor growth rate of fish.

To prevent gene pool degradation The *Department of Fisheries Development (DOFD)* under ministry of Agriculture and *Nepal Agriculture Research Council (NARC)* recently drafted and submitted a Fish Seed Act which upon approval will have to be implemented by all hatcheries and nurseries. However, the private hatcheries do not have the competency to fulfil the requirements of the seed act nor do they have access to pure brood stock to maintain quality as required in the act. DoFD has its own limitations: DOFD and NARC doesn't have a proper mechanism for distribution, control and monitoring of the six new species of brood stock with pure gene pool which was brought in from China and India in 2012 to replace the current brood stock in Nepal.

To catalyse the process, Samarth facilitated a public private partnership to develop a mechanism both for distribution of pure brood stock to private hatcheries and for cost sharing and monitoring.

*Flow of seeds from pure brood stock to small farmers*



## The workshop

NARC organized a one-day interaction program in coordination with DOFD and support from Samarth NMDP on 18<sup>th</sup> January, 2016 to develop a mechanism for cost sharing, distribution and monitoring of fish brood stock with the private hatcheries.

A total of 30 participants took part in the workshop. Among the participants attending the workshop were the Director of National Animal Science Research Institute (NASRI), Chief of Fisheries Research Department (FRD), several scientists from NARC, Director and Program Chief of DOFD and representatives from five private hatcheries from 5 different districts of Terai.

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## Key takeaway from the workshop

A number of important decisions were taken by the government during the workshop:

- Distribution of pure brood stocks by DoFD to private hatcheries would now start immediately, as a result of Samarth's support in the brood stock management which culminated in the workshop. It was otherwise planned by the government for 2018.
- A mechanism for distribution, cost sharing and monitoring was developed in the workshop. DoFD will be using the same mechanism for scale –up to other hatcheries throughout Nepal in future.
- DoFD decided to develop brood banks at selected government farms – for the first time in Nepal - and planned to allocate budget to it in the coming fiscal year.

## What Next

Samarth will follow-up and monitor the progress made by the hatcheries and the mechanisms developed by the government. To make the private hatcheries and the government nuclear breeding centres competent in producing pure breed stock, Samarth is planning to send 4 government field staff and 6 private hatcheries to the Central Institute of Fresh Water Aquaculture in Orissa, India for a 10-day training on brood stock and hatchery management.

## Development Outcome

Private hatcheries will start distributing pure quality seeds from pure brood stock by 2018 as it takes 2-3 years for the broods to mature and produce seeds. Samarth's facilitation has accelerated this process by two years. Once small farmers access these seeds, it will significantly reduce the mortality rate of fish and increase the productivity of fish earning them higher profit.

**PICTURES BELOW**



*Suresh Wagle (Chief – NARC FRD) – Presenting on the monitoring mechanism for pure brood stock.*



*Dr. Tek Bahadur Gurung finalizing the cost sharing, distribution and monitoring mechanism of pure brood stock*