

Introduction

The Government of Assam through the Government of India has received a loan of USD 200 million from the World Bank for implementation of the Assam Agribusiness and Rural Transformation Project (APART). The Project Development Objective is to add value and improve the resilience of selected agriculture value chains, focusing on smallholder farmers and agro-entrepreneurs in targeted districts of Assam. Fish has been prioritized as one of the value chains for interventions under APART. The fish value chain is to be implemented by the Department of Fisheries (DoF) in Assam in close coordination with the Assam Rural Infrastructure and Agricultural Services (ARIAS) Society, the College of Fisheries under the Assam Agricultural University and private sector partners, with technical support from WorldFish Headquarters in Malaysia.

Background

In the Indian state of Assam, capture fisheries and aquaculture provide livelihoods for thousands of rural households, who are directly or indirectly involved in the production and marketing of fish. While the current average productivity in ponds is around 1680 kg/ha/yr, beel fisheries produce less than 500 kg/ha/yr, which is far below their potential productivity. In addition, the quality of fish seed produced in the state is poor because of inbreeding and the use of undersized broodstock. The chronic shortage of fish feed also impedes farm productivity. The World Bank-supported APART fishery subcomponent would lay special focus on (i) improving the quality of the inputs such as fish seed and feed for aquaculture, (ii) increasing fish productivity and production from pond/tank aquaculture systems, (iii) increasing fish production through culture-cum-capture fisheries activities in beels, (iv) promoting diversification of fish species—particularly genetically improved strains in combination with Indian major carps in culture systems, and (v) improving post-harvest management, value addition and marketing of produce by setting up fish farmer common service centers (CSCs.).



Project name

Assam Agribusiness and Rural Transformation Project (APART)

Donor

Assam Rural Infrastructure and Agricultural Services Society (ARIASS)

Partners

- Department of Fisheries, Government of Assam
- Assam Agricultural University, Jorhat, Assam

Project duration

August 2018–July 2023

Project objectives

- 1. Enable sustainable increases in aquaculture production without creating adverse socioeconomic or environmental impacts (sustainable intensification of aquaculture).
- 2. Secure and enhance the contribution of small-scale fisheries to food security in Assam (increasing the diversity and productivity of beels).
- 3. Increase the availability, access and consumption of nutrient-rich, safe fish, especially for women of reproductive age, infants and young children (improving fish value chains and human nutrition).
- 4. Develop and promote climate-resilient technologies in support of sustainable aquaculture and small-scale fisheries (climate-resilient/climate-smart aquaculture technologies).
- 5. Promote gender-transformative approaches in support of sustainable aquaculture and beel fisheries in Assam (gender-transformative approaches in aquaculture).

Project deliverables

Promoting adoption of BMPs for sustainable intensification of aquaculture

Systematic approach to develop, test, and validate better management practices for sustainable intensification of aquaculture in Assam, based on sustainable aquaculture development principles for a given agro-ecological and socioeconomic context.

Upgradation of existing Indian major carp hatcheries to produce certified seed

Upgradation of five hatcheries and improved broodstock management for quality seed production.

Establishment of multiplication centers (MCs) for genetically improved fish strains

Establishment of four seed multiplication centers for fast growing genetically improved fish strains for production of high yielding fish seed.

Improving productivity of beels

Technology demonstration in beel fisheries will cover an area of 2225 ha, by combining indigenous small fish species (e.g. mola) with Indian carps and through stock enhancement, species/stock improvement and habitat management that will lead to production enhancement from the present level of 0.5-1.0 t/ha/yr to 1.5-2 t/ha/yr.

Improving fish value chains

Mapping of fish value chains in the state for identification of critical gaps to overcome.

Carp-mola polyculture

Mola will be introduced in polyculture ponds, rice fields and beels in a few clusters initially to be scaled-up in all other clusters in the project districts.

Improving impact of aquaculture and beel fisheries on human nutrition

Orientation on the concept of nutrition-sensitive fish food systems and the value of incorporating fish in diets (first 1000 days program) and to increase the availability, access and consumption of nutrient-rich, safe small indigenous fish, especially for women of reproductive age, infants and young children.

Promoting climate-resilient smart fish production technologies

In response to flood problems in Assam, paddy-cum-fish integrated farming systems is being promoted as a climate-resilient, smart fish production technology in 500 ha.

Gender-transformative approaches in support of sustainable aquaculture and beel fisheries

Gender-transformative approaches will be implemented across all deliverables to challenge practices that hinder women's involvement in aquaculture and fisheries.

Capacity building of DoF officers

Capacity building of DoF officials through training, focus group discussions and exposure visits within and outside the country.

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