



Assam has been named the 'Best State in Fisheries' amongst the hilly states and the north-eastern region for its best performance in the Fisheries sector

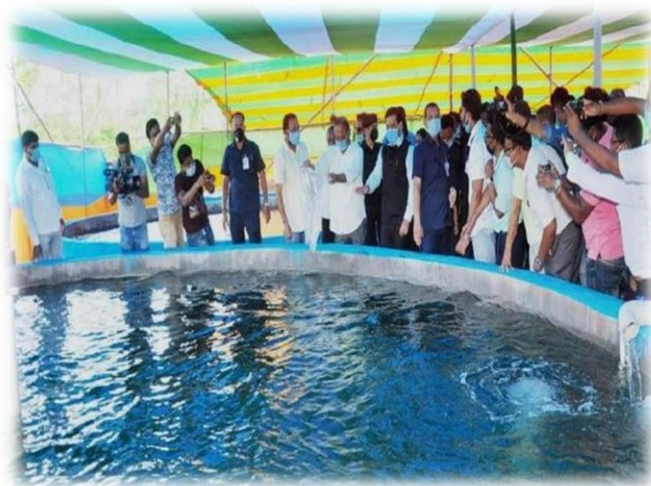
Assam is endowed with abundant resources in the form of ponds, derelict water bodies, *beels*, reservoirs, etc., covering about 2.86 lakh ha that are being used for fishery activities. In addition, two major river systems viz., Brahmaputra and Barak covering about 4,820 km with 53 tributaries have been the backbone of the State's economy. Sustainable development and management of these potential resources for productive purposes will provide supplement to the food and nutritional security in the State.



Fish farming is an important occupation taken up by the communities in the rural areas of the State. More than 90% of the people in the State prefer fish in their daily meals thereby increasing the demand. Additionally, the sector has helped in boosting economic activity, employment generation especially in the rural areas.

Strategies adopted by Assam for enhanced production:

As many of the indigenous fishes of Assam are alarmingly diminishing, Hon'ble Finance Minister, Assam in his Budget Speech 2017-18 announced the project '**Gene Bank for Indigenous Fish (GBIF)**' with basic objectives of conservation of the germ plasm, propagation and restoration of the endangered fish species of Assam.



The Fisheries Department, Assam initiated Gene Bank, a scientific conservation Programme for Indigenous Fishes (SCoPIF) which is being implemented as a 5-year project with an estimated investment of Rs. 9.36 Crores. It has partnered with

College of Fisheries, Raha under the Assam Agricultural University (2018-19). The project mainly involves research-oriented activities covering both experimental and natural habitat and was divided into three sub-projects namely, (i) Current status of *ichthyofaunal* diversity in Brahmaputra and Barak valleys of Assam and creation of live gene bank. (ii) Development of breeding technologies and culture system of threatened fish species in Assam. (iii) Mass awareness camp for in-situ conservation of indigenous fish germ plasm in Assam.

The state has also taken up integrated fish culture activities i.e. paddy cum fish culture and pig cum fish culture, developed beel fisheries and established 5 sport fishery units and eco-tourism spots.

Implementation of Central and State sponsored schemes in the State:

The department has provided infrastructure and other benefits to fish farmers under various central and state sponsored schemes. It has established 15 medium and large fish feed mills, provided 592 crafts and gears for fisher communities in 74 beels and installed solar power system. The state has also created 4 retail outlets for live fish & fresh fish, 6 fish markets and has constructed 4 wholesale cum retail fish markets.

The department has provided two wheelers and fish transport refrigerated vans, water testing kits and aerators to employ youth and fish farmers.

For the enhancement of fish production and to generate employment for the local youth, the department has identified more than 87 hectares of ponds under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). It has supplied inputs like seed, feed, lime etc. Established fish seed hatchery, constructed new pond and renovated community tanks, existing tanks, rearing area and established RAS.



Interventions for enhanced production:

The State fisheries department has made several interventions to increase fish seed production in the last three years by establishing 57 freshwater fish seed hatcheries,



construction of 2 fish seed farms, establishing fish seed rearing units in 39.34 hectares and stocking of fish seed in ponds/tanks/reservoirs in 217.78 hectares. The department has also constructed 90 captive fish seed rearing ponds, 4 fish seed multiplication centres, established 2 *magur* hatcheries and upgraded 5 fish seed hatcheries. In the last three years, tanks and rearing ponds have been constructed over 1,965.91 hectares, 13 re-circulating aquaculture system/ biofloc systems and 469 ponds

have been developed and 43 cage culture units were installed. It has developed demonstration units for poly culture, Carp-Mola poly culture and fresh water prawn and carp farming. The state has a total water spread area of 701,740.57 hectares from which produced 10.31 lakh tonnes of table fish in the last three years.

Welfare activities

During the last three years, the state has implemented a number of state and central schemes for employment generation to the local youth through fisheries and provided housing for fishers and a community hall. Under the special schemes, the State has insured

1,42,716 fishers under Pradhan Mantri Suraksha Bima Yojana and also provided savings cum relief fund to 20,000 fishers and Kisan credit card to 5548 out of 76,668 fishers enrolled.

Adoption of new technologies:

The Department has adopted / formulated many guidelines and standards to be followed by the fish farmers such as standardised dose of hormone for induced breeding.



In collaboration with College of Fisheries in Raha, the department has laid down an action plan to arrest the pungent smell of dry fish through herbal treatment. This will be accomplished by popularizing technologies under the innovation category of PMMSY by involving Women Self Help groups (WSHGs). The innovative model of Cuchia culture practiced by the tribal women was

introduced in cemented tanks. This has resulted into shift in production methods from 'capture to culture' and using locally available low-cost live feed. The department also installed ornamental fish breeding and established rearing centres, marketing centres, brood banks and aquariums in colleges.

Institution and Capacity building programmes:

The department has achieved the following:

- ✚ Established fisheries cooperative societies with 25.24 lakh fishers.
- ✚ Successfully audited 130 fishermen & fisherwomen cooperative societies until 2019-20.
- ✚ Conducted 286 training programs and 8 exposure visits in last four years.
- ✚ Developed Information, Education and Communication (IEC) material on different subjects related to fisheries sector.
- ✚ Conducted capacity building trainings for 3,008 fishermen and fisherwomen, 75 project staff and 76 officers & consultants in last four years.



Impact of the new schemes and technologies:

Through the intervention of new technologies and the implementation of various state and central government schemes, the area under fish culture has increased by 31.80% thereby increasing the fish production by 21.50%. Along with creating employment opportunities for the youth in fisheries sector and the sector has contributed to the State GDP by 2.51%.

Best practices in fisheries in the State:

- ✚ Achieved the distinction of being the first state to start breeding of *Magur* without sacrificing the male. The breeding was carried out at Regional Training Institute in Amranga, Guwahati.

- Successfully cultured varieties of indigenous species such as *Pabda*, *Labeobata*, *Cirrhinusreba* in Re-circulatory Aquaculture System (RAS). Fishers & Fish Farmers from states like Meghalaya and Arunachal Pradesh have visited Assam for an exposure visit for knowledge gaining. Assam was able to successfully take up Biofloc technology and many farmers/Entrepreneurs have established biofloc units in Assam now.
- ✚ State has successfully adopted diversified fish culture with introduction of indigenous fish species such as *Pabda*, *Fresh water eel*, *Anabus*, *Magur*, *Singhi*, *C. reba*, *L. bata*, *A. mola*, *Fresh water prawn*, *Chitala*, etc.
- ✚ Assam has seen a quantum jump in fish production from 2.94 lakh MT (2015-16) to 3.73 lakh MT (2019-20) and fish seed production from 5678 million fry (2015-16) to 9519 million fry (2020-21).
- ✚ Demonstrated by making local fish available for consumption during lock down while maintaining COVID-19 protocols and safety measures. The sale was conducted through its federation FISHFED and resulted in huge profit for the cooperatives.
- ✚ Achieved good number of Kisan Credit Card (KCC) enrolment till date.
- ✚ Successfully demonstrated cage culture in *beels* under Chief Minister Samagra Gramya Unnayan Yojana (CMSGUY) state scheme
- ✚ The Department has taken steps towards organisational restructuring such as transfer of:
 - Administrative control of FISHFED from Registrar of Cooperative Department to Fisheries Department.
 - Administrative control on income from fisheries sector from Revenue Department to Fisheries Department.
- ✚ Promoted 3 Farmers Producers Centres and 16 Farmers Producers Organization under Assam Agribusiness and Rural Transformation Project (APART) and National Bank for Agriculture and Rural Development (NABARD).
- ✚ State has been able to garner support and establish collaboration for development of fisheries with expert organisations such as Worldfish, CIFA, Central Inland Fisheries Research Institute (CIFRI), Assam Agriculture University, Guwahati University, Dibrugarh University, Assam University Silchar (Central):
 - Established three authorized fish seed supply centres of Jayanti Rohu in collaboration with Central Institute of Freshwater Aquaculture (CIFA).
 - Successfully carried out implementation of various projects under World Bank aided programme and culture of climate resilient species, carp-mola and freshwater prawn culture in the State with the technical guidance of World Fish Centre.
 - Collaborate with World fish Centre for for implementation of various projects under World Bank Aided programme.

Rewards and Recognitions:

- ✚ Assam has been awarded 'Best State in Fisheries' for its best performance in fisheries sector amongst the hilly and North-Eastern states.
- ✚ Department of Fisheries, Govt. of Assam was conferred Best Development Department award by 28th All India Congress of Zoology, Central Institute of Fisheries (CIFE), Mumbai
- ✚ Department of Fisheries, Govt. of Assam was recognised by CIFA, Bhubaneswar for its sincere cooperation and dedicated effort in adoption of fresh water aquaculture technologies in the State.

- ✚ Department of Fisheries, Govt. of Assam was adjudged as one of the top performing departments for successful implementation of fisheries component under Assam Rural Infrastructure and Agriculture Competitiveness project (ARIASP) funded by World Bank during the year 2011-12.



On "World Fisheries Day" held at Pusa, New Delhi, Assam Fisheries Department received the award under "Best Performing Hilly & North Eastern state" category from Shri Pratap Chandra Sarangi, Hon'ble Minister of State for Fisheries