



5.9 Climate Action - NAFCC



Sowing the seeds of Adaptation and Resilience

Name of the Project: Promotion of Integrated Farming System of Kaipad and Pokkali in Coastal Wetlands of Kerala

Implementing Entity: Agency for Development of Aquaculture, Kerala (ADAK).

Area Covered: 105 hectares of Kaipad lands in Kannur district and 495 hectares of the Pokkali fields in Thrissur, Ernakulam, and Alappuzha districts

Total Financial Outlay: ₹250 million

Name of the Fund: National Adaptation Fund for Climate Change (NAFCC)

- ❖ The neutralisation of soil acidity in Pokkali fields, reliant on regular tidal flux and monsoon freshwater runoff, had been delayed by irregular monsoons and climatic changes.
- ❖ Saline water seepage into Pokkali fields had been a persistent issue, mitigated by the construction of strong earthen bunds and inner channels.
- ❖ Lack of mechanisation in paddy harvesting had posed major challenges during the floods of 2018, 2019, and 2020, as harvesting coincided with the August-September flood season.
- ❖ Unusual climatic patterns had severely affected Kaipad lands, necessitating an increase in bund height to prevent flooding. Traditional Kaipad rice varieties, more resistant to salinity, had been found advantageous, prompting the need for a seed bank to benefit local farmers.

Challenges Addressed

- ❖ The 2018 floods devastated Pokkali farming in Alappuzha, Ernakulam, and Thrissur. Climate change intensified the impact, with heavy rains in 2019 causing crop losses and seed shortages, while delayed rainfall and increased salinity further hindered paddy growth.

Strategies

Farmers used location specific high yielding varieties of paddy having salt tolerance/submergence tolerance, for cultivation viz., Vyttila (1,6,8), Chettiviruppu, Ezhome (1,2,3,4), Kuthir, Uma, Jyoti, and Anakkodan.



Other Interventions included,

- ✖ Land conversion
- ✖ Integrated farming
- ✖ Diversification of aquaculture practices
- ✖ Mangrove planting
- ✖ Rice-shrimp farming
- ✖ Labour migration facilitation from other jobs to Pokkali farming and capacity building.



Impact

- ✖ The project heightened climate change awareness among Pokkali farmers, leading to bund reinforcement and mangrove planting.
- ✖ It revitalised 600 hectares of coastal wetlands,
- ✖ Benefiting 120 farmer groups, and
- ✖ Achieving significant fish, shrimp, and rice production while constructing crucial assets like bunds for flood protection.

Highlights of Sustainable Employment Generation:

A total of 1,73,560 paddy labourers were employed on a regular basis out of which more than 15,000 were women labourers, which strengthened and encouraged their participation in paddy cultivation.

i. Assets Created:

Sr. No.	Particulars	Numbers
1	Bund	120 bund each in 5 ha unit area
2	Sluice	208
3	Pump	232
4	Feed tray	1,180
5	Net frame	412
6	Bag net	234
7	Water testing kit	120
8	Solar lamps	116
9	Farm shed	117
10	Mangroves planted	64,135

ii. Income Generated (₹)/ha during 2020-21

Sr. No.	Particulars	Income generated in 2020-21 (₹)
1	Paddy + Paddy straw	2,26,842
2	Shrimp	9,68,960
3	Fish	4,06,590
	Total	16,02,392

