

# Mariculture can provide decent income to coastal communities, says CMFRI study

Kochi, Mar 28 (PTI) As the number of fishing days are reducing with each year due to extreme weather conditions, a recent CMFRI study has shown that mariculture can offer decent income to coastal communities. Cage fish farming in the open sea and coastal waters could yield an additional income of up to Rs three lakh per unit, the ICAR-Central Marine Fisheries Research Institute (CMFRI) study found.

Mariculture is the cultivation, management, and harvesting of marine organisms in their natural environment. "The study examined the social, environmental, technical and economic aspects of 159 mariculture units such as cage farming, seaweed cultivation and Integrated multi-trophic aquaculture (IMTA) in six coastal states including Kerala," a CMFRI release said.

The innovative practice of IMTA, which combines mussel or seaweed cultivation with cage fish farming, was found to generate even higher profits of Rs 3,25,000 per unit, CMFRI said. The study titled 'Sustainable intensification of small-scale mariculture systems: Farm-level insights from the coastal regions of India' was published in the international research journal *Frontiers in Sustainable Food Systems*.

It said Kerala exhibited higher profitability in coastal water cage farming compared to other coastal states, with nearly 40 per cent of such units in the state generating an income ranging Rs two lakh to three lakh per season. "Andhra Pradesh realised greater profitability in open sea cage farming while the IMTA practice was found to be more profitable in Tamil Nadu," CMFRI said.

The study led by Shinoj Parappurathu, a senior scientist of the CMFRI also highlighted that mariculture augmented employment and gender inclusion among the coastal communities across the country. Marine cage farming and the IMTA generated 175-396 person-days of employment from one unit in a season lasting around eight months, the study found.

"Adequate legislative mechanism is required to ensure legitimate access for farmers to open water bodies. Respective state governments should intervene to provide this protection to farmers so that production could be augmented," Parappurathu said. The lack of legislative provision puts this prospective sector under the shadow of uncertainty, ultimately hindering large-scale business plans in mariculture, he added. The CMFRI study also identified challenges in the sector, including the scarcity of quality seed and feed. It found that less than 50 per cent of farmers received good-quality seed for culture. Limited access to institutional credit to meet capital and the operational cost was reported to be another major constraint in the sector.