

## ISRO, fisheries institute project to help fishermen find ideal fishing spots

As part of the research work, physically collected data on fish catch, water quality and biophysical parameters such as pigments, temperature, salinity, nutrients, productivity etc. will be validated with satellite-derived data.

The project will focus on developing and running a satellite-based ocean forecasting model to provide fishing zone advisories.

The Central Marine Fisheries Research Institute (CMFRI) has joined hands with the Indian Space Research Organisation (ISRO) to identify areas in deep seas where fishes are found in abundance to help fishermen easily locate their catch without wasting time and fuel. The CMFRI and the Space Applications Centre (SAC) of the space agency have jointly launched a research project Samudra for identifying, forecasting and monitoring potential fishing zones (PFZ) in waters of Tamil Nadu in the first phase. The project will focus on developing and running a satellite-based ocean forecasting model to provide PFZ advisories.

CMFRI director Dr A Gopalakrishnan said the project is a milestone in India's fisheries sector and comes at a time when it is passing through a difficult phase. "PFZ advisory will definitely help the fishermen reduce their fishing efforts and at the same time increase their fish catch without wasting much time and fuel," he said.

It is planning to develop a satellite-based numerical ocean model to forecast information about the fishing locations by closely monitoring and analysing various physical changes in the oceans owing to seasonal and climatic variations, high winds, rain and cyclonic conditions.

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"The seas surrounding the Indian subcontinent contribute to an average of 2.5 million tonnes of seafood. The potential yield of seafood is estimated to be around 3.9 million tonnes from Indian exclusive economic zone. In this scenario identification, mapping and forecasting of PFZ are very essential," he said.

Dr Shoba Joe Kizhakudan, the principal scientist at CMFRI's Chennai Research Centre, has been appointed as the principal investigator of Samudra project.

Kizhakudan said as part of identifying these PFZ the behaviour of fish habitats controlled by various environmental parameters, including currents, the presence of planktons, would be monitored.

According to CMFRI's estimate, the total marine fish landings for 2016 was 3.63 million tonnes with Gujarat remaining at the top for the fourth consecutive year followed by Tamil Nadu. Kerala, with its vast coastline, for the first time dropped out of top three and ranked fourth behind Karnataka.

The estimated value of marine fish landings during 2016 at the landing centre level in the country was Rs 48,381 crores, registering an increase of 20.67% compared to 2015. At the retail level, the estimated value was ? 73,289 crores with an increase of 12.44% over the previous year.