PIB Headquarters

CMFRI Joins hands with ISRO to Forecast Potential Fishing Zone in Sea
A Milestone in India’s capture fishery

Collaborative research project will help fishermen increase their fish catch and reduce fishing efforts

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In a major effort greatly beneficial to the fisher folks in the country, the Central Marine Fisheries Research Institute (CMFRI) has joined hands with the Indian Space Research Organisation (ISRO) to identify and forecast Potential Fishing Zone (PFZ), an area in sea where fishes are seen in abundance. In the first phase, the CMFRI and the Space Applications Centre (SAC) of the ISRO have jointly launched a research project for identifying, forecasting and monitoring PFZ in coastal and offshore waters of Tamil Nadu.

The project named ‘SAMUDRA’ is aimed at helping fishermen easily locate shoals of fish without wasting time and fuel. The collaborative research work focuses on developing and running a satellite-based ocean forecasting model to provide PFZ advisories. The project aims to develop a satellite-based numerical ocean model to forecast information about the fishing locations by closely monitoring and analysing various physical changes occurred in ocean owing to seasonal and climatic variations, high winds, rain and cyclonic conditions.

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

A Milestone in Capture Fishery

Dr A Gopalakrishnan, Director of CMFRI called the collaborative research project a milestone in the history of capture of fishery of the country. “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 and added that “the project assumes significance at a time when India’s capture fishery sector is passing through difficult phase”.

Moreover, the technology would help India achieve a substantial growth in marine fish production, Dr Gopalakrishnan said. “The seas surrounding the Indian subcontinent contribute to an average around 2.5 million tonne of seafood. The potential yield of seafood is estimated to be around 3.9 million tonne from Indian exclusive economic zone. In this scenario, identification, mapping and forecasting of PFZ is very essential” he added.

The second international SAFARI conference, to be held by CMFRI in Kochi in January next year will evaluate the progress of the development of the research project, Dr Gopalakrishnan said.

Dr Shoba Joe Kizhakudan, Principal Scientist of CMFRI at its Chennai Research Centre is the Principal Investigator of SAMUDRA research project. As part of identifying potential fishing zones, the behaviour of fish habitats controlled by many environmental parameters such as seawater temperature, salinity, currents, presence of planktons, etc would be monitored, Dr Shoba said. “It is also essential to understand the relation among various ocean parameters in order to spot the fishing locations accurately”, she added.