

## Ocean to give rain clue

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Scientists from the city are taking a deep look at the oceans to be able to improve the monsoon forecasting and help governments to prepare better to tackle drought.

Scientists from the city-based Indian National Centre for Ocean Information Services, prompted by failure of monsoons for three successive years and prevalence of unprecedented drought conditions, have taken up a mega project to understand the mysteries of the deep and correlate the data for accurate and scientific prediction of monsoon winds. Explaining the oceanographic mission dubbed Argo, Dr M Ravichandran, INCOIS scientist, told *Deccan Chronicle* on Monday that scientists could not predict accurately the movement of monsoons due to lack of observation of the oceans.

Ravichandran has just returned from a trip of the Indian Ocean to release floats from the *ORV Sagar Kanya*.

The Argo - named after a ship in Greek mythology led by Jason, chief of the argonauts, in search of the Golden Fleece that belonged to the king Colchis - is a revolutionary concept for measurement of temperature and salinity, along with reference level velocities, through the upper 2,000 metre of the ocean in real time.

Each Argo float descends up to 2 km where it drifts with the currents. After 10 days, it slowly rises to the surface measuring temperature and salinity profiles as it goes up.

At the surface, it relays this information through satellites. It then sinks to begin another cycle.

The expected life of an Argo float is four years.

City scientists have released nine such in the Indian ocean. In all they propose to release 150 Argos. The international ocean community plans to deploy 3,000 Argos in three years for global coverage.

Ravichandran said the circulation and temperature in the upper layers of the ocean in the tropics respond rapidly to changes in global atmospheric circulation and rainfall distribution.

The resulting changes in sea surface temperature are coupled to changes in global atmospheric circulation and rainfall distribution.

This coupling between the tropical oceans and atmosphere is the key to potentially successful climate predictions, he said.

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