

Remote sensing in India

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IV. Central Marine Fisheries Research Institute (ICAR)

The technology of Remote Sensing has provided the opportunity to view the ocean from a high altitude platform. As a result, one of the most useful applications of Remote Sensing Technology is being developed for the monitoring of chlorophyll pigments in the ocean in order to map areas of high productivity. Aerial photography with airborne RMK Camera can be also made use of for fish school identification.

The Central Marine Fisheries Research Institute has been working in collaboration with NRSA, Hyderabad and Space Applications Centre, Ahmedabad in using the remote sensing technology to fisheries. With NRSA, mapping of the productive areas in the seas off Cochin by remote sensing of the colour of the sea water, was carried out in December 1980. The experiment consisted of chlorophyll measurements by Ocean Colour Radiometer from an aircraft. The ground observation consisted of both optical and biochemical measurements. The overall integrated results from these studies gave a picture of the horizontal distribution of chlorophyll concentration in the sea. In the present experiment about 1500 sq.km, of the sea area was covered. A contour map showing horizontal distribution of chlorophyll has been prepared. It is proposed to utilise the unique expertise available to study chlorophyll distribution and further correlate with pelagic fish schools using remotely sensed scanner data and aerial photography.

In a Joint Experiments Programme with the Space Applications Centre, Ahmedabad, Exploratory Fisheries Project of the Government of India and Central Marine Fisheries Research Institute, an aerial survey was conducted in a test area off Karwar coast in January 1981. Multi Spectral Scanner (MSS) and Camera system were operated along with collections of sea truth data.

It would also be possible to correlate Landsat data and suspended sediments with fish schools. Future programme includes the mapping of EEZ in stages and the estimation of the Pelagic fish resources.

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