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PRESS RELEASE

**International Symposium on
Remote Sensing and Fisheries**

(Cochin, 15-17 February, 2010)

Central Institute of Fisheries Technology, in association with Society of Fisheries Technologists (India), Cochin is hosting the International Symposium on **Remote Sensing and Fisheries** being organized by the SAFARI Initiative (Societal Applications in Fisheries and Aquaculture using Remotely-sensed Imagery) at Hotel Abad, M.G. Road, Ernakulam during 15-17 February, 2010. This symposium will highlight case studies using Earth observation data with contributions from key fisheries systems around the world. About 200 delegates including delegates from 28 foreign countries will be attending the three day conference.

SAFARI aims to accelerate the assimilation of satellite Earth observation data into fisheries research and management on a global scale. This initiative, funded by the Canadian Space Agency, falls under the Group of Earth Observation (GEO) Task AG-06-02, which calls for consultation at the international level to identify opportunities for enhanced utilization of earth observation data on fisheries and aquaculture.

The important problem facing society today is climate change, a phenomenon that is truly global in scope. Environmental conditions of the ocean are changing in way that are difficult to predict. We don't understand how fluctuations from year to year in the ocean environment affect the future fish stocks. There is a growing problem of overpopulation in the world. The rate of population growth is highest at the margins of the continents, leading to acute human impact in the coastal fringe of the ocean, where the overwhelming proportion of global fishing effort is directed.

Coastal populations rely on protein from the sea, but there is mounting evidence that 75% of his food source may be overexploited or depleted. The developing economy of aquaculture is vulnerable to outbreaks of harmful algae, commonly known as red tides. Water quality in the coastal zone is of major concern for the world community as well as for the tourism industry. Public awareness of the plight of species at risk, and of the necessity to maintain biodiversity, is at an all-time high. Illegal fishing and fishing outside allowed areas undermine efforts to conduct rational fisheries management. 65% of the ocean lie outside national jurisdictions and in these areas fisheries are difficult to control. This problem becomes more acute as fishing technology becomes more sophisticated.

How is society coping with these issue?: There is a maturing consensus between governments that stewardship of the oceans should be carried out through ecosystem-based management and an increased emphasis in the intergovernmental arena on earth observation. Moreover, international governance on the high seas is an issue of emerging importance. Finally, there is an increased interest that fish harvesting to be more efficient and more economical.

How can remote sensing support our efforts to manage fisheries and aquaculture?: Remote sensing of ocean colour provides our only window into the ocean ecosystem on synoptic scales. It is the sole method we have available to take a global view of the marine biosphere. It can help us to learn how the marine ecosystem is responding to environmental fluctuations like global warming and ocean acidification. It can also be used to provide essential ecosystem information in aid of international governance on the high seas. Remote sensing of ocean colour scan be used to monitor water quality as a tool in coastal-zone management, for example to study the degradation of coastal habitats through removal of mangroves or intense sediment loads from river flow. It also allows us to visualize and quantify the effect on the marine ecosystem of major perturbations at the regional level, for example El Nino. Remote sensing can be used to help delineate optimal sites for Marine Protected Areas and also habitats of species at risk. It can also be used to monitor the onset, expansion and fate of harmful algal blooms as an aid to the aquaculture industry. Remote sensing of ocean colour provides information on interannual variability in the marine ecosystem, helping to explain the effect of environmental fluctuations on the survival of larval fish and invertebrates. It is also used to identify potential fishing zones, allowing fishermen to work more effectively and economise

on fuel. This is certainly not to encourage overfishing, but merely to provide practical ways for sustainable management and more economical harvesting.

The International Symposium on Remote Sensing and Fisheries at Cochin will address the following themes:


- Operational Use of Remote Sensing for Fish Harvesting
- Earth Observation Ecosystem Indicators to assess Fish Health, Growth and Recruitment
- Use of Remote sensing in Aquaculture
- Implications of Climate Change on Fisheries
- Food Security and Sustainability
- Remote Sensing in the Detection and monitoring of Harmful Algal Blooms as pertaining to Fisheries and Aquaculture
- Earth Observation Satellite Data in Fisheries Models
- Remote Sensing Applications in the management of Coastal Zones and Fisheries

The following invited speakers will make their presentations:

- Dr. Kenneth Sherman, Director, Narragansett Laboratory and Office of Marine Ecosystem Studies at the Northeast Fisheries Science Centre, National Oceanic and atmospheric Administration in Rhode island. Dr. Sherman's talk at the symposium will focus on: The application of satellite remote sensing for assessing productivity and fisheries yields of the world's Large Marine Ecosystems.
- Dr. Shailesh Nayak, Secretary, Ministry of earth Sciences, Govt. of India and President, Indian Indian Society of Remote Sensing. Dr. Nayak's talk at the symposium will focus on: The societal benefits of ocean colour.
- Dr. Jeffrey J. Polovina, Chief, Ecosystems and Oceanography Division, Pacific Island Fisheries Science Centre, Honolulu. Dr. Polovina's talk will focus on: The applications of satellite remote sensing to the pelagic ecology of loggerhead sea turtles.
- Dr. Cara Wilson, Principal Investigator of the West Coast regional node of the NOAA CoastWatch Programme, Honolulu. Dr. Wilson's talk will focus on: Satellite data and fisheries- The US perspective.
- Dr. Sei-Ichi Saitoh, Graduate School of Fisheries Sciences, Hokkaido University, Japan. Dr. Saitoh's talk at the symposium will focus on:

The operational use of remote sensing and marine-GIS for sustainable fisheries and aquaculture.

- Dr. Simon Jennings, Lead Scientist, Centre for Environment, Fisheries and Aquaculture Science, Lowestoft, U.K. Dr. Jennings will focus on: The use of remote sensing data for assessing food web productivity and fishing impacts.
- Dr. Emmanuel Chassot, Fisheries Scientist, Institut de Recherche le Développement, France. Dr. Chassot's talk at the symposium will focus on: Marine primary production constraints on world fish catch.


11/24 2010
(Dr. B. Meenakumari)

DIRECTOR