

Cabinet approves Umbrella scheme “Ocean Services, Technology, Observations, Resources Modelling and Science (O-SMART)” of Ministry of Earth Sciences

Posted On: 29 AUG 2018 1:07PM by PIB Delhi

The Cabinet Committee on Economic Affairs, chaired by the Prime Minister Shri Narendra Modi has given its approval for the umbrella scheme “Ocean Services, Technology, Observations, Resources Modelling and Science (O-SMART)”, for implementation during the period from 2017-18 to 2019-20 at an overall cost of Rs.1623 crore. The scheme encompasses a total of 16 sub-projects addressing ocean development activities such as Services, Technology, Resources, Observations and Science.

Impact:

The services rendered under the O-SMART will provide economic benefits to a number of user communities in the coastal and ocean sectors, namely, fisheries, offshore industry, coastal states, Defence, Shipping, Ports etc. Currently, five lakhs fishermen community are receiving this information daily through mobile which includes allocation of fish potential and local weather conditions in the coastal waters. This will help in reducing the search time for fishermen resulting savings in the fuel cost.

Implementation of O-SMART will help in addressing issues relating to Sustainable Development Goal-14, which aims to conserve use of oceans, marine resources for sustainable development. This scheme (O-SMART) also provide necessary scientific and technological background required for implementation of various aspects of Blue Economy.

The State of Art Early Warning Systems established under the O-SMART Scheme will help in effectively dealing with ocean disasters like Tsunami, storm surges.

The technologies being developed under this Scheme will help in harnessing the vast ocean resources of both living and non-living resources from the seas around India.

Details:

Recognizing the importance of implementing schemes of highly multi-disciplinary in the ocean sector of national interests and international commitments, the ministry is proposing to continue the existing schemes in a focused way as a part of umbrella scheme of (O-SMART). As the resources on land are not adequate enough to meet the future demands, India is also embarking on blue economy for effective and efficient use of the vast ocean resources in a sustainable way, which would require a great deal of information on ocean science, development of technology and providing services. Further, the coastal research and marine biodiversity activities are important to be continued also in the context of achieving United Nations Sustainable Development Goal-14 to conserve and sustainably use the

oceans, seas and marine resources for sustainable development. This has been envisaged under the (O-SMART)scheme. The ocean advisory services and technologies being rendered and developed under the scheme play a pivotal role in the development activities over dozen sectors, working in the marine environment including the coastal states of India, contributing significantly to the GDP. Besides, the state-of-the art early warning systems setup for oceanic disasters viz., Tsunami, storm surges, are also providing round the clock services for India and countries of the Indian Ocean, which have been recognized by UNESCO.

The important deliverables during the next 2 years envisage include (i) strengthening of Ocean Observations and Modelling (ii) Strengthening of Ocean Services for Fishermen (iii) setting up Marine Coastal Observatories for monitoring marine pollution in 2018 (iv) setting up Ocean Thermal Energy Conversion Plant (OTEC) in Kavaratti (v) acquisition of 2 Coastal Research Vessels for Coastal research (vi) Continuation of Ocean Survey and Exploration of Minerals and Living Resources (vii) Technology Development for Deep Ocean Mining-Deep Mining System and Manned Submersibles and (ix) setting up Six Desalination Plants in Lakshadweep

Background:

In accordance of the Ocean Policy Statement enacted in November 1982, the Ministry has been implementing a number of multi-disciplinary projects in the field of ocean development primarily to (i) provide a suite of Ocean Information services, (ii) develop technology for sustainable harnessing the ocean resources, (iii) promote front-ranking research and (iv) conduct ocean scientific ocean surveys. The programs/policies of Ministry of Earth Sciences(MoES) are being pursued through its autonomous institutes, viz. National Institute of Ocean Technology, Indian National Centre for Ocean Information Services, National Centre for Antarctic and Ocean Research, and attached offices, Centre for Marine Living Resources and Ecology, National Centre for Coastal Research and other national institutes. A fleet of research vessels viz., Technology Demonstration vessel SagarNidhi, Oceanographic Research Vessel SagarKanya, Fisheries and Oceanographic Research Vessel SagarSampada and Coastal Research Vessel SagarPurvi have been acquired to provide required research support.

During the period, several major milestones under various programs have been accomplished which include according pioneer status on deep-sea mining of Poly-Metallic Nodules [PMN] in an area of 75,000 square kilometers in the Central Indian Ocean [CIO] allotted by International Sea Bed Authority [ISBA] for exploration of PMN, allotment of 10,000 sq.km in the Indian Ocean for exploration of hydrothermal sulphides. The ministry has been providing a number of ocean information services to various coastal stake holders viz., fisherman, coastal states, offshore industry, navy, coast Guard, etc. Some of the services have also been extended to neighbouring countries of the Indian Ocean Region. India's ocean related activities are now extended from the Arctic to the Antarctic region covering large ocean spaces which have been monitored through a wide spectrum of in situ and satellite-based observations. India has also established a state-of-the art early warning systems for ocean disasters, viz, tsunami, cyclones, storm surges etc., India had also signed the Antarctic Treaty System and joined Commission of Conservation of Antarctic Marine Living Resources (CCAMLR) for harnessing the resources. The technologies for harnessing the ocean resources are at various stages. Some of them have been matured and operational like low temperature thermal desalination for islands. Besides, the ministry has been monitoring the health of coastal waters of India including shoreline changes and marine

ecosystem. The others like Remotely Operated Submersible and soil tester, both capable of operation upto 6000 m. water depth, shallow bed mining systems are some of the cutting edge technologies developed.
