

GOVERNMENT OF INDIA
MINISTRY OF PORTS, SHIPPING AND WATERWAYS

LOK SABHA
UNSTARRED QUESTION NO. 2221
ANSWERED ON 01.08.2025

MARINE RESEARCH

2221. SHRI RAJESH NARANBHAI CHUDASAMA:

Will the Minister of PORTS, SHIPPING AND WATERWAYS be pleased to state:

पत्तन, पोत परिवहन एवं जलमार्ग मंत्रालय

- (a) whether the Government has any plans to conduct Marine Research in the country and if so, the details thereof;
- (b) whether National Technology Centre for Ports, Waterways and Coasts (NTCPWC) aimed to do research and studies on sediment transportation, navigation, dredging and siltation, port and coastal engineering, autonomous platforms and vehicles and if so, the details thereof;
- (c) the details of funds allocated for the establishment of NTCPWC; and
- (d) the steps taken by the Government to have tie-up with Industries and Institutions to create solutions towards enabling the modernization of the marine sector in the country?

ANSWER

MINISTER OF PORTS, SHIPPING AND WATERWAYS
(SHRI SARBANANDA SONOWAL)

- (a) About 35 navigational studies and 120 research and technical support projects have been carried out at National Technology Centre for Ports, Waterways and Coasts (NTCPWC) with focus on numerical modelling, coastal and estuarine flows, sediment transport and morphodynamics, navigation and manoeuvring, dredging and siltation, ports and coastal engineering structures and breakwaters, autonomous survey vessels, and multi hull computational fluid dynamics. Further, Indian Maritime University has been carrying out research projects on synthesis, characterization and bio environmental solutions for marine applications, manoeuvrability of inland vessels, study on underwater noise radiated from port-related activities and mitigation measures, numerical studies on inland waterways hulls.

(b) NTCPWC has developed Sedimentation and Erosion Management Test Basin to cater the challenges faced by ports, waterways and coastal areas in dredging and management of siltation and erosion. A 360-degree projection based Full Mission Ship Handling Simulator has been developed for conducting complex navigation feasibility studies for ports and waterways projects. Modern Field Research Lab (FRL) facility has been developed to carry out various field-based measurements in coastal, marine and waterways. Additionally, Marine Engineering and ICT lab provide coastal and marine environment sensing, analytics and visualization to support ports and waterways projects. Indigenous Vessel Traffic Management System (VTMS) has been developed under the vision of 'Digital India' and 'Aatma Nirbhar Bharat'.

(c) to (d) Ministry of Ports, Shipping and Waterways and organisations under its administrative control have funded Rs. 70.53 crore for the establishment of NTCPWC. Till date, more than 10 innovative solutions and products have been developed leading to patents and commercialization. Further, skill development and navigational training programs have been conducted for ports, waterways and maritime industry sector. Setting up of labs has encouraged interaction with industry, academia and organisation to promote innovation, research and development.
