

PARLIAMENT QUESTION: DEEP SEA CLEANING

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The Global Plastics Treaty is a proposed legally binding international agreement aimed at addressing plastic pollution throughout its lifecycle, from production to disposal. The treaty is being negotiated by the Intergovernmental Negotiating Committee (INC) convened by the UN Environment Programme (UNEP). The goal is to end plastic pollution by 2040 by establishing a circular economy for plastics, including reducing production, improving recycling, and preventing plastic waste from entering ecosystems.

The Ministry of Earth Sciences (MoES), through the National Institute of Ocean (NIOT), Chennai, launched the Samudrayaan project under the Deep Ocean Mission (DOM) in 2021. Under this project, NIOT is developing a human submersible, MATSYA 6000, which aims to carry three people to a depth of 6000 meters in the ocean with a suite of scientific sensors for ocean exploration and observation. The design for the MATSYA 6000 is complete, and wet harbor trials (with both crewed and uncrewed dives) were completed from 22nd January 2025 to 14th February 2025, demonstrating functionality (including flotation, vehicle stability, manoeuvrability, power, communication, and control devices) and human support and safety systems. The design for 6000 m has been completed, and components are being realised for the trials.

DOM encompasses six verticals aligned with specific scientific objectives. These are provided below.

1. Development of technologies for manned submersible, deep-sea mining and underwater vehicles and underwater robotics,
2. Development of ocean climate change advisory services,
3. Technological innovations for exploration and conservation of deep-sea biodiversity,
4. Deep ocean survey and exploration (and research ship),
5. Energy and freshwater from the ocean, and
6. Advanced Marine Station for Ocean Biology.

The mission has a budget outlay of 4,077 crores over a five-year period. Activities of the mission augment the country's blue economy by supporting deep-sea man-rated vehicle development for exploration, enhancing strategic access to critical marine resources, building long-term scientific infrastructure, supporting India's role in international seabed governance, and laying the foundation for sustainable marine resource exploration, conservation, and management for both deep-sea living and non-living resources. Apart from the benefits of scientific research and technological empowerment, this mission is to have immediate spin-offs in underwater engineering innovations, asset inspection and the promotion of ocean literacy to promote the blue economy.

This information was given by Dr. Jitendra Singh, Union Minister of State (Independent Charge) for Science and Technology, Earth Sciences, MoS PMO, MoS Personnel, Public Grievances & Pensions, Department of Atomic Energy and Department of Space, in a written reply in the Rajya Sabha today.

NKR/PSM/AV

