

**GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
LOK SABHA  
UNSTARRED QUESTION NO. 2925  
TO BE ANSWERED ON WEDNESDAY, 3<sup>RD</sup> AUGUST, 2022**

**DEEP SEA BIODIVERSITY**

**2925. SHRI SISIR KUMAR ADHIKARI:**

**Will the Minister of EARTH SCIENCES be pleased to state:**

- (a) whether the Government proposes to set up ocean based energy development in the next few years;
- (b) if so, the details of places that have been earmarked to setup energy base; and
- (c) the details of deep sea mining, underwater robotics, development of ocean climate change advisory services and technological innovations for exploration and conservation of deep-sea biodiversity in the next few years?

**ANSWER**

**THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR  
MINISTRY OF SCIENCE AND TECHNOLOGY  
AND EARTH SCIENCES  
(DR. JITENDRA SINGH)**

- (a) Yes, Sir.
- (b) The National Institute of Ocean Technology (NIOT), an autonomous Institute under Ministry of Earth Sciences (MoES) is establishing an Ocean Thermal Energy Conversion plant with a capacity of 65kW in Kavaratti Lakshadweep and work has just commenced. This plant will power the Low Temperature Thermal Desalination (LTTD) based desalination plant for conversion of Sea water into Potable water. The capacity of this LTTD plant is 1 lakh litre of potable water per day.
- (c) The Ministry of Earth Sciences (MoES) has launched the Deep Ocean Mission (DOM). The details of deep sea mining, underwater robotics, development of ocean climate change advisory services and technological innovations for exploration and conservation of deep-sea biodiversity under DOM in the next few years:
  - Design, and development of prototype manned Submersible rated for 6000 metre water depth, which includes technologies for underwater vehicle and underwater robotics
  - Design and Development of technologies for mining of deep sea resources like Polymetallic nodules from the Central Indian Ocean at a water depth of 5500 m.
  - Inventorization, archival of specimens and development of DNA bank of deep-sea fauna of Northern Indian Ocean through systematic sampling using Remotely Operated Vehicle.
  - Development of Ocean Climate Change Advisory Services for climate risk assessment due to sea level rise, cyclone intensity and frequency, storm surges and wind waves, biogeochemistry, and changing harmful algal blooms in the coastal waters of India.

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