

**GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
LOKSABHA  
UNSTARRED QUESTION NO. 1783  
TO BE ANSWERED ON WEDNESDAY, 8<sup>TH</sup> DECEMBER, 2021**

**DEEP OCEAN MISSION**

**1783. SHRI BRIJENDRA SINGH:**

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the details regarding deep sea mining activities announced under 'Deep Ocean Mission';
- (b) whether the technology to be used for deep sea exploration and mining is imported or is indigenously developed and if so, the details thereof; and
- (c) whether the Government plans to take steps to ensure that deep-sea habitats are not adversely impacted by heavy mining machinery and if so, the details thereof?

**ANSWER**

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

- (a) Under the Deep Ocean Mission (DOM), it is envisaged to develop technology and to demonstrate deep sea mining of polymetallic nodules (PMN) from depths up to 6000 m in the Area in the Central Indian Ocean Basin (CIOB), allocated by the International Seabed Authority (ISA) to India for survey and exploration.
- (b) Yes, Sir. The deep sea mining technology development being pursued is indigenous. Concept development, research and analysis, configuration and actual integration and development of system modules are all indigenous. Certain specialised and niche area equipment and components for 6000 m ocean depth are procured from specialised international OEMs and integrated and adapted through in-house efforts into the planned deep sea mining system.
- (c) Yes, Sir. The deep sea mining work and associated survey, exploration and mining system trials are being undertaken in international waters coming under the jurisdiction of the International Seabed Authority. During design and development of the mining system, aspects of possible impact on the deep sea conditions are well considered and suitably incorporated. The deep mining systems developed and test plans at sea are in keeping with the directives and guidelines issued by the International Seabed Authority on environmental impact and necessary monitoring of the activities.

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