

GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
**RAJYA SABHA**  
**UNSTARRED QUESTION No. 2425**  
ANSWERED ON 10/08/2023

**DEEP SEA MINING**

**2425. SMT. VANDANA CHAVAN:**

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

- (a) whether deep sea mining is an emerging area for countries to meet their increasing energy demands, if so, whether Government propose to undertake any deep sea mining projects;
- (b) if so, the details of the minerals that will be explored, places where it will be taken up and technology that will be deployed
- (c) whether deep sea mining has a lot of environmental impact and whether Government under “Deep Sea Mission” has assessed the potential environmental impact it will have on the sea biodiversity; and
- (d) if so, the details thereof and if not, the reasons therefor?

**ANSWER**  
**MINISTER OF EARTH SCIENCES**  
**(SHRI KIREN RIJJU)**

- (a) Yes Sir. Deep sea mining in international waters is governed by the International Seabed Authority (ISA), a body established under United Nations Convention on the Law of the Sea (UNCLOS). Government of India signed two contracts with the ISA for survey and exploration of deep-sea minerals viz., Polymetallic Nodules and Polymetallic Sulphides in the Indian Ocean.
- (b) Polymetallic nodules contain mainly Copper (Cu), Cobalt (Co), Nickel (Ni) and Manganese (Mn) and polymetallic sulphides contain mainly Lead (Pb), Zinc (Zn), Iron (Fe), Gold (Au) & Silver (Ag). Polymetallic nodules occur at a water depth of about 5500m in the Indian Ocean (13° to 14° South and 74° to 76° East) and polymetallic sulphides occur at a water depth from 3000 m to 4500 m in Southern Indian Ocean (in distributed blocks from 23° to 28° South and 62° to 72° East). Survey of the minerals has been conducted using ship-based system and remotely operated/ autonomously operated vehicles.
- (c) Yes Sir.
- (d) Environmental Impact Assessment and preparation of environment impact statements are mandatory for the exploration of deep-sea minerals as per the guidelines of International Seabed Authority. These guidelines are strictly followed by the Government of India and the survey and exploration are being carried out for collecting the base line environment information for the same.

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