

GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION NO. 1315
ANSWERED ON 11/12/2025

EXPLOITING POTENTIAL OF POLYMETALLIC NODULES

1315. SMT. SANGEETA YADAV:

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

- (a) whether the Ministry has taken steps to increase ocean mining and advancement of technology in this sector;
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) the steps taken to exploit the potential of polymetallic nodules by the Ministry; and
- (d) the position of country in deep sea mining vis-a-vis other developed nations in this field?

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

- (a) & (b) Ministry is only carrying out exploration activities beyond national jurisdiction in the Indian Ocean for seabed minerals like polymetallic nodules and polymetallic sulphides based on the signed contracts with the International Seabed Authority (ISA), an UN body under United Nations on the Convention of the Law of the Sea. National Institute of Ocean Technology (NIOT), an autonomous Institute under the Ministry of Earth Sciences has designed a deep-sea bed mining system aiming at sustainable harvesting of polymetallic nodules from depths of up to 5500 m. A remotely operable submersible (ROSUB 6000) and a remotely operable in-situ soil testing equipment was also developed. NIOT has also designed the manned submersible namely MATSYA 6000.
- (c) Ministry signed a contract with the International Seabed Authority for exploration of polymetallic nodules in the allotted area of 75,000 sq. km. in the Indian Ocean during 2002. The exploration activities are undertaken following the approved plan of work by the ISA which includes Survey and Exploration, Environmental Impact Assessment, Development of Mining Technology and Metallurgical process development.
- (d) All the countries having contracts with ISA are now involved in developing the deep seabed mining technology. Further, all nations are involved in drafting exploitation regulations of ISA for deep seabed minerals.
