

GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION No. 2407
TO BE ANSWERED ON THURSDAY, MARCH 23, 2017

EXPLORATION OF DEEP SEA MINERALS

2407. SHRI V. VIJAYASAI REDDY:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the details of the licenses issued by International Sea Bed Authority (ISBA) to India to explore deep sea minerals;
- (b) whether Government has conducted any detailed study to assess the damage that exploration and mining could cause to the ecology of deep sea and if so, the details thereof;
- (c) whether India has developed the technology required for deep sea mining and if so, the details thereof; and
- (d) by when India would be permitted by ISBA to exploit the minerals from deep sea?

ANSWER

MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND
MINISTRY OF EARTH SCIENCES
(SHRI Y. S. CHOWDARY)

- (a) International Sea Bed Authority (ISBA) has not issued any license to India to explore deep sea minerals. However, India signed a 15 year contract with International Seabed Authority (ISA) for exploration of polymetallic nodules from the Central Indian Ocean Basin (CIOB) on 25th March, 2002. Another 15 year contract was signed with ISA for exploration of polymetallic sulphides in Indian Ocean basin near Rodriguez Triple Junction on 26th September, 2016.
- (b) Yes Sir. A benthic disturbance was created in seabed in the allocated area in CIOB in 1996-97. Environmental studies for mining of deep-sea polymetallic nodules were undertaken to evaluate the possible impacts of mining on deep-sea environment. In order to study effects of sediment re-suspension and resettlement, monitoring of the environmental parameters were carried out by collection of samples at the test and reference areas for the benthic disturbance experiment. Results of the monitoring cruises have indicated that the benthic conditions are steadily moving towards restoration and the effect of disturbance is waning off.

- (c) As a first phase of development, National Institute of Ocean Technology (NIOT), an autonomous Institute under the Ministry of Earth Sciences has designed and developed a prototype shallow bed mining system capable of working upto a depth of 500 m. The system has been demonstrated successfully at a water depth of 512 meters off the Malvan coast. in addition, a remotely operable submersible (ROSUB 6000) and a remotely operable in-situ soil testing equipment was also developed.

- (d) The regulation for exploitation of deep sea minerals have not been formulated by ISBA so far. In absence of such regulations, no country is permitted to exploit minerals from deep sea in international waters.
