GOVERNMENT OF INDIA MINISTRY OF EARTH SCIENCES RAJYA SABHA STARRED QUESTION NO. *310 ANSWERED ON 21/08/2025

MINERALS FOUND IN THE INDIAN OCEAN

310 DR. AJEET MADHAVRAO GOPCHADE:

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

- (a) whether it is a fact that as per report of the International Seabed Authority, the minerals found in the Indian Ocean may help India to achieve self-sufficiency in nickel and cobalt;
- (b) if so, the details thereof; and
- (c) the steps taken to form a specialized task force to create a thorough policy for seabed mineral exploration, build partnerships with foreign Governments, promote private sector involvement and to provide training for the required workforce?

ANSWER

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

(a)-(c) A statement is laid on the table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (A) TO (C) OF RAJYA SABHA STARRED QUESTION NO. *310 REGARDING 'MINERALS FOUND IN THE INDIAN OCEAN' FOR ANSWER ON 21ST AUGUST 2025

- (a) & (b) The referred matter is a statement made by Secretary General of ISA before media and press in an event during February 2023 at Gujarat Maritime Law University, Gandhinagar. Ministry of Earth Sciences (MoES) being the nodal agency for deep sea mineral exploration have two seabed mineral exploration contracts with the International Seabed Authority (ISA) in the Indian Ocean. The first seabed exploration contractfor Polymetallic nodules (PMN) was signed in 2002 for exploration in an allocated area of 75000 sq. km in the Central Indian Ocean Basin and another for exploration of Polymetallic Sulphides (PMS) in the South-West Indian Ocean Ridge signed in 2016 in an allocated area of 10,000 sq. km. PMN contains precious metals like copper, nickel and cobalt and PMS contain valuable metals like copper, zinc, lead, iron, silver and gold etc. Ministry has only undertaken survey for PMN mineral resource estimation in 75,000 sq. km contract area allocated by ISA. Based on the survey and exploration, Ministry has estimated nodules present in the contract area as 366 million metric tons (MMT). The grade of the nodules in our contract area contains Copper 1.09%, Nickel 1.14% and Cobalt 0.14%. In the PMS contract area location of active and inactive sulphide vents are identified. The seabed mineral exploration activities are executed following an approved plan of work by ISA under the contracts covering survey & exploration, environmental impact assessment, technology development for mining and metallurgical extraction process. Presently, the seabed mineral activities regulated by the ISA is limited to exploration stage only.
- (c) The PMN and PMS exploration activities are regularly reviewed by the expert committees formed by the Ministry. The deep-sea mining is not permitted as of now, as the regulations for exploitation of seabed mineral resources has not yet been finalised and adopted by ISA.
