

GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
**RAJYA SABHA**  
STARRED QUESTION NO. \*400  
TO BE ANSWERED ON 30<sup>th</sup> July, 2009

**POLYMETALLIC NODULES PROJECTS**

**\*400 SHRIMATI JAYA BACHCHAN:**

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the assessment made so far about the Polymetallic Nodules Projects;
- (b) the amount spent on the project, so far;
- (c) whether the achievements have been commensurate with the expenditure incurred on the project; and
- (d) if not, the reasons therefor ?

**ANSWER**

MINISTER OF STATE (INDEPENDENT CHARGE) MINISTRY OF SCIENCE & TECHNOLOGY, MINISTRY OF EARTH SCIENCES, MINISTER OF STATE IN PRIME MINISTER'S OFFICE, MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS  
(SHRI PRITHVIRAJ CHAVAN)

**(a) to (d) A Statement is laid on the Table of the House.**

**STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF THE  
RAJYA SABHA STARRED QUESTION NO. \*400 FOR ANSWER ON 30<sup>th</sup> JULY,  
2009**

- a) The assessment made so far about the Polymetallic Nodules Project indicates an estimate of 380 Million Metric Tones (MMT) of total polymetallic nodules in the 75000 square kilometer of Area retained by India in the Central Indian Ocean Basin. The important metal values are estimated for Manganese – 92.59 MMT, Nickel – 4.70 MMT, Copper – 4.29 MMT, and Cobalt – 0.55 MMT. A first generation minesite has been identified on the basis of detailed survey. The Environmental Impact Assessment Study pertaining to the assessment of benthic impact and restoration of marine environment has also been completed. A pilot scale semi-continuous metallurgical plant was set up and the process package for extraction of metal values has been validated. The results indicated that the process efficiencies exceeded design basis. A prototype mining system was designed, developed and tested at a water depth of 451 meters as a part of stagewise development of mining system for exploitation of nodules from seabed.
- b) The amount spent on various activities (Survey and Exploration, Environment Impact Assessment Study, Technology Development -Extractive Metallurgy and Technology Development- Mining) of the project since its inception in 1982-83, is about Rs. 262.486 crores.
- c) Yes, Sir.
- d) Does not arise.