

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
STARRED QUESTION NO.*293
TO BE ANSWERED ON 09.08.2023.

Rare Earth Minerals

*293. DR. BEESETTI VENKATA SATYAVATHI:

Will the PRIME MINISTER be pleased to state:

- (a) whether the Government has taken any steps in terms of exploration and production of rare earth minerals, if so, the details thereof and if not, the reasons therefor; and
- (b) the details of India's import and domestically produced rare earth minerals?

ANSWER

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS AND PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH):

(a) to (b) A statement is placed on the Table of the House.

Government of India
Department of Atomic Energy

STATEMENT REFERRED TO IN REPLY TO LOK SABHA STARRED QUESTION
No. *293 DUE FOR ANSWER ON 09.08.2023 BY DR. BEESETTI VENKATA
SATYAVATHI REGARDING “RARE EARTH MINERALS”.

(a) Yes, Sir.

As regards Exploration:-

Atomic Minerals Directorate for Exploration and Research (AMD), a Constituent Unit of Department of Atomic Energy (DAE) is carrying out exploration to augment resources of Rare Earth Elements (REE) along the coastal / inland / riverine placer sands of the country for augmentation of Heavy Minerals resource, which includes monazite (a mineral of REE and thorium) and xenotime (a mineral of REE and yttrium) as well as in several potential geological domains (hard rocks) of the country.

As on date; Atomic Minerals Directorate for Exploration and Research has established

- (i) 13.07 million tonnes in-situ monazite (containing ~55-60% total Rare Earth Elements oxide) resource occurring in the coastal beach placer sands in parts of Kerala, Tamil Nadu, Odisha, Andhra Pradesh, Maharashtra and Gujarat and in the inland placers in parts of Jharkhand, West Bengal and Tamil Nadu.
- (ii) 7,37,283 tonne Rare Earth Elements Oxide (REO) in Ambadungar area, Chhota Udepur district, Gujarat
- (iii) 36,945 tonnes REO in Bhatikhera area, Barmer district, Rajasthan.
- (iv) 2,000 tonne of heavy mineral concentrate containing ~2% xenotime (a phosphate mineral of yttrium and rare earth elements) in the riverine placer deposits of Chhattisgarh and Jharkhand. Presently, AMD is carrying out collection of xenotime bearing heavy mineral concentrate in the unit established in Chhattisgarh and has a stockpile of 104.913 tonnes xenotime bearing heavy mineral concentrate.

AMD is presently carrying out survey and prospecting operations to augment rare earths resources in hard rock terrains in Phulan – Bhatikhera – Nal – Magreshwar – Buriwara – Dantala – Gugrot - Dhiran-Kundal-Sela, Barmer district in Rajasthan; Aratiya – Ghantol – Ambadungar, Chhota Udepur district in Gujarat; Kunkuri - Mayali, Jashpur district in Chhattisgarh; Khadandungri-Purandungri - Kanyaluka - Khejurdari -

Jaduguda - Mohuldih, East Singhbhum district in Jharkhand and Bhimsari, Adilabad district, Telangana. Further, AMD is carrying out exploration to identify additional resources of monazite (a mineral of REE and thorium) in the beach sand deposits along coastal tracts in parts of Kayamkulam - Harippad – Mannar, Alappuzha district in Kerala; Nabha – Brahmapur, Puri district and parts of Bhadrak district in Odisha and Donkuru – Kaviti, Srikakulam district and Kummarapurugupalem, West Godavari district in Andhra Pradesh.

As regards Production:-

Yes sir, Government has taken adequate steps for production of rare earth minerals in India. The source of rare earth mineral in India is radioactive, therefore IREL a PSU under DAE has been mandated to produce rare earth minerals in India. IREL has established mining, beneficiation, processing/ separation and extraction capacity & capabilities in the country.

- (b) As such no import of Rare Earth mineral is reported. The Indian source of rare earth mineral being radioactive, its import is regulated through licensing by the Government. Rare earth mineral viz. Monazite is available in lean content in Indian deposits i.e. BSM source. After mining and processing of ore, about 11000 tonnes of crude monazite is extracted, which is further beneficiated to produce 4100 tonnes of refined/high pure monazite per annum to make it compatible as industry feed for further value addition.
