## GOVERNMENT OF INDIA DEPARTMENT OF ATOMIC ENERGY LOK SABHA UNSTARRED QUESTION NO.2400 TO BE ANSWERED ON 26.12.2018

## THORIUM EXPLORATION

## 2400. SHRI DHARAMBIR:

Will the PRIME MINISTER be pleased to state:

- (a) whether the Government has conducted any State-wise survey of sandy areas rich in Thorium and identified them;
- (b) if so, the details of the said areas; and
- (c) whether deposit of Thorium are in abundance, its quantity is worth exploitation and production in such areas and if so, the details thereof?

## ANSWER

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

- (a) Yes, Sir.
- (b) The names of major deposits which contain monazite (thorium and REE ore mineral) are listed below.
  - 1. Chavara barrier beach and Eastern Extension, Kollam district, Kerala
  - 2. Manavalakurichi beach sand deposit, Kanyakumari district, Tamil Nadu
  - 3. Sathankulam Teri sand deposit, Tirunelveli District, Tamil Nadu
  - 4. Ovari Manapadu Teri Sand deposit, Tamil Nadu
  - 5. Navaladi-Ovari Teri Sand deposit, Tamil Nadu
  - 6. Kuduraimoli Teri Sand deposit, Tamil Nadu
  - 7. Bhimunipatnam beach sand deposit, Andhra Pradesh
  - 8. Kandivalasa beach sand deposit, Andhra Pradesh
  - 9. Kalingapatnam beach sand deposit, Andhra Pradesh
  - 10. Srikurmam beach sand deposit, Andhra Pradesh
  - 11. Bhavanapadu beach sand deposit, Andhra Pradesh
  - 12. Gopalpur beach sand deposit, Odisha
  - 13. Chhatrapur beach sand deposit, Odisha
  - 14. Brahmagiri beach sand deposit, Odisha.
- (c) Monazite is the primary source of thorium in India. The resources of monazite based on data of Atomic Minerals Directorate for Exploration & Research, (AMD), a Unit of Department of Atomic Energy (DAE), is estimated to be 12.47 million tons which corresponds to about 1 million tons of thorium oxide. Thorium is the substance meant for application in 3<sup>rd</sup> stage atomic power programme in India, which is extracted from monazite. Thorium is yet to be used for atomic energy development programme in world. However, substantial work has been carried out in the areas of research on technologies for utilization of thorium in nuclear fuel cycle such as 30 KW Kalpakkam Mini Reactor (KAMINI), 300 MW Advanced Heavy Water Reactor (AHWR) etc. Indian Rare Earths Ltd. (IREL), a CPSE under the administrative control of DAE has a mandate to process monazite and stockpile thorium values for future use.

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