

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO. 2564
TO BE ANSWERED ON 18.03.2021

BAN ON OPEN DUMPING OF MONAZITE MINERALS

2564. Shri A. Vijayakumar:

Will the PRIME MINISTER be pleased to state:

- (a) whether Government is aware that large deposits of Monazite are found in India;
- (b) if so, the details thereof;
- (c) whether the deposits of Monazite minerals are kept in open space, causing radiation problems in the country, especially in Kanyakumari district of Tamil Nadu; and
- (d) if so, the action taken to impose ban on open dumping/ deposits of Monazite, especially in Tamil Nadu?

ANSWER

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

(a)&(b) Yes, Sir. Monazite (mineral containing thorium and rare earth elements) bearing economic heavy mineral deposits are found along the coastal and inland placer sands of the country. Monazite occurs in association with other economic heavy minerals such as ilmenite, rutile, zircon, garnet and sillimanite in unconsolidated form.

Atomic Minerals Directorate for Exploration and Research (AMD), a constituent unit of Department Atomic Energy (DAE) has so far established 12.73 million tonnes of monazite contained in 130 deposits in the coastal beach placer sands in parts of Kerala, Tamil Nadu, Odisha, Andhra Pradesh, Maharashtra and Gujarat and in the inland alluvium in parts of

Jharkhand, West Bengal and Tamil Nadu. State-wise details of *in-situ* monazite resource established by AMD are given below:

State	No. of Deposits	Resource (million tonne)	
		Monazite	Total Heavy Minerals
Odisha	12	3.16	332.44
Andhra Pradesh	24	3.78	333.45
Tamil Nadu	50	2.47	298.42
Kerala	35	1.84	242.88
Maharashtra	5	0.004	5.64
Gujarat	2	0.07	12.53
West Bengal	1	1.20	5.45
Jharkhand	1	0.21	1.12
Total	130	12.73	1,231.93

(c)&(d) Deposits of monazite mineral occurs in open space in nature, in association with six other minerals along the coastal stretches of the country. These deposits have been formed naturally due to littoral action of sea waves coupled with wind action.

After harnessing the minerals, the mined out area are backfilled with sand, free of monazite on account of which background radiation in the deposits reduces to internationally accepted limits i.e. less than 0.5 microsievert per hour. Hence, as such, radiation problems do not arise.

Health Physics Unit (HPU), an independent unit of Environmental Assessment Division (EAD) of Bhabha Atomic Research Centre (BARC), Government of India is located in Kanyakumari District, which monitors the radiological safety aspects as per Atomic Energy Regulatory Board (AERB) guidelines / requirements.
