

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI PRITHVIRAJ CHAVAN): (a) Yes, Sir.

(b) India has formulated a three stage nuclear power programme to optimally use its modest small uranium and vast thorium resources. Large scale thorium utilization is contemplated in the third stage of this programme, where Uranium-233 bred in Fast Breeder Reactors of the second stage, will be used together with thorium.

The government has taken a number of steps to develop appropriate technologies for the utilization of thorium. A few of the major steps are:

- (1) Setting up the research reactor Kamini at Kalpakkam using Uranium-233 fuel obtained from irradiated thorium. The reactor has been operating Since 1997. The fuel for the reactor is bred, reprocessed and fabricated indigenously.
- (2) Irradiation of thorium fuel bundles in research reactor at Trombay and in Pressurised Heavy Water Reactors (PHWRs) has been carried out.
- (3) Design and development of Advanced Heavy Water Reactor (AHWR) using thorium based fuel. This reactor will serve as a technology demonstrator.

(c) Around 2,00,000 GW-yr electricity potential exists in India using about 8,07,713 tonnes of Thorium resources that can be obtained from Monazite reserves established in India.

#### Uranium and Thorium mines

1088. SHRI NANDI YELLAIAH: Will the PRIME MINISTER be pleased to state:

(a) the details of Uranium mines operating in India, State-wise and the average quantum of Uranium produced every year and the quality obtained;

(b) the details of Uranium mines and Thorium mines which are found by Atomic Mineral Directorate, State-wise as on today, which have yet to come under operation;

(c) the average quantum of Uranium and Thorium that is expected in a year out of all newly found Uranium and Thorium mines; site-wise and State-wise; and

(d) the details of budget released exclusively towards scientific research and survey towards finding Uranium and Thorium mines during the period 2005-06, 2006-07 and 2007-08?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI PRITHVIRAJ CHAVAN): (a) Uranium Corporation of India (Ltd.), a PSU under the Department of Atomic Energy is presently operating following Uranium Mines in India:

Mines	State
1	2
Jaduguda	Jharkhand

†Original notice of the question was received in Hindi.

1	2
Bhatin	Jharkhand
Narwahpahar	Jharkhand
Turamdih	Jharkhand
Banduhurang	Jharkhand
Bagjata	Jharkhand

Quantum of production of uranium in the country is not disclosed in public interest

(b) and (c) Uranium Mines presently under construction and under consideration are:-

Mines under construction	State
Mohuldih	Jharkhand
Tummalapalle	Andhra Pradesh
Lambapur-Pedagattu	Andhra Pradesh
KPM	Meghalaya
Gogi	Karnataka

Atomic Minerals Directorate for Exploration and Research has established approx 10.21 million tonnes of Monazite resources in the States of Kerala, Andhra Pradesh, West Bengal, Tamil Nadu, Orissa and Bihar which contain about 9 to 10% of ThO<sub>2</sub> and about 8,07,713 tonne of Thorium metal can be recovered from these sources.

(d) For scientific research and survey towards finding uranium and thorium, funds have been released as follows:

Year	(Rupees in crore)
2005-2006	17.72
2006-2007	19.95
2007-2008	44.06

#### **Turamdih and Domiasiat mines**

1089. SHRI N.K. SINGH:

SHRI RAMDAS AGARWAL:

Will the PRIME MINISTER be pleased to state:

(a) whether Government's attention has been drawn to media reports about the mismanagement of two major projects—Turamdih mines in Jharkhand and Domiasat mines (130 Kms. from Shillong) in Meghalaya;