

**GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA**

UNSTARRED QUESTION NO:927

ANSWERED ON:03.03.2010

THORIUM EXPLORATION

Joshi Dr. Murli Manohar, Mahto Shri Baidyanath Prasad

Will the Minister of ATOMIC ENERGY be pleased to state:

- (a) whether some foreign companies have shown keen interest in the field of thorium exploration in the country;
- (b) if so, the details of such companies;
- (c) whether the Government has explored the potential to generate power by using thorium in the country;
- (d) if so, the quantum of power likely to be generated in this field;
- (e) whether the required technology for said purpose is available in the country; and
- (f) if so, the details thereof?

Answer

MINISTER OF THE STATE (INDEPENDENT CHARGE) IN THE MINISTRY OF SCIENCE & TECHNOLOGY AND EARTH SCIENCES; MINISTER OF THE STATE IN THE MINISTRY OF PMO, PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PARLIAMENTARY AFFAIRS (SHRI PRITHVIRAJ CHAVAN):

(a)&(b) The Department of Atomic Energy has no information on this.

(c) Yes, Sir

(d) Around 2,00,000 GW-yr electricity potential exists in India using domestic thorium through the route of breeder technology.

(e) Yes, Sir.

(f) India has formulated a three stage nuclear power programme to optimally use its modest 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.

While in technological terms we are ready with the design of Advanced Heavy Water Reactor which would produce around two third of its energy from Thorium, large scale deployment of Thorium for power generation will be mainly in the third stage. This can start once large generation capacity based on fast reactors has been set up in the second stage of our nuclear power programme.