

**GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA**

STARRED QUESTION NO:128
ANSWERED ON:16.07.2014
SHORTAGE OF ATOMIC FUEL
Nimmala Shri Kristappa

Will the Minister of ATOMIC ENERGY be pleased to state:

- (a) whether shortage of fuel for atomic plants is affecting the nuclear power programme in the country and if so, the details thereof;
- (b) the expenditure incurred on import of uranium during each of the last three years and the current year, country-wise;
- (c) whether the Government of Australia has eased / relaxed the norms for supply of uranium to India and if so, the details thereof; and
- (d) the steps taken / proposed to be taken to ensure regular supply of uranium to nuclear plants in the country?

Answer

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

(a) to (d) 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.128 DUE FOR ANSWER ON 16.07.2014 BY NIMMALA KRISTAPPA REGARDING SHORTAGE OF ATOMIC FUEL.

(a) Yes, Sir.

Currently, the country has 20 nuclear power reactors under commercial operation with an installed generating capacity of 4780 MWe. Under the separation plan, ten of our commercially operating reactors are currently placed under International Atomic Energy Agency (IAEA) safeguards and are eligible for imported fuel. These reactors are RAPS 1 to 6 located at Rawatbhata, Rajasthan; KAPS 1&2 at Kakrapar, Gujarat and TAPS 1&2 at Tarapur, Maharashtra. Of these, one reactor, RAPS-1 located at Rawatbhata, Rajasthan (100 MWe) is under extended shutdown for techno-economic assessment. The remaining 9 reactors normally operate at their full capacity. In addition, KK1&2 at Kudankulam, Tamil Nadu are also under IAEA safeguards.

Ten nuclear power reactors viz., KGS 1 to 4 located at Kaiga, Karnataka; NAPS 1 & 2 at Narora, Uttar Pradesh; MAPS 1 & 2 at Kalpakkam, Tamil Nadu; and TAPS 3 & 4 at Tarapur, Maharashtra continue to use indigenous uranium. Due to a mismatch between demand and supply of domestic Uranium, the total power generated by these reactors is generally lower than their gross installed capacity of 2,840 MWe. However, following extensive work for exploration of Uranium in the country, the supply of Uranium from Indian mines is progressively improving and accordingly, capacity utilisation of these ten reactors has increased during last three years.

(b) The expenditure incurred on import of uranium during each of the last three years and the current year, country-wise is as under:

Year	Natural Uranium Di-oxide Pellets from JSC TVEL Corporation, Russia	Uranium Ore Concentrate from NAC Kazatomprom, Kazakhstan
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	Quantity imported (MT)	Landed Cost (` in Cr.)	Quantity imported (MT)	Landed Cost (` in Cr.)
2011-12	295.0	440.83	350.0	318.24
2012-13	295.0	444.60	402.5	414.67
2013-14	295.0	537.26	460.0	375.11
2014-15	118.0	144.26	-	-

(c) As stated in the Joint Press Statement on the State Visit of the Prime Minister of Australia to India on 17 October 2012, the bilateral Civil Nuclear Cooperation Agreement is a prerequisite for uranium sales from Australia to other countries. Discussions have been initiated with Australia on the proposed bilateral Civil Nuclear Cooperation Agreement.

(d) With the extensive work for exploration of Uranium in the country to augment indigenous sources, the supply of Uranium from Indian mines is progressively improving. So far, 2,11,473 tonne of U₃O₈ equivalent to 1,79,329 tonne of Uranium has been established by Atomic Minerals Directorate for Exploration and Research (AMD) in various States of India. Further, consequent upon India signing the Civil Nuclear Cooperation Agreement with United States of America on 10.10.2008, the Department of Atomic Energy (DAE) has been importing Uranium ore to supply fuel for the Nuclear Reactors under IAEA Safeguards as per the separation plan. As a part of this activity, Contractual Agreements were entered into with M/s. AREVA, France (during 2008), M/s. JSC TVEL Corporation, Russia (during 2009), M/s. NAC Kazatomprom, Kazakhstan (during 2009) and M/s NMMC, Uzbekistan (2013). As a result of import of Uranium, safeguarded nuclear reactors under separation plan are running at optimum level. Entering into long term Agreements with foreign suppliers for supply of Uranium and building a stockpile has been planned to ensure uninterrupted supply.