

GOVERNMENT OF INDIA  
DEPARTMENT OF ATOMIC ENERGY  
**RAJYA SABHA**  
**UNSTARRED QUESTION No.1923**  
TO BE ANSWERED ON 04.01.2018

**SHORTAGE OF NUCLEAR FUEL**

1923. DR. V. MAITREYAN:

Will the PRIME MINISTER be pleased to state:

- (a) whether there is shortage of nuclear fuel in the country;
- (b) if so, the reasons therefor and the steps taken by Government to have adequate supply of nuclear fuel;
- (c) by when the country is likely to become self-dependent in this field;
- (d) whether Government has signed any MoU with foreign countries for import of uranium or nuclear fuel in any form; and
- (e) if so, the details thereof and the quantity of uranium imported from various countries and expenditure incurred during the last three years and the current year, country-wise and year-wise?

**ANSWER**

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

---

- (a)&(b) No Sir. The Government has provided fuel from both indigenous and imported sources in required quantities for operation of nuclear power reactors at their rated power.
- (c) As per the vision plan prepared, in order to fulfil the requirement of Uranium to fuel nuclear power plants, Department of Atomic Energy will achieve nearly ten-fold rise in uranium production in next 15 years (by 2031-2032). The uranium mining projects have been planned in three phases. On completion of the projects in first phase, it is expected to produce 3.5 times of existing uranium production by the 12<sup>th</sup> year. On completion of the projects in second phase, uranium production is expected to achieve seven times of existing production. With the completion of phase three projects uranium production of the country is expected to record ten-fold increase by 2031-32.

The above is subject to obtaining all statutory clearances and external constraints.

(d) Yes, Sir.

(e) Consequent upon the Civil Nuclear cooperation, DAE has been importing Uranium to meet the fuel requirements of IAEA Safeguarded Nuclear Power Plants. The details of quantities of Uranium imported so far since the year 2009 and the anticipated supplies during the year 2017-18 is as follows:-

Sr. No.	Firm/ Country	Date of entering into Contract	Total Quantity to be procured as per Contract	Total Quantity received up to 19-12-17	Anticipated deliveries in 2017-18
1.	M/s. AREVA, France	17.12.2008	300 MT of Natural Uranium Ore Concentrate.	299.88 MT	Nil
2.	M/s. PJSC TVEL Corporation, Russia	11.02.2009	2000 MT of Natural Uranium Oxide Pellets.	2005.88 MT	Nil
		11.02.2009	58 MT of Enriched Uranium Oxide Pellets.	58.30 MT	Nil
		03.03.2015	42 MT of Enriched Uranium Oxide Pellets.	42.15 MT	Nil
3.	M/s. Navoi Mining & Metallurgical Combinat, Uzbekistan	28.09.2013	2000 MT of Natural Uranium Ore Concentrate.	Nil	Nil
4.	M/s. Cameco, Canada	15.04.2015	The Contract permits procurement of a minimum of 2750 MT and maximum 5500 MT of Natural Uranium Ore Concentrate.	2473.87 MT	Nil
5.	M/s. JSC NAC Kazatom Prom, Kazakhstan	12.11.2009	2100 MT of Natural Uranium Ore Concentrate.	2095.9 MT	Nil
		08.07.2015	The Contract permits procurement of a minimum of 3750 MT and maximum 7000 MT of Natural Uranium Ore Concentrate.	2667.08 MT	2076 MT*

\*inclusive of part consignment of around 576 MT pertaining to the Calendar Year 2016 and 1500 MT pertaining to the Calendar Year 2017. Both the consignments are expected to be received during the Financial Year 2017-18.

The quantity of uranium imported from various countries and expenditures incurred thereon during the last three years and the current year, country-wise and year-wise are mentioned below:

Year	M/s JSC NAC Kazatomprom, Kazakhstan (Uranium Ore Concentrate)		M/s Cameco Canada (Uranium Ore Concentrate)		M/s PJSC TVEL Corporation, Russia (Natural Uranium Oxide Pellets)	
	Quantity (MT)	Cost (₹ in Crore)	Quantity (MT)	Cost (₹ in Crore)	Quantity (MT)	Cost (₹ in Crore)
2014-15	283.419	216.93	Nil	Nil	296.548	541.55
2015-16	Nil	Nil	250.743	158.28	303.787	565.17
					42.150*	303.64
2016-17	999.807	590.01	1233.681	543.51	187.334	395.29
2017-18 (up to 28-12-17)	923.856	332.52	989.452	373.82	Nil	Nil

\* One-time import of Enriched Uranium Oxide Pellets.

\*\*\*\*\*