

**GOVERNMENT OF INDIA  
ATOMIC ENERGY  
LOK SABHA**

STARRED QUESTION NO:167  
ANSWERED ON:15.07.2009  
SHORTAGE OF FUEL FOR ATOMIC PLANTS  
Singh Shri Ganesh

**Will the Minister of ATOMIC ENERGY be pleased to state:**

- (a) whether there is shortage of fuel for atomic plants in the country;
- (b) if so, the reasons therefor;
- (c) the quantity of uranium imported from various countries and expenditure incurred thereon during the last three years and the current year, country-wise and year-wise;
- (d) whether the Government has any plan to make the country self-dependent in the field of atomic fuel; and
- (e) if so, the time by which the country is likely to become self-dependent in the field of atomic fuel?

**Answer**

THE MINISTER OF STATE FOR SCIENCE & TECHNOLOGY AND EARTH SCIENCES (INDEPENDENT CHARGES), PMO, PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS AND PARLIAMENTARY AFFAIRS (SHRI PRITHVIRAJ CHAVAN)

(a) to (e) A Statement is laid on the Table of the House.

GOVERNMENT OF INDIA DEPARTMENT OF ATOMIC ENERGY

STATEMENT REFERRED TO IN REPLY TO LOK SABHA STARRED QUESTION NO. 167 FOR ANSWER ON 15.07.2009 BY SHRI GANESH SINGH REGARDING SHORTAGE OF FUEL FOR ATOMIC POWER PLANTS.

(a)&(b) The total installed nuclear power capacity in the country is 4120 MWe. Out of this, 320 MWe capacity (Tarapur Atomic Power Station units 1&2 - 2X160 MWe) uses imported low enriched Uranium, which is available. The remaining capacity (3800 MWe) consists of Pressurised Heavy water Reactors (PHWRs). PHWRs use indigenous natural uranium, of which there is mismatch in demand and supply. The delay experienced in opening new mines and setting up processing facilities due to local and environmental factors have led to the current mismatch.

(c) 300 Te of natural uranium from AREVA, France and 60 Te of natural uranium pellets from TVEL, Russian Federation have been received in the year 2009. Nuclear Power Corporation of India, a PSE of the Department of Atomic Energy, is setting up two nuclear power reactors of 1000 MWe each in co operation with Russian Federation at Kudnakulam, Tamilnadu. The first charge of fuel and fuel reloads have also been received in the year 2008.

(d) Yes, Sir.

(e) Self dependency in nuclear fuel is a long term objective and is planned through execution of indigenous three-stage programme. The three stages of the programme have to be executed sequentially in view of the fuel cycle linkages between stages. While the first stage of the programme has reached maturity, the second stage of Fast breeder Reactors (FBRs) has been launched. The third stage of the programme for thorium utilization needs technology development and a sizeable capacity of the second stage. Based on the current status of the programme, large scale deployment of thorium fuelled reactors are expected to be launched around 2040.