

GOVERNMENT OF INDIA  
DEPARTMENT OF ATOMIC ENERGY  
**LOKSABHA**  
**UNSTARRED QUESTION NO:2932**  
TO BE ANSWERED ON 16.12.2015

**NUCLEAR FUSION RESEARCH**

2932. SHRI PRAHLAD SINGH PATEL:

Will the PRIME MINISTER be pleased to state:

- (a) whether the Government is aware that mega International Nuclear Fusion Research and Engineering project (ITER) is rescheduled and is missing the deadline of completion;
- (b) if so, the reaction of the Government thereto;
- (c) the total expenditure incurred by the Government by participating in the said project;
- (d) the number of Indian Scientists working in the ITER project;
- (e) whether the Government considers to develop own fusion technology for meeting the future demand; and
- (f) if so, the details thereof and if not, the reasons therefor?

**ANSWER**

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

(a)&(b) Yes, Sir. The ITER Council which is the governing body of the International Thermonuclear Experimental Reactor (ITER), France with equal participation from India, in its meeting held in Cadarache (France) in November, 2015 acknowledged the delays in achieving the first plasma beyond what is included in the baseline adopted in 2010 and decided to set up a panel of independent experts to review the updated schedule and required resources. The Government is awaiting the report of the panel of independent experts and its endorsement by the ITER Council. As far as India's in-kind contribution is concerned, it is working to maintain the

manufacturing and delivery dates as per the 2010 approved base line, for those items which are not dependent on other members contribution.

- (c) The total expenditure incurred by India (as on 30.11.2015) on ITER project is ₹ 2298.98 crore.
- (d) As on 30.11.2015, 22 Indian Nationals are working in the ITER project in France.
- (e)&(f) Fusion is a potential source of energy as it is virtually inexhaustible and India is actively developing its own Fusion Research program.

The Institute for Plasma Research, an Aided Institution under the Department of Atomic Energy (DAE) in Gandhinagar is operating two smaller Tokamak devices (ADITYA and SST-1, which brought India in 2013 to the league of 6 Nations having Superconducting Steadystate Tokamak in the world) to gain expertise in relevant technologies in the area and conduct experiments on various aspects of Fusion relevant Plasma. Preliminary design studies are underway on a demonstration fusion reactor capable of generating power. India's participation in the ITER project is in consonance with this goal which will allow Indian Fusion Research the necessary leapfrogging advantage.

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