

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 3457
TO BE ANSWERED ON 01.12.2010
EXPANSION OF IPRI

3457. SHRI GADHVI MUKESH BHAIKAVADANJI:

Will the PRIME MINISTER be pleased to state:

- (a) whether the Government proposes to expand the activities of Indian Plasma Research Institute in Gandhinagar, Gujarat;
- (b) if so, the details thereof; and
- (c) the funds allocated for this purpose?

ANSWER

THE MINISTER OF STATE FOR PLANNING AND PARLIAMENTARY AFFAIRS.
(SHRI V. NARAYANASAMY) :

- (a) Yes, Sir.
- (b) The Institute for Plasma Research (IPR) at Gandhinagar, an autonomous Institute of the Department of Atomic Energy (DAE), is devoted to the study of plasma science and its applications, especially those related to advanced nuclear energy technologies such as nuclear fusion. IPR is directly involved in R&D on magnetically confined fusion plasmas with devices like ADITYA & SST-1 tokamaks and participates in the frontline international R&D Program on understanding turbulence and transport of fusion grade plasmas and development of sophisticated fusion technologies in a step-wise manner. IPR is participating in the International Thermonuclear Experimental Reactor (ITER) experiment which is a joint experiment for exploitation of fusion energy involving Europe, China, US, Japan, Korea, Russia and India. The expansion activities of IPR are listed below:
 - operation of the fusion technology development programs and exploitation of machines like SST1 and ADITYA for critical physics studies

- commissioning of major infrastructure development at the new Fusion Research and Technology Centre at a new campus near Ahmedabad
- training of manpower in India and abroad, in collaboration with Saha Institute of Nuclear Physics (SINP), IIT Delhi etc.
- giving thrust to a vibrant domestic fusion materials' research program jointly with other DAE Institutions and selected University centers.
- careful and quantitative appraisal of magnetic fusion neutron sources as potential candidates for actinide burning, fissile fuel breeding and hybrid power production system.

(c) During the XI Plan period IPR has been allotted with an amount of Rs.1259.64 crore, which includes funding for ITER India to the tune of Rs.870.14 crore. The total sanctioned cost of ITER Project is Rs.2500 crore, over a period of ten years for the construction phase.

GOVERNMENT OF INDIA
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LOK SABHA
UNSTARRED QUESTION NO. 3461
TO BE ANSWERED ON 01.12.2010

SETTING UP OF NUCLEAR POWER PLANTS

3461. SHRI S.S. RAMASUBBU:

Will the PRIME MINISTER be pleased to state:

- (a) whether the proposed setting up of some nuclear power plants in different parts of the country are facing serious hurdles from various quarters;
- (b) if so, the details thereof;
- (c) whether the Government has taken any steps to address the problems for early setting up of the above projects;
- (d) if so, the details thereof; and
- (e) if not, the reasons therefor?

ANSWER

THE MINISTER OF STATE FOR PLANNING AND PARLIAMENTARY AFFAIRS.
(SHRI V. NARAYANASAMY) :

- (a)to(e) There are no serious hurdles faced from any quarter. However sometimes there are certain misgivings related to public acceptance. These are being addressed through structured public awareness programmes. In addition, the Project Affected Persons have issues concerning compensation for land and rehabilitation package, which are being settled in consultation with respective state governments.

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LOK SABHA
UNSTARRED QUESTION NO. 3563
TO BE ANSWERED ON 01.12.2010

NUCLEAR POWER PLANTS ALONG COASTLINES

3563. DR. PADMASINHA BAJIRAO PATIL:

Will the PRIME MINISTER be pleased to state:

- (a) whether the Government has recently conducted any study to explore the possibility of setting up nuclear plants along the vast coastline of the country;
- (b) if so, the details thereof;
- (c) whether the Environment Ministry has objected to setting up these plants; and
- (d) if so, the steps taken to resolve the differences between the Ministries?

ANSWER

THE MINISTER OF STATE FOR PLANNING AND PARLIAMENTARY AFFAIRS.
(SHRI V. NARAYANASAMY) :

- (a)&(b) The Site Selection Committee (SSC) of the central government had evaluated coastal sites offered by States for setting up nuclear power parks of 6000-10000 MW comprising of large capacity reactors based on international co-operation. Based on the recommendations of the SSC, the central government has accorded 'in principle' approval of new coastal sites at Kovvada in Andhra Pradesh, Chhaya Mithi Virdi in Gujarat and Haripur in West Bengal and the full potential of the previously approved sites at Kudankulam in Tamilnadu and Jaitapur in Maharashtra.
- (c) No, Sir.
- (d) Does not arise.

GOVERNMENT OF INDIA
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LOK SABHA
UNSTARRED QUESTION NO. 3649
TO BE ANSWERED ON 01.12.2010

RADIATION FROM URANIUM MINES

3649. SHRI M.I. SHANAVAS:
SHRI M.B. RAJESH:

Will the PRIME MINISTER be pleased to state:

- (a) whether the Government has received reports regarding radiation exposure of women, children and others residing near Banduhurang open cast uranium mines and such others mines in the country;
- (b) if so, the details thereof, mine-wise; and
- (c) the remedial measures taken/ proposes to be taken to ensure safety of the people residing near uranium mines in the country?

ANSWER

THE MINISTER OF STATE FOR PLANNING AND PARLIAMENTARY AFFAIRS.
(SHRI V. NARAYANASAMY) :

- (a) No Sir. However, there were unsubstantiated media reports.
- (b) Uranium mining has not caused any health related hazards in mining areas.
- (c) The operations of Uranium Corporation of India Limited (UCIL), a Public Sector Undertaking under the Department of Atomic Energy for carrying out the mining and processing of Uranium minerals, are carried out under strict surveillance of Atomic Energy Regulatory Board(AERB)/State Pollution Control Board, Director General of Mines & Safety(DGMS). UCIL has a track record of adopting absolute safe and environment friendly working practices in uranium mining and processing activities as prescribed by AERB. For systematic and effective monitoring of radiation levels in and around the mines, mill, tailing pond, a well equipped Health Physics Unit cum Environmental Survey Laboratory of Bhabha Atomic Research Centre (BARC), which are independent of UCIL, has been in operation since inception of the mines and related facilities. The reports of the survey are reviewed by AERB through its various constituents. UCIL provides comprehensive health care to all persons employed in mine and their families.

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UNSTARRED QUESTION NO. 3654
TO BE ANSWERED ON 01.12.2010

GLOBAL CENTRE FOR NUCLEAR ENERGY PARTNERSHIP

3654. SHRI MILIND DEORA:

Will the PRIME MINISTER be pleased to state:

- (a) whether the Government intends to set up a global centre for nuclear energy partnership;
- (b) if so, the details thereof;
- (c) the reasons behind the initiative;
- (d) whether the Government has also granted in-principle approval to five energy parks at five coastal sites in India;
- (e) if so, the details thereof;
- (f) the time-frame for the establishment of the energy parks; and
- (g) the increase in the installed nuclear power capacity as determined by the Government because of the above initiative?

ANSWER

THE MINISTER OF STATE FOR PLANNING AND PARLIAMENTARY AFFAIRS.
(SHRI V. NARAYANASAMY) :

- (a) Yes, Sir.
- (b) & (c) As nuclear energy expands world wide, there has to be a science based approach by developing nuclear systems that are intrinsically safe and secure and proliferation resistant. India is in a position to make an important contribution towards this as a country with advanced nuclear technology with comprehensive capability over all aspects of the nuclear fuel cycle and on the basis of its robust indigenous programme and by helping in fostering international cooperation to realize the above objectives. Based on this philosophy, Government of India has decided to setup a Global Centre for Nuclear Energy Partnership. It will be located at village-Kheri-Jassaur near Bahadurgarh, Haryana on nearly 200 acres area in two segments.

This is likely to facilitate national as well as international travelers being near to New Delhi airport and will work in the following four areas :

1. Advanced Nuclear Energy System Studies
2. Nuclear Security
3. Radiation Safety
4. Applications of Radioisotopes and Radiation Technology.

(d) Yes, Sir.

(e) The details are :

Sl. No.	Location & State	No. of Reactors & Capacity (MW)
1.	Kudankulam, Tamilnadu *	4 X 1000
2.	Jaitapur, Maharashtra	6 X 1650
3.	Kovvada, Andhra Pradesh	6 X 1000
4.	Chhaya Mithi Virdi, Gujarat	6 X 1000
5.	Haripur, West Bengal	6 X 1000

* KK 1&2 (2X1000 MW) are already at an advanced stage of construction at the site

(f) The pre project activities at these sites are in hand. The plan is to commence work at above sites towards end of XI Five Year Plan / beginning of XII FiveYear Plan in a phased manner on the basis of setting up of two reactors in each phase at a site, with a lag of about three to four years between phases.

(g) A capacity of about 32000 MW will be added on realization of the potential of these sites.

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GOVERNMENT OF INDIA
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UNSTARRED QUESTION NO. 3676
TO BE ANSWERED ON 01.12.2010

NUCLEAR ENERGY PROGRAMME

3676. SHRI HARISHCHANDRA CHAVAN:
SHRI RAMSINH RATHWA:

Will the PRIME MINISTER be pleased to state:

- (a) whether the Government has formulated a three stage nuclear energy programme on the basis of indigenous nuclear fuel sources to provide long-term energy security to the country;
- (b) if so, the details thereof; and
- (c) the present status thereof ?

ANSWER

THE MINISTER OF STATE FOR PLANNING AND PARLIAMENTARY AFFAIRS.
(SHRI V. NARAYANASAMY) :

- (a) Yes, Sir.
- (b) The three-stage nuclear power programme is aimed at optimum utilization of the indigenous nuclear resource profile of limited uranium and abundant thorium. It comprises Pressurised Heavy Water Reactors (PHWRs) based on natural uranium with a potential of about 10,000 MW in the first stage, Fast Breeder Reactors (FBRs) utilising plutonium-uranium fuel cycle in the second stage with a power potential of around 5,00,000 MW and Reactors for utilization of thorium in the third stage with immense potential to sustain the country's energy needs for several hundred years. The three stages have fuel cycle linkages and have to be gone through sequentially.
- (c) The first stage has reached a state of commercial maturity with seventeen PHWRs (4240 MW) in operation and one PHWR (Kaiga Unit -4 of 220 MW) in the process of first start this month. Construction of two PHWRs each of 700 MW has started at Kakrapar in Gujarat. In addition, two 700 MW PHWRs have been launched at Rawatbhata in Rajasthan. The second stage has been launched and a 500 MW Prototype Fast Breeder Reactor (PFBR) is under advanced stage of construction at Kalpakkam, Tamilnadu. The technologies for the third stage are in the process of development.
