GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO.2150
TO BE ANSWERED ON 15.03.2017

NUCLEAR EXPOSURES

2150. SHRI K. N. RAMACHANDRAN:

Will the PRIME MINISTER be pleased to state:

(a) whether cases of nuclear exposure to local population and scientists/employees working in different nuclear plants across the country have been reported;

(b) if so, the details thereof during the last two years and the remedial measures taken by the Government in this regard;

(c) whether wide use of nuclear energy is also proving to be a boon in the fields like medical treatment and agriculture; and

(d) if so, the details thereof and the action taken by the Government for the timely completion of nuclear plants in the country?

ANSWER

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

(a) No, Sir.

(b) Does not arise.

(c) Yes, Sir.

(d) In the last two decades, there has been a continuous increase in availability of Radiation Oncology facilities for cancer care in India and the number of treatment units (Linear Accelerators and Telecobalts) have increased from less than 250 in the year 1995 to approximately 552 units in 2015. The newer Radiation facilities, though lesser than the actual requirement in the country, do have advanced facilities for catering to radiotherapy cancer treatment. The Radiation Oncology community within India has utilized the available infrastructure to develop a strong scientific programme for radiation treatment delivery in India across academic centres of excellence.

The radioisotopes produced by use of nuclear energy are being effectively utilized in the fields of medicine (both diagnostic and therapeutic), agriculture and industry. Radioisotopes applications are on increasing trend world over in medical treatment, agriculture etc. Since radioisotopes are produced in reactors, increase in the numbers of reactors will increase the availability of indigenously made

radioisotopes in medical treatment and agriculture. Department of Atomic Energy (DAE) has also developed technology in recovering Cs137 radioisotope from the radioactive waste generated from the fission products of the reactor, which has got application in medical field. Bhabha Atomic Research Centre (BARC) has a major agricultural research programme on improvement of oilseeds, pulses, wheat and rice using radiation-based mutation breeding methods for the past several decades. Already 42 varieties of different crops have been developed by BARC that include groundnut (15 varieties), mustard (3 varieties), soybean (2 varieties), sunflower (1 variety), mungbean (8 varieties), uridbean (5 varieties), pigeonpea (5 varieties), cowpea (1 variety) and 1 variety each of rice and jute. These crop varieties are endowed with one or more improved and desirable attributes such as higher yields, early harvesting, large seed sizes, along with resistance to biotic and abiotic stresses. These crop varieties are notified and released to the Indian farmers for commercial cultivation in the country. The farmers' feedback about these varieties from various states is extremely good as these are tailored to suite the agro-climatic conditions of the regions of cultivation. The seeds are available from the State Seed Corporations, National Seed Corporation, various agricultural state universities and also institutes of Indian Council of Agricultural Research. Some companies are also exporting seeds of these varieties to other countries.

The Atomic Energy Act 1962 empowers the Government to produce, develop, use and dispose of atomic energy either by itself or through any authority or Corporation established by it or a Government company. In this regard, an indigenous sequential three-stage nuclear power programme based on optimum utilization of the country's nuclear resources of modest uranium and abundant thorium is being pursued. Large capacity nuclear power reactors based on foreign cooperation are also being implemented as additionalities, for faster capacity addition.

In addition, the Government has taken the following measures to facilitate nuclear power capacity addition:

- In principle approval of sites to locate nuclear power plants in future.
- Creation of India Nuclear Insurance Pool to cover the Operator's Liability as prescribed under the provisions of the Civil Liability for Nuclear Damage (CLND) Act, 2010.
- Amendment to the Atomic Energy Act, 1962 to facilitate establishment of Joint Venture Companies (JVC) by Nuclear Power Corporation of India Limited (NPCIL) with other Central Public Sector Undertakings to set up nuclear power plants.

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