GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO- 1296
TO BE ANSWERED ON 14.12.2022

Reforms in Atomic Sector

1296. MS. RAMYA HARIDAS:

Will the PRIME MINISTER be pleased to state:

(a) the details of reforms proposed in the atomic sector recently by the Finance Minister as a part of PM's Rs. 20 lakh crore package;
(b) the manner in which irradiation technology can be used for food preservation;
(c) whether this technology is still with the Ministry of Atomic Energy or it has been shared with the private players; and
(d) the extent to which setting up of units on PPP mode help in reducing the food wastage which is 50 kgs per person per year in the country and if calculated it runs into thousands of crores annually?

ANSWER

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

(a) Following are the reforms related to Atomic Energy proposed by Hon'ble Finance Minister, Govt. of India on 16.05.2020:
    (i) Establishing Research Reactor in PPP mode for production of medical isotopes to promote welfare of humanity through affordable treatment for cancer and other diseases.
    (ii) Establishing Facilities in PPP mode to use irradiation technology for food preservation.
    (iii) Linking India's robust start-up ecosystem to nuclear sector by setting up Technology Development-cum-Incubation Centres for fostering synergy between research facilities and tech-entrepreneurs.

(b)&(c) The Irradiation Technology used for food preservation are as follows:

i) Disinfestation of insect pests in stored products as well as fresh produce,
ii) Delay in ripening and senescence in fruits and vegetables,
iii) Inhibition of sprouting in tubers, bulbs and rhizomes,
iv) Decontamination of microbes responsible for food spoilage, and
v) Elimination of parasites and pathogens of public health importance in food.
vi) Quarantine treatment of Agri-produce including fruits and vegetables can be achieved with irradiation which is a mandatory phytosanitary requirement for exporting the agricultural produce to many countries. India has been exporting radiation processed mangoes to USA since 2007. Now export to Australia and Malaysia has also started.

The irradiation technology offers broad spectrum of socio-economic and business benefits and owing to these attributes, the irradiation technology has been shared with various private entrepreneurs for Food safety, Security and Trade promotion. Twenty-five food irradiation facilities are operational in the country in private, semi government and government sector for irradiation of various products. In addition, various food business operators (FBOs) and other stakeholders are being made aware about the socio-economic benefits of the irradiation technology.

(d) The radiation processing of grains (cereals and pulses) as well as spices and their products can help in maintaining their quality for a year; and onion and potato for around 8 months if stored in optimized condition. The radiation technology has immense potential in reducing post-harvest losses of the food. The installation and operation of adequate numbers of food irradiation facilities with required logistics and infrastructures across the country have enough potential to save monetary loss associated with food wastage.

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