

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO.1765
TO BE ANSWERED ON 17.03.2022

MANAGING ENVIRONMENTAL IMPACT OF NUCLEAR PLANTS

1765 Smt. Vandana Chavan:

Will the PRIME MINISTER be pleased to state:

- (a) whether it is a fact that uranium mining for atomic energy causes carbon emission;
- (b) whether Government has made plans for sustainable uranium utilisation, in line with its vision to increase nuclear energy to 22,480 MW by 2031, and if so, the details thereof;
- (c) the steps taken to reduce the risk of water contamination due to nuclear plants;
- (d) whether existing nuclear plants are being upgraded for safety and environmental purposes, and if so, the details thereof; and
- (e) the amount sanctioned, disbursed and utilised for the purpose of mitigating potential environmental hazards of nuclear plants, State/UT/year-wise?

ANSWER

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

- (a) Energy is required for any kind of mining activity and for processing of ore for producing mineral concentrates. This is also true for mining and processing of uranium ore. For this purpose, electricity is the main source of power and the use of diesel as a source of energy is quite insignificant compared to that of electricity.
- (b) Yes Sir. The present installed capacity of 6780 MW is planned to be increased to 22480 MW by 2031 on progressive completion of projects. The Uranium requirement for the upcoming plants will be met by utilising indigenously available Uranium as well as imported Uranium.

- (c) Nuclear power plants are designed adopting safety principles of redundancy, diversity and provided fail-safe design features following a defence-in-depth approach, which provide for multiple barriers to release of radioactivity to the environment. The equipment and systems are designed ensuring separation of active and non active systems. Further, the aquatic discharges are monitored and it is ensured that the releases are well within the limits stipulated by the regulatory authority, Atomic Energy Regulatory Board.

- (d) Safety is constantly reviewed in nuclear power plants and improvements/ upgrades are implemented based on evolving global standards, events and experience feedback. Similarly, efforts to ensure continual improvement in environmental performance and conservation of key resources are ongoing in nuclear power plants.

- (e) Nuclear power is clean and environment friendly and a serious environmental hazard from nuclear power plants is highly unlikely. To mitigate any potential hazards, provisions are made in the design and various operating and maintenance practices. The funds for these measures form a part of the Capital and O&M costs of nuclear power plants and are not accounted separately.
