GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
STARRED QUESTION No.*356
TO BE ANSWERED ON 22.12.2021

SOURCING RADIO-ACTIVE MATERIAL

*356. SHRI VISHNU DAYAL RAM:

Will the PRIME MINISTER be pleased to state:

(a) whether our country is self-sufficient when it comes to sourcing radio-active materials for power generation through nuclear energy;

(b) if so, the details thereof; and

(c) the details regarding the use of commercial thorium for nuclear power generation?

ANSWER

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

(a)to(c) A statement is placed on the Table of the House.

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Government of India
Department of Atomic Energy

STATEMENT REFERRED TO IN REPLY TO LOK SABHA STARRED QUESTION NO. *356 DUE FOR ANSWER ON 22.12.2021 BY SHRI VISHNU DAYAL RAM REGARDING SOURCING RADIO-ACTIVE MATERIAL.

(a)&(b) Uranium produced in the country is adequate for meeting the requirement of operating Pressurised Heavy Water Reactors (PHWRs) under domestic safeguards(Six PHWRs of 220 MWe & two PHWRs of 540 MWe). Fuel produced from indigenous uranium is supplied to these reactors. Uranium required for feeding reactors under International Atomic Energy Agency (IAEA) safeguards is met through imports.

(c) India has modest uranium and large thorium reserves. Department of Atomic Energy has planned the use of large deposits of thorium available in the country as a long-term option. A three-stage nuclear power programme, based on a closed nuclear fuel cycle, has been chalked out to use thorium as a viable and sustainable option, right at the inception of India's nuclear power programme. The three-stage nuclear power programme aims to multiply the domestically available fissile resource through the use of natural uranium in Pressurised Heavy Water Reactors, followed by use of plutonium obtained from the spent fuel of Pressurised Heavy Water Reactors in Fast Breeder Reactors. Large scale use of Thorium will subsequently follow making use of the Uranium-233 that will be bred in Reactors. Efforts are currently on to enlarge the present thorium related R&D work and activities to a bigger scale. This is aimed towards development of technologies for shaping the third stage of our nuclear power programme.

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