

GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYASABHA
UNSTARRED QUESTION No. 3247
ANSWERED ON 21/08/2025

UTILISATION OF DEUTERIUM IN THE GODAVARI RIVER

3247. SMT. RENUKA CHOWDHURY:

Will the Minister of **EARTH SCIENCES** be pleased to state:

- (a) whether any studies have been conducted by Government agencies or research institutions to assess the availability and potential extraction of Deuterium, a stable isotope of hydrogen in the waters of the Godavari River;
- (b) whether Government is undertaking any initiative to utilise Deuterium found in surface waters such as Godavari River for future fusion energy research and development, if so, the details thereof; and
- (c) whether any technology or process for the extraction and enrichment of deuterium from natural water sources like rivers and seas for nuclear energy purposes is being developed, if so, the details thereof?

ANSWER
THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR
MINISTRY OF SCIENCE AND TECHNOLOGY
AND EARTH SCIENCES
(DR. JITENDRA SINGH)

- (a) Yes.
- (b) No.
- (c) H₂S-H₂O Bi-Thermal chemical exchange technology is employed for extraction of Deuterium from Godavari river water at Manuguru, Distt Bhadradi, Kothagudem, Telangana. Another plant based on similar technology is in operation at Kota, Rajasthan for the extraction of Deuterium from the waters of Rana Pratap Sagar Lake.
