

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO-2932
ANSWERED ON 17/12/2025

**USE OF NUCLEAR TECHNOLOGY FOR WATER PURIFICATION IN
FLOOD-AFFECTED AREAS**

2932. SHRI MD. RAKIBUL HUSSAIN

Will the PRIME MINISTER be pleased to state :-

- (a) whether the Government is promoting the use of nuclear technology for water purification in the flood-affected areas of Assam;
- (b) if so, the present status of such initiatives;
- (c) the details of the agencies involved in the development and deployment of this technology; and
- (d) the details of the coverage areas where such technology has been implemented?

ANSWER

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

- (a) & (b) Bhabha Atomic Research Centre (BARC) has developed cost-effective and location/contaminant-specific membrane-based water purification technologies, as a spin-off of its in-house technology development initiatives, which can find application in treatment of water in flood affected areas. The notable among them are ultrafiltration including hollow fibre-based water purifying device for microbial decontamination and suspended solids removal in online and offline modes of operation, nanofiltration for multi-valent ions removal including hardness and heavy metals.
- (c) The water purification technologies are available for transfer to private entrepreneurs, on non-exclusive basis, for commercialisation. Till date the technology has been transferred to around 56 licensees for deployment across the

country, the list of licensees of the respective water purification technologies is given in the below:

Composite Polyamide Reverse Osmosis (RO) membrane for Brackish Water Desalination

1. M/s Rupali Aquatech, Maharashtra
2. M/s Davey Products, Tamil Nadu
3. M/s Solus filtech Pvt , Gujarat
4. M/s Osmotech Membranes Pvt Ltd, Gujarat
5. M/s Xpert Water Technology, Gujarat
6. M/s Meera & Ceiko Pumps Pvt Ltd, Telengana

Domestic Water Purifier based on Ultrafiltration Membrane Technology

1. M/s Rupali Aquatech, Maharashtra
2. M/s Sonadka Industries Pvt Ltd, Maharashtra
3. M/s Dattaguru Enterprises, Maharashtra
4. M/s Stellarin Ventures Pvt Ltd, New Delhi
5. M/s Mechmann Water Solutions Systems Pvt Ltd, Maharashtra
6. M/s Fontek Corporation, Maharashtra
7. M/s Learner's Corporation, Bihar
8. M/s Osmotech Membranes Pvt Ltd, Gujarat
9. M/s Utopia Automation & Control Pvt. Ltd., Maharashtra
10. M/s R. D. Aquatech, Karnataka
11. M/s Aquacare Industries, Maharashtra
12. M/s Aua Solutions, Assam

Ultrafiltration Membrane Assisted Defluoridation Technology

1. M/s Ltek Systems, Maharashtra
2. M/s Rupali Aquatech, Maharashtra
3. M/s Ajay Industrial Corporation Ltd, New Delhi
4. M/s Mahavir Pumps, West Bengal
5. M/s Water Life (I) Pvt. Ltd, Maharashtra
6. M/s Meera & Ceiko Pumps Pvt. Ltd, Telengana
7. M/s toyaM Technologies (I) Pvt. Ltd., Maharashtra
8. M/s Learner's Corporation, Bihar

9. M/s Cleanflo India Pvt. Ltd, New Delhi
10. M/s Orixex Engineering, New Delhi

Ultrafiltration Membrane Assisted Arsenic Decontamination Technology

1. M/s Ltek Systems, Nagpur
2. M/s Sonadka, Mumbai
3. M/s Utopia Automation & Control Pvt Ltd, Maharashtra
4. M/s Awatech Solutions (I) Pvt. Ltd, Gujarat
5. M/s Stellarin Ventures Pvt. Ltd. New Delhi
6. M/s toyaM Technologies (I) Pvt. Ltd, Maharashtra
7. M/s Unicare Technologies Pvt. Ltd, Maharashtra

Ultrafiltration Membrane Assisted Iron Decontamination Technology

1. M/s LTEK Systems, Nagpur
2. M/s Mahavir Pumps, Kolkata
3. M/s Godrej & Boyce Mfg. Co. Ltd, Mumbai
4. M/s V C PROJECT & Infra Pvt, Ltd, Gujarat
5. M/s toyaM Technologies (I) Pvt Ltd, Maharashtra
6. M/s Evershine Business Ventures Pvt Ltd, Chhattisgarh

Backwashable Spiral Wound Ultrafiltration Membrane Technology

1. M/s Concord Enviro Systems Pvt Ltd, Maharashtra
2. M/s Vats Micro Fine Filters Pvt Ltd, Maharashtra
3. M/s LTEK Systems, Maharashtra
4. M/s Mechmann Water Solutions Systems Pvt Ltd, Maharashtra

High solute rejecting thin film composite polyamide membrane for Sea Water Desalination

1. M/s Permionics Membranes Pvt Ltd, Gujarat
2. M/s Osmotech Membranes Pvt Ltd, Gujarat
3. M/s toyaM Technologies (I) Pvt. Ltd., Maharashtra
4. Charged Nanofiltration Membrane Technology

Nanocomposite Ultrafiltration Membrane Device For Domestic Drinking Water Purification W.R.T. Arsenic, Iron, And Microbial Contaminations

1. M/s Rupali Aquatech, Maharashtra
2. M/s Sonadka Industries Pvt Ltd, Maharashtra
3. M/s Dattaguru Enterprises, Maharashtra
4. M/s Stellarin Ventures Pvt Ltd New Delhi
5. M/s Mechmann Water Solutions Systems Pvt Ltd, Maharashtra
6. M/s Learner's Corporation, Bihar

(d) The BARC-developed water purification technologies have been deployed in the States like Gujarat, Odisha, Karnataka, West Bengal, Tamil Nadu, Assam, Bihar, Kerala, Rajasthan and Maharashtra on domestic and community scale.
