GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF DRINKING WATER & SANITATION

RAJYA SABHA
STARRED QUESTION NO. *153
ANSWERED ON 03/08/2026

DISASTER RESILIENCE OF DRINKING WATER PIPELINES

*153. SHRI SUBHASISH KHUNTIA:

Will the Minister of JAL SHAKTI be pleased to state:

(a) whether Government has evolved technical standards for disaster-resilient drinking water pipelines, pumping stations and distribution systems in the coastal and disaster-prone areas of the State of Odisha and if so, the details thereof and if not, the reasons therefor;

(b) whether any vulnerability assessment of drinking water infrastructure has been undertaken in cyclone-prone districts of the State and if so, the details thereof; and

(c) whether any programme has been launched to strengthen vulnerable drinking water infrastructure and if so, the details thereof and if not, the reasons therefor?

ANSWER

THE MINISTER OF JAL SHAKTI
(SHRI C R PATIL)

(a) to (c) A Statement is laid on the table of the House.

Statement referred to in reply to parts (a) to (c) of Rajya Sabha Starred Question No. *153 answered on 03.08.2026 regarding "Disaster resilience of drinking water pipelines" asked by Shri Subhasish Khuntia

(a) to (c) Drinking Water is a 'State' subject, and hence, under Jal Jeevan Mission (JJM), the responsibility of planning, approval, implementation, operation & maintenance of drinking water supply schemes lies with State/UT Governments. The Government of India supports the States by providing technical and financial assistance.

Since August 2019, Government of India, in partnership with States/UTs including Odisha, has been implementing JJM – Har Ghar Jal to make provision of tap water supply to every rural household of the country. In March, 2026, the Union Cabinet has approved extension of the JJM up to December 2028, with an enhanced outlay and a restructured implementation framework focusing on structural reforms in the rural drinking water supply sector under JJM 2.0.

As informed by the State government of Odisha, technical standards and resilient design practices for drinking water infrastructure have been adopted in coastal and disaster-prone areas under JJM and State guidelines. These include hazard-resilient design of pipelines, pumping stations, Over Head Tank (OHT)/Underground Reservoir (UGR)/ Overground Reservoir (OGR), water treatment plants and corrosion-resistant materials in coastal areas adherence to relevant Bureau of Indian Standards (BIS), Central Public Health and Environmental Engineering Organisation (CPHEEO) and disaster-resilient construction standards.

Further, vulnerability assessments are undertaken during the planning and Detailed Project Report (DPR) preparation stage for drinking water supply projects, particularly in cyclone-prone and flood-prone districts. The assessments consider flood levels, cyclone risk, power reliability, source sustainability and accessibility. Based on the findings, suitable mitigation measures are incorporated into project design and implementation. State government has also informed that under JJM and State sector programmes, drinking water infrastructure is being strengthened through augmentation and retrofitting of existing systems, construction of resilient water treatment plants and pumping stations, replacement of vulnerable/damaged pipelines, source strengthening, Supervisory Control and Data Acquisition (SCADA) based monitoring in mega schemes to ensure uninterrupted safe drinking water supply during disasters.

Under the Operational Guidelines of JJM, States/UTs have been advised to strengthen the resilience of rural drinking water infrastructure against climate change and natural disasters. The Guidelines provide for measures such as source sustainability, diversification of water sources, water conservation and recharge, climate-resilient design of water supply infrastructure, preparation of water security plans, preventive operation and maintenance and strengthening of monitoring systems to ensure long-term sustainability and uninterrupted drinking water supply. States/UTs are expected to incorporate these measures while planning and implementing rural water supply schemes.

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