

GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

**LOK SABHA**

**UNSTARRED QUESTION NO. 229**

ANSWERED ON 29.01.2026

**SEVERE SILTATION IN DAMS**

229. SHRI SELVAGANAPATHI T.M.:

Will the Minister of **JAL SHAKTI** be pleased to state:

(a) whether it is a fact that most of the dams in the country are facing severe siltation which reduces their effectiveness in flood control and water storage according to a study conducted by the Indian Institute of Science Education and Research and if so, the details thereof;

(b) whether it is also a fact that a majority of the dams have lost more than fifty per cent of their total reservoir storage capacity and ten reservoirs on east-flowing rivers and seven reservoirs on west-flowing rivers are projected to exceed fifty per cent loss of storage capacity by 2050 posing a serious threat to water security in the country and if so, the details thereof;

(c) whether the said study has recommended the need for immediate attention and management interventions in this regard; and

(d) if so, the details thereof along with the steps taken/proposed to be taken by the Government in response to the above findings which are serious in its totality?

**ANSWER**

**THE MINISTER OF STATE FOR JAL SHAKTI**

(SHRI RAJ BHUSHAN CHOUDHARY)

**(a) to (d)** In September 2025, Indian Institute of Science Education and Research (IISER) Bhopal, an autonomous institute under the Ministry of Education, Government of India published a study report highlighting the severe extent of siltation in India's large dams. The study noted significant storage losses in several reservoirs, affecting water supply, hydropower, and flood moderation, with further reductions expected in east- and west-flowing basins. It emphasized the need for more detailed, site-specific investigations to better quantify sedimentation processes and support informed reservoir management.

The study draws upon the Compendium on Sedimentation of Reservoirs in India published by the Central Water Commission in 2020, which was subsequently updated in August 2024. This publication analysed capacity surveys of over 548 reservoirs, including detailed gross storage data for 439 reservoirs, which together account for nearly 80% of the India's total dam gross storage. The analysis revealed an overall storage loss of 15.46%, with the Deccan Peninsular region (17.48%) and the Himalayan region (17.19%) identified as the most severely affected.

Siltation in reservoirs is an inevitable natural phenomenon, which cannot be avoided altogether. While designing the dam reservoirs projects, considering the likely deposition of silt in reservoirs, provision of dead storage is kept. This dead storage which is also part of gross storage does not contribute in flood control and conservation storage. However, in case the dead storage is lost at a rate substantially higher than the designed rate or significant loss of live storage capacity is there, action for sediment management is required to be taken by the dam owners. In case of India, majority of the dams are owned by State Government, the action for sediment management is required to be taken by the States/other dam owners.

However, considering the importance of sediment management, various guiding documents have been published by the Central Government to guide the dam owners on these matters. In order to assist State Government in the matters related to sediment management, guidelines on “Assessing and Managing Reservoir Sedimentation” and “Operational Procedures for Assessing and Managing Environmental Impacts in Existing Dam Projects” was published in 2019 and 2020 respectively. In addition to above, Government of India published a National Framework on Sediment Management in October, 2022 to assist the State WRDs/dam owners to deal with the matter of sediment management.

Furthermore, in order to sensitize the states and dam owners for undertaking sediment management activities with focus on desilting of reservoirs, workshop was organized on 09.01.2026 wherein the experience related to activities pertaining to desilting being carried out by some of the states viz. Rajasthan, Kerala, Punjab & Gujarat were shared with the participants.

Under the externally funded Dam Rehabilitation and Improvement Project (DRIP) Phase II & III, provisions have been made for need-based de-siltation and sediment management works in select pilot reservoirs, aimed at restoring lost capacity to the maximum feasible extent.

\*\*\*\*\*