

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
RAJYA SABHA

UNSTARRED QUESTION NO. 102

ANSWERED ON 20.07.2026

SILTATION IN WATER BODIES AND THE GROWING WATER CRISIS

102. # Shri RAMJI LAL SUMAN:

Will the Minister of **Jal Shakti** be pleased to state:

- (a) the quantum of the water storage capacity of the country's reservoirs decreased due to siltation during the last five years;
- (b) the amount spent on desilting reservoirs during the above said period; and
- (c) the extent to which the general public is facing water crisis during summer due to the reduction in water storage caused by siltation in reservoirs?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) to (c) Sedimentation in reservoirs is a natural phenomenon resulting from the deposition of sediments carried by rivers, which gradually reduces the storage capacity of reservoirs over time. Responsibility for monitoring reservoir storage capacity and assessing the impact of sedimentation rests with the respective State Governments and dam owning agencies.

Central Water Commission (CWC), upon the request of project authorities, undertakes sedimentation assessments of selected reservoirs through hydrographic surveys and remote sensing techniques. Based on these studies, CWC has published the “Compendium on Sedimentation of Reservoirs in India-2024”, which analyses sedimentation data for 548 reservoirs. Of these, workable data were available for 439 reservoirs distributed across different regions of the country. The analysis indicates an overall loss of approximately 15.46% of the gross storage capacity of these reservoirs, equivalent to 30.97 Billion Cubic Metres (BCM).

Desilting and other sediment management interventions are undertaken by the respective State Governments and other dam-owning agencies based on technical feasibility, economic viability, and site-specific requirements. No centralized database is maintained regarding the expenditure incurred by States and project authorities on desilting.

At the Central level, several key guidance documents have been prepared and disseminated to all States to facilitate scientific and sustainable reservoir sediment management. These include the Handbook

for Assessing and Managing Reservoir Sedimentation (2019), the Operational Procedures for Assessing and Managing Environmental Impacts in Existing Dam Projects (2020) and the National Framework on Sediment Management (2022). Further, under the externally assisted Dam Rehabilitation and Improvement Project (DRIP) Phase-II and Phase-III, provision has been made for need-based sediment management studies and implementation of appropriate sediment management measures for selected dams, wherever such interventions are found to be technically feasible and economically justified.

Water scarcity during summer depends on several factors, including rainfall, inflows, groundwater availability, demand pattern, reservoir operation, distribution infrastructure and climatic conditions. While siltation may reduce the storage capacity of reservoirs over time, the extent to which it contributes to water scarcity varies from reservoir to reservoir. To enhance long-term water security, the Government promotes catchment area treatment, watershed development, soil conservation measures, periodic sedimentation assessment and scientific reservoir operation in coordination with the States.
