

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

RAJYA SABHA

UNSTARRED QUESTION NO. 2640

ANSWERED ON 24.03.2025

STRUCTURAL STABILITY OF DAMS

2640. DR. ASHOK KUMAR MITTAL

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

- (a) State-wise details of large dams that are over 50 years old, and the steps taken to assess their structural stability;
- (b) whether any guidelines are in place to ensure the periodic maintenance and safety audits of these dams, and if not, the reasons therefor;
- (c) the funds allocated and utilized for the modernization of aged dams during the last five years, along with the status of ongoing projects under the Dam Rehabilitation and Improvement Programme; and
- (d) whether high-risk dams requiring immediate intervention have been identified, and if so, the measures proposed to mitigate risks to downstream communities?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) As per National Register of Large (Specified) Dams 2023, compiled by the National Dam Safety Authority (NDSA), there are 1413 number of large dams in the country that are over 50 years old. State wise numbers of these dams is given at **Annexure- I**.

(b) Yes. Under the Dam Rehabilitation and Improvement Project (DRIP-I), various guidelines pertaining to dam operation and maintenance, inspection, safety evaluation, rehabilitation, dam instrumentation, risk assessment, emergency action planning etc. were published for helping all the dam owners to ensure uniformity in dam safety procedures and management. Further, in compliance of the Dam Safety Act (DSA) 2021, NDSA has notified 19 dam safety regulations pertaining to various domains of dam safety.

(c) Responsibility for operations, inspections, maintenance and modernization of aging dams is the responsibility of the dam owners which are mostly the State Government and the Central/State Public Sector Units. Further, DSA 2021 also specifies that every dam owner has to provide the sufficient and specific funds for maintenance and repairs of their specified dams.

Further, in order to improve the safety and operational performance of selected existing dams, Government of India is implementing the Dam Rehabilitation and Improvement Project (DRIP) with external

funding. Under DRIP Phase-I program, 223 dams from 7 States were rehabilitated at a cost of Rs. 2567 Crore during 2012-2021.

After completion of DRIP Phase-I, Government of India is implementing the externally funded DRIP Phase II and III Scheme. The Scheme envisages rehabilitation and safety improvement of 736 dams located in 19 States, with a budget outlay of Rs. 10, 211 crore. The Scheme is of 10 years duration (2021-2031) and will be implemented in two phases each of six years duration with two years of overlap. The DRIP-II scheme became effective in October 2021.

The last five year expenditure under DRIP-I and DRIP Phase-II is as under:

DRIP Phase-I:

| Year | Expenditure(Rs. Crore) |
|-------------|-------------------------------|
| 2020-2021 | 277.00 |
| 2021-2022 | 48.00 |

DRIP Phase-II:

| Year | Expenditure(Rs. Crore) |
|---------------------------|-------------------------------|
| 2021-2022 | 211.00 |
| 2022-2023 | 481.00 |
| 2023-2024 | 561.00 |
| 2024-2025 (till Feb 2025) | 314.00 |

Status of ongoing projects under the DRIP Phase II & III is at **Annexure-II**.

(d) In compliance of the provisions of DSA 2021, every dam owner of a specified dam undertakes annually through their dam safety unit, a pre-monsoon and post-monsoon inspection in respect of each specified dam to assess the performance of the dam, identify conditions that may threaten life and property, and to identify O&M needs.

Based on the pre and post monsoon inspection, dams are classified into following three categories:

Category-I – deficiencies in dams which, if left unattended, may lead to failure;

Category II – major deficiencies requiring prompt remedial measures; and

Category III – none or minor deficiencies which are rectifiable.

As per the information provided by the NDSA based upon post-monsoon inspection reports for the year 2024, there are 3 dams under Category-I and 201 dams are under Category-II. Out of these, 2 Category-I dams and 77 Category-II dams have been proposed to be repaired/ rehabilitated under DRIP II & III Scheme by various implementing agencies. States have been requested to take remedial actions on remaining dams through State funds.

Additionally, a tool for Rapid Risk Screening of Dams has also been developed under DRIP scheme to help the Dam Owners to prioritize the dams for full scale risk assessment and to take decisions for investment towards improvement in safety performance.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 2640 TO BE ANSWERED IN RAJYA SABHA ON 24.03.2025 REGARDING “STRUCTURAL STABILITY OF DAMS”.

State wise list of large dams that are more than 50 years old

| S.No. | State | Number of Dams |
|--------------|-----------------------------|-----------------------|
| 1. | Andaman and Nicobar Islands | 1 |
| 2. | Andhra Pradesh | 32 |
| 3. | Bihar | 12 |
| 4. | Chhatisgarh | 42 |
| 5. | Gujarat | 196 |
| 6. | Himachal Pradesh | 2 |
| 7. | Jammu & Kashmir | 2 |
| 8. | Jharkhand | 18 |
| 9. | Karnataka | 102 |
| 10. | Kerala | 29 |
| 11. | Madhya Pradesh | 166 |
| 12. | Maharashtra | 432 |
| 13. | Meghalaya | 2 |
| 14. | Odisha | 24 |
| 15. | Punjab | 3 |
| 16. | Rajasthan | 121 |
| 17. | Tamil Nadu | 57 |
| 18. | Telangana | 67 |
| 19. | Uttarakhand | 16 |
| 20. | Uttar Pradesh | 85 |
| 21. | West Bengal | 4 |
| | Total | 1413 |

ANNEXURE-II

ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 2640 TO BE ANSWERED IN RAJYA SABHA ON 24.03.2025 REGARDING “STRUCTURAL STABILITY OF DAMS”.

Status of ongoing projects under the DRIP Phase II & III

| S. No | State/Agency | Approved PST (Project Screening Template)/Rehabilitation Works | Tender Awarded | Expenditure incurred |
|-------|----------------------------|----------------------------------------------------------------|----------------|----------------------|
| | | (in Rs Cr) | (in Rs Cr) | (in Rs Cr) |
| 1 | AP WRD | 260.24 | 0.00 | 0.68 |
| 2 | BBMB | 0.00 | 0.00 | 0 |
| 3 | Chhattisgarh WRD | 156.22 | 59.39 | 44.13 |
| 4 | DVC | 8.06 | 0.00 | 0 |
| 5 | Goa WRD | 0.00 | 0.00 | 0 |
| 6 | Gujarat WRD | 311.19 | 250.62 | 186.66 |
| 7 | Jharkhand WRD | 0.00 | 0.00 | 0 |
| 8 | Karnataka WRD (incl. KPCL) | 531.65 | 274.07 | 216.4 |
| 9a | Kerala SEBL | 76.20 | 56.38 | 47.56 |
| 9b | Kerala WRD | 87.38 | 62.20 | 37.89 |
| 10 | Maharashtra WRD | 261.80 | 215.20 | 34.48 |
| 11 | Manipur WRD | 221.12 | 143.57 | 59.72 |
| 12 | MePGCL | 280.00 | 85.87 | 43.36 |
| 13 | MP WRD | 122.38 | 30.09 | 17.70 |
| 14 | Odisha WRD | 60.11 | 33.61 | 32.21 |
| 15 | Punjab WRD | 0.00 | 0.00 | 0 |
| 16 | Rajasthan WRD | 502.88 | 146.90 | 148.55 |
| 17a | TANGEDCO | 194.76 | 113.49 | 124.79 |
| 17b | TN WRD | 317.20 | 243.24 | 247.11 |
| 18 | Telangana WRD | 5.08 | 0.00 | 0 |
| 19 | UJVNL | 274.41 | 253.72 | 165.09 |
| 20a | UP I&WRD | 139.97 | 33.84 | 4.45 |
| 20b | UP RVUNL | 0.00 | | 0 |
| 21 | West Bengal I&WD | 122.69 | 63.62 | 32.092 |
| 22 | CWC | | 247.00 | 124.03 |
| 23 | Spill over | | 187.32 | |
| | Total | 3933.34 | 2500.13 | 1566.902 |
