

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

UNSTARRED QUESTION NO. 5303

ANSWERED ON 03.04.2025

DAM REHABILITATION AND IMPROVEMENT PROJECT

5303. DR. KADIYAM KAVYA

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

- (a) the total number of dams identified for rehabilitation under the Dam Rehabilitation and Improvement Project (DRIP) across various phases, State-wise and district-wise in Telangana, including Warangal Parliamentary Constituency;
- (b) the details of the specific rehabilitation measures undertaken for these dams including structural and non-structural interventions along with the current status of these initiatives;
- (c) the total budget allocated and utilized under DRIP since its inception, year and State-wise; and
- (d) the impact of DRIP on dam safety and operational performance?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) Government of India implemented the World Bank funded Dam Rehabilitation and Improvement Project (DRIP) Phase-I during April 2012-March 2021. Under this Scheme, physical rehabilitation of 223 dams located in seven States (Jharkhand, Karnataka, Kerala, Madhya Pradesh, Odisha, Tamil Nadu and Uttarakhand) were undertaken. State-wise number of dams rehabilitated under DRIP Phase-I is at **Annexure-I**.

After the completion of DRIP Phase-I program, another externally funded Scheme DRIP Phase II and Phase III has been approved by the Government of India in 2020. This new Scheme has nineteen (19) States, and three Central Agencies on board. As per approved Cabinet Note for the DRIP Phase-II & III Scheme, there is a provision for rehabilitation of 736 dams along with dam safety institutional strengthening component with a total project cost of Rs. 10,211 Crores. State-wise number of proposed dams under DRIP-II & III Scheme is at **Annexure-II**. The Project has the flexibility to add/substitute the dams to be rehabilitated depending upon the condition of dam based upon periodical and special inspections or due to occurrence of any extreme event leading to distress in dam.

District-wise list of dams proposed by State of Telangana under DRIP Phase-II and III is at **Annexure-III**. At present, State of Telangana has not officially joined the Scheme. A project agreement has to be signed between the World Bank & the State Government.

(b) DRIP Scheme targets rehabilitation and improvement of identified dams and associated appurtenances with accompanying institutional reforms and strengthening of regulatory measures pertaining to safe and financially-sustainable dam operations.

Rehabilitation measures being undertaken under the Scheme include, but not be limited to, such works as: treatment of leakage through masonry and concrete dams and reduction of seepage through earth dams; improving dam drainage; improving the ability to withstand higher floods, including additional flood handling facilities, as required by the hydrological assessments, accompanied by structural strengthening of dams; non-structural measures to cater for higher design floods in case structural measures are physically not feasible; rehabilitation and improvement of spillways, head regulators, draw-off gates and their operating mechanisms, stilling basins, and downstream spillway channels; improving approach roads; improving office and housing accommodation; and improving dam safety instrumentation. The project also supports preparation of asset management plans, incidental revenue generation, emergency preparedness plans, risk assessment, development of emergency warning systems, public awareness campaigns, floodplain mapping and affordable instrumentation etc.

The current status of activities under DRIP Phase-II is as under:

- Physical Rehabilitation at 26 dams have been completed for improved safety performance;
- Design Flood Review of 287 dams completed for checking hydrological safety of dams;
- Dam Safety Review Panel (DSRP) conducted inspection for 408 dams. Dam Break Analysis of 25 Dams, O&M manual of 10 dams have been prepared.;
- Till now contracts amounting Rs 2500 Crore for rehabilitation of 106 dams have been awarded.
- M.Tech in Dam Safety has been introduced at IIT Roorkee and IISc Bangalore. During last three years total 108 students enrolled & 49 students completed the degree;
- Two International Centre of Excellence for Dams (ICED) established at IIT Roorkee (Feb 2023) and IISc Bangalore (March 2024). Rapid Risk Assessment (RRA) framework for dams has been developed;
- More than 900 officials have been trained in various areas of dam safety.

(c) Total Budget allocated and expenditure incurred under DRIP Phase-I is at **Annexure-IV**.

The budget outlay for DRIP Phase-II is Rs 5107 Crore. The State-wise and year wise details of Budget allocation and expenditure under DRIP Phase-II is at **Annexure-V**.

(d) The main objective of the DRIP scheme is to increase the safety of selected dams in participating States and to strengthen dam safety management in India. The Scheme focuses on improvement in safety and operational performance of selected dams with accompanying institutional strengthening for safe and financially sustainable dam operations, and incidental revenue generation for sustainable O&M activities.

The most important contribution of the DRIP is development of comprehensive guidelines on various dam safety aspects which are backbone of the regulations framed under the Dam Safety Act 2021 guiding the dam owners to comply with the compliances under the Act.

Project is also significantly contributing in institutional capacity building initiative by collaborating with International and National Agencies of repute and offering tailor made training courses which are open to all water resources professionals. Web based Dam Health Repository DHARMA developed under DRIP is being used by National Dam Safety Authority to capture various activities being carried out by the dam owners under the Act. Risk Screening Tool developed under DRIP is very helpful in logically carrying out risk assessment of more than 6000 dams leading to risk informed decision making.

The project has sensitized the dam owners about the need of non-structural measures *viz.*, preparation of O&M Manuals, Emergency Action plans, Inflow forecast system following the globally accepted best practices. Before commencement of DRIP, there was hardly any practice of having these safety plans.

Thus, DRIP scheme is quite helpful in creating a positive impact for improved dam performance across the nation.

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 5303 TO BE ANSWERED IN LOK SABHA ON 03.04.2025 REGARDING “DAM REHABILITATION AND IMPROVEMENT PROJECT”.

Number of dams rehabilitated under DRIP Phase-I Programme

Implementing Agency	No. of Dams
Madhya Pradesh WRD*	25
Odisha WRD	26
Tamil Nadu WRD	69
Tamil Nadu Generation and Distribution Corporation	20
Kerala WRD	16
Kerala SEB	37
CWC	--
Karnataka WRD	22
Uttarakhand Jal Vidyut Nigam Ltd	5
Damodar Valley Corporation	3
Total	223

*WRD: Water Resources Department

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State-wise number of proposed dams under the DRIP Phase-II & III

Sl.No.	State / Agency	No. of dams	Estimated cost (Cr)
1.	Andhra Pradesh	31	667
2.	Chhattisgarh	5	133
3.	Goa	2	58
4.	Gujarat	6	400
5.	Jharkhand	35	238
6.	Karnataka	41	612
7.	Kerala	28	316
8.	Madhya Pradesh	27	186
9.	Maharashtra	167	940
10.	Manipur	2	311
11.	Meghalaya	6	441
12.	Odisha	36	804
13.	Punjab	12	442
14.	Rajasthan	189	965
15.	Tamil Nadu	59	1064
16.	Telangana	29	545
17.	Uttar Pradesh	39	787
18.	Uttarakhand	6	274
19.	West Bengal	9	84
20.	BBMB	2	230
21.	CWC	---	570
22.	DVC	5	144
Total		736	10,211

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District wise list of dams proposed by State of Telangana under DRIP Phase-II & III

Dam Proposed by Telangana in DRIP Phase-II as per EFC Memo:			
Sl.No.	Implementing Agencies	Name of Dam	Name of District
1	Telangana	AKBR	Nalgonda
2		Boggula Vagu	Jayashankar Bhupalpalli
3		Dindi Project	Nalgonda
4		Himayat Sagar	Ranga Reddy
5		Kaddam	Nirmal
6		Koilsagar	Mahabubnagar
7		Koulasanala	Kamareddy
8		LMD	Karimnagar
9		Malluruvagu	Mulugu
10		Musi project	Suryapet
11		Nagarjunasagar	Nalgonda
12		NTR Sagar	Komaram Bheem Asifabad
13		Osman Sagar	Ranga Reddy
14		Pakhal lake	Warangal
15		Palair reservoir	Khammam
16		Peddevulapally Reservoir	Nalgonda
17		Pocharam	Kamareddy
18		Ramappa Lake	Mulugu
19		Sathanala	Adilabad
20		Swarna	Nirmal
Dam Proposed by Telangana in DRIP Phase-III as per EFC Memo			
21	Telangana	GADDENNAVAGU PROJECT	Nirmal
22		Jurala PJP	Jogulamba Gadwal
23		Laknavaram	Mulugu
24		Nizam Sagar	Kamareddy
25		PP Rao	Komaram Bheem Asifabad
26		Singur	Sangareddy
27		Sripada sagar (Yellampalli Project)	Peddapalli
28		SRSP	Nizamabad
29		Vattivagu	Mancherial

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State-wise expenditure under DRIP Phase-I

Sr.	Implementing Agency	Original Cost (in Cr.)	Revised Cost (in Cr.)	Expenditure (in Cr.)
1	MP WRD	315	169	146
2	Odisha WRD	148	751	336
3	TN WRD	486	543	506
4	TANGEDCO	260	260	163
5	Kerala WRD	158	360	271
6	Kerala SEB	122	154	124
7	CWC	132	270	201
8	Karnataka WRD	276	581	494
9	UJVNL	64	235	226
10	DVC	139	143	100
Total		2100	3466	2567

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State-wise details of Budget allocation and expenditure under DRIP Phase-II

S. No.	State/Agency	Current Reallocation of DRIP-II (in Rs Cr)	Expenditure incurred (As on 28.02.2025) (in Rs Cr)	Remarks
1	AP WRD	238	0.68	
2	BBMB	70	0	Recently on boarded DRIP II
3	Chhattisgarh WRD	92	44.13	
4	DVC	44	0	Recently on boarded DRIP II
5	Goa WRD	58	0	Recently on boarded DRIP II
6	Gujrat WRD	290	186.66	
7	Jharkhand WRD	0	0	
8	KaWRD (incl. KPCL)	512	216.4	
9a	Kerala SEBL	90	47.56	
9b	Kerala WRD	166	37.89	
10	Maharashtra WRD	379	34.48	
11	Manipur WRD	150	59.72	
12	MePGCL	150	43.36	
13	MP WRD	186	17.70	
14	Odisha WRD	100	32.21	
15	Punjab WRD	71	0	Recently on boarded DRIP II
16	Rajasthan WRD	503	148.55	
17a	TANGEDCO	277	124.79	
17b	TN WRD	544	247.11	
18	Telangana WRD	100	0	Yet to on board DRIP II
19	UJVNL	248	165.09	
20a	UP I&WRD	354	4.45	
20b	UP RVUNL	0	0	Yet to on board DRIP II
21	West Bengal I&WD	200	32.092	
22	CWC	285	124.03	
	Total	5107	1566.90	

Year wise details of Budget allocation and expenditure under DRIP Phase-II

Sr No.	Financial Year	Expenditure (Rs in Cr)
1	2021-22	211.00
2	2022-23	481.00
3	2023-24	561.00
4	2024-25 (upto 28.2.2025)	313.90
	Total	1566.90
