

GOVERNMENT OF INDIA  
MINISTRY OF WATER RESOURCES,  
RIVER DEVELOPMENT & GANGA REJUVENATION  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 6345**  
ANSWERED ON 05.04.2018

**SAFETY OF DAMS**

6345. DR. KAMBHAMPATI HARIBABU

Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION be pleased to state:

- (a) whether the Government is considering to facelift large dams in the country and if so, the details thereof, Statewise;
- (b) whether there is any threat in terms of safety of dams as reported to the Government due to their overage and if so, the details thereof; and
- (c) the major works which are going to be included in facelift of the dams?

**ANSWER**

THE MINISTER OF STATE FOR WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION & PARLIAMENTARY AFFAIRS

(SHRI ARJUN RAM MEGHWAL)

(a) Yes, Madam. Government of India with financial assistance from World Bank started Dam Rehabilitation and Improvement Project (DRIP) in 2012 for rehabilitation of 223 dam projects, initially in 4 States (namely Kerala, Madhya Pradesh, Odisha and Tamil Nadu) and Central Water Commission (CWC). Later, Karnataka Water Resources Department, Damodar Valley Corporation (DVC) and Uttarakhand Jal Vidyut Nigam Limited (UJVNL) joined the project.

State-wise details of dams and fund allocated under DRIP are at **Annexure-I**.

(b) Safety of dams primarily rests with dam owners which are mostly State Governments, Central and State power generating PSUs. Dam owners generally carry out pre-monsoon and post-monsoon inspections of their dams to identify deficiencies or areas that need monitoring or immediate attention.

Union Government constituted National Committee on Dam Safety (NCDS) headed by Chairman, CWC and representatives from State Governments and PSUs. The objectives/mandates of NCDS are:

- i) To oversee dam safety activities in various States and suggest improvements to bring these in line with the latest state-of-art consistently with Indian conditions.

- ii) To act as a forum of exchange of views on techniques adopted for remedial measures to relieve distress.
- iii) To monitor the follow-up action on the report on dam safety procedures.
- iv) To recommend any other measures connected with dam safety.

38 meetings of NCDS have been conducted so far.

Under DRIP, safety conditions of about 225 dam projects have been comprehensively reviewed by the Dam Safety Review Panel (DSRP). During the comprehensive review by the DSRP, it was found that many dams have structural deficiencies and shortcomings in operation and monitoring facilities on account of ageing. Some dams do not meet the present design standards – both hydrologically and structurally. The list of dams reviewed by the DSRP under DRIP is at **Annexure-II**.

- (c) The major works carried out for rehabilitation and improvement of dams under DRIP are:
  - i) Hydrological safety review to check the adequacy of the spillway for safely passage of revised design flood, through structural and non-structural measures;
  - ii) Treatment of leakage through masonry and concrete dams,
  - iii) Reduction of seepage through earth dams and their foundations
  - iv) Improving dam drainage;
  - v) Improving approach roads and access to all parts of dam;
  - vi) Rehabilitation and improvement of spillway, head regulator and draw-off gates and their operating mechanisms;
  - vii) Providing dam safety instrumentations, improving communication system between upstream and downstream control points;
  - viii) Preparation of Emergency and Disaster Management Plan;
  - ix) Preparation of operation and maintenance manuals etc.

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**Annexure-I**

**Annexure referred to in reply to part (a) of the Unstarred Question No.6345 to be answered in Lok Sabha on 05.04.2018 regarding “Safety of Dams”.**

State-wise details of dams and fund allocated to Project Implementing Agencies (IAs) under DRIP

<b>Implementing Agency</b>	<b>State</b>	<b>No of DRIP dams</b>	<b>Fund Allocated (Rs. Crore)</b>
Water Resource Department & State Electricity Board	Kerala	28	279.98
Water Resource Department	Orissa	26	147.74
Water Resource Department	Madhya Pradesh	25	314.54
Water Resource Department & Tamil Nadu Generation and Distribution Corporation Limited (TANGENCO)	Tamil Nadu	89	745.49
Water Resource Department	Karnataka	22	276.75
Damodar Valley Corporation	Jharkhand	3	139.40
Uttarakhand Jal Vidyut Nigam Limited (UJVNL)	Uttarakhand	5	64.10
Central Water Commission			132.00
	<b>Total</b>	198	2100.00

**Annexure referred to in reply to part (b) of the Unstarred Question No.6345 to be answered in Lok Sabha on 05.04.2018 regarding "Safety of Dams".**

List of dams reviewed by the DSRP under DRIP

S.No	Implementing Agency	Name of Dam
<b>TAMIL NADU</b>		
1	TANGEDCO	AVALANCHE
2	TANGEDCO	BUNGHIIHALLABUND
3	TANGEDCO	CHINNAKUTTIYAR
4	TANGEDCO	EAST VARAHAPALLAM WEIR
5	TANGEDCO	EMERALD
6	TANGEDCO	ERAVANGALAR
7	TANGEDCO	GLENMORGAN
8	TANGEDCO	HIGHWAVYS
9	TANGEDCO	KADAMBARAI
10	TANGEDCO	KODAYAR I
11	TANGEDCO	KODAYAR II
12	TANGEDCO	KUNDAH PALAM
13	TANGEDCO	KUTTIYAR
14	TANGEDCO	MANALAR
15	TANGEDCO	MARAVAKANDI
16	TANGEDCO	MOYAR FOREBAY
17	TANGEDCO	MUKURTHI
18	TANGEDCO	NIRALAPALLAM
19	TANGEDCO	PAPANASAM DIV WEIR
20	TANGEDCO	PARSON'S VALLEY
21	TANGEDCO	PEGUMBAHALLAH FOREBAY
22	TANGEDCO	PERIYAR FOREBAY
23	TANGEDCO	PILLUR
24	TANGEDCO	PORTHIMUND
25	TANGEDCO	PYKARA
26	TANGEDCO	PYKARA NEW FOREBAY
27	TANGEDCO	SANDYNALLAH
28	TANGEDCO	SERVALAR
29	TANGEDCO	THAMBRAPARANI
30	TANGEDCO	UPPER ALIYAR
31	TANGEDCO	UPPER BHAVANI
32	TANGEDCO	UPPER BHAVANI PUMPING WEIR
33	TANGEDCO	VANDAL WEIR
34	TANGEDCO	VENNIRAR
35	TANGEDCO	WEST VARAHAPALLAM WEIR
36	TANGEDCO	WESTERN CATCHMENT NO.1
37	TANGEDCO	WESTERN CATCHMENT NO.2
38	TANGEDCO	WESTERN CATCHMENT NO.3
39	TNWRD	ADAVINAINARKOVIL
40	TNWRD	ALIYAR
41	TNWRD	AMARAVATHI
42	TNWRD	ANAI MADUVU
43	TNWRD	ANAIKUTTAM
44	TNWRD	BHAVANISAGAR
45	TNWRD	CHEMBARAMPAKKAM
46	TNWRD	CHINNAR
47	TNWRD	CHITTAR I
48	TNWRD	CHITTAR II
49	TNWRD	CHOLAVARAM
50	TNWRD	GATANA
51	TNWRD	GOLWARPATTI
52	TNWRD	GOMUKHINADI
53	TNWRD	GUNDERIPALLAM

S.No	Implementing Agency	Name of Dam
54	TNWRD	KARIAKOIL
55	TNWRD	KARUPPANADHI
56	TNWRD	KELAVARAPALLI
57	TNWRD	KESARIGULIHALLA
58	TNWRD	KODAGANAR
59	TNWRD	KODUMUDIYAR
60	TNWRD	KRISHNAGIRI
61	TNWRD	KULLURSANDAI
62	TNWRD	KUTHIRAIYAR
63	TNWRD	LOWER ANICUT
64	TNWRD	LOWER NIRAR
65	TNWRD	MANIMUKTHANADHI
66	TNWRD	MANIMUTHAR
67	TNWRD	MANJALAR
68	TNWRD	MARUDHANADHI
69	TNWRD	METTUR
70	TNWRD	MORDHANA
71	TNWRD	NAGAVATHI
72	TNWRD	NAMBIAR
73	TNWRD	NOYYAL ATHUPALAYAM
74	TNWRD	PALAR PORUNDALAR
75	TNWRD	PAMBAR
76	TNWRD	PARAMBIKULAM
77	TNWRD	PECHIPARAI
78	TNWRD	PERUNCHANI
79	TNWRD	PERUVARIPALLAM
80	TNWRD	PILAVUKKAL PROJECT KOVILAR
81	TNWRD	PILAVUKKAL PROJECT PERIYAR
82	TNWRD	POIGAIYAR
83	TNWRD	PONNANIYAR
84	TNWRD	POONDI
85	TNWRD	RAMANADHI
86	TNWRD	RED HILLS
87	TNWRD	SATHANUR
88	TNWRD	SHANMUGANADHI
89	TNWRD	SHOLAYAR
90	TNWRD	SHOOLAGIRICHINNAR
91	TNWRD	SIDDHAMALLI
92	TNWRD	SOTHUPPARAI
93	TNWRD	THIRUMURTHI DAM
94	TNWRD	THOPPAIYAR
95	TNWRD	THUMBALAHALLI DAM
96	TNWRD	THUNAKADAVU
97	TNWRD	UPPER (TIRPUR)
98	TNWRD	UPPER (TRICHY)
99	TNWRD	UPPER NIRAR WEIR.
100	TNWRD	VADAKKUPAICHAIIYAR
101	TNWRD	VAIGAI
102	TNWRD	VANIAR
103	TNWRD	VARATTUPALLAM
104	TNWRD	VEERANAM
105	TNWRD	VEMBAKOTTAI
106	TNWRD	VIDUR
107	TNWRD	WILLINGTON RESERVOIR
<b>KERALA</b>		
108	KSEB	SABARIGIRI HEP
109	KSEB	PANNIYAR HEP
110	KSEB	IDAMALAYAR (EB)
111	KSEB	IDUKKI (HEB)

S.No	Implementing Agency	Name of Dam
112	KSEB	KALLARKUTTY (EB)
113	KSEB	KUTTIYADI HEP
114	KSEB	LOWER PERIYAR HEP
115	KSEB	PALLIVASAL HEP
116	KSEB	KAKKAD HEP
117	KSEB	PORINGALKUTHU (EB)
118	KSEB	SENGULAM (EB)
119	KSEB	SHOLAYAR HEP
120	KWRD	CHIMONI (ID)
121	KWRD	CHULLIAR (GAYATHRI STAGEII) (ID)
122	KWRD	KALLADA (PARAPPAR) (ID)
123	KWRD	KANJIRA PUZHA (ID)
124	KWRD	KUTTIYADI (IRRIGN. PROJ.) (ID)
125	KWRD	MALAMPUZHA (ID)
126	KWRD	MEENKARA (GAYATHRI STAGE I) (ID)
127	KWRD	MOOLATHARA REG.(CHITTURPUZHA)
128	KWRD	MALANKARA / MUVATTUPUZHA IRRIGATION
129	KWRD	NEYYPAR (ID)
130	KWRD	PAZHASSI IRRIGATION PROJECT
131	KWRD	PEECHI (ID)
132	KWRD	PERIYAR VALLEY BARRAGE (ID)
133	KWRD	POTHUNDY (ID)
134	KWRD	VAZHANY (ID)
135	KWRD	WALAYAR (ID)
<b>MADHYA PRADESH</b>		
136	MPWRD	ARI DAM
137	MPWRD	ARNIYA BAHADURPUR
138	MPWRD	BAHURIBAND TANK(KATNI)
139	MPWRD	BARNA
140	MPWRD	BIRPUR
141	MPWRD	BUNDALA
142	MPWRD	CHANDPATHA
143	MPWRD	CHANDRAKESHAH
144	MPWRD	DHOLAWAD TANK(RATLAM)
145	MPWRD	DUDHI (KUNWAR CHAIN SAGAR)
146	MPWRD	JIRBHAR
147	MPWRD	KANCHAN(SINGRAULI)
148	MPWRD	KANHARGAON TANK(CHHINDWARA)
149	MPWRD	KANKERKHEDA
150	MPWRD	KHARADI
151	MPWRD	KOLAR
152	MPWRD	MAKRODA
153	MPWRD	MARHI
154	MPWRD	MOORUM NALLA
155	MPWRD	NAHLESARA
156	MPWRD	RUTHAI (GOPI KRISHNA SAGAR)
157	MPWRD	SAMPNA
158	MPWRD	SANJAY SAGAR
159	MPWRD	SARATHI
160	MPWRD	TAWA
161	MPWRD	THANWER (RAJIVSAGAR)
162	MPWRD	TIGRA
163	MPWRD	UMRAR
164	MPWRD	UPPER WAIN GANGA (SANJAY SROVER)
<b>ODISHA</b>		
165	OWRD	ASHOK NALLA
166	OWRD	BALASKUMPA

S.No	Implementing Agency	Name of Dam
167	OWRD	BALIMELA
168	OWRD	BANKSAL
169	OWRD	BHASKEL
170	OWRD	DAHA
171	OWRD	DAMSAL
172	OWRD	DERJANG
173	OWRD	DHANEI
174	OWRD	HIRAKUD
175	OWRD	JHUMUKA
176	OWRD	KALO
177	OWRD	NESA
178	OWRD	PILLASALKI
179	OWRD	PITAMAHAL
180	OWRD	RENGALI
181	OWRD	SALANDI
182	OWRD	SALIA
183	OWRD	SANMACHHAKANDANA
184	OWRD	SAPUA
185	OWRD	SARAFGARH
186	OWRD	SATIGUDA (MALKANGIRI)
187	OWRD	SATIGUDA (UKP)
188	OWRD	SUNDAR
189	OWRD	TALSARA
190	OWRD	UPPER KOLAB
<b>KARNATAKA</b>		
191	KAWRD	ALMATTI DAM
192	KAWRD	AMARJA DAM
193	KAWRD	BENNITHORA
194	KAWRD	BHADRA DAM
195	KAWRD	CHANDRAPALLI DAM
196	KAWRD	CHICKKAHOLE
197	KAWRD	DEVARABILLIKERE TANK
198	KAWRD	DHARMA RESERVOIR
199	KAWRD	GAYATHRI RESERVOIR
200	KAWRD	H.B.HALLI PICKUP
201	KAWRD	HARANGI DAM
202	KAWRD	HATTIKUNI DAM
203	KAWRD	HEMAVATHY DAM
204	KAWRD	HIDKAL DAM
205	KAWRD	KABINI DAM
206	KAWRD	KARANJA DAM
207	KAWRD	KRISHNA RAJA SAGARA DAM
208	KAWRD	LOWER MULLAMARI DAM
209	KAWRD	MADAGAMASUR TANK
210	KAWRD	MALAPRABHA DAM
211	KAWRD	MALLAGHATTA TANK
212	KAWRD	MASKINALA
213	KAWRD	NARAYANAPUR DAM
214	KAWRD	TUNGABHADRA DAM
215	KAWRD	UPPER MULLAMARI DAM
216	KAWRD	VANIVILASA SAGAR DAM
217	KAWRD	VOTEHOLE DAM
<b>UTTARAKHAND</b>		
218	UJVNL	ASAN BARRAGE
219	UJVNL	DAKPATHAR BARRAGE
220	UJVNL	ICHARI DAM
221	UJVNL	MANERI DAM
222	UJVNL	VIRBHADRA RISHIKESH
<b>DAMODAR VALLEY CORPORATION LIMITED</b>		
223	DVC	KONAR DAM
224	DVC	MAITHON
225	DVC	PANCHET