

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

**UNSTARRED QUESTION NO. 1372**

ANSWERED ON 19.12.2022

**FLOODS CAUSED DUE TO DAMS**

1372      SHRI AKHILESH PRASAD SINGH

Will the Minister of JAL SHAKTI be pleased to state:

- (a) the details regarding floods in the country during the last five years, year-wise and region-wise;
- (b) whether Government has details regarding the floods during the last five years caused due to dams;
- (c) if so, the details thereof;
- (d) whether it is a fact that the country has 5,745 dams, of which 293 are more than 100 years old and 25 per cent of the dams are between 50 and 100 years old; and
- (e) if so, the details regarding the steps taken to make the dams better equipped to respond to climate change?

**ANSWER**

THE MINISTER OF STATE FOR JAL SHAKTI  
(SHRI BISHWESWAR TUDU)

(a) Central Water Commission (CWC) is the nodal Organisation entrusted with the task of flood forecasting & early flood warnings in the country. Presently, CWC issues flood forecasts for 333 forecasting stations (199 river level forecast stations & 134 dam/ barrage inflow forecast stations). These stations cover 20 major river basins in 23 States & 2 Union Territories. In order to provide more lead time to the local authorities to plan evacuation of people & take other remedial measures, Central Water Commission (CWC) has developed basin wise flood forecasting model based on rainfall-runoff mathematical modelling for 5 days advance flood forecast advisory at identified flood forecasting and inflow forecasting stations. As per flood forecasting network of CWC, during the last five years, in addition to existing flood prone states of Assam, Bihar & Uttar Pradesh, extreme floods were witnessed in the states of Kerala, Karnataka, Tamilnadu, Andhra Pradesh, Telangana, Odisha, Maharashtra, Chhattisgarh, Madhya Pradesh & Rajasthan due to excess to large excess rainfall in these states combined with extremely heavy rainfall in short duration. The details are at **Annexure.**

**(b) & (c)** Dams, in general, aid in moderating the floods. However, faulty operations of reservoirs may sometimes result in flooding of downstream region. The CWC has prepared Guidelines for Preparing Operation and Maintenance Manuals, 2018 for dams which contain various aspects of project operation including normal operation and emergency operation. These serve as guidance for dam owners on various protocols and responsibilities for managing water releases during a year including flood seasons. Details for preparation of operational rule curve (both for reservoir filling and release) are also part of the guidelines. In accordance to the provisions of Disaster Management Act, 2005, directions have been issued to the State Governments and the State authorities mandating them to give an intimation to the adjacent States immediately after a decision is taken by the authorities of the State to release water from the reservoirs/dams. Data on flooding caused due to faulty operations of reservoirs is not maintained centrally.

**(d)** As per the National Register of Large Dams, 2019 of Central Water Commission, India has 5334 numbers of operational dams, 411 are under construction stage. Further, there are 227 large dams which are more than 100 years old and 948 dams are having age between 50 to 100 years.

**(e)** Under the Dam Rehabilitation and Improvement Project (DRIP), 221 numbers of dams located in seven states (Jharkhand, Karnataka, Kerala, Madhya Pradesh, Odisha, Tamil Nadu and Uttarakhand) were rehabilitated. Under the Project, Emergency Action Plan (EAP), Operation and Maintenance(O&M) manual prepared for all DRIP dams, 13 no. of Guidelines/Manuals published, Design Flood Review of 250 dams and Dam Safety Review Panel Inspection of 260 dams were carried out and a web-based management tool called Dam Health and Rehabilitation Monitoring Application (DHARMA) was developed. The Union Cabinet has approved the Phase-II & Phase-III DRIP Scheme on October 29, 2020 for rehabilitation works and reviewing the design floods to be co-financed by World Bank and Asian Infrastructure Investment Bank (AIIB). The Dam Safety Act 2021 very comprehensively provides for surveillance, inspection, operation and maintenance of the dams for prevention of dam failure related disasters and to provide for institutional mechanism to ensure their safe functioning and for matters connected therewith or incidental thereto.

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**ANNEXURE**

**ANNEXURE REFERRED TO IN REPLY TO PART (a) UNSTARRED QUESTION NO. 1372 TO BE ANSWERED IN RAJYA SABHA ON 19.12.2022 REGARDING “FLOODS CAUSED DUE TO DAMS”**

**State-wise Details of Floods during last five years**

<b>State</b>	<b>Year</b>	<b>Basin</b>
Assam	2018, 2019, 2020	Brahmaputra and its tributaries
Bihar	2019, 2020, 2021	Ganga, Gandak, KosiMahananda,Kamalabalan
Chattisgarh	2020	Mahanadi
Karnataka	2018,2019,2020,2021,2022	West Flowing Rivers between Tadri&Kanyakumari, Cauvery, Krishna and their tributaries
Kerala	2018, 2019, 2021	West Flowing Rivers between Tadri&Kanyakumari
Madhya Pradesh	2019, 2020 & 2021	Chambal, Narmada and their tributaries
Maharashtra	2019, 2020 & 2021	West Flowing Rivers between Tadri&Kanyakumari, Godavari, Krishna and their tributaries
Odisha	2020 &2021	Mahanadi, Subarnarekha
Rajasthan	2019, 2021, 2022	Chambal and its tributaries
Tamilnadu	2018, 2019, 2020, 2021	East Flowing Rivers between Pennar& Cauvery, East Flowing Rivers between Cauvery &Kanyakumari, Cauvery and its tributaries
Telangana	2020, 2021, 2022	Krishna, Penganga, Godavari
Andhra Pradesh	2020, 2021, 2022	East Flowing Rivers between Pennar& Cauvery, Pennar
Tripura	2018	Barak and its tributaries
Uttar Pradesh	2019, 2020, 2021	Ganga and its tributaries
Uttarakhand	2021	Sharda
West Bengal	2021	Hoogly, Teesta

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