GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI,

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO. 2489

ANSWERED ON 08.08.2022

CONDITIONS OF DAMS

2489 SMT. PHULO DEVI NETAM

Will the Minister of JAL SHAKTI be pleased to state:

(a) the details regarding the 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 332 forecasting stations (199 river level forecast stations & 133 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 & West Bengal 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 5745 large dams, of which 5334 are completed and operational while 411 are under construction stage. Further, there are 227 large dams which are more than 100 years old and about 18% of dams are having age between 50 to 100 years.

(e) Under the Dam Rehabilitation and Improvement Project (DRIP), Design flood review of 250 large dams located in 7 States was carried out under Phase-I, implemented during 2012-2021 with World Bank funding. Further, rehabilitation measures (structural interventions) or operational procedures (non-structural methods of coping with design floods) were undertaken under the Project ensuring safety of the dam and reservoir with the revised design flood. In addition, design flood review of 267 large dams has been carried out under DRIP Phase-II, which has become operational in October 2021. 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.

***

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (a) UNSTARRED QUESTION NO. 2489 TO BE ANSWERED IN RAJYA SABHA ON 08.08.2022 REGARDING "CONDITIONS OF DAMS"

The State-wise details of floods in the country during the last five years

State	Year	Basin
Assam	2018, 2019, 2020	Brahmaputra and its tributaries
Bihar	2017,2019, 2020, 2021	Ganga, Gandak, KosiMahananda,Kamalabalan
Chattisgarh	2020	Mahanadi
Karnataka	2018,2019, 2020,2021	Cauvery and its 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	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	Krishna, Penganga
Andhra Pradesh	2020 & 2021	East Flowing Rivers between Pennar& Cauvery, Pennar
Tripura	2018	Barak and its tributaries
Uttar Pradesh	2017, 2019, 2020, 2021	Ganga and its tributaries
Uttarakhand	2021	Sharda
West Bengal	2017, 2021	Hoogly, Teesta

*****