

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO. 1997

ANSWERED ON 07.08.2023

FLOOD EARLY WARNING SYSTEMS (EWSs)

1997. SHRI JAGGESH

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

- (a) whether it is a fact that two-thirds of India's population is exposed to extreme flood events and only a third of these individuals are covered by Flood Early Warning Systems (EWSs);
- (b) whether such low availability of Early Warning Systems (EWSs) indicates a big gap in the planning for installation of flood monitoring and forecasting stations;
- (c) if so, number of States which are highly exposed to extreme flood events and number of States with high availability and low availability of Early Warning Systems (EWSs); and
- (d) the details thereof?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) to (d) No, sir. 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 338 forecasting stations (138 Inflow Forecast Stations & 200 Level Forecast Stations) which cover 20 major river basins in 23 States and 2 Union Territories (UT's). The network has been established in consultation with the State Governments and UTs. In order to provide more lead time to the local authorities to plan evacuation of people & take other remedial measures, CWC has developed basin wise flood forecasting model based on rainfall-runoff mathematical modelling for 5 days' advance advisory at its forecasting stations. The state-wise distribution of Flood Forecasting stations maintained by CWC is given at **Annexure**.

ANNEXURE TO BE REFERRED TO IN REPLY TO PART (a) TO (d) OF UNSTARRED QUESTION NO. 1997 TO BE ANSWERED IN RAJYA SABHA ON 07.08.2023 REGARDING “FLOOD EARLY WARNING SYSTEMS (EWSs)”

| State-wise Flood Forecasting Stations | | | | |
|---------------------------------------|-------------------|--------------------------------------|------------|------------|
| SI. No. | Name of State/UT | Number of flood forecasting Stations | | |
| | | Level | Inflow | Total |
| 1 | Andhra Pradesh | 10 | 10 | 20 |
| 2 | Arunachal Pradesh | 3 | 1 | 4 |
| 3 | Assam | 30 | 0 | 30 |
| 4 | Bihar | 40 | 3 | 43 |
| 5 | Chhattisgarh | 1 | 2 | 3 |
| 6 | Gujarat | 6 | 8 | 14 |
| 7 | Haryana | 1 | 1 | 2 |
| 8 | Himachal Pradesh | 1 | 0 | 1 |
| 9 | Jammu & Kashmir | 3 | 0 | 3 |
| 10 | Jharkhand | 2 | 15 | 17 |
| 11 | Karnataka | 1 | 14 | 15 |
| 12 | Kerala | 4 | 2 | 6 |
| 13 | Madhya Pradesh | 2 | 12 | 14 |
| 14 | Maharashtra | 8 | 14 | 22 |
| 15 | Odisha | 12 | 7 | 19 |
| 16 | Rajasthan | 4 | 11 | 15 |
| 17 | Sikkim | 3 | 5 | 8 |
| 18 | Tamil Nadu | 4 | 11 | 15 |
| 19 | Telangana | 5 | 9 | 14 |
| 20 | Tripura | 2 | 0 | 2 |
| 21 | Uttar Pradesh | 39 | 5 | 44 |
| 22 | Uttarakhand | 4 | 4 | 8 |
| 23 | West Bengal | 12 | 4 | 16 |
| 24 | Daman & Diu | 1 | 0 | 1 |
| 25 | NCT of Delhi | 2 | 0 | 2 |
| | Total | 200 | 138 | 338 |
