

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
LOK SABHA
UNSTARRED QUESTION NO. 842
ANSWERED ON 02.12.2021

FLOODS AND DROUGHT FORECASTING

842. SHRI VINCENT H. PALA

Will the Minister of JAL SHAKTI be pleased to state:

- (a) the details of the States in the country that have specialised Early Warning Systems (EWSs) for floods and droughts;
- (b) whether the Government is planning to adopt State specific EWSs for all drought and flood-prone States; and
- (c) if so, the details of fund allocation and expected date of completion thereof?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) to (c) Central Water Commission (CWC) issues flood forecasts as a non-structural measure of flood management throughout the country. CWC also issues inflow forecasts to identified reservoirs for proper reservoir regulations during floods. Flood forecast formulation methodology used by CWC includes gauge to gauge correlation technique for short range (up to 24 hours) forecasting and numerical modelling technique for 5 days advisory forecasts. Presently, flood forecasts are issued by CWC at 331 stations (132 Inflow Forecast Stations + 199 Level Forecast Stations) in the country as per Standard Operating Procedure.

India Meteorological Department (IMD) supports flood warning services of CWC by providing observed and forecasted rainfall. CWC is working in close association with IMD and State Governments for timely flood forecast whenever the river water levels rise above warning level. In order to meet specific requirements of flood forecasting by CWC, IMD operates Flood Meteorological Offices (FMOs) at fourteen locations viz., Agra, Ahmedabad, Asansol, Bhubaneswar, Bengaluru, Chennai, Guwahati, Hyderabad, Jalpaiguri, Lucknow, New Delhi, Patna, Srinagar and Thiruvananthapuram. Apart from this, IMD also supports Damodar Valley Corporation (DVC).

In order to cater to the services of hydro-meteorological events occurring in short duration of time, IMD is issuing Flash Flood Guidance (FFG) by which a diagnostic value within a watershed required to produce flooding at the outlet of the catchment is estimated, to support the flood warning services.

IMD provides actual and forecast rainfall information in different spatial and temporal scales like districts, States & meteorological subdivisions level and daily, weekly & seasonal scale to the Ministry of Agriculture for drought monitoring.

North Eastern Space Applications Centre (NESAC)/DOS has developed and operationalized Flood Early Warning System (FLEWS) for Assam since 2012 till date, with funding from Assam State Disaster Management Authority (ASDMA).

CWC has taken up the work of Early Flood Warning System in Ganga Basin, including inundation forecast under National Hydrology Project (NHP) covering 11 states of Ganga basin.

Under NHP, National Remote Sensing Centre (NRSC)/ISRO has developed medium range spatial flood early warning models for Tapi and Godavari river basins, using space based inputs in collaboration with CWC.
