GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
LOK SABHA
UNSTARRED QUESTION NO. 455
ANSWERED ON 03.02.2022

CHALLENGES OF FLOOD FORECASTING

455. SHRI ADALA PRABHAKARA REDDY:
SHRI TALARI RANGAIAH
SHRI P.V. MIDHUN REDDY
SHRIMATI CHINTA ANURADHA
SHRI N. REDDEPPA
SHRIMATI VANGA GEETHA VISWANATH
SHRI KURUVA GORANTLA MADHAV
DR. BEESETTI VENKATA SATYAVATHI
SHRI POCHA BRAHMANANDA REDDY

Will the Minister of JAL SHAKTI be pleased to state:

(a) the details of challenges that are being faced in flood forecasting in the country with regard to rivers ; and

(b) the steps being taken to improve the flood forecasting system in view of increased instances of floods in the country including Andhra Pradesh?

ANSWER

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

(a) Flood Forecasting on International & Inter-state Rivers is formulated and issued by Central Water Commission (CWC) using statistical methods for short range forecasting and mathematical modelling for fiveday's advance flood advisory. The main challenge being faced in flood forecasting is to accurately forecast the impending flood sufficiently in advance with high level of accuracy. Mathematical modelling based flood advisory although provide sufficient lead time, its accuracy is dependent on accuracy of weather(rainfall) forecasts. The growing incidents of high intensity rainfall in shorter duration due to likely impact of climate change poses another challenge for flood forecasting.

(b) There is a continuous effort for improvement of Flood Forecasting using all the latest technology including space technology tools, Geographical Information System (GIS), web based applications, etc. Following steps have been taken to improve the Flood forecasting system in the country.

- **Expansion of Flood Forecasting Network:** CWC flood forecasting network has been expanded to 331 Flood Forecast Stations(199 Level Forecast for Villages/Town on the bank of the rivers and 132Inflow Forecast Stations for Dams and Barrages) covering 23 States &2 UTs in 20 river basins for taking proper mitigation measures by respective State Governments. In the State of Andhra Pradesh, there are 13 level forecasting stations and 10 in flow forecasting stations.
- **Modernization of Flood Forecast Formulation:** Flood forecasting is issued up to 5 days in advance for major river basins across the country including the State of Andhra Pradesh. The same is updated every three hours and is available online (https://120.57.99.138/index.php).
- **Modernization in dissemination of flood forecasts:** Dissemination of flood forecasts has also been modernized through a dedicated website. Daily Flood Situation Report cum Advisory is shared with all stakeholders aswell as general public using social media platforms.
- Bilateral agreements with upper riparian countries Nepal, Bhutan &China have been made for data sharing.
- Common data platform, Water Information Management System(WIMS), under National Water Informatics Centre (NWIC), has been created to ensure seamless data flow from States and CWC formodelling work. In addition, arrangements for seamless data flow from agencies like INCOIS, NASA, JAXA, etc. have also been made.

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