

**GOVERNMENT OF INDIA
WATER RESOURCES, RIVER DEVELOPMENT AND GANAGA REJUVENATION
LOK SABHA**

UNSTARRED QUESTION NO:4053

ANSWERED ON:10.08.2017

Flood Warning Centres

Chavan Shri Ashok Shankarrao;Gaikwad Dr. Sunil Baliram;Gupta Shri Sudheer;Kirtikar Shri Gajanan Chandrakant;Mahato Shri Bidyut Baran;Mahto Dr. Banshilal;Radhakrishnan Shri T.;S.R. Shri Vijay Kumar;Singh Shri Kunwar Haribansh

Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANAGA REJUVENATION be pleased to state:

- (a) whether early flood warning centres have been established in the country and if so, the details thereof along with the names of the rivers selected for the purpose;
- (b) the technology/system being used by Indian Meteorological Department (IMD) for the purpose of flood management including early flood warning along with its comparison with international standards;
- (c) the names of the rivers where such technology/system is being used and the names of the Flood Meteorological Offices in which IMD provides specific requirements of flood forecasting;
- (d) whether average error in IMD's flood management including early flood warning has come down during each of the last three years and if so, the details thereof; and
- (e) the measures taken/being taken by the Government to update the IMD system as well as to avoid inaccurate predictions by IMD?

Answer

THE MINISTER OF STATE FOR WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION

(DR. SANJEEV KUMAR BALYAN)

(a) Divisional Flood Control Rooms (DFCRs) at regional level for monitoring flood situation and issuing forecasts have been set up by Central Water Commission (CWC) which work on 24x7 basis during 1st May/ June to 31st October/ December every year. Central Flood Control Room (CFRC) has been set up at CWC HQ in New Delhi which works on 24x7 basis during 1st May to 31st December every year. CFRC monitors the flood situation at national level and also facilitates to generate three days flood advisory.

(b) The remote sensing data (Rainfall, Topography, Land-use/ Land-cover etc.) and Geographical Information System are being used in mathematical modeling for flood forecasting under flood management activity of CWC. Generation of Quantitative Precipitation Forecast (QPF) currently used at 146 river-basins of India for assessing the flood inundation scenario by CWC is at par with the global standards.

(c) The said technology is being used for Indus and its tributaries, Ganga & its tributaries, Brahmaputra & its tributaries, Barak system, Subarnarekha, Brahmani & Baitarani, Narmada, Tapi, Mahi, Sabarmati, Mahanadi, Godavari, Krishna, West flowing rivers Kutch, Saurashtra and Tapi to Tadri, Cauvery and its tributaries, Pennar and East flowing rivers Mahanadi to Pennar and Pennar to Kanyakumari. In order to meet specific requirements of flood forecasting, which is provided by Central Water Commission, India Meteorological Department (IMD) operates Flood Meteorological Offices (FMOs) at thirteen locations viz., Agra, Ahmedabad, Asansol, Bhubaneshwar, Guwahati, Hyderabad, Jalpaiguri, Lucknow, New Delhi, Patna, Srinagar, Bangaluru and Chennai. Apart from this, IMD also supports Damodar Valley Corporation (DVC) by providing Quantitative Precipitation Forecast (QPF) for Damodar river basin areas for their flood forecasting activities. During the flood season, FMOs provide valuable meteorological support to CWC for issuing flood warnings in respect of the 43 rivers of India covering 146 river-basins. CWC is working in close association with IMD and State Governments for timely flood forecast whenever the river water level rises above warning level.

(d) In recent years, IMD has been able to correctly predict several extreme weather and climate events like heavy rainfall etc. which causes floods.

(e) India Meteorological Department (IMD) has continued its efforts for the improvement of observing, warning and dissemination systems more vigorously in recent years. The improved services rendered in respect of very short (up to 6 hours), short (up to 3-days in advance), medium (up to 7-10 days in advance), extended (up to 15-days in advance), long (monthly and seasonal) range and severe weather (cyclone, thunderstorms, extreme rainfall) forecasts have been built to meet the demands of the user agencies, disaster managers, emergency response groups and other stakeholders in an organized manner.
