

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

STARRED QUESTION NO:347

ANSWERED ON:13.08.2015

Flood Management

Girri Shri Maheish;Kalkakuntla Smt. Kavitha

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

- (a) Whether flood forecasting stations have been set up and if so, the details thereof along with the rivers covered thereunder;
- (b) Whether remote sensing technology and the Geographic Information Systems (GISs) are being used for flood management including flood forecasting and if so, the details thereof along with the names of rivers where such technology/system is being used;
- (c) Whether live satellite data is available for flood affected areas in the country and if so, the details thereof; and
- (d) whether the Government is seeking assistance from US based flood monitoring organizations for live satellite flood data availability and if so, the details thereof?

**Answer**

ANSWER

THE MINISTER OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION

(SUSHRI UMA BHARTI)

(a) to (d) A Statement is laid on the Table of the House.

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STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF STARRED QUESTION No. 347 TO BE ANSWERED ON 13.08.2015 REGARDING "FLOOD MANAGEMENT".

(a) The Central Water Commission (CWC) under the Ministry carries out the activity of flood forecasting in the country on major rivers and their tributaries. It has setup 176 flood forecasting stations in the country where flood forecasts are issued in every monsoon whenever the water level or the inflow in a river exceeds the predefined criteria. The river basin-wise details of 176 flood forecasting stations maintained by CWC are given in Annex-I.

(b) Yes, Madam. The Meteorological inputs based on remote sensing technology received from India Meteorological Department (IMD) are used in rainfall-runoff modelling. The Remote Sensing Technology and Geographical Information System (GIS) have been used by CWC for preparation of inventory of Glacial Lakes/ Water Bodies (GL/WB) in Himalayan region of Indian rivers with water spread area of more than 10 hectare using satellite imageries. The GL/WB having water spread area more than 50 hectare are monitored during monsoon season using satellite imageries. These technologies have also now been used for Glacial Lake Outburst Flood (GLOF) study and preparation of advisory sheet. The rainfall runoff mathematical model is presently used for flood forecasting in 3 rivers namely, Jhelum, Alaknanda and Bhagirathi.

Besides, CWC has launched a web portal ([www.india-water.gov.in/ffs](http://www.india-water.gov.in/ffs)) for GIS based flood forecast information dissemination from the year 2014.

(c) & (d) The National Remote Sensing Centre ( NRSC), Hyderabad under the Department of Space provides near real time satellite based flood inundation maps at their official website using data of mainly Indian satellite. Data of Canadian satellite is also used whenever required, but data from US satellites has not been used for this purpose.

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