

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO.3241
TO BE ANSWERED ON 12/7/2019**

TECHNOLOGIES TO CONTROL FLOOD

3241. DR. ALOK KUMAR SUMAN:

Will the Minister of SCIENCE AND TECHNOLOGY विज्ञान और प्रौद्योगिकी मंत्री be pleased to state:

- (a) whether the Government has taken any measures to promote research and development to control the flood in flood affected areas in the State of Bihar;
- (b) if so, the details thereof; and
- (c) the steps taken/proposed to be taken to promote the technologies for flood control specially in Gopalganj district of Bihar and the outcome thereof?

ANSWER

**MINISTER OF HEALTH AND FAMILY WELFARE; MINISTER OF SCIENCE AND TECHNOLOGY; AND
MINISTER OF EARTH SCIENCES
(DR. HARSH VARDHAN)**

स्वास्थ्य और परिवार कल्याण मंत्री: विज्ञान और प्रौद्योगिकी मंत्री: और पृथ्वी विज्ञान मंत्री

डॉ. हर्ष वर्धन

(a) & (b): No Sir, Government has not taken any direct measure to promote Research and Development (R&D) to control the flood in flood affected areas in the State of Bihar. However, Govt. of India through its autonomous body Central Water Commission (CWC) is providing operational flood forecast for helping the administration to provide flood fighting measures to the affected population. Presently, CWC is operating 43 Flood Forecasting stations in Bihar out of which 40 are level forecast stations to villages/towns along the bank of the river and 3 inflow forecast stations for dams/reservoirs.

Further, as per constitutional provisions, the subject of Flood Management including erosion control falls within the purview of the States. The flood management & anti-erosion schemes are planned, investigated and implemented by the State Governments with own resources as per priority within the State. The Union Government only renders assistance to States which is technical, advisory, catalytic and promotional in nature. Government of India launched a Flood Management Programme for providing central assistance to the State Governments to implement works related to river management, flood control, anti-erosion, drainage development, flood proofing works, restoration of damaged flood management works and anti-sea erosion works.

In Addition to the above, Government of India has taken the measure to promote Research and Development (R&D) to predict & forecast the flood in flood affected area in the State of Bihar in collaboration of Govt. of Bihar to establish Mathematical Modeling Centre (MMC) in Patna and Physical Modeling Centre (PMC) at Birpur, Supaul with the knowledge transfer from the National Remote Sensing Centre, Hyderabad. Through Mathematical Modeling Centre, modeling of Kosi, Mahananda, Bagmati Adhwara and Gandak river to be done by using latest software of Hydraulic Engineering like Mike 11, Mike 21C, Mike Flood, HEC-RAS, HEC-HMS and Tuflow to provide flood forecasting of the above mentioned river basins for a lead period of 72 hrs.

(c) The following measures have been taken by the Government to strengthen flood prediction as a measure of flood control:

- National Remote Sensing Centre (NRSC), Hyderabad has signed a Memorandum of Understanding (MOU) with Water Resources Department, Government of Bihar through which Remote Sensing Data in the form of satellite imageries are made available to predict the behavior of different river basins. Water Resources Department, Government of Bihar has also procured LiDAR data to predict the Inundation areas in different river basins. It has also started Real Time Data Acquisition System (RTDAS) to know the real scenario of rainfall for flood forecasting and early warning.
- The above forecasting technologies are available for the use of Water Resource Department, Govt. of Bihar for prediction and forecasting of flood specifically in the State of Bihar including Gopalganj District.
