

order to have cooperation in the Flood Management, the first meeting of the technical delegations of India and Bhutan was held on 2nd August, 2004 at Delhi. During the meeting, it was agreed to recommend constitution of Joint Group of Experts on Flood Management, comprising officials and experts of Government of India and Bhutan to discuss and assess the probable causes and effects of the recurring floods and erosion in the southern foothills of Bhutan and adjoining plains in India (which includes northern part of West Bengal).

### **Flood control in lower Assam and North Bihar**

**1458. SHRIMATI VANGA GEETHA:** Will the Minister of WATER RESOURCES be pleased to state:

(a) whether intense flooding in Nepal and Bhutan and release of excess water from their dams inundated all low lying areas in lower Assam and North Bihar;

(b) if so, the remedial measures proposed to control such nature's fury causing loss of property worth crores of rupees every year, besides heavy death toll in the two States; and

(c) whether Nepal and Bhutan have been briefed in the matter and if so, their reaction thereto?

**THE MINISTER OF STATE IN THE MINISTRY OF WATER RESOURCES (SHRI JAI PRAKASH NARAYAN YADAV):** (a) The rivers flowing through Nepal and entering into North Bihar and those flowing from Bhutan and entering into Assam and North Bengal, do not have any existing storage reservoirs/dams for flood control in Nepal and Bhutan. As such the question of flooding lower Assam and North Bihar by these rivers by release of excess water from dams does not arise. The frequent flooding in these areas is caused during monsoon because of heavy rainfall in the catchment of these rivers both in India and in Nepal and Bhutan. However, during July 2004, the bursting of a natural lake which was formed in September 2003 near village Ladong in Bhutan resulted in rise of water level in river Beki by 20 cm. in lower Assam.

(b) Flood Management being a State subject, investigations, planning and implementation of flood management schemes are within the purview of the respective State Governments. The Centre renders assistance that are technical, catalytical and promotional in nature.

The Ganga Flood Control Commission (GFCC) constituted by Government of India in 1972 has prepared comprehensive plans for flood management for all 23 river systems of Ganga basin. Similarly, the Brahmaputra Board constituted in 1982 under an Act of Parliament has also prepared master plans for the Brahmaputra & Barak basins and sub-basins there under. These plans were sent to the concerned State Government for follow up action.

The Central Government is also providing financial assistance to the State Governments for taking up critical flood management and anti-erosion works. Besides, Brahmaputra Board has taken up critical anti-erosion schemes in Dholia Hathighuli and Majuli Island in Assam and Pagladiya Dam Project which *inter alia* is estimated to provide protection against floods to an area of 40,000 ha.

(c) As part of long term measures for flood control, agreement has been reached with Nepal and a scheme at a cost of Rs. 29.34 crore has been approved to take up field investigations and preparation of Detailed Project Report on Sapta Kosi High Dam Multipurpose Project and Sun Kosi Storage-cum Diversion Scheme which *inter alia* will have substantial flood control benefits for North Bihar. The Joint Project Office and other field offices to take up the above work are being opened in Nepal in August 2004.

Agreement has been reached to take up field investigations and preparation of DPR of 600 MW Burhi Gandaki Hydroelectric Project by an Indian agency on river Burhi Gandak which is a tributary of river Gandak.

Further Kamla & Bagmati Multipurpose Projects on river Kamla & Bagmati are also under discussion with Nepal, though the Nepalese side feels that these projects may not be feasible because of social and environmental implications. This matter was discussed during the 5th meeting of Joint Team of Experts in June 2003.

An understanding also exists between India and Nepal to extend the existing embankments on Lalbakeya, Bagmati, Kamla & Khando rivers into Nepalese territory upto the non-spilling zone and tie them up with high ground with corresponding strengthening of embankments on the Indian side.

As regards Bhutan, the technical delegation of India & Bhutan met in Delhi on 2nd August 2004 and agreed to set up a Joint Group of Experts to discuss and assess the probable causes and effects of recurring floods and erosion in the southern foothills of Bhutan and adjoining plains in India.

Further, as a part of non-structural measures for flood management, cooperation exists between India and Nepal as well as Bhutan under which the hydrological data received from these countries is utilised for flood forecasts on the Indian side.

#### **Land under Irrigation**

**1459. SHRI MATILAL SARKAR:** Will the Minister of WATER RESOURCES be pleased to state:

(a) the percentage of land covered by irrigation schemes so far, State-wise;

(b) the percentage of coverage by irrigation from surface water and from underground water, State-wise; and

(c) the target of Government to increase irrigation opportunities during the coming financial year?

**THE MINISTER OF STATE IN THE MINISTRY OF WATER RESOURCES (SHRI JAI PRAKASH NARAYAN YADAV):** (a) and (b) Statewise percentage of land covered under irrigation along with its break up into percentage of land under surface water irrigation and ground water irrigation are given in the Statement (See below):

(c) As per information provided by State Governments to the Planning Commission, overall target of 14.22 million hectare has been set for creation of irrigation potential during the Tenth Five Year Plan. The annual targets are set by respective State Governments as per annual outlay.