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No. BB/9156/Vol-III/12 Government of India Ministry of Water Resources River Development and Ganga Rejuvenation Brahmaputra Board

Basistha, Guwahati-29 Dated Feburary 8th, 2016

To

Shri Prakash Yelgaonkar House No. D-9 P.O. Kirlaskarvadi Dist.-Sangli, Maharashtra

Sub: - PMO Reference regarding your letter on Flood in Assam.

Ref :- MoWR, RD & GR letter No. Z-16012/28/2015-PM/3999-4002 dtd.12th Oct., 2015

Sir,

In response to your query and suggestions on flood in Assam where several districts of Assam are inundated every year, comments of Brahmaputra Board are submitted here under-

- The rainfall in Assam area is quite high. In Brahmaputra Valley, it varies from 1500mm in rain shed areas of the southern region to 3000mm in eastern areas of the valley. However the floods in Assam is not only due to localised heavy rainfall but also due to its geographical position and the geomorphology of Brahmaputra and Barak Valley in Assam.
- 2. Geographically, Brahmaputra valley in Assam receives flows from all rivers coming from Tibet, Bhutan and neighboring hill states of Arunachal Pradesh, Nagaland, Manipur, Meghalaya and hill districts such as Karbi-Along and North-Cachar hills districts of Assam from south. The catchment of Brahmaputra in Tibet itself is 2,93,000 sq. km. and that in Bhutan is 45,000 sq. km. Entire runoff from the catchments of Arunachal Pradesh (81,424 sq.km) also debouches into the Brahmaputra valley which is quite narrow (35 km to 90 km). Therefore, it can be stated that huge quantity of runoff originating outside enters Brahmaputra valley and causes flood. Besides this, geo-morphologically, the valley is very flat and small rise in the water level causes flooding in a large areas. The river carries high silt load and is braided. This causes the river to be shallow with limited carrying capacity. Therefore, during flood, water easily spills its banks causing flood in the valley. Another geomorphological feature is the high slope of the Brahmaputra and its tributaries in neighbouring hills and very flat slope immediately as it reaches plains of the valley. The river with high velocity of flow enters the valley. Due to sudden change in slope, the flow cannot be carried forward, resulting in accumulation of water and flooding.
- 3. Similarly, Barak rivers collects flows coming from hill states of Manipur. Nagaland, Mizoram and hill districts of North Cachar. The rainfall in Barak basin is of the order of 2200mm on an average. Therefore, the high rainfall as well as the water received by the valley falling in Assam from neighbouring hilly areas causes flood. Geomorphologically, the conditions are very similar to Brahmaputra valley.
- 4. Considering the gravity of flood problem in the North Eastern Region, the Government of India constituted an organization named Brahmaputra Board in 1980 by an Act of

Parliament, (NO. 46 of 1980) with an objective of Planning and Integrated Implementation of majors for control of flood and bank erosion in Brahmaputra and Barak valley.

- 5. To address flood and erosion problems in Assam and other north Eastern States, Brahmaputra Board has prepared 57 Master Plans for the main stem of Brahmaputra, its tributaries, Barak and its tributaries, rivers of Tripura etc. where long term, medium term and short term solutions have been recommended. 47 Master Plans have been approved by Govt of India so far. Since water is a State subject, the primary responsibility of implementation of the Master Plan prepared by Brahmaputra Board lies with the States. However, for implementation of flood management schemes recommended under Master Plans prepared, the Central Government has adopted a programme called Flood Management Programme (FMP). Upto 90% funding is done by Central Government for these schemes.
- 6. Regarding suggestion of planting of different varieties of trees (afforestation) in your letter as one the lasting solutions, Brahmaputra Board agrees with your suggestion. It is also recommended in the Master Plan prepared by Board that "for reducing excessive silt load in the river, watershed management on extensive scale is necessary". The plantation of trees is a primary measure under watershed management. In this regard, the Master Plan further recommends that:
 - a. For scientific management of catchment areas, comprehensive plan for watershed management should be prepared for each sub-basin and an integrated approach of all the three disciplines, namely, agriculture, forestry and engineering should be adopted.
 - b. For effective watershed planning, trained organization for survey, investigation and programme formulation should be set up.
 - c. Watershed treatment should be given priority where the population is high and there is heavy degradation of forests.

The programme of watershed management and soil conservation in the catchments area should precede the taking up of a storage scheme to provide maximum benefit.

Yours faithfully

(D.J Borgohain)

Superintending Engineer(Planning)

Copy for favour of information to :-

 Shri M.S. Sahare, Sr. Jt. Commissioner(FM), MoWR, RD & GR, 8th Floor, Block No.11, CGO Complex, Lodhi Road, New Delhi-3 with reference to letter No. Z-16012/28/2015-FM/3999-4002 dated 12.10.2015