

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
LOK SABHA

STARRED QUESTION NO. *112

ANSWERED ON 27.07.2023

SOIL EROSION DUE TO FLOODS IN ASSAM

† *112 SHRI NABA KUMAR SARANIA

Will the Minister of JAL SHAKTI be pleased to state:

- (a) whether any corrective steps have been taken to check the soil erosion in the rivers caused by heavy rains and consequential floods in the lower lying areas of Assam and if so, the details thereof;
- (b) whether the Government proposes to construct concrete embankments after dredging of the rivers;
- (c) if so, the details thereof; and
- (d) the details of various schemes being implemented for the flood management and erosion control in rivers and rivulets of Assam and North- Eastern States?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

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

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF LOK SABHA STARRED QUESTION NO. *112 TO BE ANSWERED ON 27.07.2023 REGARDING “SOIL EROSION DUE TO FLOODS IN ASSAM”.

(a) Erosion, movement and deposition of sediment in a river are natural regulating functions of a river. Rivers tend to maintain a balance between the silt load carried and silt load deposited, maintaining a river regime. Soil erosion caused by heavy floods is a matter of concern as it leads to several associated problems like changes in river course, loss of land, etc. Flood management, including erosion control, falls within the purview of the States. Flood management and anti-erosion schemes are formulated and implemented by concerned State Governments as per their priority. The Union Government supplements the efforts of the States by providing technical guidance and also promotional financial assistance for management of floods in critical areas. The Government of India has been making continuous efforts to assist the State Governments in effective flood management and erosion control. Morphological studies using remote sensing technique by various IITs and NIIT have been carried out for major rivers, including Brahmaputra river. These studies play an important role in understanding the nature of rivers in a comprehensive manner and provide assessment of decadal bank-line movement, erosion and deposition in different reaches in respect of base year, derivation of reach-wise morphological indices and identification of critical reaches. These studies have been shared with concerned State Governments and other stakeholders etc. for taking informed decision and future planning. As per the morphological study of Brahmaputra river conducted by Central Water Commission (CWC) through consultancy from IIT Guwahati, it has been estimated that in the Brahmaputra river a total erosion of 252.6 sq. km. and deposition of 118.6 sq. km. occurred between 2003-05 and 2008-11.

As informed by Water Resources Department, Government of Assam, around 1,170 bank protection works with geo-materials, concrete slabs/blocks, boulders, etc. have been implemented in order to check the soil erosion in the rivers and rivulets caused by heavy rains and consequential floods in the lower lying areas of the State.

(b) & (c) Dredging/desilting of rivers is not considered a technically viable solution for flood control as it can marginally minimize the magnitude of floods and is effective only for a short period. Selective dredging in specific reaches such as tidal rivers, confluence points with narrow constrictions, etc. sometimes may have to be undertaken based upon local site conditions; however, the same should be backed by proper scientific study.

The Ministry of Jal Shakti has formulated a “National Framework for Sediment Management (October 2022)” for managing sediments in a holistic manner. This framework lays emphasis on sediment management through integrated river basin management plan.

Embankments are generally considered as economical, quick and most popular method of flood protection and have been constructed extensively in the past. Embankments (including ring bunds and town protection works) confine the flood flows and prevent spilling, thereby reducing the damage. Depending upon local site conditions, availability of material and other technical considerations various types of embankments /flood walls viz., earthen, masonry, concrete, etc. are constructed. However, construction of embankments is to be carried out after proper scientific, morphological and modelling studies of river for identifying changes in river courses, vulnerable locations, rise in afflux due to jacketing etc. Union Government currently has no plan to construct concrete embankments after dredging the rivers.

(d) To strengthen the structural measures of flood management, Union Government had implemented Flood Management Programme (FMP) during XI & XII Plan for providing central assistance to States for works related to flood management, anti-erosion, drainage development, anti-sea erosion, etc. which subsequently continued as a component of "Flood Management and Border Areas Programme" (FMBAP) for the period from 2017-18 to 2000-21 and was further extended up to September 2022 with limited outlay. So far, central assistance amounting to Rs. 2,186.63 crore has been released to North Eastern States under FMP component of this programme since inception with details at **Annexure**. In addition, Brahmaputra Board has implemented flood management works of protection of "Majuli Island from flood and erosion" and "Avulsion of Dholla Hatighuli Phase V" with an estimated cost of Rs. 233.57 crore and Rs. 24.95 crore, respectively. Government of India also provides technical support to States for undertaking flood control projects through financial assistance from multilateral funding agencies.

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (d) OF STARRED QUESTION NO. *112 TO BE ANSWERED IN LOK SABHA ON 27.07.2023 REGARDING “SOIL EROSION DUE TO FLOODS IN ASSAM”.

Details of Projects implemented in North-Eastern States under FMBAP Scheme

Sl. No.	State/ UT	No.	Total Cost (Rs crore)	Funds Released (Rs crore)	Works completed	Area benefited (ha)	Population benefited (number)
1	Arunachal Pradesh	21	224.69	190.78	21	47,617	2,01,209
2	Assam	142	2499.1	1,549.83	141	7,21,019	177,12,497
3	Manipur	23	569.76	219.71	23	39,315	2,01,640
4	Mizoram	2	9.13	16.89	2	136	312
5	Nagaland	17	123.87	93.96	14	2,463	1,63,000
6	Sikkim	45	366.32	91.84	45	48,728	2,06,534
7	Tripura	11	26.57	23.62	11	1,964	88,480
	Total	261	3,819.4	2,186.63	257	8,61,242	185,73,672
