

GOVERNMENT OF INDIA
MINISTRY OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION
LOK SABHA
UNSTARRED QUESTION NO. †1107
ANSWERED ON 08.02.2018

SILTATION IN GANGA RIVER

†1107. SHRIMATI RANJEET RANJAN
 SHRI RAJESH RANJAN

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

- (a) whether the Government has constituted a committee under the Chairmanship of Madhav Chitale to solve the problem of siltation in the Ganga river from Bhimguda to Farakka and if so, the details thereof along with the recommendations made by the Committee;
- (b) the steps taken by the Government to implement the said recommendations;
- (c) whether the problem of siltation in the Ganga river has become acute due to the construction of dams and barrages on the river particularly in Bihar due to Farakka Barrage and if so, the details thereof;
- (d) the amount spent till now from the funds allocated under the Namami Gange Mission and the heads under which this money has been spent, State-wise; and
- (e) the number of Sewage Treatment Plants constructed under the Mission along with the steps taken by the Government to comply with the orders of the National Green Tribunal on cleaning of the Ganga river?

ANSWER

THE MINISTER OF STATE FOR WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION & HUMAN RESOURCES DEVELOPMENT

(DR. SATYA PAL SINGH)

(a) Yes, Madam. A Committee headed by Shri Madhav Chitale, Expert Member, National Ganga River Basin Authority (NGRBA) was constituted in 2016 by the Ministry of Water Resources, River Development & Ganga Rejuvenation for preparation of guidelines for works on de-siltation from Bhimgauda (Uttarakhand) to Farakka (West Bengal). The recommendations of the Committee are enclosed as **Annexure-I**.

(b) The guidelines / recommendations made by the Committee have been circulated to the concerned State Governments for necessary action as the measures for flood management including desilting of rivers are formulated by the State Governments as per their priority. The Government of India supplements the efforts of State Governments by providing technical guidance and promotional financial assistance for critical areas.

(c) After the floods of 2016, as per a Study carried out by Central Water Commission, the sedimentation in river Ganga beyond 42 km upstream of Farakka Barrage is not affected by Farakka Barrage. Further, in this context, in response to a reference from State Government of Bihar, a Committee to address the issues of floods and siltation in the State of Bihar under the Chairmanship of former Chairman, Central Water Commission, (CWC), Shri A.B. Pandya has been constituted by this Ministry.

(d) The state-wise amount spent till 15.01.2018 under different heads from the funds allocated under the Namami Gange Mission is annexed at **Annexure-II**.

(e) National Mission for Clean Ganga has taken steps to create new sewage treatment capacity and also to rehabilitate/upgrade the existing sewerage infrastructure. Under Namami Gange programme till date a total of 97 sewerage infrastructure projects have been sanctioned out of which 19 projects have been completed. Out of 19 completed projects, 12 projects are related to Sewage Treatment Plants. In compliance of Hon'ble National Green Tribunal order on cleaning of river Ganga Special Committee to identify and demarcate the flood plains of river Ganga and Committee to study the minimum required environmental flow of river Ganga have been constituted by the Mission.

Annexure referred to part (a) of Unstarred Question No. 1107 to be answered in Lok Sabha on 08.02.2018 regarding “ Siltation in Ganga River”

The main recommendations of the committee are as under:-

- (i) Erosion, sediment transport and siltation in large rivers like Ganga are very complex phenomena and their estimation has inherent limitations and uncertainties. A reconnaissance of main River Ganga reveals that different reaches are in a dynamic equilibrium phase. Sedimentation is mainly seen downstream of Bhimgauda barrage and near the confluences of tributary rivers with Ganga.
- (ii) Though de-siltation works can improve hydraulic performance of the river and this itself can justify undertaking de-siltation, these have no direct role in improving environment flow in the river. On the other hand, indiscriminate de-silting or sand mining would cause adverse impacts on river e-flow.
- (iii) River Ganga tends to achieve equilibrium on its own given the hydrology, sediment and natural bed and bank disposition. It is necessary to provide the river sufficient areas of flood plain and lakes along the river to moderate the flood level. Any encroachment of flood plain, reclamation of lakes or disconnection of lakes from river should be avoided; rather adjoining lakes/depressions may be de-silted to increase their storage capacities.
- (iv) Comprehensive Catchment Area Treatment and Watershed Development works, along with good agricultural practices and river bank protection/anti-erosion works are necessary to reduce silt inflow into the river system.
- (v) Upstream reaches of natural constriction works, like barrages/bridges, etc., tend to get silted leading to wandering of river. Possibly river training, cut-off developments and provision of extra water way near the constrictions could be tried after proper assessment without impacting the morphology of river elsewhere. Efforts should be made to provide silt continuity along the weirs and barrages.
- (vi) The proposed de-silting of any river reach need to be justified bringing out clearly the flooding caused due to siltation along with technical comparison of the alternative flood mitigation measures with “do nothing” or “proposed desilting/ dredging” being other options. It should invariably be associated with sediment flux studies and morphological studies to confirm no significant adverse effect on downstream or upstream reach of the river including the safety and effectiveness of river crossings, water intakes, existing river bank / flood protection measures etc.

- (vii) Reservoirs in main river Ganga and its tributaries, particularly in upper reaches, should be operated in such a manner that first floods, having high silt load, are allowed to pass through without storage and river flows in later phases of the monsoon are only stored for use during non-monsoon season. This would require quantitative long term forecast with decision support system to be established for optimum reservoir operations.
- (viii) The proposal should also contain environmentally acceptable and practically feasible silt disposal plan. River gravels/sands/silts could be used gainfully in construction works, including housing, roads, embankment and reclamation works. Under no circumstances, disposal should create any contamination of the water bodies, harmful to the flora and fauna existing adjacent to the disposal sites. It should also be ensured that disposed material should not come back into the river again.
- (ix) The dredging/desiltation/mining activities may result into some adverse impacts, i.e. (a) River bed degradation; (b) Bank erosion; (c) Channel widening; (d) lowering of water surface elevations in the river channel; (e) lowering of water table elevation adjacent to the river; (f) a reduction in the structural integrity of bridges, pipelines, jetties, barrages, weirs, foundations supporting high tension lines, existing bank protection works and other manmade structures; and (g) a loss of environmental values resulting from (a) through (e). As such, restrictions need to be enforced before planning and executing any dredging/ de-silting / mining activities.

Annexure-II**Annexure referred to part (d) of Unstarred Question No. 1107 to be answered in Lok Sabha on 08.02.2018 regarding “ Siltation in Ganga River”****Disbursement of funds by National Mission for Clean Ganga (NMCG) state-wise Rs. in cr.**

Particulars	Uttarakhand	Uttar Pradesh	Bihar	Jharkhand	West Bengal	Delhi	Haryana	Madhya Pradesh	Rajasthan
Externally Aided Projects (EAP) through SPMG	6.84	580.92	116.21	25.89	120.96	11.31	0.00	0.00	0.00
Non-Externally Aided Projects (EAP) through SPMG	31.07	75.99	0.00	0.00	199.23	0.00	89.61	9.89	20.00
National Ganga Plan									
i) Ministry of Drinking Water & Sanitation	22.56	370.76	79.02	27.83	77.83	0.00	0.00	0.00	0.00
ii) Forest Department	16.98	14.86	20.03	11.48	8.66	0.00	0.00	0.00	0.00
iii) Release to State Programme Management Group (SPMG)	41.11	12.18	1.20	17.35	1.10	45.20	0.00	0.00	0.00
iv) Release to SPMGs for Forest Department	8.50	5.61	0.00	0.00	3.48	0.00	0.00	0.00	0.00
Ghat Works and Beautification of RFD	17.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	144.97	1060.32	216.46	82.55	411.26	56.51	89.61	9.89	20.00