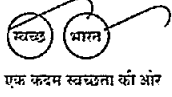




संख्या: BB/5334/2019/

जल शक्ति मंत्रालय
जल संसाधन, नदी विकास एवं गंगा संरक्षण विभाग
Ministry of Jal Shakti
Department of Water Resources,
River Development and Ganga Rejuvenation
ब्रह्मपुत्र बोर्ड
Brahmaputra Board



बशिष्ठ, गुवाहाटी -29
दिनांक अक्तुबर 25, 2019

To,

All Members of High Powered Review Board of Brahmaputra Board
(As per list enclosed)

Sub: 10th meeting of High Powered Review Board of Brahmaputra Board
Sir,

In continuation of letter NO. BB/5334/2019/2864-2882 dated 14.10.2019, I am directed to enclose the Agenda Note for the 10th meeting of High Powered Review Board of Brahmaputra Board scheduled to be held under the Chairmanship of Hon'ble Union Minister of Jal Shakti Shri Gagendra Singh Sekhawat at 11:30 Hours on 8th November 2019 at Guwahati.

Yours faithfully,

Encl; As above

Sd/-
(विष्णु देव राय)
सचिव

Copy along with enclosures for kind information to:

1. Hon'ble Minister of State for Development of North Eastern Region
2. All the Chief Secretaries of the Member States((As per list enclosed)
3. PPS to the Union Minister, Ministry of Jal Shakti, Shram Shakti Bhawan, Rafi Marg, New Delhi- 110 001
4. All PPS/PS to the Members of High Powered review Board of Brahmaputra Board
5. P.S. to the Vice-Chairman, Brahmaputra Board, Basistha, Guwahati-29
6. Hindi version follows

NIO

Copy for favour of information to:

1. The Commissioner(B&B), Ministry of Jal Shakti,DoWR,RD&GR, 2nd Floor, Block -3, CGO Complex, Lodhi Road, New Delhi 110 003

(हरि प्रशाद शईकिया)
कार्यपालक अभियंता (मु.)

सदस्यों की सूची

1	केंद्रीय जल शक्ति मंत्री Union Minister for Jal Shakti	अध्यक्ष Chairman
2	अरुणाचल प्रदेश के मुख्यमंत्री या उनके द्वारा विधिवत प्राधिकृत एक कैबिनेट मंत्री Chief Minister of Arunachal Pradesh or a Cabinet Minister duly authorized by him	सदस्य Member
3	असम के मुख्यमंत्री या उनके द्वारा विधिवत प्राधिकृत एक कैबिनेट मंत्री Chief Minister of Assam or a Cabinet Minister duly authorized by him	सदस्य Member
4	मणिपुर के मुख्यमंत्री या उनके द्वारा विधिवत प्राधिकृत एक कैबिनेट मंत्री Chief Minister of Manipur or a Cabinet Minister duly authorized by him	सदस्य Member
5	मेघालय के मुख्यमंत्री या उनके द्वारा विधिवत प्राधिकृत एक कैबिनेट मंत्री Chief Minister of Meghalaya or a Cabinet Minister duly authorized by him	सदस्य Member
6	मिजोराम के मुख्यमंत्री या उनके द्वारा विधिवत प्राधिकृत एक कैबिनेट मंत्री Chief Minister of Mizoram or a Cabinet Minister duly authorized by him	सदस्य Member
7	नागालैंड के मुख्यमंत्री या उनके द्वारा विधिवत प्राधिकृत एक कैबिनेट मंत्री Chief Minister of Nagaland or a Cabinet Minister duly authorized by him	सदस्य Member
8	त्रिपुरा के मुख्यमंत्री या उनके द्वारा विधिवत प्राधिकृत एक कैबिनेट मंत्री Chief Minister of Tripura or a Cabinet Minister duly authorized by him	सदस्य Member
9	केंद्रीय मंत्री / वित्त राज्य मंत्री Union Minister / Minister of State for Finance	सदस्य Member
10	केंद्रीय मंत्री / बिद्युत राज्य मंत्री Union Minister / Minister of State for Power	सदस्य Member
11	केंद्रीय मंत्री / सड़क परिवहन और राजमार्ग राज्य मंत्री Union Minister / Minister of State for road transport and highways	सदस्य Member
12	केंद्रीय मंत्री / कृषि राज्य मंत्री Union Minister / Minister of State for Agriculture.	सदस्य Member
13	जल शक्ति राज्य मंत्री Minister of State for Jal Shakti	सदस्य Member
14	सचिव, भारत सरकार जल शक्ति मंत्रालय, जल संसाधन, नदी विकास एवं गंगा संरक्षण विभाग Secretary, Ministry of Jal Shakti, Deptt. Of Water Resources, RD&GR, Government of India	सदस्य Member
15	अध्यक्ष, केंद्रीय जल आयोग Chairman, Central Water Commission	सदस्य Member
16	अध्यक्ष, ब्रह्मपुत्र बोर्ड Chairman, Brahmaputra Board	सदस्य-सचिव Member-Secretary
17	सदस्य (आरएम), केंद्रीय जल आयोग Member (RM), Central Water Commission	स्थायी आमंत्रित Permanent Invitee

List of Chief Secretaries of Member States of HPRB of Brahmaputra Board

1. The Chief Secretary, Arunachal Pradesh, Arunachal Pradesh Secretariat, Itanagar -7 61 111
2. The Chief Secretary, Assam, Assam Sachivalaya, Dispur, Guwahati-781 006
3. The Chief Secretary, Manipur, Manipur Secretariat, Imphal -795 001
4. The Chief Secretary, Meghalaya, Meghalaya Secretariat, Shillong -793 001
5. The Chief Secretary, Nagaland, Nagaland Secretariat. Kohima -797 001
6. The Chief Secretary, Tripura, Tripura Secretariat, Agartala – 799 010
7. The Chief Secretary, Mizoram, Mizoram Secretariat, Aizawl -796005

List of PPS/PS to the Members of HPRB of Brahmaputra Board

1. PPS to the Union Minister for Jal Shakti, Shram Shakti Bhawan, Rafi Marg, New Delhi -110 001
2. PPS/PS the Chief Minister of Arunachal Pradesh , Itanagar, - 791111
3. PPS/PS to Chief Minister of Assam, Dispur Guwahati – 781 006
4. PPS/PS to the Chief Minister of Manipur, Imphal -795001
5. PPS/PS to the Chief Minister of Meghalaya, Shillong - 793001
6. PPS/PS to the Chief Minister of Mizoram, MacDonald Hill, Zarkawt, Aizawl, Mizoram - 796001
7. PPS/PS to the Chief Minister of Nagaland, Kohima - 797004
8. PPS/PS to the Chief Minister of Tripura, Khejurbagan, Agartala - 799010
9. PPS/PS to the Union Minister / Minister of State for Finance, A-wing, Shastri Bhawan, Rajendra Prasad Road, New Delhi-110001
10. PPS/PS to the Union Minister / Minister of State for Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110 001
11. PPS/PS to the Union Minister / Minister of State for road transport and highways, Transport Bhawan, Sansad Marg, New Delhi-110001
12. PPS/PS to the Union Minister / Minister of State for Agriculture, Krishi Bhavan, Dr. Rajendra Prasad Road, New Delhi-110001

ब्रह्मपुत्र बोर्ड की उच्चाधिकार प्राप्त समीक्षा बोर्ड (एचपीआबी) की 10^{वीं} बैठक कार्यसूची बिंदु
Agenda point of 10th Meeting of High Powered Review Board (HPRB) of
Brahmaputra Board

- 10.1 दिनांक 30.12.2017 को काजीरंगा, असम में आयोजित उच्चाधिकार प्राप्त समीक्षा बोर्ड की 9^{वीं} बैठक की चर्चा के रिकॉर्ड नोट की पुष्टि
Confirmation of the record note of discussions of the 9th Meeting of High Powered Review Board held on 30.12.2017 at Kaziranga, Assam
- 10.2 उच्चाधिकार प्राप्त समीक्षा बोर्ड की 9^{वीं} बैठक में लिए गए निर्णयों पर अनुपालना रिपोर्ट
Follow up Report on decisions taken in the 9th meeting of High Powered Review Board
- 10.3 माजुली द्वीप के प्रतिरक्षण के लिए उपाय
Measures for protection of Majuli Island
- 10.4 ब्रह्मपुत्र बोर्ड का पुनर्गठन और एनइडब्ल्यूएमए (NEWMA) की स्थापना का प्रस्ताव
Restructuring of Brahmaputra Board and Proposal for setting up NEWMA
- 10.5 नई पहल New Initiatives-
- (ए) नॉर्थ ईस्ट डेटा शेयरिंग सेंटर की स्थापना
Setting up of North East Data Sharing Centre
 - (बी) अरुणाचल प्रदेश में आपातानी आवासीय जीरो घाटी, नागालैंड में फेक जिले की चाखेसांग जनजाति और असम में बाक्सा जिले की बोडो जनजाति के भूजल प्रबंधन प्रथाओं का वैज्ञानिक प्रसार
Scientific dissemination of Ground Water Management practices of Apatoni's inhabited Ziro Valley in Arunachal Pradesh, Chakhesang tribe of Phek district in Nagaland, Bodo tribe of Baksa district in Assam
- 10.6 बाढ़ और तटकटाव प्रबंधन के लिए सॉफ्ट मेजर्स
Soft Measure for Flood and Erosion Management
- 10.7 अध्यक्ष महोदय की अनुमति से कोई अन्य मद
Any other items with permission of Chairman
- 10.8 अगली बैठक के लिए स्थान और तारीख का निर्धारण
Deciding venue and date for next meeting

10th Meeting of High Powered Review Board of Brahmaputra Board

Agenda

10.1 Confirmation of the record note of discussions of the 9th Meeting of High Powered Review Board held on 30.12.2017 at Kaziranga, Assam

The 9th meeting of the High Powered Review Board was convened on 30.12.2017 at **Kaziranga, Assam**. Minutes of the 9th meeting was circulated to members of the Review Board. No comment has been received from any member. The record note of discussions may be confirmed by the High Powered Review Board.

10.2 Follow up report on decisions taken in the 9th meeting of High Powered Review Board

Follow up report on decisions taken in the 9th meeting of High Powered Review Board are-

Agenda No.	Decision taken during 9 th meeting	Action Initiated
Address by Hon'ble Minister WR, RD & GR	In his opening address, Hon'ble Minister, WR, RD&GR, RT&H and Shipping advised (i) for integrated development based on best modern technology in a cost-effective manner	Board has started to utilise the data in Preparation of Master Plan and DPR collected with modern tools of technology like GIS etc. Board also introducing Geobags in Bank revetment work in place of Boulder.
	(ii) to take initiative through subsidy schemes to promote ferries, Ro-Ro boats and river cruise services and develop river transport, inland waterways and tourism on Brahmaputra river that will give employment to youth of the state in the sectors of water transportation and hospitality services.	Government of Assam has Started the Ro-Ro services in Brahmaputra.
	(iii) to take up actively activities like afforestation	A seminar on 'Soil Erosion in North Eastern Region' was

Agenda No.	Decision taken during 9 th meeting	Action Initiated
	<p>with bamboo and catchment area treatment in the upper riparian states to prevent soil erosion and sedimentation. For this purpose MoWR, RD &GR will prepare a proposal through Brahmaputra Board and take it up with MoEF & CC for consideration and release funds through CAMPA</p> <p>(iv) it was directed that work of comprehensive integrated master plan be assigned to WAPCOS, a PSU of MoWR, RD&GR, who may partner with leading global organizations working in the field of integrated water management.</p>	<p>organized on 15th February, 2019 at Administrative Staff College, Khanapara, Assam. The proceedings drawn would be useful for preparation of work plan of soil erosion and integrated Soil Erosion and Flood Management in North Eastern Region and work plan of Brahmaputra Board and circulated to all Board Members</p> <p>The proposal was processed in the then Ministry of WR, RD&GR. As Brahmaputra Board has already prepared the Master Plan of Brahmaputra, Barak and its tributaries, preparation of Master Plan separately by WAPCOS was not encouraged.</p>
	<p>(v) to create a Centre for Brahmaputra Studies in IIT, Guwahati covering multi-disciplinary aspects of hydrology, environment, inland waterways, agriculture and sociology. For this purpose, he suggested that IIT, Guwahati should identify and earmark a land area of about 4 acres and the Government of India will support for establishment of this Centre</p>	<p>Setting up of Centre for Brahmaputra Studies has been taken up by Guwahati University instead of IIT Guwahati.</p>
<p>Launch of Mathematical Model Study by IIT Guwahati</p>	<p>Hon'ble Union Minister, Shri Nitin Gadkari launched the Mathematical Model prepared by IIT, Guwahati called Brahma-ID. The project was sponsored by Brahmaputra Board by providing funds to amount</p>	<p>(i) 2D model has also been developed.</p> <p>(ii) Validation of 2D model with physical model is going on at North Eastern Hydraulic and Allied Research Institute (NEHARI)</p>

Agenda No.	Decision taken during 9 th meeting	Action Initiated
	of Rs. 3.00 crore. The Mathematical Model captures the experience of the last 35 years, and provides core solution to water resources problems of flooding, erosion and siltation besides offering economic benefit models	
9.2 Measures for Protection of Majuli Island	Apprised on the responsibility entrusted for the work of protection of Majuli Island from floods and erosion in 2004 and execution of Immediate Measures, Phase-I and Emergent Works and Phase – II & III. Land reclaimed about 22.08 sq.km since 2004 to 2016. New DPR to address the issues of erosion in vulnerable reaches and to reclaim more land by pro-siltation and other measures in the east-west reach length of about 80 km on south bank, a DPR was formulated for "Protection of Majuli Island from flood and erosion of river Brahmaputra" as per the recommendations of the Standing Committee of Experts for Majuli Island and Technical Advisory Committee of Brahmaputra Board (TAC- BB). DPR of Rs. 233.57 Cr. for the above work was approved by Government of India and Ministry of DoNER funded Rs. 207 Cr. under NLCPR mode. The work was under implementation. HPRB ratified the project for	The major works under execution: <ul style="list-style-type: none"> ✓ Bank revetment with geo bags filled with earth / sand for a reach length of 27 km in 14 locations. ✓ RCC porcupine works in 41 locations Work amounting to Rs. 160.75 crore (Rs. 189.69 crore including GST) was allotted in November 2017. Actual work started at site since February 2018 Physical progress of the scheme up to September, 2019 is 65.13% with an expenditure of Rs.112.59 crore. TAC-BB visited the work sites at Majuli Island 30.04.2019 and furnished their recommendations. As per recommendation of TAC-BB, proposal for taking up of additional works and extra item of work has been framed and approved. The works are under execution. The TAC-BB also visited Majuli from 09.10.2019 to 11.10.2019 and reviewed the progress of protection works.

Agenda No.	Decision taken during 9 th meeting	Action Initiated
	protection of Majuli Island from flood and erosion for the above amount.	
9.3 Ratification of the Decisions of 63 rd Special Meeting of Brahmaputra Board	After detailed deliberations, the HPRB ratified all the decisions of 63 rd Special meeting of Brahmaputra Board held on 11th April, 2017.	As per decision of 63 rd meeting of Brahmaputra Board, the Restructuring proposal was processed and approved by Govt. of India and conveyed on 10.01.2019. Implementation of Restructuring of Brahmaputra Board is underway.
9.4 Restructuring of Brahmaputra Board	The agenda item was discussed at a length and agreed upon during the meeting, High Powered Review Board (HPRB) approved restructuring of Brahmaputra Board and advised that funds should be largely spent for works and funds for establishment costs including salary and wages have to be optimised.	All efforts are made to reduce the establishment expenditure. During the Year 2018-19 out of total expenditure of Rs. 159.93 crore, Rs. 61.97 crore is for regular establishment and Rs. 97.96 crore for works. Further, during the year 2019-20 total expenditure upto September, 2019 is Rs. 77.72 crore out of which Rs. 26.43 crore is for regular establishment and Rs. 51.29 crore for works.
9.5 Dropping the proposal to convert Brahmaputra Board into an Authority or Corporation:	HPRB agreed to drop the proposal to convert Brahmaputra Board into an Authority or Corporation keeping in view of the approval of President of India communicated vide order No: A.60015/24/20017-E.III/1085-1094 dated 25.10.2017	Minutes circulated to Ministry.
9.6 Assigning the work for Development of Infrastructure of Brahmaputra Board at	HPRB approved the establishment of Brahmaputra Board office complex in Majuli and handing over the works to NPCC, a PSU under the Ministry.	Work allotted to NPCC.

Agenda No.	Decision taken during 9 th meeting	Action Initiated
Majuli to NPCC		
9.7 Assigning some works to WAPCOS for investigation and preparation of DPR of Multipurpose Projects	HPRB approved that the preparation of Master Plans, Feasibility Reports and DPRs for development of the complete Brahmaputra basin be also given to WAPCOS, a PSU under the Ministry, who may partner with leading global organizations working in the field of integrated water management.	It is underway to carry out the remaining works of Survey & Investigation and DPR preparation of Simsang and Jiadhah Dam Project through WAPCOS.

10.3 Measures for protection of Majuli Island

LOCATION:

The Majuli Island is located to the north of Jorhat town at a distance of about 20km and lies between latitudes 26°45' N to 27° 10' N and longitudes 93°40' E to 94°35' E.

The word Majuli is claimed to be derived from the word 'MAJULI' meaning an area surrounded by water. Majuli Island is the nerve Centre of Vaishnavite culture developed during the unique Vaishnava Satra system founded by the great saint Srimanta Sankardeva in the 15th Century. It is the cultural heritage Centre of Vaishnavite culture of Assam. At present there are 22 Satras in Majuli. Hordes of tourists and devotees throng Majuli every year for its uniqueness and Vaishnavite culture making it an important spot in the tourist circuit of Assam. Also, Majuli Island is a serious contender for inclusion in the list of World Heritage Site. During 2016, Majuli has been upgraded from a Civil Sub-Division to the status of a District. Protection of Majuli Island from the menace of floods and erosion by Brahmaputra river is thus one of the prime objectives of the State Government, with support from the Centre.

The average elevation of the Island is 87 m (at Bessamara) above mean sea level as against the High Flood Level of 88.32 m. The present area of Main Island is about 524 sq.km with a population of 1.68 lakh as per 2011 Census. Majuli Island has been under severe threat of bank erosion by the flow of river Brahmaputra since formation of the Island and particularly after the Assam earthquake of 15th August, 1950.

Brahmaputra Board was entrusted the work of protection of Majuli Island from floods and erosion in 2004. Since then, Board completed execution of

Immediate Measures, Phase-I, Emergent Works and Phase - II & III works. About 22.08 sq.km of land has been reclaimed and secured by Brahmaputra Board during the period 2004 to 2016.

To address the issues of erosion in vulnerable reaches and reclaim more land by pro-siltation and other measures in the east-west reach length of about 80 km on south bank, a DPR was formulated for "Protection of Majuli Island from flood and erosion of river Brahmaputra" as per the recommendations of the Standing Committee of Experts for Majuli Island and Technical Advisory Committee of Brahmaputra Board (TAC- BB) . An SFC of Rs. 233.57 Cr. for the above work has been approved by Government of India. Out of Rs. 233.57 Cr, the Ministry of DoNER funded Rs. 207 crore under NLCPR.

Work amounting to Rs. 160.75 crore (Rs. 189.69 crore including GST) was allotted in November 2017. Actual work started at site since February 2018.

The major works under execution:

- ✓ Bank revetment with geo bags filled with earth / sand for a reach length of 27 km in 14 locations.
- ✓ RCC porcupine works in 41 locations

Physical progress of the scheme up to September, 2019 is 65.13% with an expenditure of Rs.112.59 crore.

On recommendation of TAC-BB visited the work sites at Majuli Island on 30.04.2019 additional works and extra item of work amounting to Rs. 5.09 crore are under execution.

The TAC-BB is also visiting Majuli from 09.10.2019 to 11.10.2019.

Repairing and maintenance of the Spurs constructed under phase- II & III is also continued.

10.4 Restructuring of Brahmaputra Board and Proposal for setting up NEWMA

The 63rd Special Meeting of Brahmaputra Board was held at the Brahmaputra Board HQ, Guwahati on 11th April, 2017 to discuss proposals on restructuring of Brahmaputra Board. Ministry of Water Resources, RD & GR, Government of India proposes to restructure Brahmaputra Board within the ambit of the Brahmaputra Board Act, 1980 by revamping its technical and non-technical cadres. The Government of India approved the proposal on 10.01.2019 with a regional office headed by Deputy Chief Engineer or Superintending Engineer in each State under the Jurisdiction of Board and modified cadre structure of the Board. Regional offices at Itanagar, Siliguri, Assam and Nagaland have been

opened. Recruitment Regulation for all Groups of posts under Board has been modified as per Restructuring Order and notified in the Gazette of India. For filling up of posts as per restructuring is underway.

NEWMA:

As a follow up of the recommendations of the High Level Committee for "Proper Planning & Management of Water Resources in the North Eastern Region of India" setup by NITI Aayog, setting up of North Eastern Water Management Authority (NEWMA) is under active consideration of Government of India.

10.5 New Initiatives-

(A) Setting up of North East Water Resources Data Sharing Centre

As per recommendations of Seminar organized on 15.09.2018 by Brahmaputra Board at Assam Administrative Staff College, Guwahati(wherein 74 members of 37 organisations working in North Eastern Region participated) and thereafter as per decision of 67th meeting of Brahmaputra Board, a committee headed by Vice-Chairman, Brahmaputra Board was constituted to give a report on sharing aspects of data and to fill up the gaps in hydro-meteorological data collection in the jurisdiction of Brahmaputra Board. On the basis of recommendations of the report of the Committee, a proposal for setting-up of North East Water Resources Data Sharing Centre is underway.

(B) Scientific dissemination of Ground Water Management practices of Apatani's inhabited Ziro Valley in Arunachal Pradesh, Chakhesang tribe of Phek district in Nagaland, Bodo tribe of Baksa district in Assam

The Apatani inhabited Ziro Valley in Arunachal Pradesh, people are practicing a traditionally evolved land based resources management and conservation system which is very unique in the Himalayan region. They have considerable expertise in land and water resources management. Integration of pisciculture in wet rice cultivation is a distinct characteristic of Apatani agro-ecosystem. This eco-friendly water management practices of Apatani farmers is required to be popularized among other parts of the NE region having similar topography, geological characteristics and micro-climate.

Brahmaputra Board being a basin management organization would like to explore the possibility to popularize traditional but good water management

practices of NE Region in association with the North Eastern Regional Institute of Water and Land Management (NERIWALM), Tezpur which is also under the Ministry of Jal Shakti, Govt. of India. In this context, a meeting was held at Brahmaputra Board on 7th August, 2019 for obtaining the information on the methodologies and to work out the possible strategy for popularization of the traditional water management practices of NE Region.

A Pilot Project is now being taken up by Brahmaputra Board (BB) in association with NERIWALM as 1st Phase in three years. In the first phase of the pilot study the traditional practices of Chakhesang tribe of Phek district in Nagaland, Bodo tribe of Baksa district in Assam in addition to Ziro Valley, and one new area in Arunachal Pradesh other than Ziro Valley having similar geographic conditions will be prioritized. The approach may also include documentation of earlier work and present studies, Rapid Participatory Appraisal (Format, field survey, data analysis and identification of gap), organization of basic, design and lesson learnt workshops, participatory planning, participatory execution & evaluation in a Participatory Action Research mode.

A Core Group was also constituted with Director, NERIWALM and Secretary, BB as Co-chairmen, representatives from ICAR-RC, Umiam, Assam Agricultural University (AAU), Jorhat, Engineers & Consultant (F&P) of BB, Krishi Vigyan Kendra (KVK) of Lower Subansiri district, Faculty members of NERIWALM, State Nodal Officer of Directorate of Agriculture, Water Resources Department of Arunachal Pradesh, Directorate of Horticulture and Agriculture of Nagaland and official to be nominated by BTAD Authority etc. as members to work out the modalities for implementing this project.

10.6 Soft Measure for Flood and Erosion Management

Brahmaputra is a highly braided river and unstable in its entire reach in Assam and causes large scale erosion along its banks. Erosion has been the single most important issue in the Basins of Brahmaputra and Barak besides floods. The problem of flood and erosion has not been only limited to the mighty river Brahmaputra but has also been a regular phenomenon in case of major tributaries of Brahmaputra.

To give focus to this aspect, Brahmaputra Board organized a seminar on February, 2019 which was participated by 45 organizations related to North Eastern Region. The seminar was inaugurated by Principal Secretary to the Prime Minister, Dr. Pramod Kumar Mishra. How to manage soil erosion in North Eastern Region was the theme of deliberation.

Despite of the various studies, actions and deliberations, yet the phenomenon of flood and erosion has defied quick and effective solutions. The problem of flood and erosion has so far been attempted to contain primarily through structural measures which are normally known as “Hard Measures” and have provided reasonable degree of protection. However, many a time, the efficacies of such structures have been questioned in different forums. It is now felt necessary to adopt/introduce vegetative measures/or biological measures which is being talked about as one of the viable solution to the problem of soil erosion. The biological measures include plantation of different types of trees, shrubs, grasses and other vegetation as a long term strategy for controlling river bank erosion. Considering their low cost, sustainability and acceptability from the environmental point of view, such biological measures are termed as “Soft Measures”.

It is felt necessary that soft measures either in isolation or in combination with structural measures depending upon the prevailing site condition may be good for containing the problems of bank erosion and help in maintaining ecological balances. Option for combining both “hard and soft measures” which may be termed as Bio-engineering method are getting due importance in recent times, also need to be tested for its effectiveness in controlling river bank erosion. Bio-engineering is defined as the use of structural elements in combination of biological elements or plants to prevent erosion. It is helpful in many ways like, protection of surface soil erosion due to various elements like air, water and also from other natural calamities. In bio-engineering method use of locally available materials for structure and vegetation are normally given priority.

Brahmaputra Board has proposed to take up some pilot project in collaboration with IIT, Guwahati to ascertain the effectiveness of bio-engineering model on river bank of Brahmaputra. Two identified sites viz. (i) Right bank downstream of Kordoiguri of river Brahmaputra and (ii) Right bank at Dakhinpat at Majuli Island of river Brahmaputra have been chosen for preparation of the pilot project.

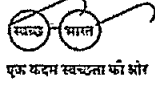
10.7 Any other items with permission of Chairman

10.8 Deciding venue and date for next meeting



सं:BB/5334/2019/2864-2882

जल शक्ति मंत्रालय
जल संसाधन, नदी विकास एवं गंगा संरक्षण विभाग
Ministry of Jal Shakti
Department of Water Resources,
River Development and Ganga Rejuvenation
ब्रह्मपुत्र बोर्ड
Brahmaputra Board



बशिष्ठ, गुवाहाटी-29

दिनांक: अक्तूबर 14, 2019

सेवा में,

सभी सदस्यगण

ब्रह्मपुत्र बोर्ड की उच्चाधिकार प्राप्त समीक्षा बोर्ड (संलग्न सूची के अनुसार)

विषय: ब्रह्मपुत्र बोर्ड की उच्चाधिकार प्राप्त समीक्षा बोर्ड की 10^{वीं} बैठक

महोदय ,

मुझे यह कहने का निदेश हुआ है कि ब्रह्मपुत्र बोर्ड की उच्चाधिकार प्राप्त समीक्षा बोर्ड की 10^{वीं} बैठक दिनांक 8 नवंबर, 2019 को पूर्वाह्न 11:30 बजे माननीय केंद्रीय जल शक्ति मंत्री श्री गजेन्द्र सिंह शेखावत जी की अध्यक्षता में गुवाहाटी में आयोजित की जाएगी।

ब्रह्मपुत्र बोर्ड की उच्चाधिकार प्राप्त समीक्षा बोर्ड के सभी माननीय सदस्यगण को अनुरोध है कि कृपया वे उक्त बैठक में उपस्थित होने का कष्ट करें।

बैठक की कार्यसूची बिंदु संदर्भ के लिए संलग्न है। बैठक की कार्यसूची नोट अलग से भेजी जा रही है।

भवदीय,

संलग्न: यथोक्त

विष्णु देव राय
14/11/2019
(विष्णु देव राय)
सचिव

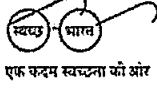
प्रति सूचना के लिए प्रेषित :

1. माननीय पूर्वोत्तर क्षेत्र विकास राज्य मंत्री
2. अध्यक्ष, ब्रह्मपुत्र बोर्ड के बशिष्ठ, गुवाहाटी -29 प्रधान निजी सचिव



संख्या: BB/5334/2019/2864-2882

जल शक्ति मंत्रालय
जल संसाधन, नदी विकास एवं गंगा संरक्षण विभाग
Ministry of Jal Shakti
Department of Water Resources,
River Development and Ganga Rejuvenation
ब्रह्मपुत्र बोर्ड
Brahmaputra Board



एक कदम स्वच्छता की ओर

बशिष्ठ, गुवाहाटी -29
दिनांक अक्तूबर 14, 2019

To,,

All Members of High Powered Review Board of Brahmaputra Board (As per list enclosed)

Sub: 10th meeting of High Powered Review Board of Brahmaputra Board

Sir,

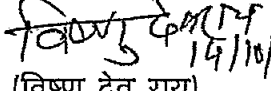
I am directed to inform that the 10th meeting of High Powered Review Board of Brahmaputra Board is scheduled to be held under the Chairmanship of Hon'ble Union Minister of Jal Shakti Shri Gagendra Singh Sekhawat at 11:30 Hours on 8th November, 2019 at Guwahati.

All members of the High Powered Review Board of Brahmaputra Board are requested to kindly make it convenient to attend the meeting.

The Agenda Points for the meeting is enclosed for reference. The Agenda Note for the meeting is being sent separately

Encl; As above

Yours faithfully,


14/10/2019
(विष्णु देव राय)
सचिव

Copy for kind information to:

1. Hon'ble Minister of State for Development of North Eastern Region
2. उपाध्यक्ष, ब्रह्मपुत्र बोर्ड के प्रधान निजी सचिव, बशिष्ठ, गुवाहाटी -29