

Workshop Title: How to move along with Tidal River management in Bangladesh

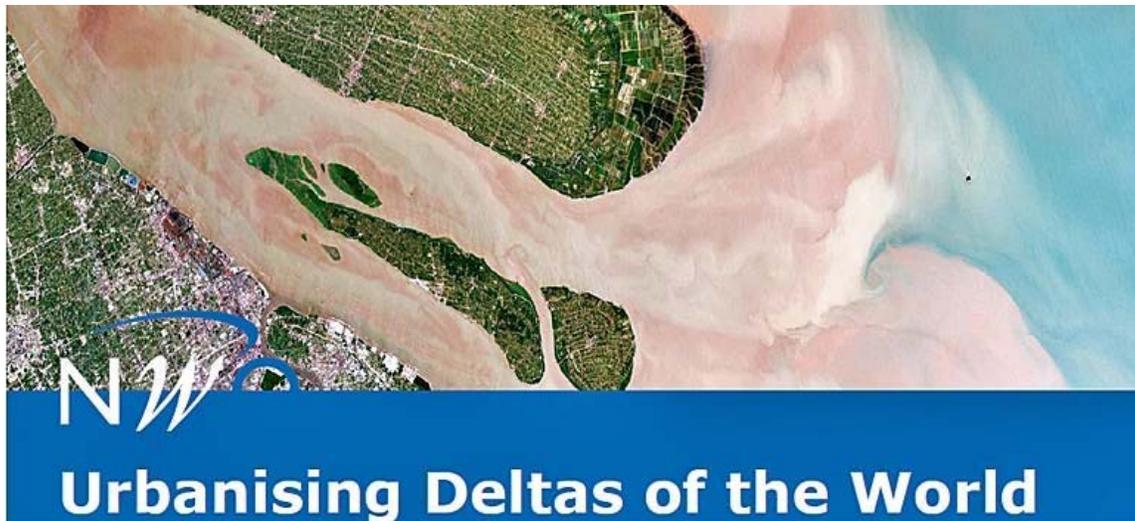
Venue: The Center for Environmental and Geographic Information Services, House # 06, Rd No 23/C, Gulshan # 1, Dhaka 1212

Date and time: 4/ 7/2018; 9:30am - 1:30pm

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Presentations online:

<https://strategic-delta-planning.un-ihe.org/project-results>



The Strategic Delta Planning project (Project code: IHE-002) is funded by the NWO-programme Urbanizing Deltas of the World (UDW). The goal of the project is to better understand the dynamics of delta planning and evaluate the appropriate management strategies in Bangladesh, Vietnam and the Netherlands. In a general term, the aims of the project are to increase knowledge about river deltas' worldwide and to contribute to water safety, food security, and to sustainable economic development in those areas. In Bangladesh, current project partners especially majority of the below listed (appendix 01) key experts agreed that tidal river management (TRM) might be a viable approach to address problems of congested rivers and water logging in the southwest. However, applications of TRM has been a matter of disagreement and conflicts among local stakeholders. Recently a workshop entitled "How to move along with Tidal River management in Bangladesh" was arranged by Center for Environmental and Geographic Information Services (CEGIS), Bangladesh and IHE-Delft, the Netherlands. According to Dr. Chris Seijger, an expert of the IHE Delft Institute for Water Education, the purpose of this workshop was to present findings of the Strategic Delta Planning project and discuss implications with workshop participants. People of different NGOs, Government and Non-Government organizations, and Universities were invited during the workshop to share and dissipate existing TRM related experiences and possible ways to improve future TRM projects' success ratios.

The major objectives of the workshop were to

- Share key findings regarding tidal river management and Bangladesh delta planning;
- Engage in discussions:
 - Is TRM a viable strategy (yes/no) for the southwest delta that can get broader consent in planning and implementation?
 - How the application of TRM should be modified institutionally and technically?
 - What are important strategic aspects that should be included in future TRM delta planning and implementation for the southwest delta?
- Identify key lessons learned on consent for TRM and possibilities for upscaling
- Formulate action points for TRM in context of implementation Bangladesh Delta Plan on which participants can agree and disagree
- Inform decision-making on TRM by stimulating informal debate among the delta planning community in Dhaka and local communities in the southwest, and by

sending the formulated action points and lessons learned to the meetings' participants.

The workshop was jointly chaired by Engr. Md. Waji Ullah, Executive Director, CEGIS and Dr. Maminul Haque Sarker, a Deputy Executive Director of CEGIS and an expert of TRM issues (*Figure-a*).



Figure a: Seminar coordinated by Dr. Chris Seijger (left) and jointly chaired by Engr. Ullah (Middle) and Dr. Sarker (right)

Just after the inauguration speech by Dr. Sarker, a presentation was provided on the Experiences of Tidal River Management in Bangladesh on behalf of Engr. Md. Ullah. A general overview of the history of TRM, concepts and purposes, historical and existing TRM implementation activities in Bangladesh, advantages of multiple TRM applications over a single TRM, CEGIS study experiences and findings from previous Khulna-Jessore Drainage Rehabilitation project (KJDRP), major barriers of TRM implementations and possible future strategies to make TRM successful etc. were discussed in detail. Out of many advantages of previous TRM projects, the following are considered noteworthy to mention: 1. Decrease of soil salinity, 2. Terrestrial vegetation increased, 3. water logging decreased which allowed crop cultivations in those TRM sites. Based on the discussions, the first TRM was conducted in the Beel Kadaria and local people were convinced about the benefits of that project. However, adequate compensations were not received by the local community who lost their land properties. Engineer Ullah believes that a major concern of TRM projects in Bangladesh are to create motivated social platform for which adequate compensations and an overview of possible project outcomes need to be confirmed beforehand. In addition, he

strongly suggested to consider the following strategies for future TRM projects to achieve their desired goals: i. lowest depressed land areas should be chosen to conduct a new TRM project, ii. An existing TRM should be closed immediately after initiating a new TRM in the same basin, iii. Intensive monitoring of the ecosystem (both flora and fauna) should be ensured, iv. Vigorous investigations and reliable numerical modeling should be performed to evaluate the hydrological and downstream geomorphological systems at and near the TRM sites.

Dr. Seijger pointed out that an approximate one million (~1 million) people were directly or indirectly impacted by the TRM project (*Figure-b*). He stressed that TRM helped to improve local crop production which allowed to cultivate 2 to 4 varieties of crops in the same paddy fields at several places of south-western Bangladesh. He suggested a reconceptualization of business model and water-sediment management might help to make the delta planning goal more effective. Dr. Seijger proposed several steps to bring TRM reconceptualization forward: 1. Strategic thinking 2. Multiple values of TRM 3. Alternative livelihoods, 4. Motivation ability 5. Reconceptualization 6. Pilots and uptake in policy-planning. He opened a question to the participants about an alternative delta planning strategy or, improving the existing strategies would be more beneficial for the local communities.



Figure b: Presentation on “Bringing Tidal River Management to the Strategic Level” by Dr. Chris Seijger

Mr. Giasuddin Ahmed Choudhury, a team leader and expert of Blue Gold project (BGP) and Bangladesh Delta Plan (DTL) 2100, believes that if delta planning strategies are not taken into consideration, it would be similar to killing natural flow of rivers within next few decades. He also mentioned that Honorable Prime Minister of Bangladesh was one of the key person

who appreciated the initiative to conduct delta planning projects in the southern region of Bangladesh. Mr. Choudhury suggested TRM should be an integrated plan basin wide instead of considering an individual basin for a single TRM project. He also mentioned that the governmental and international funds are mostly provided to build large infrastructures because less conflicts arise from the local stakeholders' side to conduct such kind of projects. In contrast funding support is rarely availed to develop TRM projects because of the lack of knowledge about its benefits and so possibility to arise local conflicts.

Dr. Dilip Kumar Datta, a Professor of Khulna University (KU) presented on “TRM at Community Levels” (*Figure-c*). He also discussed about the success rates of past and existing TRM projects in the SW Bangladesh. An earlier TRM project at Beel Bhaina was successful to reach to its desired goals. A second TRM project in Beel Khuksia was only partly successful with few negative factors. On the other hand, TRM in Beel Kapatia was unsuccessful where local community strongly worked against to establish the TRM project in the neighborhood of their properties. Dr. Datta also briefly discussed about the methods and materials those were employed in the previous TRM projects. In addition to those, he also noted several social behavioral and ethical aspects those can become major barriers to conduct TRMs successfully which are illicit breaching of polders, insufficient amount of compensations and their improper management system during the distribution processes to the local stakeholders, pervasive influences and resulted misguidance of the local communities by dishonest local brokers and social elites, complex land use planning of local farmers in their paddy fields etc.



Figure c: Presentation on “TRM at Community Level” by Dr. Dilip Kumar Datta

Dr. Sarker explained the necessity of proper dredging operations of the river bed sediments to reduce tidal asymmetry for a substantial long time period (at least 20 years) which might assist to keep the natural flow of the tidal rivers. This kind of operations would ultimately increase the chances of TRM projects to be more successful. Dr. Md. Abdul Matin, a Professor of Bangladesh University of Engineering and Technology (BUET) strongly suggested to incorporate reliable numerical modeling tools to examine the tidal system before implementation of new TRM projects in the coastal regions of Bangladesh. For conceptualization of the system, scientific, engineering and social information need to be taken into consideration.

Mr. Juan David Patino Gueerra, a master student from TU Delft in the Netherlands, presented through a brief movie his findings of combining problem-driven and solution-driven approaches in international water management. He compared the Bangladesh Delta Plan (problem-driven) with tidal river management (solution-driven). He identified several opportunities for further development. Related to BDP, local capacity should be cultivated to ensure local implementation. Here is a strength of TRM still a weakness for BDP. The strength of BDP – a central actor that owns and defends the project – is absent for TRM, and central leadership for TRM may therefore be helpful.

Ms. Shahnoor Hasan, a PhD student and expert from IHE Delft and University of Amsterdam, wrote a blog in which she reflects upon knowledge transfer in Netherlands – Bangladesh delta planning (*Figure-d*). She mentioned that Dutch Government officials and experts have been working for Delta Plan management in Bangladesh for past several years. She is skeptical about the dominant position of Dutch knowledge in Bangladesh delta planning. Focusing on the use of scenarios in the Bangladesh Delta Plan, she shows the active efforts that go into making Dutch delta knowledge useful elsewhere. Moreover, she made the point that multiple relevant forms of delta knowledge should be recognized in delta planning processes. Dr(s). Sarker and Matin also agreed with her opinion. They also added TRM needs policy implementation to make it more successful. Dr. Datta pointed that in addition to Government policy implementation, highly skilled negotiators (middlemen) will need to be hired to raise local community support.



Figure d: Transferring Policy and Knowledge in TRM and Strategic Delta Planning by Dr. Seijger on behalf of Ms. Shahnour Hasan

Dr. Saudia Anwer, an expert of United Nations Development Programme (UNDP), mentioned that several organizations such as UNDP, World Food Programme (WFP) etc. took initiatives in the past to reduce water logging in the tidal regimes of southern Bangladesh. In one of their earlier board meeting, an updated version of TRM (named TRM +++) was proposed to increase the success of future TRM projects by incorporating innovative management strategies. As for example, to avoid hassles for the compensation recipients to withdraw money, they provided compensations through mobile banking to the victims of the Beel Pakhimara project sites in Satkhira district. She strongly suggested to all of the concerned communities to provide consent about the TRM ideas until a better delta planning strategies would be available in the near future. Dr(s). Anwer and Datta think development of large infrastructure without prior environmental concern can deteriorate the coastal soil and water resources. To avoid those losses, a new cell should be launched in the Ministry of water to address risk factors before permitting any new infrastructures development project in the vulnerable zones of southern Bangladesh.

After the individual presentations on TRM related topics, an open discussion session was held among the participants to share opinions about suitability of TRM projects in SW deltaic regions. Many participants agreed that TRM is a good and sustainable strategy, but that indeed it should be reconceptualised and rethought when people want to continue with tidal river management. Finally, Engr. Ullah in his concluding remarks requested to all governmental and non-government organizations to work together to make TRM projects successful for the betterment of coastal communities and their livelihoods.

Appendix 01. List of participants attended during the workshop

Engr. Md. Waji Ullah, CEGIS
Dr. Maminul Haque Sarker, CEGIS
Mr. Mohammed Mukteruzzaman, CEGIS
Mr. Majibul Huq, CEGIS
Md. Azizul Haque, CEGIS
Mr. Kazi Kamrul Hasan, CEGIS
Md. Monirul Islam, CEGIS
Dr. Shamal Chandra Das, Bangladesh Water Development Board (BWDB)
Mr. Jahin Shams Sakkhar, Uttaran
Mr. Subrata Kumar Mondal, CEGIS
Mr. Gouranga Nandy, The daily Kaler Kantho
Ms. Ishrat Rabeya, KU
Dr. Dilip Kumar Datta, KU
Dr. Chris Seijger, IHE Delft Institute for Water Education, the Netherlands
Mr. Giasuddin Ahmed Choudhury, BGP/ BDP 2100
Mr. Mohammad Abdur Rashid, CEGIS
Mr. Mohammad Shahidul Islam, CEGIS
Mr. Mostafa Ali, CEGIS
Md. Motaleb Hossain Sarkar, CEGIS
Dr. Md. Abdul Matin, Dept. of Water Resources Engineering, BUET
Md Mostafizur Rahman, CEGIS
Dr. Saudia Anwer, UNDP Bangladesh
Mr. Bart Brookhuis, Blue Gold
Md Jafrul Alom Rahman, CEGIS
Mr. Mobasher Bin Ansari, CEGIS
Mr. Riaz Hossain Khan, CEGIS
Mr. Gazi Md. Riasat Amin, CEGIS

End