

Newsletter

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INSTITUTE OF
WATER MODELLING



Mathematical Model Study for Integrated Development & Sustainable Management Plan of Shahbazpur Channel of Lower Meghna River

The Meghna Estuary is a morphologically dynamic system. Lower Meghna River accumulates the flows of the Jamuna, the Ganges, and the Upper Meghna River. Approximately 1 billion tons of sediment. Due to active morphological conditions, new char formation and channel sedimentation are common phenomena. The Major problem of the shahbazpur channel and its surrounding area is bankline erosion.

Bangladesh Water Development Board (BWDB) engaged IWM to render services related to mathematical model study of shahbazpur Channel of Lower Meghna River for developing an integrated development and sustainable plan.

The study aims at the sustainable management of the Shahbazpur channel by investigating its bank erosion processes and planform changes, land reclamation, afforestation, sanctuary, etc considering the climate change impact. The study will provide immediate and long-term solutions measures considering technical, environmental, and social aspects. Smart dredging and Bank revetment are the most suitable bank protection measure for a highly dynamic river like the shahbazpur channel.



Re-location of Existing Private Dockyards from the Bank of River Buriganga Opposite of Sadarghat to a suitable location and Development of a Comprehensive and Integrated Plan for the Proposed Standard Dockyards Zone

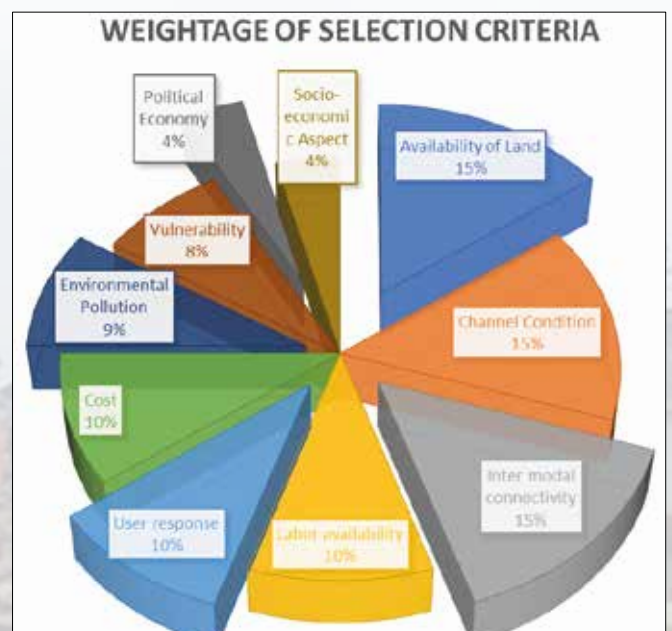
BIWTA has engaged Institute of Water Modeling (IWM) to perform the feasibility study for “Re-location of Existing Private Dockyards from the Bank of River Buriganga Opposite of Sadarghat to a suitable location and Development of a Comprehensive and Integrated Plan for the Proposed Standard Dockyards Zone” through a formal contract agreement signed on 5th October 2021.

Many private dockyards have been set up on the right bank of Buriganga river just opposite to country's busiest riverport, Sadarghat Terminal. Over the past decades, the number and size of passenger and cargo vessels to be built and serviced have increased exponentially, making the existing dockyards of the locality tremendously overloaded. Many vessels gather in a relatively smaller area with 25000 dock workers resulting in river traffic congestion in the riverbank which spreads into the river navigation area as well. As a result, marine accidents happen sometimes.

Shipbuilding is a flourishing labor-intensive industry in Bangladesh. Considering future prospect and importance of the industry, decision has been taken to relocate these dockyards to convenient areas with the aim of keeping riverbanks free of river traffic. A walkway with riverbank embankment as well as a port facility can be constructed at the site.

The selection criteria has been proposed, based on data analysis, hydro-morphological conditions and social consultations. Three-potential sites were considered for detailed investigation and selection of best suitable alignment.

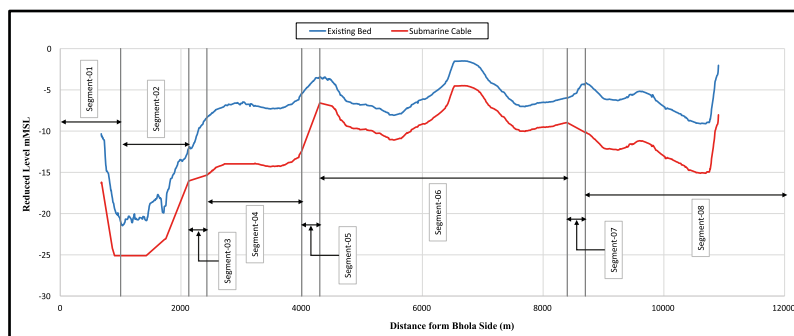
The impacts of the interventions on the environment are also considered in the multi-criteria analysis. The facilities may be considered as common or shared as the area is limited. While the layout plan is prepared, the finalization of the facility share will be developed.



Planning & Design for Installation of Submarine Cable through West Shabazpur Channel to Connect Monpura Island with National Power Grid

Monpura is an 115 sq.km island with around 125,000 inhabitants situated 80km southeast of Bhola District Sadar. Currently, different government and non-government organizations provide electricity through generators and solar power plants for few hours a day at a high unit price. There has been a demand of uninterrupted electricity from the locals and WZPDCL has taken up a project to merge Monpura Island with the national power grid through submarine cables under the West Shabazpur Channel. Institute of Water Modelling (IWM) was engaged for planning and designing the submarine power cable.

Highly active morphology of West Shabazpur channel was a great challenge to find a suitable pathway to lay the submarine power cable to ensure the designed project life. The alignment of submarine cable is selected based on stability of channel bank, trend of bank erosion accretion pattern, change of channel bed level in the past, present and in future, length of the submarine cable, location and accessibility of the overhead line, distance of the source power grid station to the countryside end of the submarine cable and probable future interventions in the channel by different stakeholders.



Best suitable alignment has been selected considering the hydrological and morphological characteristics of three potential for alignment. Considering the hydrological, morphological characteristics and probable future interventions, Alignment-3 is the best option for installation of submarine cable.

Site Specific Plan and ODK Development for SUFAL project of Bangladesh Forest Department

Bangladesh Forest Department (BFD) under the Ministry of Environment, Forest and Climate Change has been implementing a 5-year (01 July 2018 to 30 June 2023) project entitled 'Sustainable Forests & Livelihoods (SUFAL) Project'. The overall aim of the project is to strengthen collaborative forest and protected areas management for enhancing forest restoration, wildlife protection, biodiversity conservation and ecosystem services, and increase access to alternative income generation activities for forest-dependent communities in targeted sites. IWM was engaged to conduct the study.

The project covers the SSP related data collection with GPS enabled android devices from the concerned beats. This also includes the Index Mapping for Site Specific Plans and development of a dashboard using web technologies. The Web GIS based application will help BFD user in developing Site-Specific Plan (SSP) for necessary plantation.



site specific reporting interface

Under this assignment, Site specific planning for forest restoration was done for 37,017 ha of forest land in 324 Beats under 15 Forest division and also the GIS based Index maps were developed. An ICT based application (Dashboard) interface has been developed to visualize the data and these data covers beat related plantation intervention along with community consultation information. The dashboard also provides digital approval process from Beat level to Division level forest officers. This interface is a milestone achievement for the Bangladesh forest department with future potential for digital monitoring of the beat level restoration activity.

The Crop Suitability Assessment Application for Bangladesh Agricultural Research Council (BARC)

Agriculture remains the most important sector in Bangladesh and plays a vital role in accelerating the economic growth. The country is facing with many challenges such as rapid population growth, loss of arable land, minimizing yield gaps, and climate change impacts. To cope these challenges, Bangladesh Agricultural Research Council (BARC) has taken one of the major initiatives for efficient use of crop land through suitability assessment of crops. In this relation, BARC and IWM Scientists have jointly developed a Web GIS based Crop Suitability Software Application under Upazila Land Suitability Assessment and Crop Zoning System of Bangladesh Project.

The development of crop suitability application uses Web GIS and mobile app technologies where data of land type, edaphic, agro-climatic, socio-economic etc. are utilized. The system also consists of an Agri-advisory Portal which facilitates an online platform for demand-driven technology information and agri-advisory services in agriculture and acts as a gateway to knowledge-based information related to agriculture and allied discipline. The mobile app named 'Khamari' is available in Google Play Store.

The crop suitability assessment application is based on the concept of multicriteria analysis using different physical, climate, inundation, and economic factors for land type updating, edaphic, agro-climatic, bio-physical, hydrologic, and economical suitability of cropping patterns. The system is developed with the modules of (a) Land Type Updating (b) Edaphic Suitability (c) Agro-climatic suitability, (d) Bio-physical suitability and (e) Benefit cost ratio (BCR) for individual crops.



Mobile App-Khamari



Web GIS based Crop Suitability Assessment System

Mathematical Modelling Study for Rehabilitation of Barishal Irrigation Project (BIP)

Barishal Irrigation Project (BIP) was implemented in the period of 1975-1985. Irrigation was provided by double lifting method using diesel operated pumps through 78 nos. pump houses. The capacity of the primary pump was 25 cusecs. Initially, primary pumping of the double lifting system was subsidized. After withdrawal of the subsidy due to high operative cost, farmers were not interested to cultivate their land using the BIP irrigation water and irrigation was almost stopped in 1990. Afterwards, 18 pump houses were fully remodeled and 12 pump houses were partially remodeled and operated with electricity. By this time 5 pump houses have already been washed away by river erosion. The land-use pattern, cultivation/crop pattern, natural water supply, social status of the residents, etc. have been significantly changed over the years. BWDB engaged IWM to redesign the project considering the present situation and demands. The main objective of this study is to provide technical support by applying modern technique for rehabilitation of Barishal Irrigation Project (BIP) with a view of restoring agricultural production.



Pump House and Offtake Structure

Feasibility Study for the Project of “Sylhet Division Agricultural Production Enhancement Project through Surface Water Management and Utilization”

Bangladesh Agricultural Development Corporation (BADC) has been pioneering in utilization, expansion and development of minor irrigation throughout the country for over five decades. It has mustered experience on irrigation activities and developed vast resourceful data/information storage. BADC has undertaken several projects to store and manage the surface water. The projects explored the scope of assessment of existing water management status and command area development (CAD) for increasing irrigated area and crop production by utilizing surface water which will be available in the re-excavated khals and pumped through LLPs. Under this circumstance, IWM was engaged by BADC to conduct a feasibility study project in Sylhet, Sunamganj, Habiganj and Moulavibazar districts.

The objective of the project is to assess the feasibility of the overall project. The study will also focus on feasibility of expansion of the command area with associated minor irrigation equipment, sustainable use of surface water and ecofriendly development of infrastructures and economic viability of the overall expense.

The study will be carried out considering for concerned area; (i) Technical feasibility, (ii) Environmental friendliness, (iii) Social acceptance, (iv) Economic viability. However, the following activities will be carried out under the feasibility study:

- Identification of problems, issues and potential opportunities of the project;
- Analysis of the policies and strategic documents related to agro irrigation and water;
- Linking the project goal with national and international goals, output and outcomes.
- SWOT (strengths, weakness, opportunity and threats) analysis of the project.
- Alternative site and details analysis if/when required to assess and implement the project.
- Conduct detailed feasibility study including technical feasibility, environmental sustainability and financial & economic analysis.
- Analysis of project benefit (i.e. in terms of agriculture/food security, economic and environmental) considering the investment plan;



Figure showing Focus Group Discussion (FGD) at Osmaninagor



Dowar Bazar Upazila

Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP) Compliance and Effect Monitoring of the Sustainable Coastal and Marine Fisheries Project

The ‘Sustainable Coastal and Marine Fisheries Project (SCMFP)’ is a two-phased proposed investment by the Government of Bangladesh (GoB) to be implemented by the Department of Fisheries (DoF) in the coastal and marine fisheries area of Bangladesh. The project aims to increase coastal and marine fisheries' contribution to the economy, poverty reduction, and environmental stability through improving management of coastal and marine fisheries and aquaculture as well as access of fishing communities to alternative livelihoods activities.

The project area is located at the coastal region of Bangladesh and covers Bagerhat, Barguna, Barishal, Bhola, Chattogram, Cox's Bazar, Feni, Gopalganj, Jashore, Jhalkathi, Khulna, Laxmipur, Noakhali, Patuakhali, Pirojpur and Satkhira districts. The activities that will be undertaken to achieve the stated objectives can broadly be categorized under the following major groups:

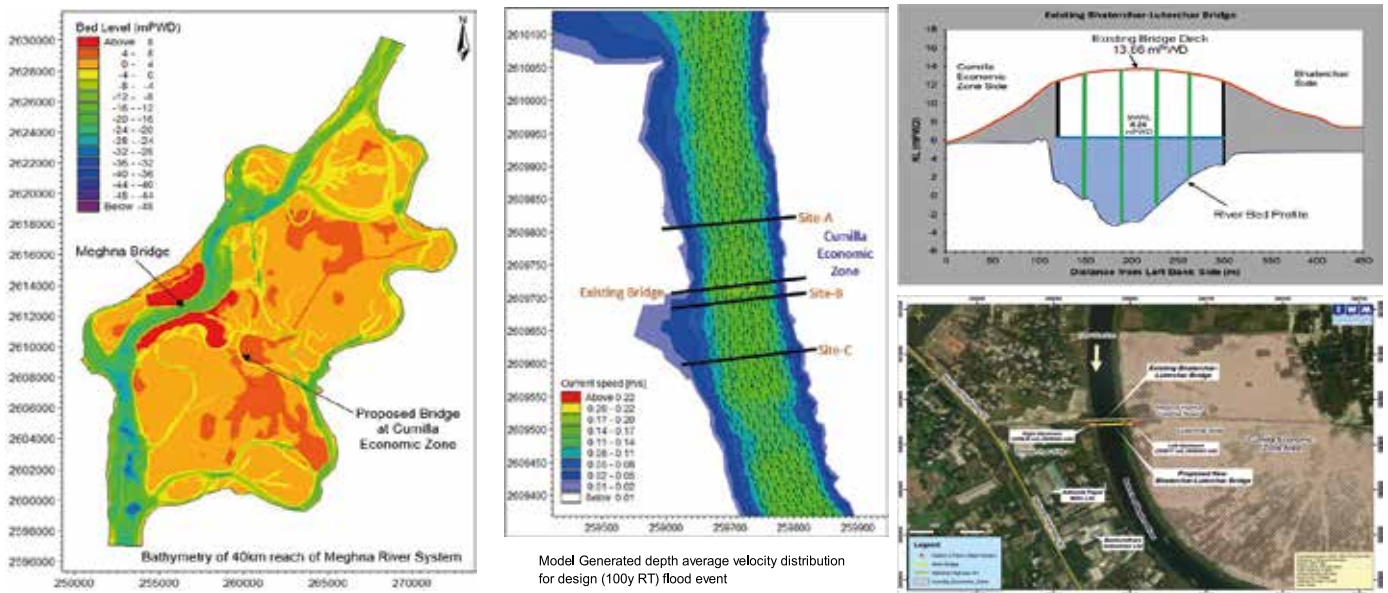
- a. Environmental and Social Screen in checklist has been prepared to identify the existing baseline status and proposed potential environmental impacts and social risks of the project intervention.
- b. Updating of Baseline Information: Physical, biological and socio-economic baseline information will be collected.
- c. Initial Environmental Examination (IEE):
- d. Environmental and Social Impact Assessment (ESIA):
- e. Social Management Plans (SMPs)
- f. Small Ethnic Community Development Plan (SECDP)
- g. Resettlement Action Plan (RAP) Study:
- h. Compliance and Effect Monitoring



Baseline Data Collection at Charabari Khal, Fultola, Khulna

Hydro-Morphological Study of 180-Meter-Long Bridge Along with Approach Road at Cumilla Economic Zone Connecting Road Under Road Division Narayanganj During the Year 2020-2021

Cumilla economic zone is the 12th private economic zone of its kind established to bolster economic development of the country. The project area is connected by a two-lane Meghna-Homna upazila road. Considering the future flow of traffic of the fully operational Cumilla Economic Zone, the existing two-lane road will be expanded to a four-lane highway. Roads and Highways Department has planned to construct a four-lane bridge over the branch of the Meghna River, near Cumilla Economic Zone area in the border of Meghna and Gajaria upazila of Cumilla and Munshiganj district. In this connection, IWM will conduct the hydro-morphological study of the Meghna River system on behalf of Roads and Highways Department and a contract has been signed on 3rd November 2021.



The key approach of the study is the application of 2D hydro-morphological model (Mike 21FM) of the 40km reach of Meghna River system encapsulating the proposed Bridge at Bhaterchar-Lut. The key approach of the study is the application of 2D hydro-morphological model (Mike 21FM) of the 40km reach of Meghna River system encapsulating the proposed Bridge at Bhaterchar-Lutcher over the branch of Meghna River, using concurrent bathymetric and hydrometric data; then simulation of the model for some design hydrological events, and analysis of model results to assess the suitability of the bridge location for the proposed bridge as well as testing the vulnerability of the erosion prone area near the bridge sites and suggestion for suitable protective measures.

IWM has conducted a comparative analysis of 3 different sites to select the suitable bridge location and provided with all Hydraulic design parameters, SHWL clearance from BIWTA, approach road information along with Environmental Impact Assessment (EIA).

Mathematical Modelling Study for Selection of Two Intake Point Locations on Padma Riverbanks Near Hardinge Bridge

The objective of this mathematical model study is to identify a suitable location on the Padma River in the reach of Hardinge Bridge to Lalpur to supply surface water to the cluster towns of Ishwardi region. Due to rapid growth of labour-intensive industry, the urban population of Bangladesh has been increasing rapidly over the past years. The increase in number of users overload the existing stressed water supply, sanitation, and other urban infrastructures. This project aims to provide emphasis on transition from existing inadequate and intermittent groundwater-based water supply system to continuous and efficient surface water-based water supply system. The study shall be conducted from the viewpoints of availability of required quantity suitable water for domestic consumptions. The study shall also cover bank stability and siltation of the riverbed in the influence zone/ vicinity of the intake pump proposed intake point. The approximate location of the intake point has been shown in the map. The volume of water to be withdrawn is approximately 300 MLD (4 cumec). Institute of Water Modelling (IWM) was entrusted to conduct the study.



Tentative locations for intake points

Investigation of Morphological Process at Downstream of Bangabandhu (Jamuna) Bridge & Erosion Control with Environmental & Social Impact Assessment (ESIA) along Left Bank of Jamuna River at Manikganj District-Mathematical Modelling Component for BWDB

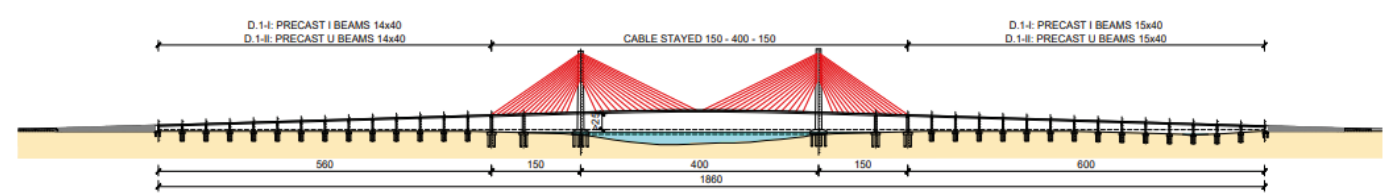
Bangladesh Water Development Board (BWDB) intends to conduct a detailed investigation of morphological process in Jamuna River for navigation and protection of the Jamuna left bank from downstream of Bangabandhu Bridge (BB Bridge) to Aricha confluence. Brahmaputra-Jamuna river originated from China (Tibet) and rolls down to Bangladesh (entered at Noonkhawa, Kurigram) through India, Bhutan and finally falls to Bay of Bengal (combined flow of Jamuna-Padma-Meghna) as Lower Meghna. The total catchment area of the river is 560,000 sq km. In Bangladesh, the length of the river is about 240 km with a catchment area of 42,600 sq km. Within Bangladesh, the width varies from 10~15 km. However, in this regard, the mathematical modelling tools would be used to study the morphological behaviour of Jamuna River from BB Bridge to Aricha confluence and after evaluation of model results, the physical components of works against navigation and bank protection works would be examined, verified at field, and finalized for implementation. The main objective of the study is to assess the feasibility of carrying out dredging along with appropriate measures to improve the navigability & protect the left bank including important existing & proposed installation and IWM was engaged for the study.



Map of the Study Area

Hydro-Morphological Study of Three Bridges Over the Jamuna at Chilamari-Rowmari, Lower Meghna at Barishal-Bhola and Meghna Branch at Maya Ferry Ghat for Bangladesh Bridge Authority

With a view to boost up the economy of every corner of Bangladesh equally, a roadmap and action plan (Master plan) of transport connectivity is going to be established by Bangladesh Bridge Authority. In response to long felt need for easy and quick communication among major cities of Bangladesh, the Master plan, prepared by BBA includes construction of several bridges. Recently, BBA has taken an initiative to build six bridges in the different parts of Bangladesh. Most of these large bridges will have length of more than 1.5 km considering navigation clearance and width of the rivers to be crossed. Three bridges out of these six bridges have been undertaken for hydro-morphological assessment in this study. The tentative locations of the three proposed bridges are at (i) Matlab Uttar Upazila Road over the Meghna-Dhonagoda River, (ii) Barishal-Bhola Road over the Kalabador and Tentulia River, and (iii) Chilmari-Raumari Road at Kurigram District over the Brahmaputra-Jamuna River. Institute of Water Modelling (IWM), which is a specialized and experienced organization for studying river morphology and river training works, has been assigned by the Consultant to conduct the (hydrological and morphological) numerical modelling of the river system concerned. This assignment, basically, includes investigation of the existing and probable hydro-morphological conditions of the rivers concerned so that safe hydraulic design of these bridges can be made.



Proposed Bridge Layout Option for Maya Bridge



Surveyors collecting data



Proposed location for bhola bridge

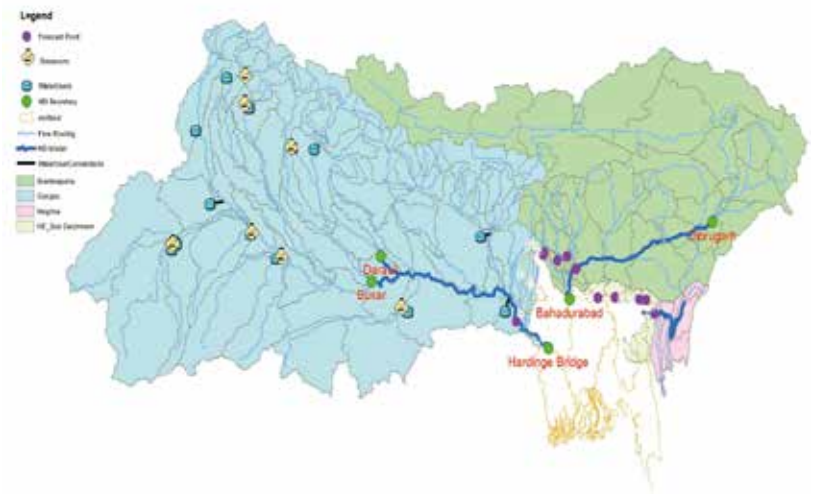


Proposed Location for Chilmari Bridge

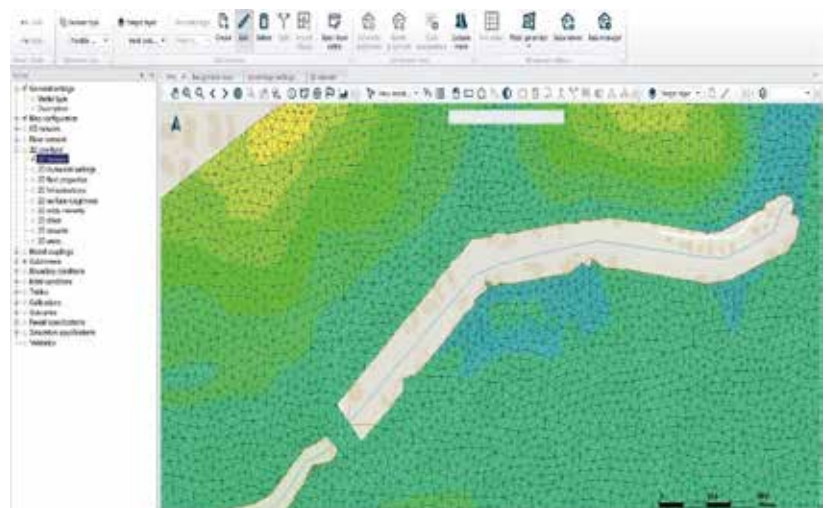
Capacity Development for Enhanced Flood Forecasting and Warning Services of Bangladesh

Every year monsoon rain causes acute rainfall which along with poor drainage systems, engenders drainage congestion, health issues, and severe economic detriment. Floods in 1987, 1988, 1998, 2004, and 2007 caused widespread damage in urban areas. Earlier all the importance was given to structural measures but now it is recognized that efficient flood forecasting and warning system development and proper utilization cannot be trivialized. During 1995-1999 and 2000-2005, with support from Danida, together with DHI, IWM supported FFWC for the development and operationalization of a countrywide flood forecasting model which addresses the floods plain without considering urban areas. This project has been taken to develop the capacity of BWDB in the field of urban flood forecasting where Institute of Water Modelling (IWM) in association with the Danish Hydraulic Institute (DHI), Denmark is the technical partner.

The prime objective of the study is to develop an urban flood forecasting model for Dhaka city and update the existing GBM basins model for cross-border inflow forecasting at transboundary locations. The Urban Flood model of Dhaka City (comprising 261.67 sq. km and 20 drainage zones), will be developed by integrating collection systems for wastewater and stormwater, open channels, and a digital elevation model of the area. The model will be a 1D-2D coupled model having three modules: Rainfall-Runoff, 1D Hydrodynamic, and 2D Overland flow. MIKE+ which is the updated generation of MIKE will be used to develop the model for 20 drainage zones of Dhaka city. A Basin model of the Ganges, Brahmaputra, and Meghna River is being operated at IWM. For, Inflow forecast, in the area of steep mountains of the Himalayas, a hydrological model will be used. 1D-Hydrodynamic model will be introduced in Brahmaputra Basin (Dibrugarh to Bahadurabad), in the Ganges basin (Buxar to Hardinge Bridge), and main river course of Barak River in Meghna basin using Mike HYDRO Basin model. For capacity development, there will be hands-on training in IWM or BWDB and overseas training in Denmark. Under this study, a 5-days forecasted flow hydrograph at major cross-border locations, bulletin and urban flood inundation maps within Dhaka city will be produced for the date of forecast and coming five days to alleviate the adverse impact of the flood.



Mesh Generation For 2D Overland Flow Model



Layout of Cross-border flood inflow forecast model



City Survey



Network for pipeline and channel flow



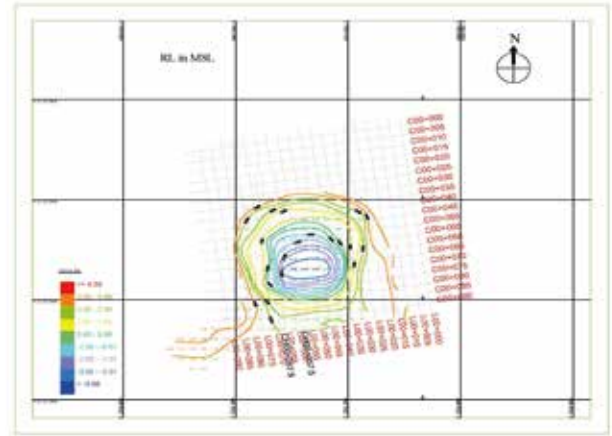
Cross Section Survey

Support to Dredging Work of Bangabandhu Sheikh Mujib Railway Bridge

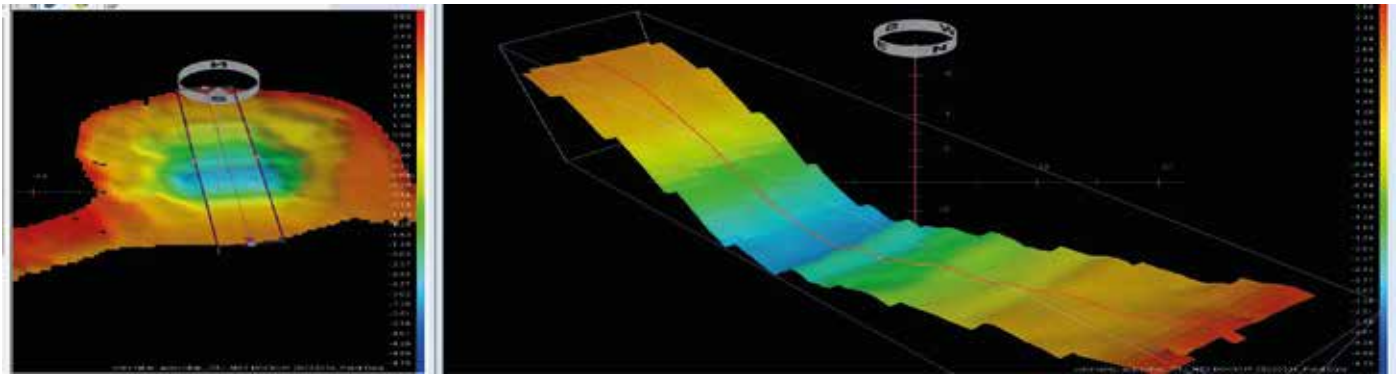
IWM is supporting IHI and OTJ JV in Bangabandhu Sheikh Mujib Railway Bridge Construction Project (Package WD1 and WD2). The service includes Single beam and Multibeam Bathymetric survey for dredging work needed for access channel and River Training Works along with Data processing, Preparation of drawings and Volume computation.



Picture of Single beam Survey



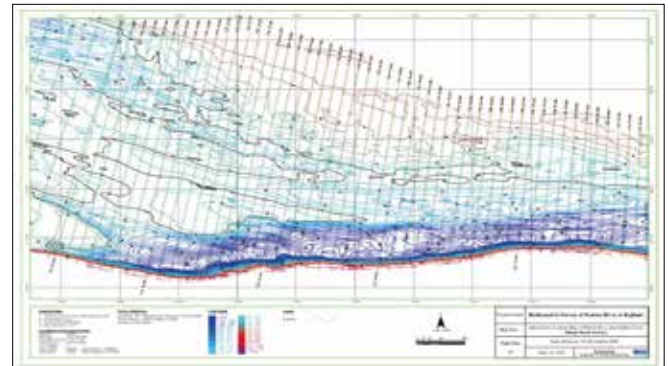
Contour Map of Mock-up dredging



3D view of Mockup dredging area by using Multibeam Survey

Bathymetric Survey of the Padma River at Rajbari

IWM was engaged by Bangladesh Water Development Board (BWDB) to do the bathymetric survey for ongoing bank protection work under Rajbari Town Protection project on the right bank of Padma River for a damaged stretch of 1.61 Km out of 7 Km. IWM did single beam Bathymetric surveys to identify the critical location near bank area and identify the submerged char area within the river channel from Char Silimpur to Lalgola Bazar comprising a total length of 4 Km of Padma River. The data has been used for design of protection for the area.



Contour Map of the Survey Location



Survey Location Map

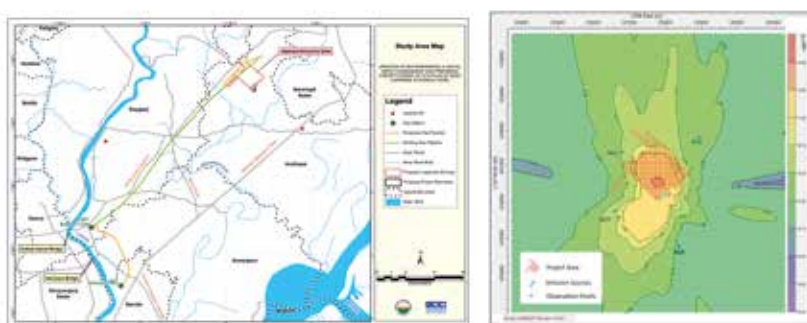


Site visit of BWDB officials

Updating of Environmental & Social Impact Assessment and Preparing a Resettlement Action Plan of BSEZ (Japanese Economic Zone)

Bangladesh Economic Zones Authority (BEZA) with support of Japan International Cooperation Agency (JICA) and Sumitomo Corporation, is developing a Japanese Economic Zone under Araihasar upazila of Narayanganj district, located adjacent to the Dhaka–Sylhet highway (N2). The total land of Bangladesh Special Economic Zone (BSEZ) is approximately 218.84 ha or 540.77 acres for the first phase (Phase-I). BEZA appointed IWM on February 2021 to update the already conducted two EIAs which are already approved by BEZA and DoE using International Finance Corporations (IFC) Performance Standards along with World Bank Group's Environmental, Health and Safety (EHS) Guideline document.

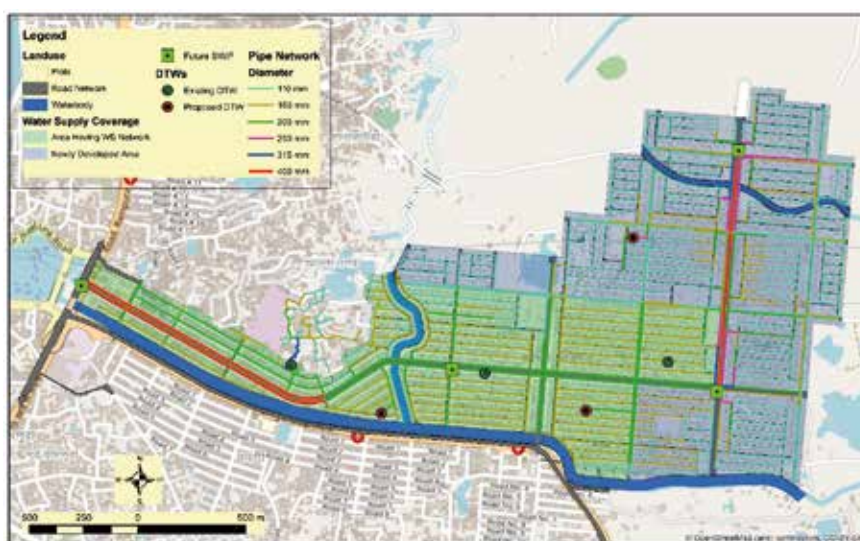
The BSEZ also included power plant, sub-station, gas transmission line from Haripur TBS to Dighi Barabo CGS, a CGS inside the EZ, etc. There were two parts in the study: ESIA & RAP for Bangladesh Special Economic Zone (BSEZ) including Power Plant and Gas Pipeline of BSEZ. Important assessments included Critical Habitat Assessment (CHA); QRA for Gas Transmission Line; Air Quality Modelling; Noise Modelling; Integrated Waste Management Plan; GHG Emission Estimation; Cumulative Impact Assessment, etc.



Design of Water Supply Network for Jahurul Islam City (Aftabnagar) Considering DMA Concept

With an area of 787 acres, Jahurul Islam City (Aftabnagar) is a fast-growing area situated in Badda in central Dhaka. The area has a well-planned road networks of 66.2 Km. The water supply system of the western part of Jahurul Islam City (JIC) has a supply network with 3 Deep Tube-wells. In recent years the city has expanded significantly towards east & north and necessitates for development of water supply facilities in the newly developed areas. The JIC authority has appointed Institute of Water Modelling (IWM) for design of water supply network in the extended part of JIC area considering DMA concept.

IWM started the design work for water supply network in June 2022. Total estimated population of JIC area is approximately 0.4 million and water demand for the area is estimated to be 60 MLD in fully developed phase. Ground water is considered as the only source now until surface water from the Gandharbapur Surface Water Treatment Plant (SWTP) is available. Total length of distribution network in the JIC area is around 85 Km ranging from DN100 mm to DN400 mm diameter. The network is designed to cope up the peak daily demand. To enhance the robustness of the design different types of analyses like criticality analysis, flushing analysis and water hammer analysis has been conducted. The design and analyses of the water supply network have been finalized through extensive use of sophisticated hydraulic modelling tools. The construction of pipelines and other ancillary facilities will commence after approval from Dhaka WASA.



Designed Water Supply Network for the Jahurul Islam City (Aftabnagar)

Understanding the Sea Level Rise Dynamics of Bangladesh along the Coast for UK Met

“Understanding the Sea Level Rise Dynamics of Bangladesh along the Coast” is a two-year project and in partnership with the UK Met Office under ARRCC (Asia Regional Resilience to a Changing Climate) Programme funded by the UK Foreign Commonwealth and Development Office (FCDO). This study project will focus on zone wise and seasonal relative sea level rise along the coast of Bangladesh with future climate scenario projection. The study area covers the whole coastal zone of Bangladesh. The main objective of this study project is to identify relative sea level rise along the coast of Bangladesh considering climate change.

A training program was held during 6th to 7th June 2022 at the training room of IWM Bhaban, Dhaka. It brought together participants from research, academic and implementing organizations.

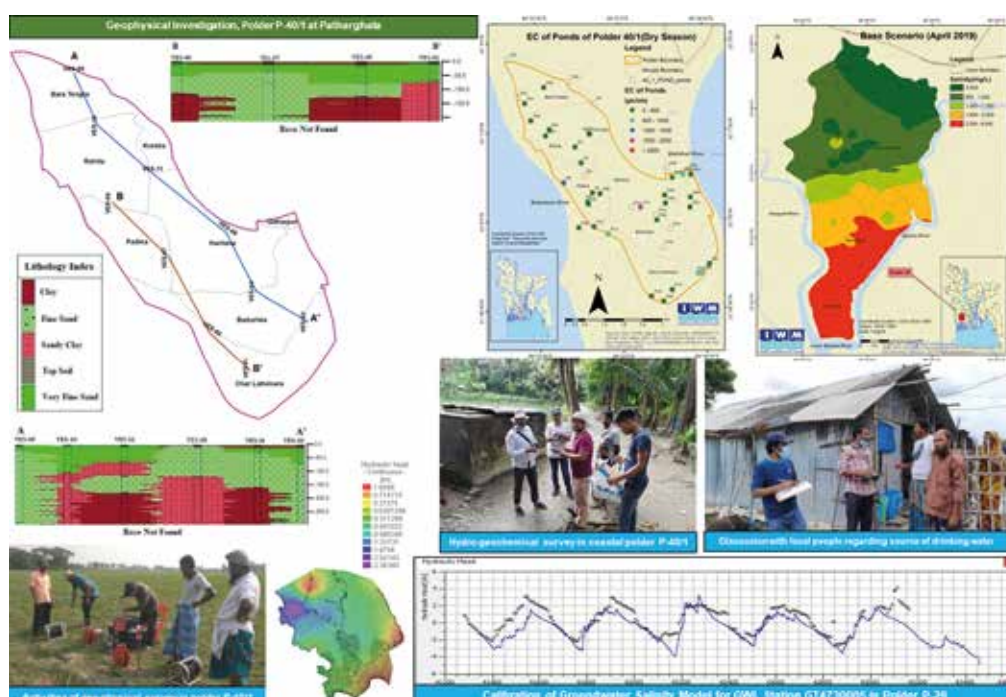


Training at IWM Bhaban

Assessment of Sustainable Potable Water Sources in the Selected Coastal Polders P-29 at Dumuria of Khulna and P-40/1 at Patharghata of Barguna in Bangladesh

Coastal zone is one of the six hotspots considered in Bangladesh Delta Plan 2100. The coast of Bangladesh is known as a zone of vulnerabilities as well as opportunities. It is prone to natural disasters like cyclone, storm surge and flood. Groundwater in coastal areas have already been facing salinity problem which is expected to be exacerbated by climate change and sea level rise. And salinity intrusion in the coastal areas has already limited the accessibility of people to safe drinking water.

Providing adequate amounts of drinking water of an acceptable quality is a necessity and ensuring sustainable, long-term supply of such drinking water is of national and international concern. Considering the issue of drinking water insecurity in coastal polders of Bangladesh, a research study is formulated to develop a methodology to sustain drinking water sources in terms of quality and quantity for the selected polders (P-29 and P-40/1). Overall approach and methodology of this research study is comprised of literature review, field visits, social survey, hydro-geological investigation, hydro-geochemical survey, and groundwater salinity modelling. Baseline information for existing drinking water sources, demand of drinking water, and identification of potential sources along with suitable water technology of the study area are the expected major output of this study.



Training & Capacity Development



Closing Ceremony of RAJUK Training Program Conducted By IWM



IWM Participated in International Training on Rainwater Harvesting System by Water AID



Training and Capacity Building Program for BEZA Officials



Training on Coastal Hydrology Modeling at IWM

Major Workshop & Contact Signing Ceremony



Workshop on Coastal Embankment Improvement project at IWM



International Workshop on Long Term Monitoring, Research and Analysis of Bangladesh Coastal Zone (Sustainable Polders Adapted to Coastal Dynamics) at BRAC Centre Inn



Contract Signing for Shabazpur Channel between IWM and BWDB



Contract Signing Ceremony for Mouza Map Digitalization and Geodatabase Creation Web Mapping and Satellite Image & Land Classification between IWM and Ministry of Land at Bhumi Bhaban

Some of the Major Events

Executive Director of IWM Participated in a Workshop On Project Implementation & Good Governance

Mr. Abu Saleh Khan, Executive Director of Institute of Water Modelling (IWM) participated in a Workshop on “Project Implementation & Good Governance” at Pani Bhaban on 18th September 2021. The workshop was chaired by Mr. Kabir Bin Anwar, Senior Secretary of Ministry of Water Resources (MOWR) and Chairperson of IWM Board of Trustees. Honorable Minister of State of MOWR, Mr. Zaheed Farooque graced the occasion as Chief Guest. Mr. AKM Enamul Hoque Shameem, MP, Hon’ble Deputy Minister of Ministry of Water Resources, Mr. Khandker Anwarul Islam, Cabinet Secretary and Mr. Ramendra Nath Biswas Member (Secretary), Agriculture, Water Resources and Rural Institutions Division, Planning Commission were present as Special Guest.



Mr. Abu Saleh Khan delivered a short speech focusing on Project Implementation and Good Governance Practices

In his speech, Mr. Abu Saleh Khan emphasized on the necessity of Good Governance for successful project implementation. He highlighted the work process of IWM and mentioned that Bangladesh Water Development Board is playing instrumental role for the implementation of water structures all over Bangladesh and have a strong Design and Planning Unit.

IWM Participated in The International Conference on The Bangladesh Delta Plan 2100: ‘Issues and Challenges of Implementation’



Md. Zahirul Haque Khan, Deputy Executive Director (Operations), of IWM participated as Moderator in the breakout Session (Coastal Zone Session) on May 26, 2022. Mr. Khan also presented the paper on “Bangladesh: Enhancing Coastal Resilience in a Changing Climate” as Keynote presenter.



Honorable Deputy Minister, Mr. AKM Enamul Hoque Shameem and IWM Management visit Bangabandhu Corner at IWM Bhaban

Ms. Lise Abildgaard Sørensen, Head of Cooperation, Royal Danish Embassy Visits IWM

Ms. Lise Abildgaard Sørensen, Head of Cooperation, Royal Danish Embassy in Bangladesh made a visit to IWM on 6th October 2021. She was accompanied by Mr. Md. Badrul Alam Talukder, Programme Adviser. Executive Director of IWM Mr. Abu Saleh Khan welcomed Ms. Lise Abildgaard Sørensen with a floral bouquet. During the visit, discussions were held regarding the cooperation between Royal Danish Embassy and IWM on water related study, research and future collaborations.



Mr. Abu Saleh Khan Presented Souvenirs and Crest to Ms. Lise Abildgaard Sørensen

Mr. Abu Saleh Khan thanked Ms. Sørensen for visiting IWM and expressed his sincere gratitude to DANIDA for its role in supporting the institutionalization and capacity building of IWM over the last 30 years. Ms. Sørensen visited different facilities of the newly constructed IWM Bhaban and was highly impressed about the work environment of IWM. She was hopeful of future continued collaboration with IWM.

International Water Management Institute (IWMI) Visits IWM



International Water Management Institute (IWMI) correspondents Visits IWM Management on June 2022

IWM Observes National Mourning Day 2021



Executive Director of IWM placing a floral wreath at the portrait of Father of the Nation Bangabandhu Sheikh Mujibur Rahman at Bangabandhu Memorial Museum at Dhanmondi Road-32, Dhaka

IWM Celebrates 26 March 2022: 52nd Independence Day of Bangladesh



Executive Director, IWM Mr. Abu Saleh Khan paid tributes to the martyrs of the Liberation War by placing floral wreath at the National Memorial at Savar along with officials and other staffs of IWM.

IWM Participated in the World Water Day 2022



IWM senior officials & employees participated in a rally of World Water Day from the National Assembly Building (Jatiyo Sangshad Bhaban), South Plaza to Pani Bhaban, Green Road

IWM Celebrates 102nd Birth Anniversary of Bangabandhu

Institute of Water Modelling (IWM) celebrates Bangabandhu's 102nd birth anniversary on 17 March 2022 through extensive programs with fanfare and gaiety. On this day in 1920, Bangabandhu, the vivacious leader of our nation, the architect of independent Bangladesh and the greatest Bangalee of all times, was born in a respected Muslim family at Tungipara village of Gopalganj. He was the third among four daughters and two sons of his parents - Sheikh Lutfur Rahman and Saira Khatun. To celebrate the day, Executive Director, IWM Mr. Abu Saleh Khan led a rally of IWM senior officials and paid glowing tribute at the Mural of Bangabandhu at Dhanmondi 32 number.



Mr. Abu Saleh Khan, Executive Director of IWM paid tribute to the Father of the Nation by placing a floral wreath at the mural of Bangabandhu at Dhanmondi 32 Number. He was accompanied by other senior officials of IWM.

After the floral tribute, Executive Director, IWM and other senior officials participated in a Special Prayer and Discussion Program, organized by Bangladesh Water Development Board (BWDB) at Pani Bhaban, Dhaka on, 17 March 2022

IWM BHABAN was illuminated with decorative lightings on the eve of 17 March 2022 to celebrate the 102nd Birth Anniversary of Father of the Nation Bangabandhu Sheikh Mujibur Rahman and national flag was hoisted at full mast at IWM Bhaban.



IWM Bhaban

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IWM was established in December 1996 as a Trust through a Cabinet decision by the Honorable Prime Minister Sheikh Hasina to promote water modelling in managing the complex water resources ecosystem. Since then IWM has been rendering services in water and related projects to various government and other national/international agencies.

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