



INSTITUTE OF WATER MODELLING Newsletter

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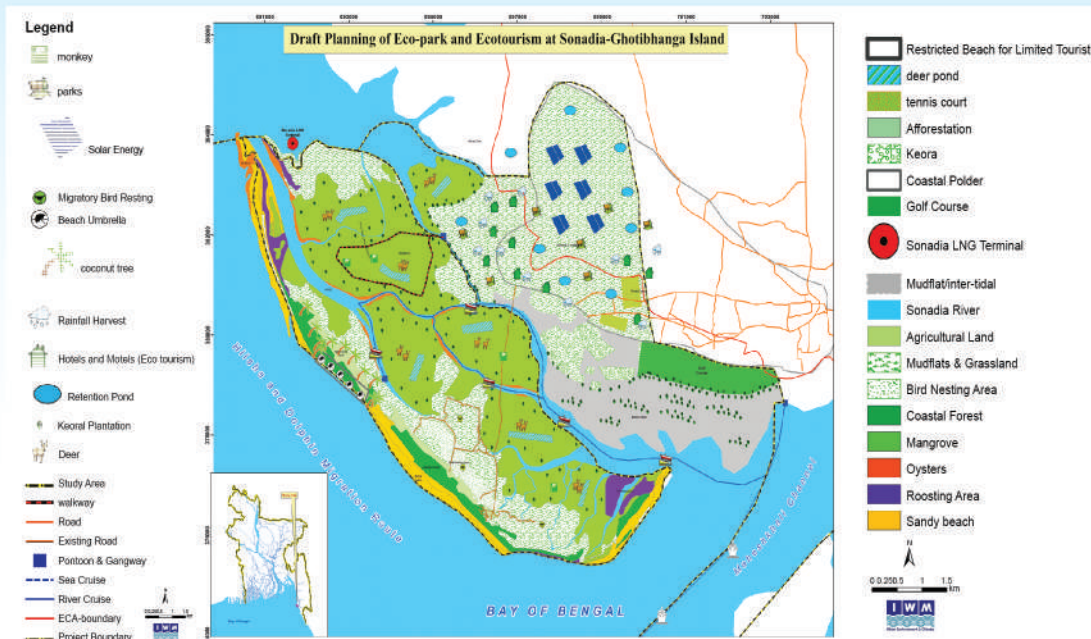


IWM Commemorate the Birth of the Father of the Nation Bangabandhu Sheikh Mujibur Rahman

HIGHLIGHTS

- Welcoming of the New Honorable State Minister 'Zaheed Farooque, MP' and Honorable Deputy Minister 'A K M Enamul Hoque Shameem, MP' of Ministry of Water Resources.
- Water Supply to the Rohingya Camps and Host Communities in Ukhia and Teknaf.
- Contract Signing of Water Supply Master Plan for Bangabandhu Sheikh Mujib Shilpa Nagar (BSMSN).
- MOU Signing Between Korea Institute of Civil Engineering & Building Technology (KICT) and IWM.
- National Water Balance Management (NAWABS) Project for Sungai Muda Basin, Malaysia
- Hydrodynamic Modelling Study on the River Crossing Dhaka-Chattagram-Cox's Bazar Railway Line for Bangladesh Railway.
- Contract Signing Ceremony of WB Funded Project of BWDB titled 'Long term Monitoring, Research & Analysis of Bangladesh Coastal Zone'.

Planning of Eco-park and Ecotourism at Sonadia-Ghotibhanga Islands Moheshkhali, Cox's Bazar, Bangladesh Water Development Board (BWDB)



Proposed Planning of Eco-park and Ecotourism at Sonadia-Ghotibhanga Island

Sonadia-Ghotibhanga is a natural island situated at the south - west of Maheshkhali island and north west of Cox's Bazar city. Total area of Sonadia-Ghotibhanga island is 9200 acres and 4200 acres respectively. The area is characterized by river/ khal systems, pristine sandy beach, mudflats, high dunes & mangroves forests and it serves as an important habitat for diverse ecosystem.

Bangladesh Economic Zone Authority (BEZA) has recently planned to develop this area for eco-park and ecotourism and requested BWDB to prepare and implement the plan. IWM has been working to prepare a plan of eco-park and eco-tourism for BWDB. Detailed survey including hydrography, topography, land use survey, biodiversity and habitat survey has been carried out under this study. Ecological characteristics of the island has been assessed through terrestrial, under water, wild life, flora and fauna survey. Hydrological and morphological character of the island has been assessed using measured data, satellite image analysis and field visit. Moreover, several mathematical models including hydrodynamic, storm surge, wave, morphological model and drainage model has been developed for hydrological and morphological analysis.

Existing land use pattern of the study area has been assessed from the field visit and using the survey data. Field survey suggests that the island is characterized by Mangrove forest (31%) and followed by Salt Farm (26%), Mudflats & Grassland (24%), Sandy Beach (5%), Coastal Forest (3%), Agricultural Land (3%), Bird Nesting Area (2%), Roosting Area (2%), Homestead (2%) and Oyster (2%). A comprehensive planning for eco-park and eco-tourism has been done considering the existing land use pattern and ecosystem of this area.



Study Team of Isabella and IWM in Sonadia Island

The components of the eco-park and ecotourism are

- River and sea cruise
- Natural sandy beach
- Nature Park
- Natural walk trail
- Golf course
- Bird park
- Bird and turtle roosting zone
- Flower garden
- Spirulina cultivation
- Tennis court
- Mangrove and tree plantation
- Deer sanctuary
- Rain water harvesting system
- Renewable energy
- Community tourism
- Environment friendly hotel and motel
- Eco-friendly sewer management system
- Pontoon and Gangway for river cruise and sea cruise

Dhaka-Chattagram-Cox's Bazar Railway Line

Hydrodynamic Modelling Study and Statistical Analysis for Determination of Hydrological Parameters at Selected Locations on the River Crossing



Base Map of River Crossing of Dhaka Chattagram Cox's Bazar Railway Line

The Government of Bangladesh is implementing a Project named "Technical Assistance for Dhaka-Chattagram-Cox's Bazar Rail Project Preparatory Facility". The Consultant of the Project is CANARAIL Consultants Inc. in joint venture with SMEC International Pty Ltd. Australia; SYSTRA SA, France; and ACE Consultants Ltd. Bangladesh in association with sub-consultant, STRATEGY Consulting Limited, Bangladesh. The concerned joint-venture consultants of the project have awarded IWM to investigate the hydrological phenomena with the objective to carry out statistical analysis of hydrometric parameters (WL, Flow and Cross-section average velocity) of existing major river drainage channels along the alignment of the railway line.

The main objective of the study is to determine flow, cross-section average velocity and water levels for different return period floods. The overall approach and methodology of the study comprises of primary & secondary collection of hydro-meteorological & geo-spatial data which include frequent field visit, checking & analysis of the collected data, update of regional models (NCRM, NERM, SERM), check performance of the model, extract hydrological output variables at selected seven bridge locations from historical simulation of the model, estimation of hydro-metric parameters for different return periods through statistical analysis etc. Finally, the outcome of the study will be applied for design of railway bridges.



Railway line



Benchmark Flying near Ghorashal Railway Bridge



Railway Bridge on Muhuri River



Data Collection Through Field Visit



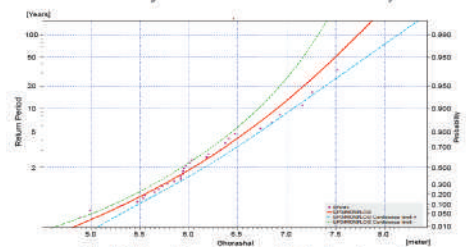
Discharge Measurement at Lakhya River



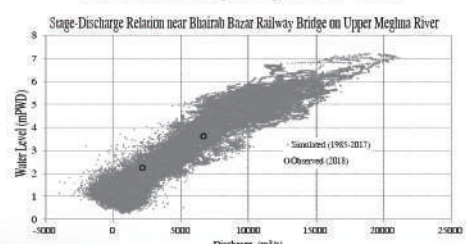
Monitoring of Water Level Gauge near Ramnagar Railway Bridge on Old Brahmaputra River



Calibration of Model at Demra on Lakhya River

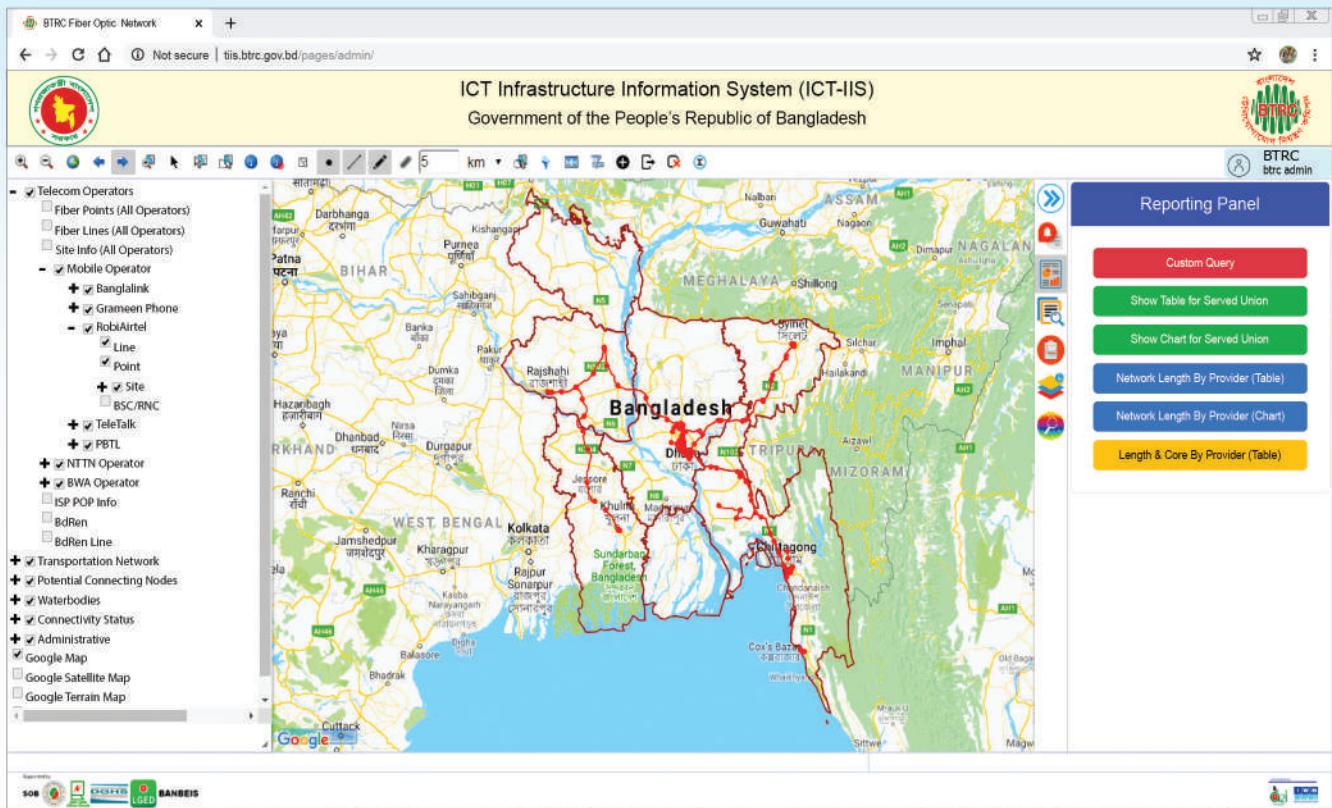


Statistical Analysis of Water Level



Stage-Discharge Relationship

Developing ICT-IIS Connectivity Decision Support System for BTRC Through Interactive GIS Map



Decision Support System Interface for ICT-IIS

The Government of Bangladesh has declared 'Vision 2021' with a target to make Bangladesh as a middle income country where one major driving force would be the Information and Communication Technology (ICT) and development of favorable business environment for innovative companies. ICT has been considered as a thrust sector.

Telecommunication has a vital role to achieve the targets of 'Vision 2021'. Access to Information (A2I), Prime Minister's Office, had taken an initiative to develop a decision support system to monitor the telecommunication network activities all over Bangladesh through an online interactive GIS based system. A2I assigned IWM to develop a GIS based interactive web application for National Network considering scalability and interoperability using Open Source development tools. IWM has already completed the Phase-I of the development. Mr. Sajeeb Wazed Joy, the ICT adviser to Honorable Prime Minister has closely monitored the development and advised accordingly. Bangladesh Telecommunication Regulatory Commission (BTRC) is the authority to monitor the telecommunication network of Bangladesh. Therefore, as per decision of DNCC (Domestic Network Coordination Committee) meeting the developed system was transferred to BTRC Server under Phase-II development (tis.btrc.gov.bd) of the same product. Only authorized user of BTRC can access the system.

Key Features

- ❑ Can create a zone map related to fiber lines/union digital centers (with buffer distance)
- ❑ Can select Union Digital Centers, High Schools, Primary Schools, Health centers within certain distance from selected Fiber Optic lines
- ❑ Can find Fiber lines within certain proximity of selected school/union center/GoB office/any other custom location
- ❑ Can find which Unions/Mouzas passed by Fiber optic networks and generate the statistics of area and population under connection coverage
- ❑ Can find population of connected Unions/Mouzas of entire Bangladesh
- ❑ Interactively visualize more than 100 layers with valuable information
- ❑ Can show connected and unconnected endpoints mapping
- ❑ Attribute data can be updated online
- ❑ Can prepare different types of dynamic reporting including custom query on telecommunication layers
- ❑ Advance search can be made by administrative unit and by telecommunication operator Google Streets, Google Satellite can be viewed as background. Distance and area can be calculated interactively from the Web Map. Direct print to printers and PDF files are possible

National Water Balance Management (NAWABS) Project for Sungai Muda Basin, Malaysia

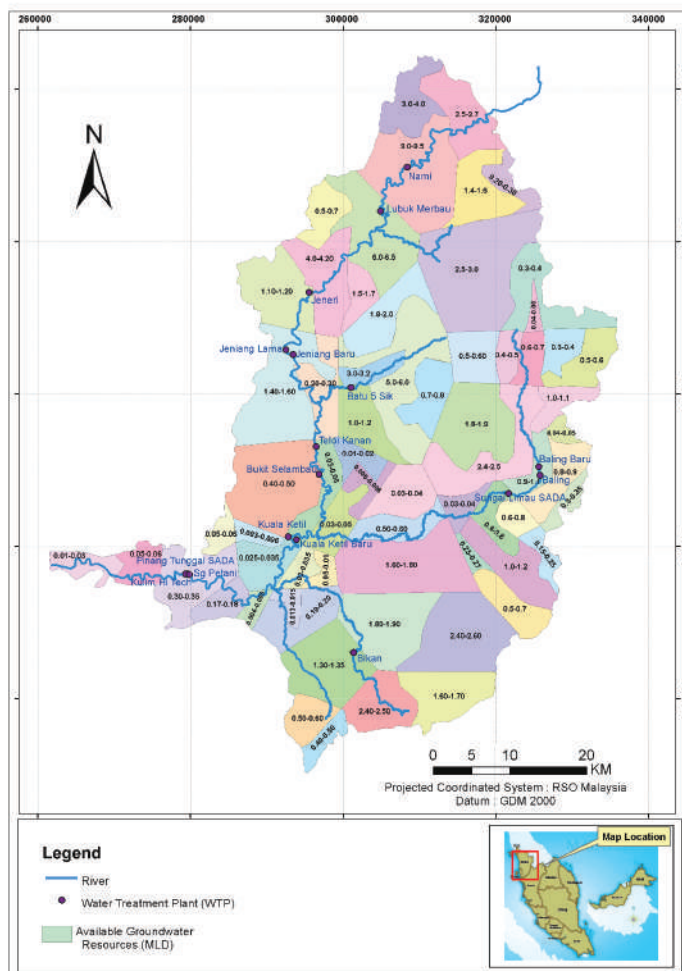


Conceptual Hydrogeological Model for Muda Basin

The Sungai Muda Basin (the "Study Area") in Kedah is part of an area more popularly known as the Rice Bowl of Malaysia has an area of 4,150 km². The sources of water for the Study Area is vital to several important key economic sectors including industry, agriculture, services, tourism, and paddy planting for central and south Kedah, Seberang Prai, and for Pulau Pinang. Increasing water demand mainly for agriculture and potable water supply has caused water stress in the area which becomes more pronounced especially during dry seasons. One of the major objectives of the study is to identify the potential areas suitable for groundwater development for safe exploitation of the available resources in a sustainable manner. MIKE 11 and MIKE SHE based surface water groundwater interaction model have been used to assess groundwater resources.

Recommendations from Groundwater Model Study:

- Abstraction tubewell of about 62 Nos. is proposed at 14 recharge zone that has been identified based on domestic water uses.
- The distribution of tubewell is 3 Nos., 15 Nos., 27 Nos. and 17 Nos. has been recommended for alluvium deposit, limestone/carobante rock aquifer, sandstone, siltstone and shale deposit, and granite deposit respectively.
- The capacity of tubewell is recommended based on geological formation such as 15 m³/hr for alluvium deposit, 10 m³/hr for limestone/carobante rock aquifer and 5m³/hr for sandstone, siltstone and shale deposit as well as granite deposit.



Available Groundwater Resources (MLD) for Muda Basin

Dhaka-Chattagram via Cumilla-Laksam High Speed Railway

Hydrographic Survey and Hydrological & Morphological Mathematical Modelling Study in Connection with Feasibility Study and Detailed Design for Bangladesh Railway

The existing Dhaka-Chattagram rail track follows a very old route; starting from Dhaka, it initially passes through the northern part of Dhaka city and then turns gradually to east and then south touching several locations such as Tongi, Narsingdi, Bhairab, Cumilla, Feni, and travelling around 320km it finally reaches Chattagram. The average travel time following this long route is 6 to 7 hours as the locomotives travel less than 100km per hour. With a view to improve the communication between two important cities of Bangladesh, Bangladesh Railway has planned to construct a new rail track, on which high speed trains can run around 300 km per hour following a shorter route of 230 km from Dhaka to Chattagram via Cumilla and Laksam.

The envisaged new route is supposed to boost the economy of the country because of efficient transportation of goods among the cities of Bangladesh and neighboring countries, and also provide a comfortable journey for the tourists towards the largest tourism spot of Cox's Bazar.

Following the track from Dhaka to Chattagram, several rivers are to be crossed where connection would be made through construction of rail bridges. The rivers, where more than 100 m long bridge will be required to be constructed, are needed to be studied from hydrological and morphological point of view so that the safety of the



Route Map for Dhaka-Chattagram via Cumilla-Laksam High Speed Railway.

bridges and also the proposed rail track are ensured.

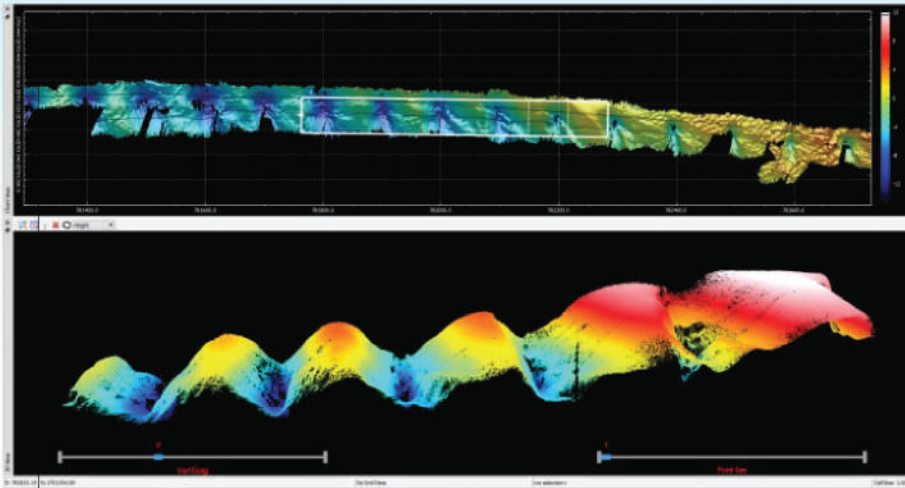
The study area is located within the North Central (NC), South West (SW) and South East (SE) hydrological regions of Bangladesh. The tentative sites of the proposed bridges are located on few large rivers, such as the Lakhya, Meghna, Muhuri and Feni rivers. These are dynamic tidal and/or flashy hilly rivers. Therefore, selection of suitable bridge locations are required for detailed verification of the present erosion trend as well as future river planform development. On the other hand, due to tidal influence, determining hydraulics of scour depths and river training/bank protection works would require special consideration of steepest recession of flood.

Bangladesh Railway has signed an agreement in a joint venture association with China Railway Design Corporation (CRDC) and Mazumder Enterprise (ME), which is the Main Consultant (MC) of the feasibility study for the project. Considering the issues mentioned earlier, the MC has sub-contracted Institute of Water Modelling (IWM) to conduct a detailed hydrographic survey and mathematical model study for the rivers which has potential for new bridges. A Contract was signed between the MC and IWM on 19 August 2018. As per the contract, IWM is involved in carrying out hydrographic survey and mathematical modelling of five large rivers.

Expected outputs of the study

- Suitable location, clear opening and length of the bridges;
- Hydraulic design parameters such as annual/standard high and low water levels, discharge, velocity, etc.;
- The present and future erosion trend at the upstream and downstream of the proposed bridges, and areas that need protective measures;
- Any adverse effects like erosion/deposition at the upstream or downstream of the proposed bridges due to bridge construction;
- Impact on tidal prism and tidal amplitude (in case of a tidal river) due to piers and abutments of the bridges.

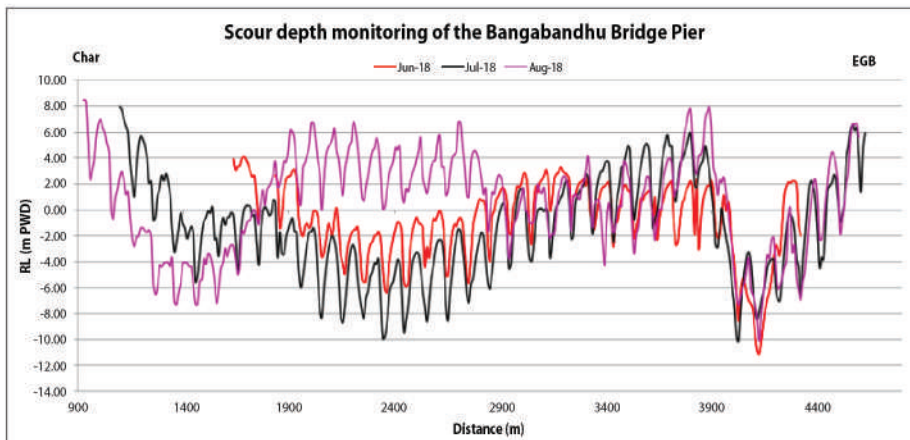
Bathymetric and Hydrological Data Collection for Designing of Proposed Bangabandhu Rail Bridge for Bangladesh Railway



River Bed Geometry of the Existing Bridge Piers Surveyed by Multibeam Echosounder

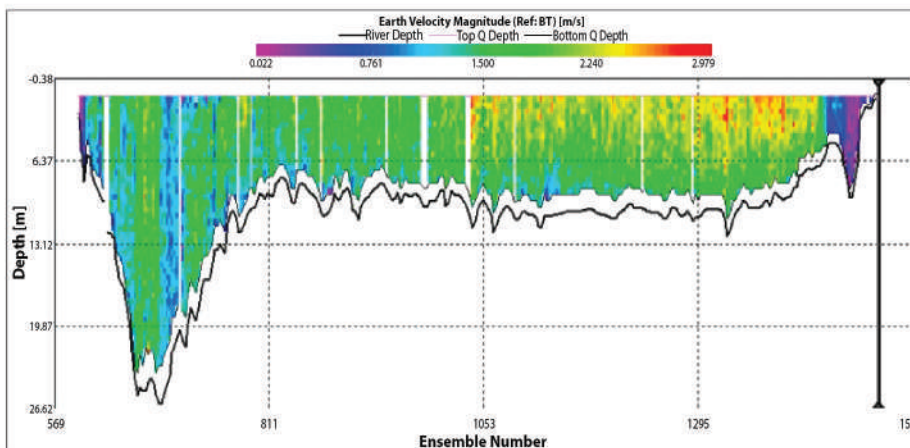
The Bangabandhu Bridge was constructed for multipurpose uses such as road, rail, Gas, linkage between two banks etc. over the Jamuna River. The road and rail bridge were constructed together that have been serving since 1998. To meet the increasing demand and to have smooth communication, Bangladesh Railway (BR) has planned to build a separate rail bridge over the Jamuna River upstream of existing Bangabandhu Bridge. In this regards, the various item of survey data has been collected to support the advance mathematical Modelling to investigate the changes in the flow

regime of the Jamuna River underneath the existing bridge and between the RTWs under different flow conditions. IWM is providing specialist service by investigating different options using mathematical models. As a part of this investigation, IWM is conducting extensive data collection campaign e.g. full scale bathymetric survey of 30 Km river reach (20Km u/s of existing bridge and 10 Km d/s of existing bridge) during dry season and fortnightly discharge measurements by ADCP at four locations, scour depth monitoring of existing bridge piers and RTWS of Jamuna River under Sirajganj district during monsoon 2018.



Comparison of Scour Depth of the Bangabandhu Bridge Piers

Among many other components scour depth monitoring of existing bridge piers and RTWS were done by using Teledyne Marine instruments MB2 Multibeam Echosounder. Discharge measurement were done every week at four locations namely Sirajganj Hard Point, Bhua-pur Hard Point, proposed bridge location and downstream of Bangabandhu bridge. Acoustic Doppler Current Profiler model Workhorse Rio Grande 600 KHz from Teledyne RD Instruments (TRDI) was used for the measurements. The instrument is capable of measuring velocity without anchoring at measurement locations (moving boat condition). It measures flow velocity at 2-3 second interval across the whole river. At each vertical, velocity is measured at 50 cm interval along the water column depending on the total depth. Thus a series of velocity data is recorded along the transect line. The interval between ensembles varies from 1 to 3 seconds depending on the configuration and depth of the river.



A Sample of Velocity Contour Measured by ADCP at D/S of Bangabandhu Bridge.

Water Supply to the Rohingya Camps and Host Communities in Ukhia and Teknaf

The predicaments of the forcibly displaced people of the Rohingya community of the Myanmar are well recognized by Bangladesh and the international communities. More than 700,000 Rohingya people have already taken shelter in several camps in Ukhia and Teknaf Upazilas in the Cox's Bazar District since August 2017. They are in addition to about 400,000 Rohingya people who have already taken refuge in Bangladesh from Myanmar prior to 2017. This huge mass of migrated people is in dire situation, losing their homes and livelihood, near and dear ones. They have gone through major physical and psychological distress. The Honorable Prime Minister Sheikh Hasina reiterated time to time about Bangladesh's commitment to support these



Birds Eye View of a Portion of Kutupalong Rohingya Camp.

distressed people by providing required food, shelter, health care, water supply, sanitation etc. Many local and international development partners and aid agencies have also come forward to extend their support.

One of the major challenges for the government of Bangladesh and all others involved is to provide safe and sufficient water supply to not only the camp dwellers but also the local host communities. It is also recognized that this is not an easy task. Main reasons being that thousands of tubewells have been installed in the area to meet the emergency requirement of the displaced Rohingya people but with time many of the tubewells have become dysfunctional. Also the groundwater resource is limited and should be used judiciously. There is an urgent need to assess properly and scientifically the groundwater resources of the area and design our tubewells accordingly. This need to be done in a coordinated way so that sustainable solution to address to the water supply demand of the people in the camps and that of the host community are satisfied. There is a need also to find ways to harness the surface water resources of the areas so that pressure on the groundwater resources can be lessened.

Institute of Water Modelling (IWM) is conducting a study in Ukhia and Teknaf Upazila to assess safe and sustainable water supply sources for Rohingya camps and the host communities. The study is coordinated by the Department of Public Health Engineering (DPHE) with approval from the Ministry of Local Government, Rural Development & Cooperatives, GoB. IWM is thankful to INGO forum for financing and to DPHE for coordinating and leading the study.



Installation of Tubewell as a Water Supply Option.



People Taking Water From Tubewell.

Journey of Climate Change Cell of IWM

It is now acknowledged all over the world that climate change is a reality and necessary actions must be taken right now for our existence. It is also recognized that due to its geographical location and socio-economic condition, Bangladesh would be one of the most vulnerable countries of the world in the face of changing climate. Government of Bangladesh has formulated the strategic plan “Bangladesh Delta Plan 2100” which envisage the climate change scenarios in all its projections and design and implementation of investment projects.

IWM has been working with climate projections and scenarios for different projects in collaboration with BUET, DOE, BWDB, World Bank, CEIP-I and other government and international organizations. And hence, the idea of starting a full-blown unit focusing solely on climate change research has been a vision of IWM for a long time.

Considering the above issues and as per decision of the **84th meeting of IWM Board of Trustees, IWM has recently established a Climate Change Cell** with a view to conduct (i) Basic research in the field of Climate Change (ii) Climate Change impact assessment, (iii) Training and capacity building, (iv) Awareness building, (v) Developing local level Climate Change model and provide support to develop Climate Change services in line with Bangladesh situation vi) multi-level collaboration with partners, research institutes, stakeholders and donor organizations. The vision of the Climate Cell is to enable better management of the risk of climate variability and changes and adaptation and mitigation to climate change, through the development and incorporation of science-based climate information and prediction into planning, policy and practice on the global, regional and national scale.

The unit has started its journey with unit head **Mr. Md. Tarikul Islam** who has a professional experience of about 20 years in the field of water and environmental engineering, focusing model development and application of different scenarios. He has publication in several international journals/seminars/conferences. The unit is presently active and in the state of development of research proposals and communication with partner organizations and clients. A team of young researchers accompany him in this quest of finding new and innovative challenges in Climate Change sector.



Glimpses From the Workshop Attended by Climate Change Cell in Kathmandu, Nepal (January, 2019)

Recently Mr. Md. Tarikul Islam and Ms. Bushra Monwar Duti from Climate Change Cell unit have attended the “Regional Workshop on Future Climate Projections and their Applications in South Asia” in ICIMOD, Kathmandu, Nepal from January 29 to 31, 2019, organized by Asia Regional Resilience to a Changing Climate (ARRCC) Programme & The Met Office Partnership (MOP), UK. The workshop emphasized on the need of regional collaboration in new and innovative knowledge development in climate change and related issues. It was a great learning experience for the professionals of the unit to meet people from different countries specially in South Asia who are working in different projects and sectors of climate science.

The area of expertise that is envisaged by the team (but not limited to):

- Scientific study about the physical phenomena relevant to climate change
- Climate modeling
- Bias correction of GCMs
- Down-scaling climate models
- Study for Impact on water resources management and socio-economic & environmental condition due to climate change through impact modelling (drought impact assessment, irrigation and drainage modelling, flood assessment, hydrological-hydrodynamic and morphological modelling, cyclone modelling, storm surge modelling, salinity modelling, water quality modelling, pollution modelling, heat transfer modelling, air pollution modelling, noise modelling)
- Formulating Plans and enabling policies through adaptation and mitigation techniques
- Social and environmental component of climate change
- Climate finance and climate change politics

Research and Development (R&D) Unit and its Activities

Research is the systematic method consisting of enunciating the problem, formulating a hypothesis, collecting the facts or data, analyzing the facts and reaching certain conclusions either in the form of solution(s) towards the concerned problem or in certain generalizations for some theoretical formulation.

R&D unit of IWM undertakes research projects for the development of new tools and methods or for adaptation of some new technology or tools for future useful purposes, actually intended for providing better services to its Clients in the long run. The fields of research are more specific; especially the burning water related issues of present and immediate future, nationally and internationally. The topics are wide ranged such as global warming and sea level rise, water quality issues, arsenic contamination, basin water management, urban water management, morphological changes in Bangladeshi rivers, assessment of hazard-vulnerability-risk of water borne disaster, etc. The research encompasses application of water modeling/computational hydraulics and allied sciences in the field of hydrology, hydraulics, sediment transport, river morphology, oceanography, marine science and coastal engineering; and also in the associated laboratory and field measurements along with information technology (IT), social and environmental sciences. Funds for this kind of research have been obtained from IWM's own source or grants and donations from different national and international sources. This kind of research has also been undertaken in collaboration with its partners and associates. The cost charged for this kind of research has not be intended for earning fees.

The research unit is recently headed by **Mr. Md. Abdulla Hel Kafi** under the guidance and supervision of **Dr. A.F.M. Afzal Hossain**, Deputy Executive Director (Planning and Development). Mr. Kafi has a professional experience of about 16 years in the field of water resources engineering focusing on mathematical modelling in hydrology, hydrodynamics, flood forecasting and morphology; basin level water management; participatory planning, etc. He has publication in several national and international journals/ conferences/seminars. A team of three young researchers accompanying him in related research activities of the unit. Already nineteen research projects have been completed by R&D unit from the beginning of the journey. At present two projects are ongoing and three projects are in pipeline.

Members of the Research and Development (R&D) Unit



Dr. A.F.M. Afzal Hossain
DED (P&D)



Md. Abdulla Hel Kafi
Head, R&D



Md. Abu Hena Mostofa Kamal
Junior Specialist



Md. Ashrafur Islam
Junior Engineer



Swarna Chowdhury
Junior Engineer

R&D activities other than the aforesaid research projects comprise variety of activities for generating knowledge :

- Organization of professional meetings, work shops, conferences and seminars in connection with R&D activities.
- Participation in professional meetings, work shops, conferences and seminars in connection with R&D activities.
- Work as resource person in some national and international technical committees, professional groups.
- Review some study reports/papers of IWM or others.
- Active support to MSc and PhD dissertation
- Writing of manuals/books
- Publications in professional journals
- Temporary exchange of personnel between IWM and research institutions in Bangladesh and abroad.

IWM Major Conference, Contract Signing & Events



MOU Signing Between Korea Institute of Civil Engineering & Building Technology (KICT) & IWM

Water Demand & Water Availability Assessment for Bangabandhu Sheikh Mujib Shilpa Nagar (BSMSN)



Contract Signing Ceremony Between Bangabandhu Sheikh Mujib Shilpa Nagar (BSMSN) & IWM

to fulfill water demand for BSMSN requirement in the context with water availability. Works involved in the master plan includes but not limited to resources assessment of surface water (fresh and marine water) and groundwater, water demand estimation of the economic zone, water zoning and phasing plans, preparation of a water management Plan and detail design of the all structures and transmission and distribution main. IWM will also prepare BOQ and tender documents for the priority works.

Bangladesh Economic Zones Act, 2010, BEZA aims to establish about 100 economic zones in the country for rapid economic development with diversification of industry, employment, production and export. Bangabandhu Sheikh Mujib Shilpa Nagar, situated in Mirsarai, Chittagong will be the first and largest economic zone comprising an area of around 30,000 acres. They are making comprehensive development plan and implementation program to transform it into a world competitive Industrial City. IWM has been engaged by BEZA to prepare a Water Supply Master Plan to



Dr. A.F.M Afzal Hossain Receiving Crest from the New AIT President

AIT Alumnus of Bangladesh gathered in the capital

On 11 March 2019 a program of AIT graduates was held at Hotel Lakeshore in Gulshan, Dhaka. President of AIT **Dr Eden Y Woon** along with 03 Deans of different faculties were present on the occasion. The New President of AIT delivered his speech to the alumnus. Prior to that, he was welcomed in the airport by **Dr. Dipu Moni**, Hon'ble Education Minister of Bangladesh. The new President asked for support from AIT alumni for further development of the institute. **Dr. A.F.M. Afzal Hossain**, DED (P&D) of IWM received a crest from the AIT president as a distinguished alumni for his contribution in research work.



DeltaCap- External Advisory Board (EAB) Members Meeting At CIRDP International Conference Center



Contract Signing Ceremony of WB Funded Project of BWDB titled 'Long Term Monitoring, Research & Analysis of Bangladesh Coastal Zone'.

IWM Participates in Bangladesh Unnayan Mela 2018



IWM Representative Presented Paper in Teledyne Marine Technology Workshop in France



Mr. Mahbub Alam Presented a Paper at Teledyne Marine Technology Workshop 2018

Mahbub Alam, Associate Specialist of IWM presented a paper at Teledyne Marine Technology Workshop 2018. The event was organized by Teledyne Marine, Europe during October 9-11, 2018 in Cannes, France. This is an event where speakers, influencers and attendees from around the globe converge to explore, learn and share their experiences on a broad range of products, applications and technology. Teledyne Marine's twenty three (23) leading industry brands arranged an intensive workshop. Prior the workshop, there were some networking events which included presentations, product/software training, field service meetings, and dockside on-water demonstrations.

Mr. Mahbub gave presentation on hydro-morphological data collection campaign carried out using teledyne products for Numerical and Physical modelling for the proposed Bangabandhu Rail Bridge over the Jamuna River. The presentation was mainly focused on estimation of sediment discharge using ADCP backscatter data and comparing the results with conventional method. Apart from the presentation, Mr. Alam attended a number of training sessions on software that are in use at IWM.



IWM Observes
National
Mourning Day,
15 August, 2018

Mr. Mizanur Rahman Passed Away



Mr. Mizanur Rahman, Senior Hydrogeologist, IWM breathed his last on March 12, 2019. (Inna lillahi wa inna elaihi rajiun). Mr. Rahman had been serving in WRP Division of IWM for the last 16 years. In his glorious career of 38 years, he worked as Groundwater Specialist for long 22 years in Bangladesh Water Development Board. He also worked as a national expert in Joint River Commission and represented Government of Bangladesh in bilateral study of Indo-Bangladesh Joint Scientific Study Team on "Ganges Water Sharing Treaty" for two years' period (1997-99). Mr. Rahman was also a Task Force Committee member under Ministry of Water Resources to review Ganges Water Treaty-1996. He worked as a national committee member for preparing a policy proposal on sustainable management of government owned groundwater irrigation project. Mr. Mizanur Rahman had participated in the Executive meeting held outside the country for Water Resources Managers on Isotope applications in water resources management several times. All members of IWM family are deeply shocked of Mr. Rahman's sudden demise. We pray for the eternal peace of the departed soul. He left behind his wife, one son, one daughter, colleagues and well-wishers.



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Initially started as a TA Project in 1986, Institute of Water Modelling is an independent TRUST established by the GoB to promote water modelling in managing the complex water resources ecosystem. Since 1996 IWM has been offering services in the water and water related environment to various govt. and other national/international agencies.

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