

Final Report on the 2020 Tang Prize Research Grant in Rule of Law

Disappearing Urban Wetlands in Bangladesh:

Action Research on Socio-Economic, Governance and Legal

Aspects

Disappearing Urban Wetlands in Bangladesh:

Action Research on Socio-Economic, Governance and Legal Aspects

1. Project Overview

- 1.1. Laureate: Bangladesh Environmental Lawyers Association (BELA), the 2020 Tang Prize Laureate in Rule of Law
- 1.2. Project Title: Disappearing Urban Wetlands in Bangladesh: Action Research on Socio-Economic, Governance and Legal Aspects
- 1.3. Executing Organization: BELA
- 1.4. Project Period: January 1, 2022 to December 31, 2023, then extended to August 31, 2024

2. Research Background

- 2.1. The vast wetlands of Bangladesh have always been considered a divine gift from nature. Along with other wetlands in the country, wetlands located in the urban areas are disappearing at a very fast pace, which is considered a major environmental and socio-economical threat.
- 2.2. The research findings of BELA and Bangladesh Institute of Planners unveiled the alarming fact of a 23% loss of the wetlands in Dhaka between 2010 to 2018 (Hashim, 2019). Similar scenario is also evident in the cities of Chittagong and Rajshahi (Hredoy et al., 2018; Kafy et al., 2019). Adverse impacts of such loss are enormous, including the loss of livelihood, deteriorating environment, decreasing ground water table, loss of biodiversity, urban flooding, etc.
- 2.3. The coexistence of nature and development is always a challenge. Researchers has identified the complex relationship among different actors and factors that shape the arena of wetland conservation and its wise use. However, this dynamic has only been studied on a limited scale. The existing researches focus mainly on the spatio-temporal dimensions of the urban wetland loss, lacking a combined view from different disciplines, such as urban planning, environmental science, economics, sociology, law.
- 2.4. Therefore, this endeavor is to conduct a comprehensive research on the

conservation of urban wetlands in Bangladesh, aiming to understand its dynamic nature and to develop possible guidelines.

3. Project Objectives

- 3.1. To review the policies and regulations of urban wetlands in Bangladesh.
- 3.2. To initiate and support research works on urban wetlands from socio-economic, spatio-temporal, environmental, legal and institutional perspectives.
- 3.3. To recommend guidelines for mainstreaming wetland management and legal actions for protecting urban wetlands.
- 3.4. To train and support young researchers working on urban wetlands.

4. Methodology

- 4.1. Review published documents related to wetlands loss and management to understand overall urban wetland management and research scenario.
- 4.2. Communicate with eminent researchers of Bangladesh from different disciplines including planning, law, journalism, as well as members from civil society who have significant involvement in the field of wetland management.
- 4.3. Conduct the research projects under the guidance of invited researchers who would engage young researchers in their team.
- 4.4. Workshops and seminars will be arranged to develop initiatives and disseminate the research findings.
- 4.5. Compile the research articles supported by this project into a published book.

5. Project Results

- 5.1. **Interactive Workshop on Research Papers for the Edited Book “Disappearing Urban Wetlands in Bangladesh: Action Research on Socio-Economic Governance and Legal Aspects”**

5.1.1. Organizer: Center for Regional Development Studies (CRDS), Bangladesh University of Engineering and Technology (BUET), and BELA

5.1.2. Location: BUET, Dhaka

5.1.3. Date: May 30, 2023

5.1.4. Activities: See Appendix 1.

5.2. Stakeholders Workshop on “Disappearing Urban Wetlands in Bangladesh: Socio-Economic, Governance and Legal Aspects”

5.2.1. Organizer: CRDS and BELA

5.2.2. Location: BUET, Dhaka

5.2.3. Date: September 26, 2024

5.2.4. Activities: See Appendix 2.

5.3. Publication: Urban Wetlands in Peril: Uncovering the Socio-Economic, Governance, and Legal Challenges in Bangladesh

5.3.1. Editors: Ishrat Islam, Shakil Akther and Taslima Islam

5.3.2. Publisher: University Press Ltd.

5.3.3. Published Date: Scheduled to be published on June 5, 2026 (World Environment Day).

References

Hashim, S. A. (2019). A Quarter of Dhaka's Wetlands Gone. *The Daily Star*. Dhaka. <https://www.thedailystar.net/opinion/no-frills/news/quarter-dhakas-wetlands-gone-1739869>

Hredoy, M. S. N., Naim, M. N. H., Sikdar, M. S., & Islam, M. K. (2018). Spatio-Temporal Change Analysis of Wetland in Chittagong City Corporation by Remote Sensing and GIS Technique. *Proceedings of 4th International Conference on Advances in Civil Engineering*. https://www.researchgate.net/publication/332605083_SPATIO-TEMPORAL_CHANGE_ANALYSIS_OF_WETLAND_IN_CHITTAGONG_CITY_CORPORATION_BY_REMOTE_SENSING_AND_GIS_TECHNIQUE

Kafy, A.-A., Islam, M., Khan, A. R., Ferdous, L., & Hossain, M. M. (2018). Identifying Most Influential Land Use Parameters Contributing Reduction of Surface Water Bodies in Rajshahi City, Bangladesh: A Remote Sensing Approach. *Remote Sensing of Land*, 2(2), 87-95. <https://doi.org/10.21523/gcj1.18020202>

Appendix 1

Workshop Report

Interactive Workshop on Research Papers for the Edited Book
“Disappearing Urban Wetlands in Bangladesh: Action Research on Socio-
Economic Governance and Legal Aspects”



WORKSHOP REPORT

**Interactive Workshop on Research Papers for The Edited Book
“Disappearing Urban Wetlands in Bangladesh: Action Research
on Socio-Economic Governance and Legal Aspects”**

31 May, 2023

PREPARED BY

CENTER FOR REGIONAL DEVELOPMENT STUDIES

BUET, DHAKA

Interactive Workshop on Research Papers for the Edited Book “Disappearing Urban Wetlands in Bangladesh: Action Research on Socio-economic Governance and Legal Aspects”

Date: 30 May, 2023

Time: 10:30 A.M to 4:30 P.M

Venue: ITN Seminar Room (ARI-ITN Building, 5th Floor)

Center for Regional Development Studies, BUET (CRDS, BUET) along with Bangladesh Environmental Lawyers Association (BELA) arranged an interactive workshop for the project “Disappearing Urban Wetlands in Bangladesh: Action Research on Socio-economic Governance and Legal Aspects”. The aim of the workshop was to introduce the contributors of the project who are conducting the studies and discuss their research topics. The list of participants and the detailed agenda is provided in the Annexure.

The following decisions were taken upon discussion with the participants in the workshop

1. An alternative title “Restoring Urban Wetlands: Challenges, Achievement and Way Forward” for the book was suggested by Professor Dr. Rezaur Rahman which was accepted by the participants. .
2. Each chapter of the book should be written within 7000-8000 words without annexures and maps.
3. The first draft of each chapter will be submitted by August 15, 2023.
4. By the end of July 2023, another discussion session will be held among the authors. The date and venue would be finalized in discussions with CRDS, BUET and BELA.
5. A Google and a WhatsApp group would be created to share the ideas and materials for the authors

The following paragraphs provide a brief description of the workshop Professor Dr. Mohammad Shakil Akther, started the workshop proceedings by stating the agenda and aims of this event and introduced all the contributors of the project. After that, Professor Dr. Ishrat Islam gave a presentation on the background and significance of the project along with describing its objectives, workflow and possible outcomes. In this session, the participants gave general suggestions about

the book. In the discussion, Professor Dr. Rezaur Rahman suggested an alternative title for the book as the book aims to restore and rehabilitate the urban wetlands of the country by showing their current condition. Dr. Rahman suggested that the name should give a powerful and positive message to the policymakers so that they attempt to take the initiative for the betterment of these natural resources. The proposals were supported by the participants



Figure: Picture of the Introduction Session

After the introduction session, technical session one started. In this session, five studies were presented by their corresponding authors. The session started with the presentation of Professor Dr. Adil Mohammed. Professor Dr. Rezaur Rahman, Professor Dr. Afsana Haque and Professor Dr. Mohammad Shakil Akther gave their opinions about the study after the presentation. Mr. Debasish Roy Raja, then joined via Zoom Platform to present their work on "Spatiotemporal Dynamics of Wetland Change in Chattogram City of Bangladesh". Professor Haque suggested that the study can be better executed if it shows the relevance of development plans and can identify good practices. After the discussion, a tea break was taken.

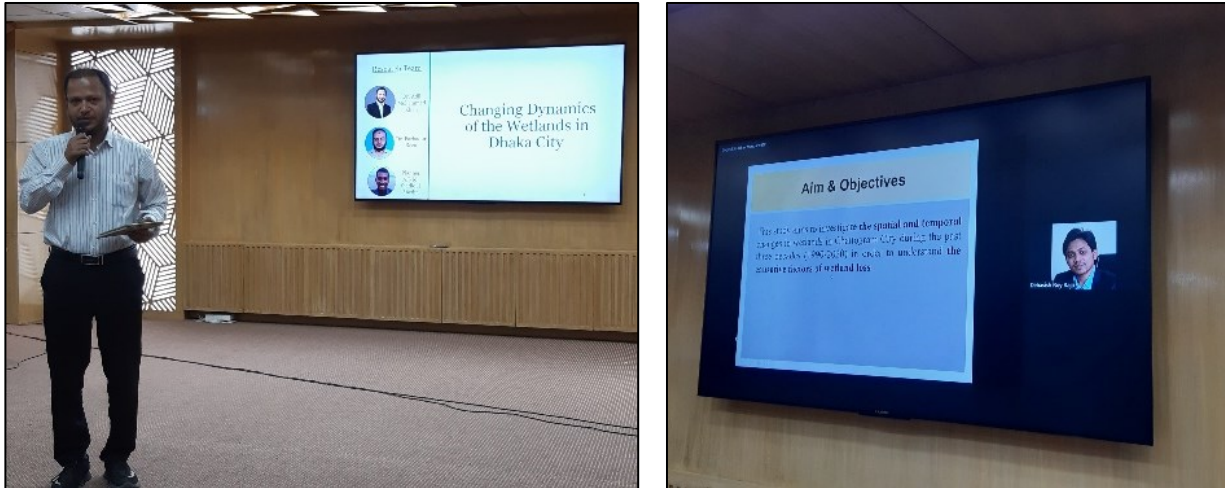


Figure: Presentation by Dr. Mohammad Adil and Mr. Debashish Roy Raja

The session after tea break started with the presentation of Dr. Palash Basak. Dr. Basak is working on “Assessment of Wetland Shrinkage in Medium-sized Cities in Bangladesh Using GIS & Remote Sensing Techniques”. Because of the uniqueness of the study area, the research interested other research teams, and useful suggestions came from Professor Dr. Rezaur Rahman, Professor Dr. Afsana Haque, Professor Dr. Ishrat Islam and Professor Dr. Mohammad Shakil Akther. They suggested him to select the cities and towns which are not covered by the other authors. Ms. Nazia Hossain then presented their proposed study on “Fading the Wetlands of Rajshahi city: An Observation of Temporal Changes and Integration in the Policy Framework”. Professor Dr. Rezaur Rahman and Professor Dr. Adil Mohammad Khan pointed out that the perspective of governance and authority can provide important insights into the study. The final presentation of technical session one was given by Ms. Rifah Mashiat Jane and Ms. Ridma Quddus who, along with Professor Dr. Ishrat Islam are doing research on “Blue Network of DAP (2016-35): Present Status and Potential Strategies for Implementation”. Mr. Azaz and Professor Dr. Mohammad Shakil Akther stated their opinions and concerns regarding the study. One of the suggestions that was common for all the studies to look at the change from the perspective of a political regime.



Figure: Presentation by Dr. Palash Basak, Ms. Nazia Hossain and Ms. Rifah Mashiat and Ms. Ridma Quddus

Technical session two started with the presentation of Ms. Farzana Faiza about the study” Political Economy of Wetland Management in Dhaka”. The study evoked much enthusiasm among the researchers and a spontaneous discussion occurred. The inclusion of political ecology and the stake of the local fishermen in the study and the determination scale of the study were mentioned in the discussion, along with a vital point raised by Professor Dr. Haque that as a large number of studies will explore the policy gaps regarding wetland management, the limit and extent of this sector should be realized. The second presentation was given by Dr. Sonia Binte Murshed on their study “Hydrological Connectivity for Sustainable Urban Wetland Management” conducted by her and Professor Dr. Mohammad Rezaur Rahman. Professor Dr. Mohammad Shakil Akther, Professor Dr. Ishrat Islam and Mr. Azaz took part in the discussion about how different aspects and sources can be included in the study. The third presentation of this session was supposed to be the study of Dr. Haseeb Md. Irfanullah about Nature-based Solutions to protect wetlands, but unfortunately, he couldn't join the event. Dr. Akther gave a brief summary of this study based on the abstract he sent

and it was decided that Dr. Irfanullah’s contact details and the abstract will be shared so that participants could provide their input.

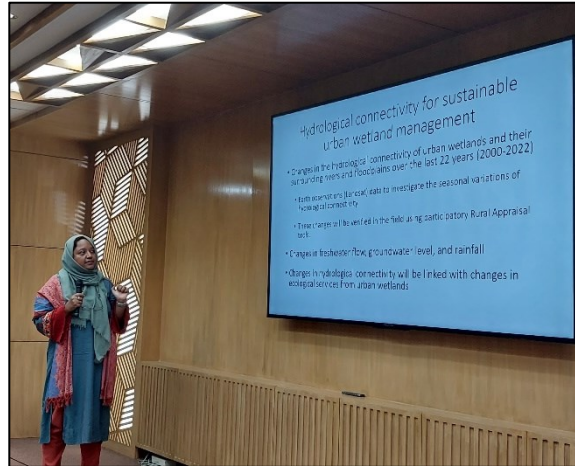


Figure: Discussion and Presentation by Dr. Afsana Haque and Dr. Sonia Binte Morshed

Technical session three was initiated with the presentation of Ms. Maria Mehrin. She and her co-researchers Professor Dr. Mohammad Shakil Akther and Mr. Injamumul Haque Refat are conducting a study on “Evaluation of Policies on Urban Wetland Management”. Professor Dr. Islam, Ms. Hossain, Dr. Murshed, Ms. Dipti and Dr. Basak gave their opinions about the plans and policies that can be included in the research. The second presentation of this session was given by Ms. Sadia Afroze on the study Impact on the Surrounding Local Communities due to Loss of Wetlands: A Case Study of Dhaka conducted by her and Ms. Nazifa Anzum. Mr. Azaz, Professor Dr. Khan, Professor Dr. Islam and Professor Dr. Rahman provided their insights about the study.



Figure: Presentation and Discussion of Ms. Maria Mehrin and Ms. Sadia Afroze

After the lunch break, the session started with a speech delivered by Ms. Rizwana Hasan, who briefly stated the involvement of BELA and Tang Foundation in the project. Along with this, she also presented two studies-Wetland Protection: Gaps in Legal and Regulatory Framework and High Court in Protecting Wetland. Mr. Golam Iftekhar Mahmud then presented the concept of his study “Role of Media and Political Economy of Bangladesh Wetland” which brought out a spontaneous discussion among the participants about the role of media in the current situation of wetlands. Finally, Mr. Mohammad Azaz presented their study “Evolving Role of Civic Society Organizations in Protecting Bangladesh’s Water Bodies” by him and his co-author Mr. Efadul Huq. Within the session, each author was told to give their suggestion about the project, and from that some useful recommendation was noted as to develop a working definition of wetland through this book.



Figure: Speech by Ms. Syeda Rizwana Hasan, Mr. Golam Iftekhar Mahmud and Mr. Mohammad Azaz

To conclude the session, Professor Dr. Ishrat Islam and Professor Dr. Mohammad Shakil Akther expressed their optimism and hopeful about the development of the project and conveyed their gratitude to the authors for their spontaneous participation to the event.

In this session, Ms. Mahrukh Mohiuddin and Mr. Firoz Ahmed from University Press Limited (UPL) publications expressed their appreciation for the initiative and gave some significant insights that might be considered while publishing the book.



Figure: Pictures of the Concluding Session

It should be noted that the whole program is recorded.

Annexure

List of Participants

1. Professor Dr. Ishrat Islam, Dean of Architecture and Planning Faculty, Professor of Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology
2. Professor Dr. Mohammad Shakil Akther, Professor of Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology
3. Ms. Syeda Rizwana Hasan, Bangladesh Environmental Lawyers Association (BELA)
4. Professor Dr. Adil Mohammed Khan, Professor, Department of Urban and Regional Planning, Jahangirnagar University
5. Mr. Debasish Roy Raja, Associate Professor, Department of Urban and Regional Planning, Chittagong University of Engineering and Technology (Via Zoom Platform)
6. Dr. Palash Basak, Casual Faculty, University of Newcastle, Australia & GIS Consultant, Australian System Assurance Company Pvt Limited, Australia
7. Ms. Nazia Hossain, Assistant Professor, Department of Urban & Regional Planning, Rajshahi University of Engineering & Technology (RUET)
8. Ms. Rifah Mashiat, Graduate, Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology
9. Ms. Ridma Quddus, Graduate, Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology
10. Professor Dr. Afsana Haque, Professor of Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology
11. Ms. Farzana Faiza Farha, Lecturer, Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology
12. Dr. Sonia Binte Murshed, Associate Professor, Institute of Water and Flood Management, Bangladesh University of Engineering and Technology
13. Professor Dr. Rezaur Rahman, Professor, Institute of Water and Flood Management, Bangladesh University of Engineering and Technology
14. Ms. Maria Mehrin, Lecturer, BUET-Japan Institute of Disaster Prevention and Urban Safety, Bangladesh University of Engineering and Technology

15. Ms. Sadia Afroze, Assistant Professor of Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology
16. Mr. Golam Iftekhar Mahmud, Special Correspondent, The Daily Prothom Alo
17. Mr. Mohammad Azaz, Chairman, River And Delta Research Centre (RDRC)
18. Ms. Mahrukh Mohiuddin, University Press Limited (UPL)
19. Mr. Firoz Ahmed, University Press Limited (UPL)
20. Ms. Rumana Afroze Dipti, Gender Analyst, Bangladesh Environmental Lawyers Association (BELA)
21. Mr. Ajmain Adib Nakib, Communication Officer, Bangladesh Environmental Lawyers Association (BELA)
22. Ms. Fairuz Noshin, Research Assistant, Center for Regional Development Studies (CRDS), Bangladesh University of Engineering and Technology
23. Ms. Sumaiya Tabassum, Research Assistant, Center for Regional Development Studies (CRDS), Bangladesh University of Engineering and Technology

Interactive Workshop on Research Papers for the Edited Book “Disappearing Urban Wetlands in Bangladesh: Action Research on Socio-economic Governance and Legal Aspects”

Arranged by: Center for Regional Development Studies (CRDS) and Bangladesh Environmental Lawyers Association (BELA)

Program Schedule

Time	Event
10:15 am-10:30 am	Registration
10:30 am -10:40 am	Welcome Speech
10:40 am- 11:00 am	Introduction to the Research and Research Teams
11:00 am-11:50 pm	Technical Session One: Blue Networks in Urban Landscape
	Changing Dynamics of the Wetlands in Dhaka City <i>Author: Professor Dr. Adil Mohammed, Dr. Farhadur Reza and Planner A.B.M. Siddiquil Abedin</i>
	Spatiotemporal Dynamics of Wetland Change in Chattogram City of Bangladesh <i>Author: Mr. Debasish Roy Raja, Dr. Md. Sarfaraz Gani Adnan, Mr. Ahammed Dayem and Mr. Md Rafiullah Arifin</i>
	Assessment of Wetland Shrinkage in Medium-sized Cities in Bangladesh Using GIS & Remote Sensing Techniques <i>Author: Dr. Palash Basak</i>
	Fading the Wetlands of Rajshahi city: An Observation of Temporal Changes and Integration in the Policy Framework <i>Author: Ms. Nazia Hossain and Mr. Redwan Rahman Chowdhury</i>
	Blue Network of DAP (2016-35): Present Status and Potential Strategies for Implementation <i>Author: Ms. Rifah Mashiat Jane, Ms. Ridma Quddus and Professor Dr. Ishrat Islam</i>
11:50- 12:05	Tea Break

12:05 pm-12: 40 pm	Technical Session Two: Wetlands Viewed through Socio-economic, Political and Environmental Lens
	Political Economy of Wetland Management in Dhaka <i>Author.: Professor Dr. Afsana Haque, Professor Dr. Md. Musleh Uddin Hasan and Ms. Farzana Faiza</i>
	Hydrological Connectivity for Sustainable Urban Wetland Management <i>Author: Dr. Sonia Binte Murshed and Professor Dr.. Mohammad Rezaur Rahman</i>
	Can Nature-based Solutions Save Our Last Urban Wetlands? <i>Author: Dr. Haseeb Md. Irfanullah</i>
12:40 pm- 1:00 pm	Technical Session Three A: Legislative and Institutional Framework
	Evaluation of Policies on Urban Wetland Management <i>Author: Ms. Maria Mehrin. Mr. Injamumul Haquw and Professor Dr. Mohammad Shakil Akther</i>
	Impact on the Surrounding Local Communities due to Loss of Wetlands: A Case Study of Dhaka <i>Author: Ms. Sadia Afroj and Ms. Nazifa Anzum</i>
1:00 pm-2:30 pm	Lunch and Prayer Break
2:30 pm- 2:50 pm	Technical Session Three B: Legislative and Institutional Framework
	Wetland Protection: Gaps in Legal and Regulatory Framework <i>Author: Ms. Syeda Rizwana Hasan and Ms. Taslima Islam Shormi</i>
	High Court in Protecting Wetland <i>Author: Ms. Taslima Islam Shormi</i>
2:50 pm- 3:10 pm	Technical Session Four: Let the Water Flow: Civic Voice and Intellectual Discourse
	Role of Media and Political Economy of Wetlands in Bangladesh <i>Author: Mr. Golam Iftekhar Mahmud</i>
	Evolving Role of Civic Society Organizations in Protecting Bangladesh's Water Bodies <i>Author: Mr. Mohammad Azaz and Mr. Efadul Huq</i>
3:10 pm -3:30 pm	Concluding Session

Appendix 2

Workshop Report

Stakeholder Workshop on “Disappearing Urban Wetlands in Bangladesh:
Socio-Economic, Governance and Legal Aspects”

WORKSHOP REPORT

Stakeholder Workshop on “Disappearing Urban Wetlands in Bangladesh: Socio-Economic, Governance and Legal Aspects”

26 September, 2024

Prepared By

Center For Regional Development Studies (CRDS)

BUET, Dhaka



Stakeholder Workshop on “Disappearing Urban Wetlands in Bangladesh: Socio-Economic, Governance and Legal Aspects”

Date: 26 September, 2024

Time: 09:30 A.M to 1:30 P.M

Venue: Seminar Room, ARI-ITN Building, BUET

Introduction:

The Center for Regional Development Studies (CRDS), BUET and Bangladesh Environmental Lawyers Association (BELA), in association with Tang Prize Foundation and Sida, organized a stakeholder workshop for the project entitled “*Disappearing Urban Wetlands in Bangladesh: Socio-economic, Governance and Legal Aspects*” on 26th September 2024, Thursday, at Seminar Room, ARI-ITN Building, BUET.

The workshop aimed to-

- Share the findings from the 12 research works that are being conducted as part of this project
- Formulate the way forward to safeguard the urban wetlands through a group discussion among the researchers and relevant stakeholders

The program schedule and list of participants of the workshop are in **Annexure A** and **Annexure B** respectively.

Activities of the Workshop:

SESSION 1: PRESENTATION OF RESEARCH PAPERS

The stakeholder workshop started with the welcome speech by Dr. Ishrat Islam, Director, CRDS and Professor, Department of URP, BUET. In her speech, she presented a brief overview of the project and explained the purpose of the workshop to the participants. This was followed by the introduction of the participants.



Figure 1: Dr. Ishrat Islam briefing about the project

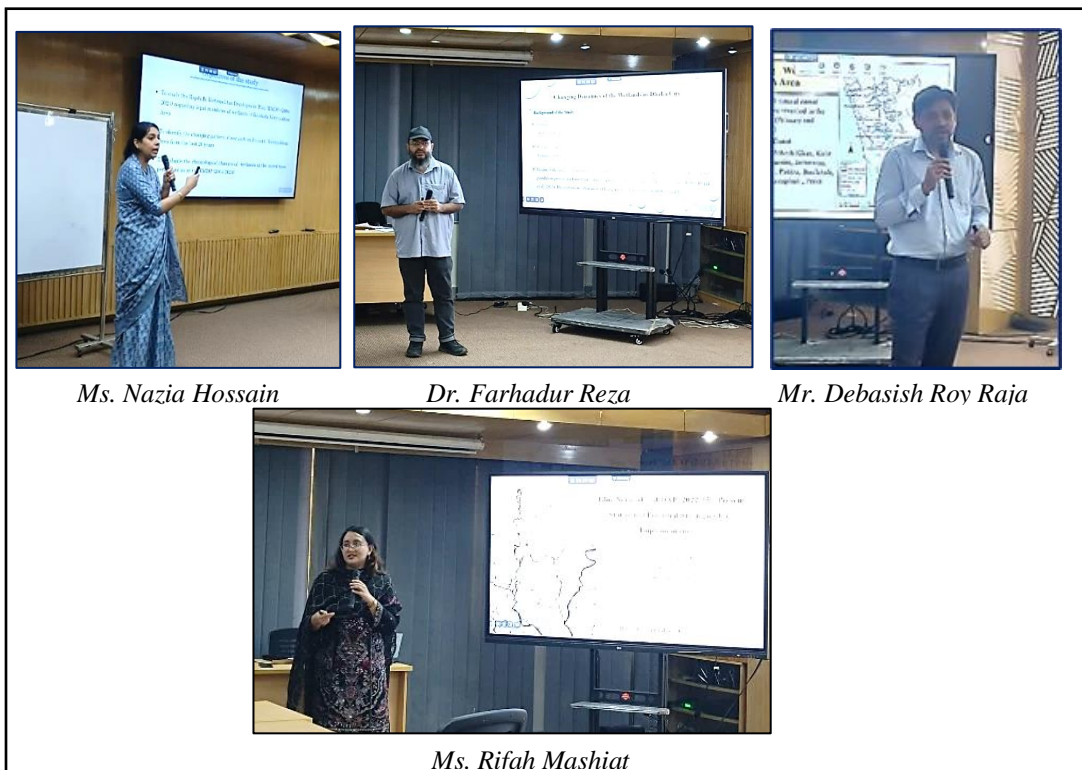


Figure 2: Adv. Taslima Islam introducing herself



Figure 3-4: Participants of the workshop giving their short introductions

The research presentation session was coordinated by Ms. Sumaiya Tabassum, Research Assistant, CRDS, BUET. Five of the researches were presented in this session. The titles of the research are- i) *Fading the Wetlands of Rajshahi City: An Observation of Temporal Changes and Integration in the Policy Framework*, ii) *Changing Dynamics of the Wetlands in Dhaka City*, iii) *Spatiotemporal*



Ms. Nazia Hossain

Dr. Farhadur Reza

Mr. Debasish Roy Raja

Ms. Rifah Mashiati

Figure 5-8: Researchers presenting their works in the first part of the presentation session

Dynamics of Wetland Change in Chattogram City of Bangladesh, iv) Blue Network of DAP (2016-35): Present Status and Potential Strategies for Implementation and v) Political Economy of Wetland Management in Dhaka. The first three researches highlighted the fading of urban wetlands and the factors responsible for this in the metropolitan cities of Bangladesh. The fourth research, focused on the present status, problems and prospects of the proposed “Blue Network” in DAP. The last research presented in this session focused on the interplay of the socio-political factors responsible for wetland loss.



Figure 9-13: Researchers presenting their works in the second part of the first session

After a short break, the presentation session continued. In this session, the remaining researches were presented. The titles of the research are- i) *Hydrological Connectivity for Sustainable Urban Wetland Management*, ii) *Impact on the Surrounding Local Communities due to Loss of Wetlands: A Case Study of Dhaka*, iii) *A Study on Evaluation of Urban Wetland Management Policies of Bangladesh Regarding Ramsar Convention*, iv) *Wetland Protection: Gaps in Legal and Regulatory Framework*, v) *High Court in Protecting Wetland* and vi) *Role of Media and Political Economy of Wetlands in Bangladesh*. The first research presented in this part of the session highlighted the hydrological connectivity of the urban wetlands and discussed the impacts it has on the urban areas. The second research illustrated the socio-economic impact on the local communities due to the loss of waterbodies in peri-urban areas of Dhaka City. The third research assessed the existing policy documents for urban wetland management. The fourth and fifth

research highlighted the legislative framework for wetland protection and the gaps among them. The last research presented in this session focused on the role played by the media in urban wetland management.

An open discussion session followed the presentation session. The participants raised their queries and observations on the research works. The major issues discussed in this session are summarized as follows:

- To include examples of good practices undertaken by different government organizations to conserve urban wetlands
- To consider using CS, RS and MS Maps in the research
- To clarify the definition of wetland in general and explanation of the concept of Blue Network of DAP (2022-2035)
- To include the reasons behind the severe water logging faced by the dwellers of Dhaka
- To include the Bangladesh Water Act, 2013 in the gap analysis



Figure 14: Mr. Maqsd Hashem suggesting on including good practices of conserving wetland



Figure 15: Ms. Tabassum Abdullah suggesting on elaborating the reasons of water logging in Dhaka



Figure 16: Mr. Mohammad Zahir Ahemed asking his queries on the researchers presented

SESSION 2: GROUP DISCUSSION SESSION

The second session was the Group Discussion Session. At the beginning of this session Dr. Mohammad Shakil Akther, Professor, Department of URP, BUET, explained the objectives and tasks for the groups. The participants were divided into four groups (See **Annexure C**). The groups were developed in a way that there is a mixture of different types of stakeholders.

The objectives of the sessions were the follows:

- **Identifying and ranking the relevant stakeholders for wetland management**
- **Analyzing the Strengths, Weaknesses, Opportunities and Threats (SWOT) associated with the process of urban wetland management**
- **Pinpoint a maximum of 10 issues that are required to be addressed to ensure the protection and conservation of urban wetlands**

The Group Discussion lasted for about one hour. After that, each of the groups gave a brief presentation on their findings from the tasks and recommendations to save the urban wetlands.

The participants identified and ranked in total 24 stakeholders and mentioned their sources of power. These identified stakeholders can be divided into five tiers based on their power, which is shown in Diagram 1.

From, Diagram 1, it can be seen, that the participants ranked the Ministry of Land and DC and AC Land Office to hold the most power in the conservation process of the urban wetlands. Participants believe these stakeholders have the authoritative power to manage the wetland, particularly in case of khas wetlands (such as canals, ponds, river banks etc). The Development Authorities (such RAJUK, KDA, CDA etc) and the Local Government Institutes (LGI) got second rank as the crucial stakeholders. The Development Authorities are responsible for preparing the Structure Plan and Detailed Area Plan for the metropolitan cities and they have the authority to regulate development within their territory. Conservation and protection of wetlands is one of their crucial responsibilities in the context of rapid urbanization pressure. The participants believe that officials of the urban Development Authorities and LGIs, hold the authoritative power to restrict any illegal encroachment within their jurisdiction. The law enforcement system consists of the entire judiciary system, including the law enforcement officers required to play a significant role in ensuring the strict implementation of the existing laws and regulations to protect wetlands and jointly hold the 2nd position in the power matrix with LGIs.

The third tier in power status is occupied by the Department of Environment (DoE), the Department of Fisheries (DoF), the Forest Department, development authorities and the Bangladesh Water Development Board (BWDB) (See Diagram 1). Both of the ministries have the

regulatory power to save wetlands from further deterioration. The last stakeholder of this tier is BIWTA, which also has some authoritative power. They fulfil their structural and non-structural responsibilities of protecting wetlands by working for flood management, canal excavation, drainage and awareness raising.

The fourth tier comprises the Public Works Department (PWD), professional bodies, the National River Conservation Commission (NRCC), the Housing Association of Bangladesh (REHAB) and the Water Supply and Sewerage Authority (WASA). All of these stakeholders, except the professional bodies, hold the authoritative power of controlling wetland encroachment and ensuring proper drainage. Professional bodies, such as the Bangladesh Institute of Planner (BIP), the Institution of Engineers, Bangladesh (IEB), the Institution of Architects, Bangladesh (IAB), etc. might not have any regulatory power; however, they have the proper knowledge on safeguarding wetlands from further hampers. Moreover, they have the support from the residents of the cities. Hence, they can set the direction of conserving the urban wetlands.

The last tier, which holds the least power, contains the Bangladesh Inland Water Transport Authority (BIWTA), National Housing Authority (NHA), real estate companies, researchers from academia and different organizations, elected politicians, industrialists, NGOs/INGOs, activist groups, media and local communities (See Diagram 1). Even though BIWTA and NHA have authoritative power, however, according to the participants, their power is not as strong as the other authoritative organizations identified by the participants.

Real estate companies and industrialists are responsible for most of the illegal encroachments on the urban wetlands since they have sufficient financial resources and a strong political background/power. Hence, these stakeholders have been identified by the participants as the negative force in the effort to save wetlands.

Researchers from academia and different organizations have the power of knowledge to set the direction of conserving the wetlands similar to the professional bodies. NGOs/INGOs have financial power because they can attract funds for wetland conservation projects, which the participants believe to be is very crucial. Moreover, NGOs/INGOs, activist groups, media and local communities have the collective strength, which plays a prime role in saving wetlands. Most importantly, the willingness of the elected politicians influences the management of the urban

wetlands. Hence, the politicians have been enlisted as one of the stakeholders as well (See Diagram 1). The individual findings of the groups can be found in **Annexure D**.

The participants of the workshops conducted a SWOT analysis of the conservation process of the urban wetlands. Diagram 2 shows a compiled scenario of the analysis.

According to the participants, the geographical characteristics of our country may act as a positive stimulus in protecting wetlands. Numerous policies, laws and acts have been developed and published for the conservation of urban wetlands, which is our greatest strength. These policy documents can be properly implemented through different government organizations, such as RAJUK, CDA, RDA, DoE, WASA, NRCC etc. as they have strong authoritative power. Prevailing research works on diversified issues has been considered as one of the strengths. Moreover, the availability of CS records is also an advantage sine they can be used in the research. The strong power of the civil society and local people, especially the youth, has always been one of the biggest strengths in safeguarding wetlands.

However, some weaknesses in the conservation process have also been mentioned by the participants. Although a good number of policy documents are available for saving the wetlands but the lack of implementation of these policies is considered as a major constraint. Moreover, gaps in and outdated laws are also hampering the conservation process. There is a huge collection of data on wetlands owned by different organizations, but due to limited access to that information is a barrier towards coordinated research effort. The ownership pattern of the land influences the encroachment of the wetlands. Furthermore, the institutional governance system does not seem to be successful in saving urban wetlands. However, according to the participants, the most prominent weakness in the process of managing wetlands is the lack of coordination among the stakeholders.

For managing the urban wetlands, the participants highlighted a few opportunities. Since Bangladesh is abundant in water bodies, it has a huge opportunity to popularize water transport again. Moreover, utilizing the wetlands for active uses, such as recreational, would be beneficial. The knowledge of the researchers and different professional bodies is a prime opportunity in protecting wetlands. Most importantly, developing an action area plan will pave an opportunity for conserving wetlands. Besides these, raising awareness among the general population, recruiting

more skilled manpower in the organizations and ensuring their accountability are some of the other opportunities identified by the participants.

Although there are some potentials to preserve the urban wetlands, the participants have opined for multiple threats that might be present in the conservation process. Conflict among the stakeholders is the biggest threat. Particularly, major players in the land market i.e the real estate developers and often the government offices violate the acts and regulations related to wetland conservation. Often it is backed up by political powerplay. Moreover, a lack of awareness among the general population regarding the environmental degradation caused by the loss of wetlands is also a threat. Extreme corruption among the stakeholders has been identified as a threat by the participants. Additionally, the participants considered the lack of knowledge of the geological characteristics of the wetland, such as knowledge on the upstream water flow, can also be a threat as it is crucial for undertaking any structural measures on the wetlands.

In the final stage of the workshop, the participants identified in total of 18 major issues that need to be addressed to ensure the protection of the wetlands. Diagram 3 depicts all of the identified issues.

Amongst them, eight issues were mentioned more than once by the participants, depicting their importance. These are-

- The development of an action plan to protect the wetlands
- Awareness raising among people
- Strict enforcement of laws through the law enforcement system
- Government incentives to encourage people to conserve urban wetlands
- Eviction of illegal encroachments on wetlands
- Updating the existing laws, proper coordination among the stakeholders
- Ensuring the availability of the data

The participants also opined for formulating a committee to protect wetlands headed by DC. Other non-structural issues identified by them to safe wetlands are- demarcation of wetlands according to the CS/RS/ BS maps and redefining them appropriately, prioritization of research-based and bottom-up decision making and following a top-down approach during implementation, ensuring proper monitoring and evaluation of the wetland projects and encouraging political willingness to

safe urban wetlands. Regular excavation and dredging and separation of sewerage line from drainage line are the structural measures suggested by the participants.

After that, Adv. Taslima Islam Acting CEO, BELA, thanked the participants for their active contribution to the workshop. The workshop was concluded with a group photograph.



Figure 17: Group discussion in progress



Figure 18: Adv. Taslima Islam drawing the concluding remarks



Figure 19: Group photograph taken at the workshop

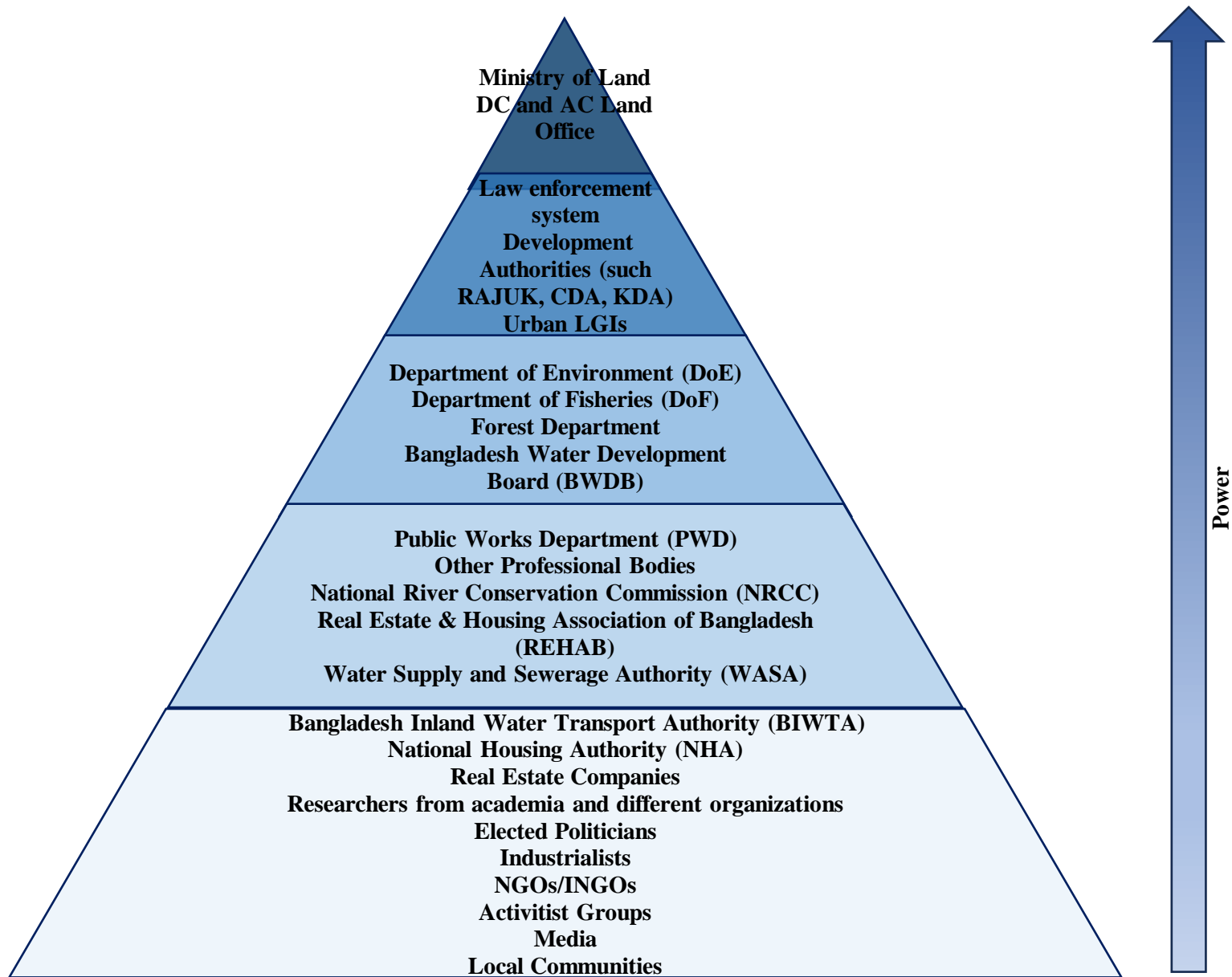


Diagram 1: The ranking of the identified stakeholders according to their power

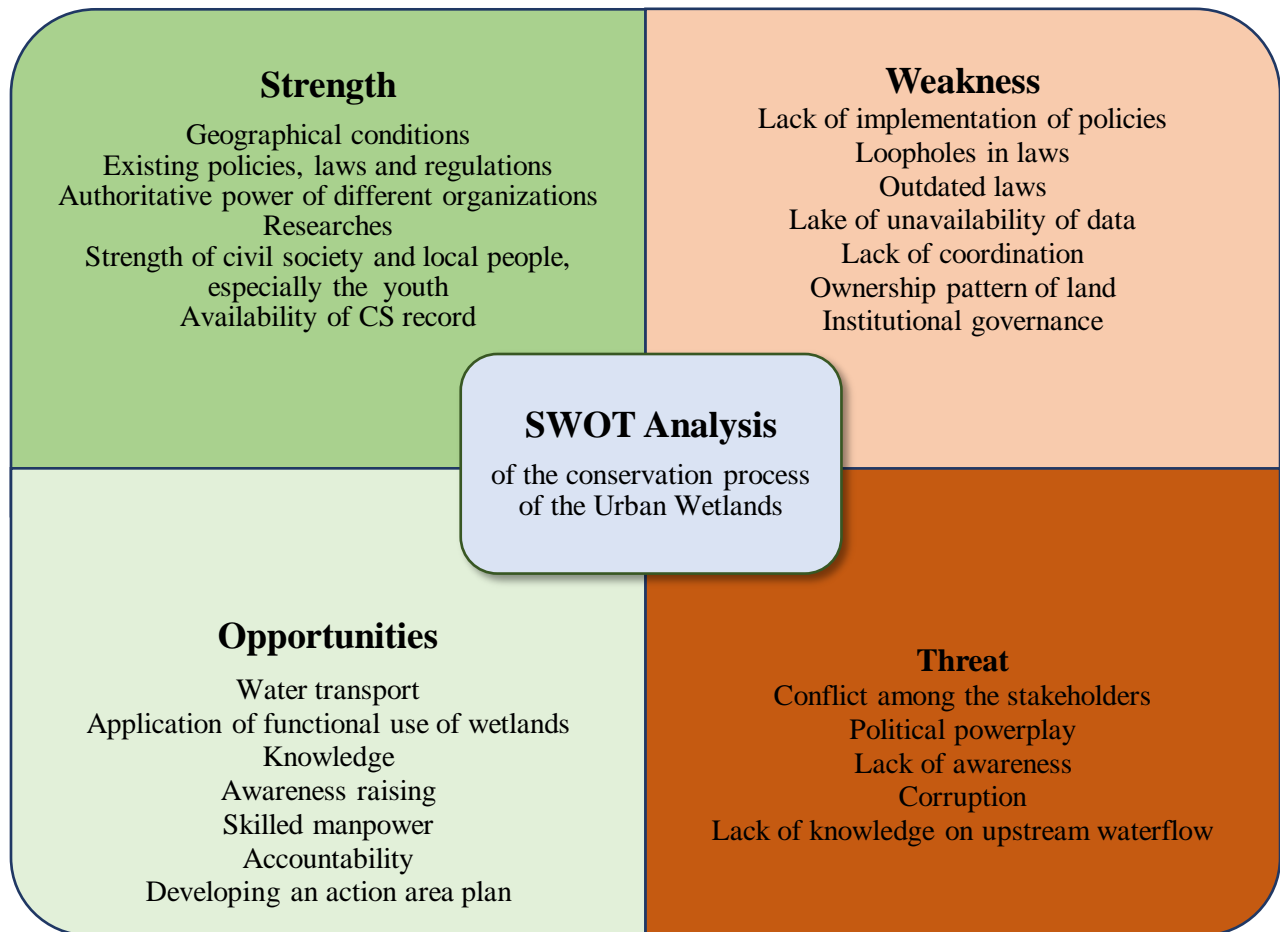
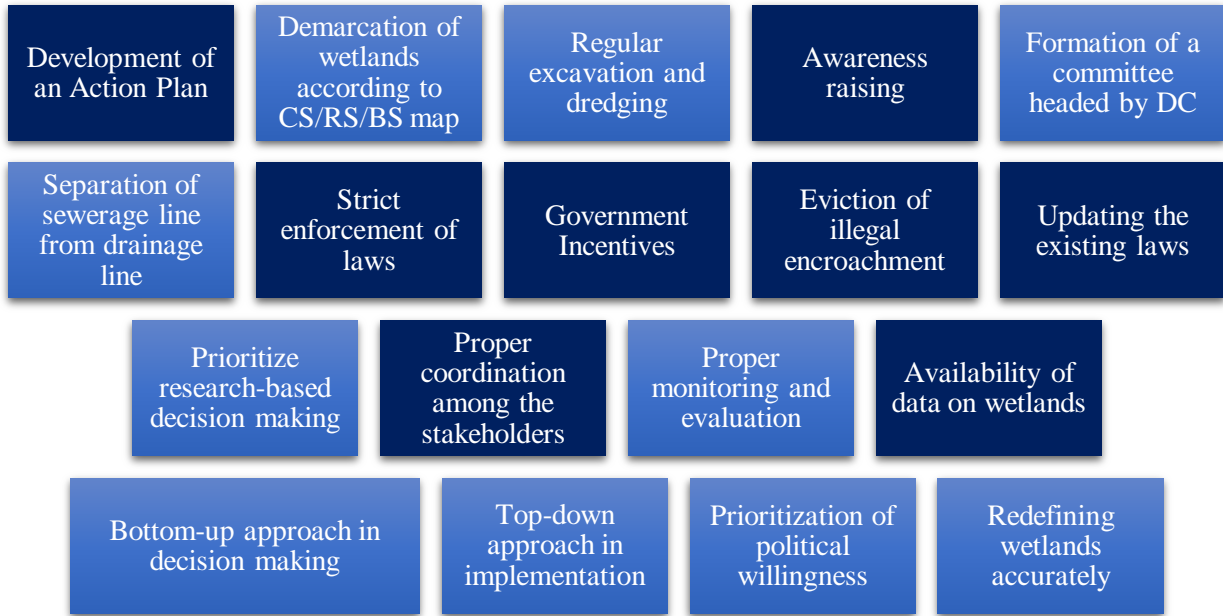


Diagram 2: The SWOT Analysis of the conservation process of the urban wetlands



This colored issues were mentioned more than once by the participants
 This colored issues were mentioned only once by the participants

Diagram 3: Identified issues for conserving urban wetlands

Annexure A



Stakeholder Workshop on “Disappearing Urban Wetlands in Bangladesh: Socio-economic, Governance and Legal Aspects”

Arranged by: Bangladesh Environmental Lawyers Association (BELA) and Center for Regional Development Studies (CRDS)

In association with Tang Prize Foundation and Sida

Date: 26th September (Thursday), 2024

Time: 9:30 am –01:30 pm

Venue: Seminar Room, ARI-ITN Building, BUET

Program Schedule

Time	Event
09:30 am-09:35 am	Registration
09:35 am -09:40 am	Welcome Speech
09:40 am- 09:45 am	Introduction of the Participants
09:45 am- 10:25 am (Six minutes for each of the presentations)	Presentation on Research Papers
	Fading the Wetlands of Rajshahi City: An Observation of Temporal Changes and Integration in the Policy Framework <i>Author: Ms. Nazia Hossain, Mr. Redwan Rahman Chowdhury and Ragib Mahmood Shuvo</i>
	Changing Dynamics of the Wetlands in Dhaka City <i>Author: Professor Adil Mohammed, Dr. Farhadur Reza and Planner A.B.M. Siddiquil Abedin</i>
	Spatiotemporal Dynamics of Wetland Change in Chattogram City of Bangladesh <i>Author: Mr. Debasish Roy Raja, Dr. Md. Sarfaraz Gani Adnan, Mr. Ahammed Dayem and Mr. Md Rafiullah Arifin</i>
	Blue Network of DAP (2016-35): Present Status and Potential Strategies for Implementation <i>Author: Ms. Rifah Mashiat Jane, Ms. Ridma Quddus and Dr. Ishrat Islam</i>
	Political Economy of Wetland Management in Dhaka <i>Author: Ms. Farzana Faiza and Dr. Afsana Haque</i>
10:25 am-10:35 am	Break



Time	Event
10:35 am- 11:35 am (Six minutes for each of the presentations)	Hydrological Connectivity for Sustainable Urban Wetland Management <i>Author: Dr. Sonia Binte Murshed and Dr. Mohammad Rezaur Rahman</i>
	Impact on the Surrounding Local Communities due to Loss of Wetlands: A Case Study of Dhaka <i>Author: Ms. Sadia Afroj and Ms. Nazifa Anzum</i>
	A Study on Evaluation of Urban Wetland Management Policies of Bangladesh Regarding Ramsar Convention <i>Author: Ms. Maria Mehrin, Mr. Injamumul Haque and Dr. Mohammad Shakil Akther</i>
	Wetland Protection: Gaps in Legal and Regulatory Framework <i>Author: Ms. Syeda Rizwana Hasan and Adv. Taslima Islam</i>
	High Court in Protecting Wetland <i>Author: Adv. Taslima Islam</i>
	Role of Media and Political Economy of Wetlands in Bangladesh <i>Author: Mr. Golam Iftekhar Mahmud</i>
	Evolving Role of Civic Society Organizations in Protecting Bangladesh's Water Bodies <i>Author: Mr. Mohammad Azaz and Mr. Efadul Huq</i>
11:35 am- 11:45 am	Break
Group Discussion Session	Group Discussion (11:45 am- 12:45 pm)
11:45 am- 01:15 pm	Presentation on Recommendations from the Groups Five minutes for each of the groups (12:45 pm- 01:15 pm)
01:15 pm- 01:30 pm	Concluding Remarks
01:30 pm	Lunch

For any further query, please contact-

Ms. Sumaiya Tabassum

Research Assistant

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Bangladesh University of Engineering and Technology (BUET)

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Annexure B

List of Participants (not based on seniority)





Sl. No.	Name of the Participant	Designation	Organization
Government Organizations			
1.	Mr. Md. Ashraful Islam	Chief Town Planner	Rajdhani Unnayan Karttripakkha (RAJUK)
2.	Ms. Tabassum Abdullah	Executive Engineer (SND)	Dhaka North City Corporation (DNCC)
3.	Mr. Maqsd Hashem	Chief Town Planner	Dhaka North City Corporation (DNCC)
4.	Mr. Md. Rahanul Islam Rony	Town Planner (in charge)	Rajshahi Development Authority (RDA)
5.	Mr. Mohammad Zahir Ahemed	Town Planner	Chattogram Development Authority (CDA)
6.	Mr. Sharif Mohammed Tariquzzaman	Senior Planner	Urban Development Directorate (UDD)
7.	Mr. Md. Aminul Haque	PSO	Water Resources Planning Organization (WARPO)
8.	Mr. Sakib Mahmud	Assistant Chief (Environment & Ecology)	National River Conservation Commission (NRCC)
9.	Md. Mainuddin Chisty	Executive Engineer	Cumilla City Corporation
10.	Mr. Mohammed Javed Iqbal Chowdhury	Municipal Executive Officer	Habiganj Municipality
Private Organization			
11.	Mr. Woakimul Islam Shakil	City Coordinator-Urban Lab Project	International Union for Conservation of Nature (IUCN)
Activist Forums			
12.	Mr. Bashir Uddin	Joint Secretary	Bangladesh Nodi Bachao Andolon
13.	Ms. Ruly Islam	PO (Law)	Association of Land Reform and Development (ALRD)
Media Personnel			
14.	Mr. Al Fatah Mamun	Staff Reporter	Daily Bonik Barta
Researchers			

Sl. No.	Name of the Participant	Designation	Organization
15.	Professor Adil Mohammed	Professor, Department of Urban and Regional Planning	Jahangirnagar University
16.	Dr. Farhadur Reza	Associate Professor, Department of Urban and Regional Planning	Jahangirnagar University
17.	Mr. Debasish Roy Raja	Associate Professor, Department of Urban and Regional Planning	Chattogram University of Engineering and Technology (CUET)
18.	Ms. Nazia Hossain	Assistant Professor, Department of Urban and Regional Planning	Rajshahi University of Engineering and Technology (RUET)
19.	Ragib Mahmood Shuvo	Research Co- ordinator	Bangladesh University Urban Lab
20.	Ms. Rifah Mashiat Jane	Assistant Town Planner	Rajdhani Unnayan Karttripakkha (RAJUK)
21.	Ms. Farzana Faiza Farha	Lecturer, Department of Urban and Regional Planning	Bangladesh University of Engineering and Technology (BUET)
22.	Dr. Sonia Binte Murshed	Professor (retired), Institute of Water and Flood Management	Bangladesh University of Engineering and Technology (BUET)
23.	Dr. Mohammad Rezaur Rahman	Professor (retired), Institute of Water and Flood Management	Bangladesh University of Engineering and Technology (BUET)
24.	Ms. Nazifa Anzum	Lecturer, Department of	Bangladesh University of Engineering and Technology (BUET)

Sl. No.	Name of the Participant	Designation	Organization
		Urban and Regional Planning	
25.	Ms. Maria Mehrin	Lecturer	BUET-JIDPUS
26.	Mr. Injamumul Haque	Associate, Advisor	Grant Thornton Bangladesh
27.	Mr. Golam Iftekhar Mahmud	Special Correspondent	Prothom Alo
Organizers			
28.	Dr. Ishrat Islam	Professor, Department of Urban and Regional Planning	Bangladesh University of Engineering and Technology (BUET)
29.	Dr. Mohammad Shakil Akther	Professor, Department of Urban and Regional Planning	Bangladesh University of Engineering and Technology (BUET)
30.	Ms. Sumaiya Tabassum	Research Assistant, Center for Regional Development Studies (CRDS)	Bangladesh University of Engineering and Technology (BUET)
31.	Adv. Taslima Islam	Chief Executive (acting)	Bangladesh Environmental Lawyers Association (BELA)
32.	Ms. Rumana Afroze Dipti	GA	Bangladesh Environmental Lawyers Association (BELA)
33.	Mr. Abdullah Al Galib	Lawyer	Bangladesh Environmental Lawyers Association (BELA)
34.	Mr. Nazimuddin Pradhan	IT	Bangladesh Environmental Lawyers Association (BELA)

Annexure C

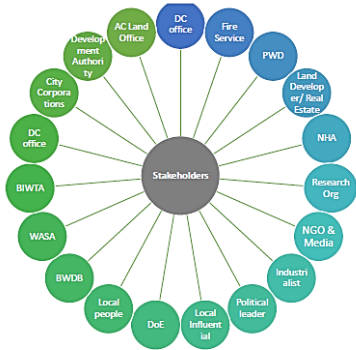
Table: Formation of groups for the group discussion session (not based on seniority)

Sl No.	Group 1		Group 2	
				
1.	Researchers	Mr. Debasish Roy Raja	Researchers	Ms. Nazifa Anzum
2.		Dr. Sonia Binte Murshed		Mr. Ragib Mahmood Shuvo
3.		Ms. Farzana Faiza Farha		Ms. Maria Mehrin
4.	Chattogram Development Authority (CDA)	Mr. Mohammad Zahir Ahemed	International Union for Conservation of Nature (IUCN)	Mr. Woakimul Islam Shakil
5.	Association of Land Reform and Development (ALRD)	Ms. Ruly Islam	Habiganj Municipality	Mr. Mohammed Javed Iqbal Chowdhury
6.	Daily Bonik Barta	Mr. Al Fatah Mamun	National River Conservation Commission (NRCC)	Mr. Sakib Mahmud
Sl. No.	Group 3		Group 4	
				
1.	Researchers	Ms. Rifah Mashiat Jane	Researchers	Mr. Injamumul Haque

Sl No.	Group 1		Group 2	
2.		Mr. Golam Iftekhar Mahmud		Ms. Nazia Hossain
3.	Dhaka North City Corporation (DNCC)	Ms. Tabassum Abdullah		Dr. Farhadur Reza
4.	Rajshahi Development Authority (RDA)	Mr. Md. Rahanul Islam Rony	Urban Development Directorate (UDD)	Mr. Sharif Mohammed Tariquzzaman
5.	Cumilla City Corporation	Mr. Md. Mainuddin Chisty	Bangladesh Nodi Bachao Andolon	Mr. Bashir Uddin
6.			Water Resources Planning Organization (WARPO)	Mr. Md. Aminul Haque

Annexure D

Findings of Group 1



Stakeholder Prioritization

Ranking	Management Priorities	
1	Development Authority	DC Office
2	DoE	
3	City Corporation	Municipalities
4	BWDB	
5	PWD	
6	WASA	
7	Others	

Urban Wetland Management: SWOT



Major Issues

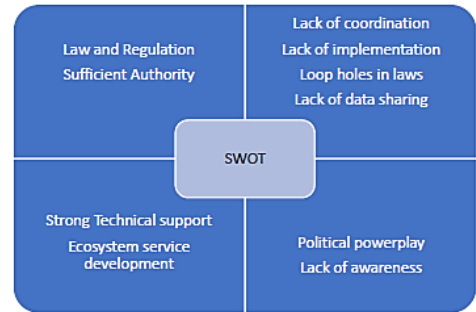
1. No proper definition and classification of wetland
 - ✓ Inconsistent
 - ✓ Area issue
 - ✓ loopholes
2. Uniform law
3. Strict/ updated fine and penalty
4. Specification of management responsibilities
5. Lack of coordination and monitoring
6. Ignore water quality (sewerage)
7. Legalization of encroachment

Implications

1. Transfer of development rights
2. Land acquire
3. Public awareness
4. Modification of law
5. Action-area plan

Findings of Group 2

Stakeholders		Priority based on power structure	Source of power
Govt.	Local govt. Development authority Land ministry	1	Regulatory
Housing		2	Financial Political
Industry & Service		3	Financial Political
		7	
Activist Group		5	People
Technical group		4	Knowledge and Direction
Community		6	people



Way Forward

- Coordination among organizations
- Awareness mechanism
- Prioritization of political willingness
- Proper implementation
- Ensure and empower Bottom-up approach in wetland management
- Ensure Top down approach Implementation and Conservation
- Prioritize research based decision making

Findings of Group 3

Stakeholders:

- DC
- DOE
- BWDB
- Local Government
- Development Authority
- Law enforcement department
- REHAB
- Local Community
- Political/ Social /Religious leaders
- NGO and Civil Society
- Judiciary

Stakeholders according to power:

1. DC – Administration
2. Political leaders- ruling political party
3. Law enforcement department – Administration
4. Local Government– Administration
5. DoE – Administration
6. Judiciary – Administration
7. Development Authority – Administration
8. BWDB – Administration
9. National River conservation commission – Administration
10. REHAB – Administration
11. Local Community – Local influence and socialism
12. NGO and Civil Society- Local influence and socialism



1. To form a committee headed by DC
2. To develop Action Plan
3. Demarcation of wetlands according to CS/RS/BS map
4. Development works sounding the wetlands and canals
5. Regular excavation and dredging
6. Separation of sewerage line from drainage line
7. Awareness built-up
8. Enforcement of law strictly
9. Providing incentives to the owner of ponds to preserve it.
10. Eviction of illegal encroachment

Findings of Group 4

Stakeholders Identification

- Government representatives:
RAJUK, Development authorities
City corporation
Pourashava authorities
UDD, LGED
- Water/ wetland:
WASA, BWDB, WARPO,
- Relevant:
IUCL, DPHE, DM, BELA, BAPA
- Academic
- Communities

Prioritization

1. City corporation, Pourashava
2. Development authorities
3. Water related
4. DoE, DoF
5. BELA, WARPO, BAPA, BIWTA, engineering institutes, BIP, Media
6. NGOs and INGOs
7. Community

Source of power

1. Regulations
2. Support from other stakeholders

SWOT



Issues

- Polluter pay principles
- Incentives
- Implementation
- Update of regulation
- Comprehensive national and physical plan; town and country planning act
- Monitoring and evaluation
- Physical and environmental monitoring
- Update of data on wetland loss
- Scope of integration of authorities
- Research and innovation
- Community awareness