Paper ID	264
Author(s)	Fatema Johora, Mohammad Najmul Islam and Ai Sugie
Title	Participatory Wetland Management: Challenges and Opportunities of Chalan Beel at Pabna District in Bangladesh

Abstract

Millions of rural communities in Bangladesh rely on wetlands for fishing and aquaculture. Community-based management ensures that these resources are utilized sustainably to maintain livelihoods. Identifying the issues related to wetland resource use and developing plans for community-based wetland conservation and management are the two main goals of this study. For this study, the Handial Union of Chatmohor Upazila under Pabna District has been selected. This is a part of the Chalan Beel, the largest freshwater wetland in Bangladesh. Data were collected through mixed method (Qualitative and Quantitative) surveys, transect walk and observation, focus group discussions (FGDs), key informant interviews (KIIs) with the relevant resource persons, applied different tools of participatory rural appraisals (PRAs) with seasonal calendar analysis, and household surveys with semi-structured interview schedule for the beneficiaries (fishermen) and non-beneficiaries (other stakeholders). The results highlight several serious issues, such as overfishing, agricultural encroachment, water contamination, and residents' ignorance. Limited stakeholder collaboration and lax enforcement of policies make these problems worse. This study places a strong emphasis on community-based strategies that integrate local expertise and participatory decision-making procedures to solve these issues. Programs to increase resource users' ability, co-management systems, sustainable farming and fishing methods, and raising public knowledge of wetland protection are some of the suggested tactics. According to the study's findings, including local populations in Chalan Beel management improves their resilience and standard of living while also ensuring ecological sustainability. Other areas might adopt this integrated strategy as a model for sustainable resource use and wetland protection.

Keywords	Chalan Beel, participatory wetland management, wetland conservation, Bangladesh

Paper ID	245
Author(s)	Najifa Ara Karim, Mohammad Najmul Islam and Ai Sugie
Title	Transitioning Wetland Management Systems: Socioeconomic Effects on Fishermen in the Baluhor Oxbow-Lake, Bangladesh

Abstract

This study has been conducted at Baluhar Baor, the largest (282 hectares) Oxbow-Lake, formed from a cut-off part of the Kobadak River in Kotchandpur Upazila, Jhenaidah District in Bangladesh. In 2023, the OLP-1 was phase-out, and a leasing tender (Izara) system was introduced, leading to significant socio-economic challenges for the fishermen community of Baluhar Baor. This study examines the implications of this transition, focusing on its impact on livelihoods, resource access, and ecological sustainability. The study highlights the changes and negative impacts brought about by the Izara system, which hinders sustainable management practices. Data were collected through mixed method (Qualitative and Quantitative) surveys, transect walk and observation, focus group discussions (FGDs), key informant interviews (KIIs) with the relevant resource persons, applied different tools of participatory rural appraisals (PRAs) with seasonal calendar analysis, and household surveys with semi-

structured interview schedule for the beneficiaries (fishermen) and non-beneficiaries (other stakeholders). Analytical tools such as Likert scale scoring, Friedman Test, and ICI scoring were employed. Findings reveal that the Izara system has marginalized traditional fishermen, restricted their open-water fishing rights, and led to unemployment, financial crises, and social stress within the community. Out of 416 licensed fishermen, only 65 (15% of the total) fishermen are engaged in a daily labor wage of 500 BDT/day. Due to this system, the fishermen's community became extremely vulnerable due to the lack of fishing and other alternative income-generative activities. Furthermore, environmental issues, such as ecosystem degradation and reduced aquatic biodiversity, have been exacerbated under the leasing system.	
Keywords	Oxbow-Lake, wetland management, fishermen community, Bangladesh

Paper ID	149
Author(s)	Shakil Khan and Ai Sugie
Title	Who is entitled to the rivers? Pollution and dredging of rivers in Bangladesh
Abstract	
Economic growth in Bangladesh has been rapid and remarkable, driven by the ready-made garment industry. However, environmental degradation due to industrialisation has also increased significantly. The Buriganga River in Dhaka has been polluted by industrial effluents from factories located upstream, forcing the Bangladesh government to act. The livelihoods of traditional fishing communities that are landless, low-caste, and fishing-dependent, have been severely affected by the pollution. Based on a field survey conducted in 2013, this presentation focuses on a fishing community along the Bangshi River (the upper section of the Buriganga River) in the western part of the Gazipur district, which has been rapidly industrialised since the 1990s, and how the livelihoods of this community have changed due to river pollution. Furthermore, this presentation highlights the fact that the Buriganga River Restoration Project (BRRP), a government project attempting to address water pollution, has accelerated riverbank erosion in the upstream village. Dredging associated with the BRRP has significantly accelerated riverbank erosion in the upstream village, forcing approximately half of the population in one settlement to relocate. One of the factors contributing to the accelerated riverbank erosion was the illegal sale of sediment dredged from the riverbed to an industrial company for use in the construction of a plant through an informal agreement between influential local people and government agents. Industrial pollution and the BRRP effects reinforced unequal power relations in the region, which marginalised and made certain people vulnerable.	
Keywords	water pollution, sand mining, livelihoods, river erosion, Bangladesh

Paper ID	111
Author(s)	Sadman Ahmed and Munira Nusrat
Title	IMPACT OF THE PADMA MULTI-PURPOSE BRIDGE ON RIVER DYNAMICS: A PREDICTIVE ANALYSIS OF PADMA RIVER, BANGLADESH
Abstract	
The Padma River in Bangladesh, has transitioned from a meandering to a braided system due to increased sedimentation and erosion, exacerbated by climate change and human activities. The river's width and channel location have undergone significant changes in recent decades, reflecting a dynamic landscape shaped by natural and anthropogenic influences. The construction of the Padma Bridge has notably influenced local resource	

management and environmental conditions. The project aimed to enhance connectivity and economic growth, but it also affected social structures, resulting in challenges such as social inequality and environmental degradation. It emphasized local resource-based approaches to enhance employment and sustainable practices in development. Understanding these dynamics is crucial for developing sustainable strategies for land use and disaster risk reduction, particularly in vulnerable areas near river confluences. While the Padma Bridge aims to foster economic development, it raises concerns about long-term environmental sustainability and the social fabric of affected local communities. Multitemporal satellite data can effectively monitor changes in land accretion and erosion dynamics. This study used satellite imagery to assess the dynamics from 2016 to 2024, revealing significant erosion and accretion trends. The analysis indicates that accretion is recorded at 27.23 hectares, while erosion is 556.49 hectares in 2024. Finally, it is estimated that by 2030, there will be an accretion of 579.19 hectares and an erosion of 832.27 hectares in the area 10 km upstream and downstream, respectively.

Keywords	Water, Land, Humans