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THE INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH

Original Research

Fishing Bans as a Conservation Tool: Socioeconomic Impacts and Livelihood Compensation in Practice

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Abstract: Seasonal fishing bans are rigorously implemented to protect fish during critical life phases, especially in less developed countries where fisheries are essential for livelihoods. The Hilsa *(Tenualosa ilisha)* fishing ban in Bangladesh is designed to protect spawning and juvenile populations, bolstered by a government compensation program. Nonetheless, the practical efficacy and fairness of these treatments remain little investigated. This study looks at how the Hilsa ban affects people's lives and checks how well the relief program works in Lalmohan Upazila, Bhola District, which is important for the environment and has many people in need. We employed a mixed-methods approach to collect data from 150 families, five focus group talks, and eight key informant interviews. Results indicate that 42% of families got no compensation, and 61% of beneficiaries experienced delays or deficiencies. The prohibition exacerbated poverty, food insecurity, and school dropout rates among children, leading households to depend on migration, informal loans, or child labor. Political partiality, obsolete registries, and inadequate accountability compromised assistance distribution. Notwithstanding these limitations, communities articulated conditional support for the ban and suggested implementable improvements. This study emphasizes lived experiences and governance challenges, offering vital details about reconciling ecological preservation with social equity. The results contribute to wider discussions on fair fisheries governance and conservation-related social protection in the Global South.

Keywords: Hilsa Fishery, Seasonal Fishing Ban, Compensation, Governance, Environmental Justice, Bangladesh

Article History:
Received: 20 June 2025
Accepted: 01 August 2025
Online: 02 August 2025

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Citations: Das, A. R., Ema, S. J., Aktaruzzaman, M. & Begum, K. (2025). Fishing Bans as a Conservation Tool: Socioeconomic Impacts and Livelihood Compensation in Practice. *Pathfinder of Research*, *3*(2), 46-67

1. Introduction

The increasing ecological fragility of global fish populations has necessitated a transformation in fisheries management, highlighting area-specific and seasonal conservation strategies. Seasonal fishing bans are now important rules aimed at protecting key life stages of fish, like breeding and young growth, by reducing fishing during sensitive times **(Hilborn et al., 2020; Islam et al., 2025).** These initiatives are particularly common in developing nations, where open-access fisheries are vital sources of income for millions of small-scale fishers **(Sunny et al., 2023)**. Although biologically warranted, such prohibitions can inflict considerable short-term economic difficulties on populations dependent on uninterrupted fishing access **(Chen et al., 2024)**. This situation creates an ongoing struggle between the need to protect the environment and the need for fair economic opportunities, which requires careful research to find a balance between conservation goals and the ability for people to make a living **(Cinner et al., 2020; DoF, 2023).**

Bangladesh, a lower-middle-income nation with one of the largest artisanal fishing industries globally, is a significant case study for the conservation-development trade-off. The Hilsa shad (*Tenualosa ilisha)*, commonly referred to as Ilish, possesses considerable cultural and economic importance, accounting for over 12% of national fish output and sustaining the livelihoods of more than half a million individuals **(Alam et al., 2023; DoF, 2023).** Its gastronomic, emblematic, and financial significance establishes it as a national symbol. The species' life cycle involves moving upstream to lay eggs and then going downstream to grow in rivers and oceans, which makes it especially vulnerable to overfishing, habitat loss, and pollution. The Government of Bangladesh implemented two seasonal fishing prohibitions during peak spawning (October) and juvenile development (March-April) in response to the concerning decrease in Hilsa populations observed in the early 2000s **(Kabir et al., 2021; Alam et al., 2022)**. The prohibitions encompass extensive sanctuary areas in significant rivers, including the Meghna, Padma, and Tentulia, and comply with international conservation standards. Initial evaluations indicate ecological improvements, including heightened juvenile populations and bigger catch sizes post-ban **(Hossain et al., 2018; Mohammed et al., 2020**. However, the socioeconomic consequences particularly for rural, low-income, and climate-vulnerable populations are still little examined**.**

To alleviate the economic hardships resulting from these prohibitions, the Ministry of Fisheries and Livestock (MoFL), in collaboration with the Department of Fisheries (DoF), administers a compensation program that allocates 40 kilos of rice monthly to registered fishing households. The Ministry of Fisheries and Livestock (MoFL) allocates additional funds or aid items in specific years **(Dasgupta et al., 2010)**. This initiative exemplifies a unique instance of state-sponsored conservation-related compensation in South Asia; however, it has encountered mounting criticism. Accounts of postponed assistance, political bias, and logistical shortcomings especially in isolated or disaster-affected regions have emerged in scholarly and investigative literature **(Imbwae et al., 2025)**. Structural constraints, such as antiquated beneficiary registries, ineffective grievance channels, and gender-insensitive execution, compromise the scheme's inclusivity. Marginalized populations, including landless fishermen, widowed women, and recently moved families, are often deprived of benefits **(Allison et al., 2009).** The lack of effective monitoring systems impedes the assessment of real-world effects and the formulation of adaptive strategies. Although many district-level studies, especially in Chandpur and Barisal,

have begun documenting these challenges, ecologically significant yet administratively marginal areas like Bhola District remain under-researched. This study looks closely at the community in Lalmohan Upazila, an important area for Hilsa fishing located where rivers meet the coast in Bhola, to address this gap. Lalmohan's ecological abundance contrasts sharply with elevated poverty levels, vulnerable infrastructure, and recurrent climate-induced threats like cyclones and riverbank erosion. The intersecting vulnerabilities exacerbate the economic effects of seasonal prohibitions, rendering Lalmohan an exemplary case for evaluating the multifaceted repercussions of conservation efforts **(Islam et al., 2022; Hossain et al., 2024; Chowdhury et al., 2025).**

This study analyzes the socioeconomic effects of the Hilsa fishing prohibition and the efficacy of the related compensation systems in Lalmohan. This study examines (i) the degree of income and food insecurity among impacted households; (ii) the scope, promptness, and equity of aid distribution; (iii) household coping mechanisms during the prohibition; and (iv) stakeholder viewpoints on governance quality, policy legitimacy, and reform priorities. This multifaceted perspective encompasses both outcome-related consequences and implementation issues, providing insights that guide local change and facilitate cross-national learning.

The study's significance extends beyond the Bangladeshi setting. In several areas of the Global South, governments are advocating for nature-based solutions that integrate ecological preservation with social assistance. However, needless to say, few of these programs provide protection for the livelihoods they affect. The Hilsa fishing prohibition, together with its compensation program, is a unique and enlightening case of the trade-offs, governance deficiencies, and fairness issues inherent in hybrid conservation frameworks **(Hahn et al., 2009; Jentoft, 2014)**. The research ultimately enhances the larger dialogue on environmental justice and inclusive fisheries governance. By transcending mere catch statistics to prioritize the lived realities of women, landless households, and distant communities, it emphasizes that sustainable conservation necessitates justice, involvement, and procedural fairness **(Ellis, 2000; Badjeck et al., 2010).** This research used a mixed-methods approach, incorporating household surveys, focus group discussions, and key informant interviews, to deliver a detailed and nuanced understanding of the experiences, challenges, and reinterpretations of conservation policies by those most impacted.

2. Methodology

2.1 Background of Study Design

This research utilized a mixed-methods approach to analyze the socioeconomic effects of the Hilsa fishing ban and to evaluate the efficacy of the related compensation mechanisms in Lalmohan Upazila, Bhola District. The mixed-methods approach was used to provide both measurable livelihood results and qualitative insights into governance dynamics, adaptive responses, and stakeholder views. The study offers a comprehensive examination of policy implementation by merging household survey data with focus group discussions (FGDs) and key informant interviews (KIIs). Fieldwork was executed in May–June 2025, just after the March–April fishing prohibition, to guarantee precise recollection and reduce retrospective bias.

2.2 Study Area

Lalmohan Upazila, standing in the southern sector of Bhola District, is a prominent Hilsa-producing area in the lower Meghna and Tentulia river systems. The region has many designated sanctuary zones as part of Bangladesh's national Hilsa conservation strategy. Lalmohan, marked by prevalent artisanal fishing, inadequate infrastructure, significant poverty levels, and frequent climate-related threats like cyclones and riverbank erosion, serves as a strategically vital yet underexplored location for assessing the socioeconomic impacts of fishing bans and the efficacy of compensation programs.

2.3 Sampling Technique

A cross-sectional study design with a stratified random sample method was employed. One hundred fifty fishing homes were surveyed throughout five unions: Badarpur, Lord Hardinge, Char Jahiruddin, Dholigouranagar, and Lalmohan Sadar. Thirty homes were randomly chosen from each union to guarantee geographical and socioeconomic representativeness. Eligibility requirements required at least one active Hilsa fisher per family who had engaged in the fishery in the preceding year and was directly impacted by the latest fishing prohibition.

Besides the quantitative data, one focus group discussion was performed in each union with 6-8 people representing various family responsibilities. The participants included male fishermen, women from fishing households, youth, and boat owners to ensure a diverse array of demographic and livelihood viewpoints **(Creswell & Plano Clark, 2017)**. Furthermore, eight key informant interviews were performed with stakeholders, including Union Parishad members, Upazila Fisheries Officers, NGO representatives, and local fish merchants. This triangulated methodology guaranteed the incorporation of both community-level experiences and institutional perspectives **(Hahn et al., 2009).**

2.4 Data Collection Tools

Quantitative data were collected using a structured household questionnaire consisting of six thematic modules: household demographics; livelihood characteristics; effects of the fishing ban; access to compensation; coping strategies; and perceptions of policy and governance. The instrument had both closed- and open-ended inquiries to elicit comprehensive responses, including income loss, food insecurity, school dropout, migration, debt dependence, and adaptive methods. The questionnaire underwent preliminary testing in Char Fasson Upazila and was further refined for clarity, cultural appropriateness, and logical order. Enumerators received training in ethical data collecting, and all interviews were done in Bangla to guarantee language accessibility and respondent comfort.

Qualitative data were gathered via semi-structured guidelines for focus group discussions and key informant interviews. Discussion prompts centered on opinions of the ban's validity, the fairness and efficiency of assistance distribution, coping strategies, governance issues, and recommendations for policy reform. The study also examined gender roles, informal labor dynamics, and perceptions of compliance risks. All sessions were audio-recorded with informed consent, transcribed in Bangla, and subsequently translated into English for analysis

2.5 Data Analysis Procedures

Quantitative data were aggregated in Microsoft Excel and analyzed with SPSS version 26. Descriptive statistics, such as means, frequencies, percentages, and standard deviations, were employed to encapsulate household characteristics and experiences pertaining to the ban and compensation. Cross-tabulations were conducted to examine the relationships between compensation access and factors like income level, land ownership, and union of residence. Chi-square tests were employed to evaluate statistically significant differences among subgroups.

Qualitative data were examined utilizing by six-phase framework: data familiarization, first coding, topic formulation, theme review, definition, and final reporting. An inductive analytical method facilitated the organic emergence of ideas **(Braun and Clarke's, 2006; Happy et al., 2024).** Coding was performed manually, and themes were corroborated through peer debriefing and evaluation by two qualitative research specialists to assure trustworthiness. The primary coding areas were governance issues, perceptions of equity, dynamics of exclusion, coping mechanisms, and perceived efficacy of help

2.6 Ethical Considerations

The research complied with ethical requirements for studies involving human subjects. Informed consent, both verbal and written, was acquired from all participants. No personally identifying information was gathered, and participants were guaranteed secrecy and the freedom to withdraw at any moment without repercussions. The Institutional Research Ethics Committee of the Pathfinder Research and Consultancy Center awarded ethical approval. Field activities were executed in collaboration with local Union Parishads to promote community involvement, transparency, and cultural awareness **(WMA, 2013)**.

2.7 Limitations of the Study

Numerous constraints are recognized. Initially, dependence on self-reported data may have resulted in memory bias, especially about income losses, help received, and coping strategies. The study's geographic scope was confined to Lalmohan Upazila due to logistical limitations, perhaps restricting the generalizability of the findings to other Hilsa-producing areas in Bangladesh. Third, certain respondents, particularly elected officials, exhibited reluctance to candidly discuss politically sensitive issues, such as partiality in assistance distribution, which may limit qualitative depth. However, employing hybrid approaches, triangulation, and peer validation improves the reliability and strength of the findings

3. Results

3.1 Demographic and Livelihood Characteristics

The 150 investigated fishing households in Lalmohan Upazila displayed demographic characteristics aligned with Bangladesh's artisanal fishing community. The mean age of respondents was 42.6 years (SD=9.8), with 90% identifying as male heads of family. Household sizes were notably high, with an average of 5.4 persons (SD=1.4), and 83% were multi-generational in structure. Educational achievement was minimal: 30% of respondents possessed no formal education, while 70% had finished at least elementary education. Among female

responders, illiteracy was much elevated, with 79% indicating a lack of formal education **(Sunny et al., 2019; Islam et al., 2022)**.

Fishing constituted the principal source of income for 71% of families. Secondary income sources were day labor (13%), boat repair (6%), and short-term rural-to-urban migration (3%). A majority (58%) were without land, while 35% depended on rented fishing equipment or vessels. Merely 14% had utilized formal loans or microfinance in the preceding year, highlighting pervasive financial precariousness particularly during prohibition times **(Alam et al., 2023; Sunny et al., 2025a)**.

3.2 Economic Impacts of the Hilsa Fishing Ban

The seasonal ban on Hilsa fishing caused considerable and immediate economic distress. Participants indicated income reductions between 60% and 80% during the two-month shutdown. In all, 87% of families characterized the period as economically "severe" or "very severe," particularly those entirely reliant on Hilsa fishing without additional revenue sources. Borrowing became a prevalent coping mechanism: 42% of households obtained loans from local moneylenders, fish sellers, or informal networks, sometimes at usurious interest rates between 5% and 15% every month **(Hamilton et al., 2021; Fakhruddin et al., 2022)**.

Food insecurity was widespread. Seventy-two percent of households decreased their daily meal frequency, and 38% removed at least one kid from school owing to budgetary limitations. FGD narratives underscored the sometimes-unrecognized labor load shouldered by women, who participated in unpaid post-harvest processing, childcare, and subsistence duties to sustain household operations throughout the ban. Seasonal vulnerabilities, particularly pre-monsoon floods and river erosion, intensified the difficulties faced by people living on low-lying chars (river islands) **(Islam et al., 2016).**

3.3 Compensation Coverage and Aid Distribution Outcomes

Although there is an official government compensation program, only 58% of families reported receiving assistance under the last prohibition. Of them, 61% had delays, frequently obtaining rations over two weeks post-ban initiation, and 19% received less than the stipulated 40 kilos of rice. Disturbingly, 11% admitted to paying unofficial fees or utilizing political contacts to obtain assistance.

The allocation of aid was widely perceived as unjust. Marginalized groups such as landless families, widowed women, and recently moved households were markedly underrepresented among beneficiaries of aid. Merely 24% of families getting assistance comprehended the qualifying requirements; the majority of respondents conveyed bewilderment or mistrust over the selection procedure. Cross-tabulations indicated that households from remote unions, such as Char Jahiruddin, and those in the lowest income quintiles were the least likely to get assistance. Key Informant Interviews with fisheries officials and Union Parishad members identified obsolete registries, inadequate logistics, and political meddling as structural impediments. Focus group discussions reflected similar apprehensions, with participants reporting bias, disinformation, and an absence of remedy. Numerous individuals observed the lack of grievance redress channels; those who challenged their exclusion were frequently branded as troublemakers **(Adam et al., 2024; Sunny et al., 2025b)**.

3.4 Coping Strategies and Adaptive Responses

In the lack of reliable compensation, households employed several risky coping techniques to endure the prohibition. 44% of families reported temporary work migration. Male individuals migrated to metropolitan areas like Barisal and Chattogram for employment in rickshaw-pulling, port labor, or building activities. Women progressively engaged in informal occupations such as shrimp fry gathering, tailoring, and domestic labor; however, their contributions were hardly acknowledged in local administration or remuneration systems **(Mozumder et al., 2023; Oloko et al., 2025)**.

Children also participated in coping strategies. Responsibilities encompassed fish drying, selling, and net mending, prompting apprehensions regarding school dropout and child labor. Numerous responses indicated participation in forward contracts, pre-selling Hilsa Capture post-ban to traders for fast cash or credit. Although the ban addressed immediate requirements, it diminished future revenues and exacerbated family debt cycles (**Mahin et al., 2021; Ifty et al., 2023b)**.

Significantly, several participants confessed to contravening the fishing prohibition by partaking in nocturnal fishing in inadequately supervised regions. Despite recognizing the legal concerns, respondents underscored survival as their primary reason. During focus group discussions, participants expressed a conditional endorsement for the prohibition, stating that conservation became "acceptable" only when basic family needs were satisfied.

3.5 Stakeholder Perspectives on Governance and Legitimacy

Despite much adversity, several participants recognized the ecological basis for the seasonal ban, recognizing its contribution to the rebuilding of Hilsa stocks. This support was significantly conditional and dependent on equitable and prompt reimbursement. A commonly articulated sentiment, “We safeguard the fish; who safeguards us?” captures the apparent disparity between conservation objectives and domestic well-being. Key Informant Interviews with fisheries officers demonstrated a normative commitment to conservation; nevertheless, they also exposed practical limitations such as constrained finances, inadequate interagency collaboration, and external political influences. Union Parishad personnel reported little authority in assistance distribution, emphasizing dependence on pre-approved lists and political middlemen. NGO members articulated challenges in promoting openness due to potential reactions or jeopardized collaborations **(GoB, 2009; UNDP, 2020)**.

Despite prevalent discontent, the majority of participants preferred reform to repeal. Common recommendations included annual updates to digital beneficiary lists, establishment of community-based monitoring committees, and hybrid assistance models integrating rice, cash, and service vouchers. Female participants were particularly outspoken on gender exclusion, emphasizing their crucial contributions to post-harvest work, childcare, and family sustainability (**Chowdhury et al., 2020a)**. They advocated for inclusive planning, disaggregated data, and formal representation within fisheries governance frameworks.

4. Discussion

The findings of this research illustrate the complex relationship between ecological conservation objectives and the socioeconomic vulnerabilities of artisanal fishing communities in Bangladesh. The seasonal ban on Hilsa fishing, which is important for the fish population and generally supported by local communities, struggles to be effectively implemented because of poor management, unfair help distribution, and weak social safety nets **(Chowdhury et al., 2020b; Sarkar et al., 2024)**. These structural flaws diminish policy efficacy and threaten the long-term legitimacy and compliance necessary for sustainable conservation.

The most important result from this research is the degree of livelihood disruption caused by the ban. With income cuts of 60% to 80%, they show similar patterns seen in Chandpur and Barisal **(Sunny et al., 2019; Shaffril et al., 2024)**, while Lalmohan's situation is more complicated because it points out how important areas for wildlife are often ignored and lack support. Lalmohan's vulnerability, worsened by geographic isolation, climate risks, and lack of proper representation, strengthens the negative effects of the ban and reveals significant inequalities in conservation management.

The ubiquitous food insecurity, indicated by 72% of households, and educational disruption, with 38% reporting children dropping out of school, highlight that the ramifications of the prohibition transcend mere financial loss, affecting health, education, and intergenerational development outcomes. These findings correspond with extensive critiques of conservation efforts that neglect the many aspects of poverty and fragility **(Ifty et al., 2023a; Sazzad., et al., 2024)**. Coping strategies like borrowing money informally, moving for work, and women doing unpaid jobs show that families are trying to be strong, but they also reveal serious gaps in support systems and a lack of recognition for certain types of work, especially women's unpaid labor in policy decisions **(Jentoft, 2014; Sunny et al., 2020)**.

The existing rice-based compensation paradigm is evidently inadequate. Merely 58% of families indicated receipt of assistance, with over 60% of those beneficiaries encountering delays or incomplete distributions **(Ferdous, 2023)**. The systematic exclusion of landless fishermen, widowed women, and newly moved families is particularly troubling, as these groups are frequently absent from antiquated records and lack political ties. These omissions exacerbate existing disparities and contravene the equality principles basic to sustainable development. Similar exclusions have been seen in different situations involving resource management when good-intentioned compensation programs accidentally continue to keep certain groups at a disadvantage **(Sunny et al., 2019; Ifty et al., 2024).**

Figure 1. This diagram shows how the policy is supposed to work from rules and regulations to environmental and social results, while pointing out problems in governance like slow assistance, unfair registration processes, and ineffective ways to address complaints.

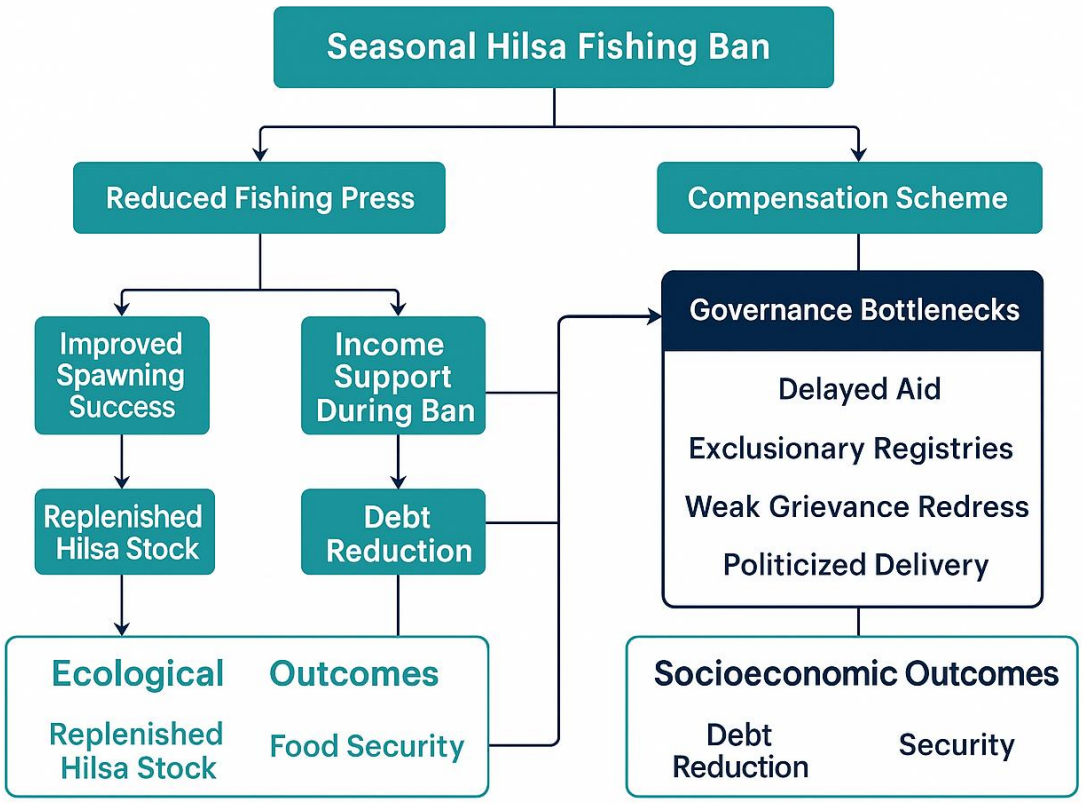

Figure 1. Logic Model of the Hilsa Ban

Political intervention further diminishes the integrity of the system. Focus Group Discussions and Key Informant Interviews regularly highlight informal fees, patronage networks, and ambiguous help selection processes. These challenges exemplify profound governance flaws in rural Bangladesh, where access to state benefits frequently depends on political allegiance **(Bladon et al., 2016; Cooke et al., 2018).** The lack of grievance resolution channels intensifies the issue, leaving households without official recourse and cultivating distrust in public institutions. The decline in fair processes reduces people's willingness to follow conservation rules and weakens their care for environmental goals, a pattern seen globally in how fisheries and forestry are managed **(Tanner et al., 2015; Sazzad., et al., 2025)**.

Figure 2 illustrates a stakeholder mapping that elucidates these power imbalances. Fishing communities and NGOs, despite their strong commitment to conservation results, lack significant institutional authority. Conversely, the Ministry of Fisheries and enforcement agencies, while impactful, frequently function apart from actual conditions. The disparity between influence and interest results in implementation gaps, diminishes local ownership, and obstructs adaptive government solutions **(Sunny et al., 2021; Islam et al., 2025)**.

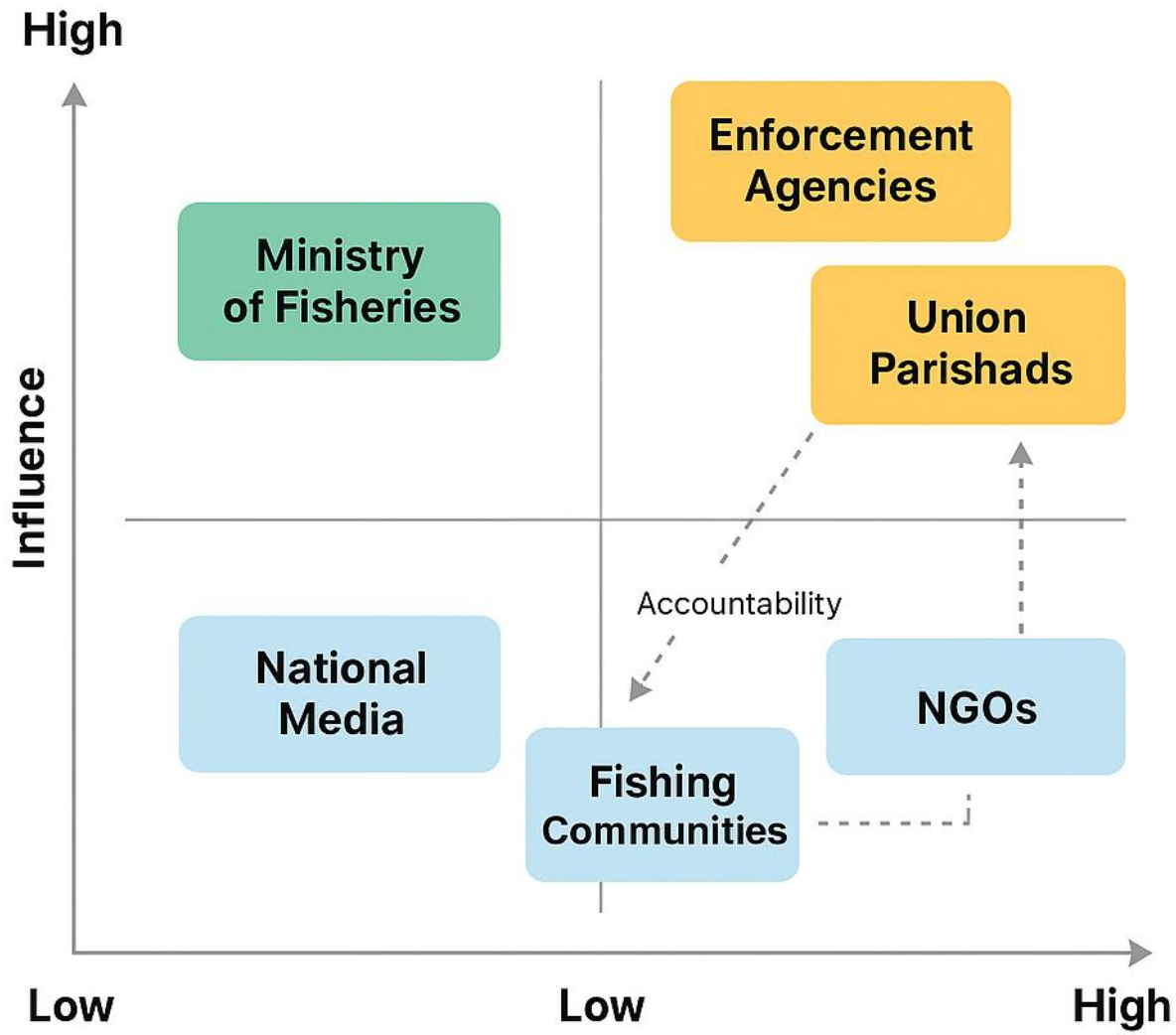

Figure 2. Stakeholder Mapping in Hilsa Fishery Governance

It presents the dynamics of interest and influence among various stakeholders, including fishing communities, NGOs, local politicians, and state authorities. These findings indicate the necessity for institutional transformation rather than the abandoning of policy **(Islam et al., 2018; Eckstein et al., 2021; Tiva et al., 2025b)**. Participants suggested practical and relevant improvements: updating beneficiary lists every year using digital tools, creating community oversight committees, and offering different types of compensation (like combining rice with cash, educational help, or healthcare vouchers). These recommendations align with optimal practices in participatory governance and adaptive policy formulation **(Haque et al., 2022; Hossain et al., 2024; Akhter et al., 2025).**

Gender has surfaced as a significant, although little acknowledged, dimension of exclusion. Although women play essential roles in post-harvest processing, caregiving, and income supplementation during the ban, they are seldom considered in fisheries governance or acknowledged in compensation systems **(Urbi & Tiva, 2025)**. FGD narratives emphasized the critical necessity for gender-disaggregated data, formal female representation,

and acknowledgment of women's labor in policymaking. These requests reflect worldwide appeals for intersectional and gender-equitable conservation techniques **(Arora-Jonsson, 2011; Resurrección, 2017).**

The research further identifies previously overlooked opportunities for cross-sector integration. Fisheries compensation programs are isolated from wider social protection initiatives, such as the Employment Generation Program for the Poorest (EGPP) and the Vulnerable Group Development (VGD) program, although they target similar demographics **(Rana et al., 2023; Mithun et al., 2024)**. Improved alignment across these systems might boost support continuity, minimize administrative redundancy, and fortify home resilience **(Tiva et al., 2025a)**. The lack of occupational training during Prohibition times also restricts long-term adaptation, especially for young people and women. The findings advocate for a shift from centralized, uniform governance models to more decentralized, inclusive, and contextually relevant methods **(Chowdhury et al., 2022; Hazra et al., 2022)**. Transparency, accountability, and community engagement are fundamental to attaining sustainable conservation results **(Ravera et al., 2016; Chowdhury et al., 2021)**.

This study emphasizes the lived experiences of landless, female-headed, and geographically isolated families; therefore, it enhances the existing literature on environmental justice in the Global South. It emphasizes that the effectiveness of conservation must be assessed not alone by ecological indicators, but also by values of equality, fairness, and human dignity. The Hilsa fishing prohibition, while environmentally vital, can only be sustainable if enforced via governance frameworks that safeguard both the fish and the communities reliant on them.

5. Conclusion

This study emphasizes the ongoing conflict between ecological demands and socioeconomic fairness in the regulation of fisheries in Bangladesh. The seasonal Hilsa fishing restriction, although scientifically warranted and generally supported by impacted communities, suffers from poor, inconsistent, and discriminatory execution. Evidence from Lalmohan Upazila indicates that the lack of prompt, inclusive, and transparent compensation diminishes policy credibility and reduces community adherence. Over 40% of polled households indicated they received no assistance, while several others encountered delays, deficiencies, or restricted access. Marginalized populations, including landless families, widowed women, and recently moved fishermen, were persistently marginalized owing to antiquated records, political bias, and insufficient accountability. These deficiencies exacerbate livelihood uncertainty and result in detrimental coping mechanisms such as informal borrowing, school abandonment, and illicit fishing. Despite these hurdles, fishing communities articulated robust conditional support for the ban, underscoring their dedication to conservation contingent upon the fulfillment of their fundamental needs and the meaningful inclusion of their perspectives in governance.

This research proposes a series of pragmatic recommendations to enhance the equity and efficacy of the Hilsa fishing ban: The study suggests several practical changes to make the Hilsa fishing ban fairer and more effective: The suggested changes include updating compensation lists every year, using technology, letting local groups manage aid distribution, providing different types of support like cash, vouchers, or services besides rice, creating ways for people to voice their complaints, offering job training for various livelihoods, considering gender in planning and data collection, connecting fisheries support with national social protection programs, and creating a specific plan for fisheries social protection. These changes will turn the Hilsa fishing ban into a

more caring conservation tool that protects both biodiversity and the dignity of the people who depend on it. These improvements will transform the Hilsa fishing ban from a simple regulatory constraint into a socially responsive conservation instrument that safeguards biodiversity and the dignity of people reliant on it

Funding

This work had no outside funding.

Author Contribution

The authors were involved in the creation of the study design, data analysis, and execution stages. Every writer gave their consent after seeing the final work.

Acknowledgments

We would like to thank the community people and other stakeholders for their valuable information

A statement of conflicting interests

The authors declare that none of the work reported in this study could have been impacted by any known competing financial interests or personal relationships.

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