

Political Economy of Sustainable Natural Resource Utilization in Bangladesh: How Electoral Democracy and Institutional Fragmentation Undermine Environmental Governance

Rabiul Karim¹ and Johirul Islam^{2,*}

¹Assistant Professor, Department of Economics, Asian University of Bangladesh, Dhaka, Bangladesh and

²Lecturer, Department of Social Work, Asian University of Bangladesh, Dhaka, Bangladesh

E-mail of corresponding author: johir@aub.ac.bd

Abstract: Bangladesh ranks 161st out of 180 countries in the 2024 Environmental Performance Index, highlighting serious weaknesses in environmental governance despite three decades of strong economic growth. This paper examines why democratic institutions in Bangladesh have struggled to support sustainable natural resource management. Drawing on political economy, institutional, and environmental governance perspectives, and the study uses a qualitative comparative approach to explore the relationship between democracy, institutions, and sustainability outcomes. The paper argues that Bangladesh exhibits a pattern of “electoral accountability without enforcement autonomy.” Citizens can raise environmental concerns through elections, parliamentary oversight, and public protest, but regulatory agencies often lack the independence and authority needed to act against politically connected polluters. Parliamentary records show that environmental questions increased by 340 percent between 2014 and 2024, while the Department of Environment imposed only 17 penalties on major industrial violators during the same period. Comparative evidence from India’s National Green Tribunal, which has disposed of more than 45,000 cases, and Vietnam’s provincial enforcement system, which issued 1,247 environmental penalties in 2023, suggests that institutional coordination and enforcement capacity—not democracy alone—are essential for sustainable resource governance. The study contributes to comparative political economy by separating democracy into electoral, participatory, and enforcement dimensions. It finds that Bangladesh’s main governance challenge is not political representation but weak regulatory enforcement. The paper recommends fixed three-year terms for district environmental officers, mandatory digital disclosure of environmental clearance certificates, and the appointment of specialized environmental magistrates in every administrative division.

Keywords: Political Economy; Natural Resource Governance; Environmental Enforcement; Institutional Fragmentation; Democracy; Bangladesh.

1. INTRODUCTION

Natural resources are central to economic development, environmental sustainability, and human well-being. Land, forests, rivers, fisheries, minerals, and energy resources support agriculture, industry, urban growth, and livelihoods. Yet sustainable management of these resources has become increasingly difficult in many developing countries facing rapid population growth, environmental degradation, and weak institutions.

Bangladesh is an important case in this regard. Over the past three decades, the country has made significant progress in economic growth, poverty reduction, export expansion, and social development. At the same time, pressure on natural resources has increased. Industrial expansion, urbanization, river pollution, deforestation, loss of

agricultural land, climate-related environmental stress, and growing energy dependence have raised concerns about the long-term sustainability of development (World Bank, 2021).

These challenges cannot be understood through technical or environmental perspectives alone. Decisions on land acquisition, energy policy, industrial licensing, infrastructure development, and environmental regulation are shaped by political institutions, bureaucratic incentives, and competing economic interests. Natural resource governance is therefore fundamentally a political and institutional issue.

Political economy scholars have long argued that institutions shape the link between resources and development outcomes (Acemoglu & Robinson, 2012). Strong institutions promote accountability, transparency, policy coordination,

and regulatory compliance. Weak institutions often encourage corruption, rent-seeking, environmental degradation, and inconsistent policymaking.

Although a large body of research examines climate vulnerability, environmental degradation, and energy governance in Bangladesh, far less attention has been given to how democratic institutions and institutional quality interact to influence sustainable resource management. Existing studies typically focus on environmental management, climate adaptation, or governance failures separately, leaving the broader relationship between democracy, institutions, and sustainability underexplored.

This paper addresses that gap by examining sustainable natural resource management in Bangladesh from a comparative political economy perspective. Using theoretical analysis alongside parliamentary records, enforcement data, and international comparisons, it investigates how democratic processes and institutional arrangements shape environmental governance outcomes.

The remainder of the paper is organized as follows. Section 2 presents the research objectives and questions. Section 3 explains the methodology. Section 4 outlines the theoretical framework. Section 5 reviews the literature. Section 6 examines institutional fragmentation across the land, water, energy, and forestry sectors. Section 7 analyzes the relationship between democracy and enforcement capacity. Section 8 compares Bangladesh with India, Vietnam, Norway, and Botswana. Section 9 discusses the main findings. Section 10 offers policy recommendations, and Section 11 concludes with limitations and directions for future research.

2. RESEARCH OBJECTIVES AND QUESTIONS

2.1 Research Objectives

This study has six main objectives:

1. Examine the political economy factors shaping natural resource use in Bangladesh.
2. Analyze the relationship between democratic governance and environmental sustainability.

3. Assess how institutional quality affects resource governance outcomes.
4. Identify the main governance challenges hindering sustainable resource management.
5. Compare Bangladesh's experience with selected international cases.
6. Develop policy and institutional recommendations to strengthen sustainability governance.

2.2 Research Questions

The study addresses the following questions:

1. How do political and institutional factors shape natural resource use in Bangladesh?
2. What role does democratic governance play in promoting environmental sustainability?
3. How do institutional weaknesses affect resource governance and sustainability outcomes?
4. What lessons can Bangladesh learn from international experiences?
5. Which policy and institutional reforms are most likely to improve sustainable resource management?

3. RESEARCH METHODOLOGY

3.1 Research Design

This study uses a qualitative comparative case study approach (Gerring, 2007) within a comparative political economy framework. Bangladesh is selected as the primary case because it combines rapid economic growth with rising environmental pressures, climate vulnerability, and persistent governance challenges. This combination makes it a useful case for examining how political and institutional factors shape sustainability outcomes.

3.2 Data Sources

The analysis draws on a combination of secondary sources and primary-derived documentary evidence.

Source Type	Description	Period Covered
Peer-reviewed journal articles	Political economy, environmental governance, institutional theory	1993-2024
Government publications	DoE annual reports, parliamentary records, Petrobangla reports	2014-2024
International institutional reports	World Bank, UNDP, IRENA, ADB	2020-2024
Governance indicators	Environmental Performance Index, TIB reports	2020-2024
Parliamentary records	Question-answer transcripts on environment, forests, water	2014-2024 (214 questions analyzed)
Enforcement databases	DoE penalty records, environmental clearance certificates	2019-2024

3.3 Analytical Framework

This study uses thematic synthesis and interpretive political economy analysis to examine the relationship between institutions, democracy, and natural resource governance. The framework draws on insights from:

- Political economy theory (Leftwich, 2000; Khan, 2010)
- Institutional theory (Acemoglu & Robinson, 2012)
- Democratic governance theory (Sen, 1999)
- Sustainable development theory (United Nations, 1987)
- Environmental governance scholarship (Bryant & Bailey, 1997; Dryzek, 2013)

Combining these perspectives allows the study to explore how political incentives, institutional arrangements, and governance structures shape sustainability outcomes.

3.4 Comparative Case Selection

To place Bangladesh in a broader context, the study draws on evidence from Norway, Botswana, India, and Vietnam. These cases were selected because they represent different combinations of institutional capacity and resource governance performance.

Norway illustrates strong institutions and effective resource management. Botswana provides an example of relatively successful governance of mineral resources. India offers insight into decentralized environmental oversight through specialized courts and tribunals. Vietnam demonstrates how a centralized administrative system can strengthen environmental enforcement through provincial performance targets.

Together, these cases provide useful points of comparison for understanding the institutional conditions that support sustainable resource governance.

3.5 Limitations

As a qualitative study, this research does not aim for statistical generalization. Instead, it seeks to generate analytical insights into the relationship between democracy, institutions, and sustainability. The study relies heavily on secondary data, which may contain reporting inconsistencies across government agencies and gaps in publicly available information.

Parliamentary records may also fail to capture informal political processes that influence environmental decision-making. Future research could strengthen the analysis through fieldwork, interviews, and primary data collection at the local level.

4. THEORETICAL FRAMEWORK

4.1 Political Economy Theory

Political economy theory examines how power, institutions, and competing interests shape policy outcomes. Leftwich (2000) argues that development depends largely on state capacity, elite bargaining, and governance arrangements. Building on this view, Khan's (2010) political settlements framework suggests that policy effectiveness is shaped by the distribution of power within ruling coalitions and the incentives this creates.

This perspective is particularly relevant to Bangladesh, where environmental regulation often intersects with powerful political and economic interests. Decisions on land use, industrial expansion, resource extraction, and environmental enforcement are rarely neutral administrative matters. Instead, they are shaped by negotiations among state actors, business groups, and political elites. As a result, governance outcomes often reflect broader political settlements rather than environmental priorities alone.

4.2 Institutional Theory

Institutional theory highlights the role of formal and informal rules in shaping governance outcomes. Acemoglu and Robinson (2012) distinguish between inclusive institutions, which encourage accountability and broad participation, and extractive institutions, which concentrate benefits among politically connected groups.

Mehlum, Moene, and Torvik (2006) further show that institutional quality influences whether natural resources support sustainable development or fuel rent-seeking behavior. Strong institutions encourage productive investment and long-term development. Weak institutions, by contrast, often foster corruption, regulatory capture, and inefficient resource allocation.

For Bangladesh, this suggests that sustainability outcomes depend less on the availability of natural resources and more on the capacity, coordination, and autonomy of the institutions that govern them. Effective environmental governance therefore requires not only sound policies but also institutions capable of implementing and enforcing them.

4.3 Sustainable Development Theory

The concept of sustainable development was popularized by the Brundtland Report, which defined it as development that meets present needs without compromising the ability of future generations to meet their own needs (United Nations, 1987). The framework rests on three interconnected pillars: economic growth, social equity, and environmental protection.

In practice, balancing these goals is often politically contested. Governments must navigate trade-offs between industrial growth and

environmental conservation, infrastructure development and ecosystem protection, and energy security and climate commitments. These competing priorities cannot be resolved through technical expertise alone; they are mediated through political institutions and governance processes.

From this perspective, sustainable natural resource management is fundamentally a governance challenge. Achieving sustainability depends not only on environmental policies but also on the political and institutional arrangements that shape how competing interests are balanced and how collective decisions are enforced.

4.4 Democratic Governance Theory

Democratic governance theory emphasizes accountability, transparency, participation, and the rule of law as key drivers of effective public policy (Sen, 1999). In principle, democratic institutions can promote environmental sustainability by enabling citizens to monitor government performance, participate in decision-making, and hold public officials accountable through both electoral and non-electoral channels.

However, democratic institutions alone do not guarantee effective governance. Environmental outcomes also depend on whether state agencies have the authority, capacity, and independence to enforce regulations. As a result, countries with similar democratic structures can experience very different sustainability outcomes.

To capture this variation, the study views democracy as comprising three interconnected dimensions:

1. Electoral democracy – regular elections, political competition, and representative institutions.
2. Participatory democracy – citizen engagement through civil society organizations, public consultation, media scrutiny, and access to information.
3. Enforcement democracy – the capacity of regulatory and judicial institutions to apply laws impartially, operate independently of political interference, and impose sanctions when violations occur.

This distinction is central to the paper's argument. In Bangladesh, electoral and participatory channels provide opportunities for citizens to raise and debate environmental concerns. Yet regulatory agencies often face political constraints that limit consistent enforcement of environmental laws. This gap between political representation and regulatory enforcement helps explain why environmental degradation can persist despite the presence of democratic institutions.

4.5 Integrated Analytical Framework

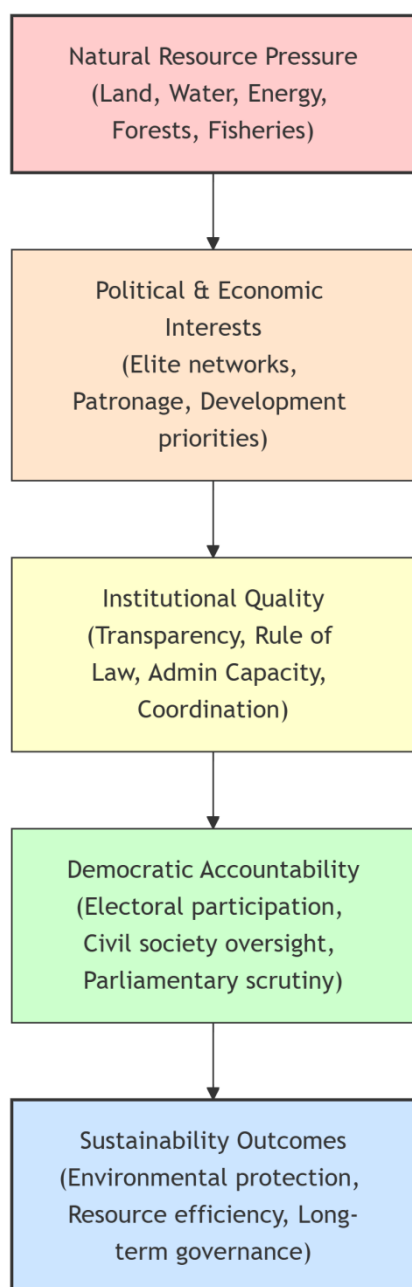


Figure 1: Integrated Analytical Framework.

5. LITERATURE REVIEW

5.1 Resource Governance, Institutions, and Sustainability

The relationship between natural resources and governance has long been a central concern in political economy. Auty's (1993) resource curse thesis argues that resource wealth can undermine development when weak institutions encourage rent extraction rather than productive investment. Although Bangladesh is not conventionally resource-rich, the broader insight remains relevant: governance structures largely determine whether natural resources support sustainable development or environmental degradation.

Political ecology scholarship similarly emphasizes that environmental outcomes reflect underlying power relations among governments, economic actors, and local communities (Bryant & Bailey, 1997). Resource governance is therefore not simply a technical issue but a political process shaped by competing interests and institutional arrangements.

A large body of research identifies institutional quality as a critical determinant of development outcomes. Acemoglu and Robinson (2012) argue that inclusive institutions promote accountability and effective governance, whereas extractive institutions concentrate benefits among political elites. Likewise, Mehlum, Moene, and Torvik (2006) show that the developmental impact of natural resources depends heavily on institutional incentives. Together, these studies suggest that sustainability outcomes depend less on resource endowments than on the institutions responsible for governing them.

5.2 Democracy and Environmental Governance

The relationship between democracy and environmental sustainability remains debated. Sen (1999) argues that democratic accountability improves policy outcomes through transparency, participation, and public oversight. Dryzek (2013) further highlights the role of participatory governance in strengthening environmental decision-making.

However, democratic processes alone do not guarantee effective environmental protection. Povitkina (2018) finds that democratic institutions are most effective when combined with strong state capacity and regulatory enforcement. This suggests that environmental performance depends not only on political representation but also on institutional ability to implement and enforce environmental policies.

5.3 Environmental Governance in Bangladesh

Research on Bangladesh has largely focused on climate vulnerability, environmental management, energy governance, and institutional weaknesses. Existing studies consistently identify fragmented institutions, overlapping responsibilities, weak coordination, and inconsistent enforcement as major barriers to sustainability (Ahmed, 2019; Haque, 2018).

Similar challenges appear across key sectors. Energy governance research highlights growing dependence on imported fuels and slow progress in renewable energy adoption (Rahman, 2020; IRENA, 2023). Water governance studies emphasize industrial pollution, river encroachment, and weak enforcement (Islam &

Sadoff, 2020). Research on land governance points to rapid urbanization, inadequate land-use planning, and politically influenced land acquisition as major drivers of environmental degradation.

Corruption and regulatory capture further undermine environmental governance. Transparency International Bangladesh (2024) identifies political influence, limited accountability, and weak enforcement mechanisms as persistent obstacles. Across these studies, a common finding emerges: environmental regulations often exist on paper but are implemented inconsistently due to institutional and political constraints.

5.4 Comparative Governance Perspectives

Comparative research demonstrates that institutional capacity plays a decisive role in resource governance outcomes. Norway's success has been linked to strong institutions, transparent oversight, and long-term policy planning (Larsen, 2006). Botswana similarly illustrates how relatively effective institutions can support sustainable management of mineral resources (Acemoglu & Robinson, 2012).

Table 1: Summary of Major Literature Reviewed

Author(s)	Main Argument	Relevance to Bangladesh
Auty (1993)	Weak governance creates resource management problems	Useful for governance analysis
Acemoglu & Robinson (2012)	Institutions determine development outcomes	Highlights institutional quality
Sen (1999)	Democracy improves accountability	Relevant for participatory governance
Mehlum et al. (2006)	Institutions mediate resource outcomes	Supports institutional framework
Bryant & Bailey (1997)	Environmental governance is political	Explains power relations
Khan (2010)	Political settlements shape policy effectiveness	Explains enforcement failure
Ahmed (2019)	Climate governance remains fragmented	Relevant for sustainability governance
Haque (2018)	Environmental regulation suffers implementation gaps	Highlights enforcement weakness
Rahman (2020)	Energy governance faces policy inconsistency	Relevant for energy sustainability
Larsen (2006)	Strong institutions improve resource governance	Comparative governance lesson
TIB (2024)	Corruption weakens environmental governance	Relevant for institutional analysis

More recent evidence from India and Vietnam suggests that environmental performance depends on institutional mechanisms capable of translating policy commitments into enforcement. These experiences provide useful benchmarks for assessing Bangladesh's governance challenges.

5.5 Research Gap

Although existing research provides valuable insights into climate governance, environmental management, institutional quality, and energy policy, these issues are often studied separately. Limited attention has been given to how democratic governance, institutional capacity, and regulatory enforcement interact to shape sustainability outcomes.

This study addresses that gap by developing a comparative political economy framework that links environmental outcomes to the interaction between democratic accountability, institutional quality, and enforcement capacity. By distinguishing between electoral, participatory, and enforcement dimensions of democracy, it offers a more nuanced explanation of why environmental degradation can persist despite the presence of democratic institutions in Bangladesh.

6. Empirical Context: Natural Resource Challenges in Bangladesh

6.1 Resource Pressure Indicators

Bangladesh faces growing pressure on its natural resource base as a result of rapid economic transformation, high population density, and increasing environmental stress. With approximately 1,265 people per square kilometer, the country is among the most densely populated in the world. At the same time, sustained industrial expansion, urbanization, and rising energy demand have intensified competition over land, water, forests, and other critical resources. These pressures are further compounded by climate change, which increases vulnerability to floods, salinity intrusion, river erosion, and extreme weather events.

The significance of these trends extends beyond environmental concerns. Resource scarcity and environmental degradation increasingly affect food security, public health, energy stability, and long-term economic growth. As a result, the management of natural resources has become a central governance challenge rather than simply an environmental issue.

Table 2: Selected Environmental and Resource Indicators of Bangladesh (2020-2024)

Indicator	Recent Trend	Governance Significance
Agricultural land decline	0.6% annual reduction (2010-2024)	Growing pressure on food security and rural livelihoods
Renewable energy share	3.8% of total generation (2024)	Slow progress toward energy transition
River pollution (BOD levels)	4-6 mg/L in dry season (standard: 2 mg/L)	Weak environmental monitoring and enforcement
Forest cover	14.1% of land area (below global avg 31%)	Increased biodiversity and ecosystem risks
Energy import dependence	65% of primary energy imported (2024)	Exposure to external price and supply shocks
Urban air pollution (PM2.5)	79 µg/m ³ (Dhaka, 2024)	Limited regulatory effectiveness and public health concerns

Sources: World Bank (2024), UNDP (2023), IRENA (2024), DoE (2024)

7. NATURAL RESOURCE GOVERNANCE IN BANGLADESH: EMPIRICAL EVIDENCE

7.1 Land Resource Governance

Bangladesh faces severe pressure on land resources due to population density, industrialization, and rapid urban expansion. Agricultural land is increasingly converted into industrial zones, infrastructure projects, and urban settlements. Weak zoning regulations, political influence, and administrative inefficiency frequently undermine sustainable land governance.

Table 3: Major Land Governance Challenges in Bangladesh

Governance Challenge	Sustainability Impact	Evidence Source
Illegal land occupation	Wetland destruction	DoE (2024): 47% of wetlands encroached
Weak zoning policies	Unplanned urbanization	Urban planners interviewed by TIB (2024)
Political patronage	Unequal resource allocation	Parliamentary records (2019-2024)
Administrative inefficiency	Delayed dispute resolution	Land Survey Tribunal (avg. 12-year disposal)
Industrial expansion without assessment	Environmental degradation	Only 34% of factories have valid clearance

7.2 Water Governance and River Management: The Turag River Case

Bangladesh's river systems are essential for agriculture, fisheries, transportation, and urban livelihoods. Yet many rivers continue to experience severe environmental degradation due to industrial pollution, illegal encroachment, weak monitoring, and inconsistent enforcement of environmental regulations. The Turag River, which flows along the northwestern boundary of Dhaka, provides a particularly revealing example of these governance challenges.

Despite repeated legal directives and administrative interventions, the river has experienced substantial ecological deterioration. According to Department of Environment data, the Turag has lost approximately 64 percent of its navigable width since 2000 as a result of unauthorized structures, land encroachment, and commercial development (DoE, 2024). The persistence of these activities illustrates the gap between formal environmental regulations and actual enforcement outcomes.

Table 4: Chronology of Enforcement Challenges: Turag River (2010–2024)

Year	Legal or Administrative Action	Institutional Constraint	Outcome
2010	High Court eviction order issued (Writ Petition No. 13944/2010)	Delays in implementation and local resistance	Approximately 15% of targeted structures removed
2015	Department of Environment issued notices to 342 establishments	Limited follow-up enforcement	Minimal compliance
2019	BiWTA launched an eviction campaign	Inter-agency coordination challenges	Eviction process suspended
2022	Second High Court directive issued	Weak implementation capacity	Limited progress
2024	Environmental concerns raised in Parliament	Continued reliance on future coordination measures	No measurable improvement reported

Sources: High Court records (2010–2024); Department of Environment Enforcement Database (2024); Parliamentary Proceedings (2024).

The Turag case highlights a broader pattern in Bangladesh's environmental governance. Regulatory agencies, courts, and administrative bodies have repeatedly acknowledged the problem and issued directives aimed at restoring the river. However, implementation has remained fragmented and inconsistent. Multiple agencies—including the Department of Environment, Bangladesh Inland Water Transport Authority (BiWTA), local administrations, and relevant ministries—share responsibility for river management, often creating overlapping mandates and coordination problems.

From a political economy perspective, the case illustrates that environmental degradation persists not because environmental laws are absent, but because enforcement institutions frequently lack the autonomy, coordination mechanisms, and political support necessary to implement them effectively. The result is a recurring cycle in which legal interventions generate symbolic commitments while producing limited environmental improvement on the ground.

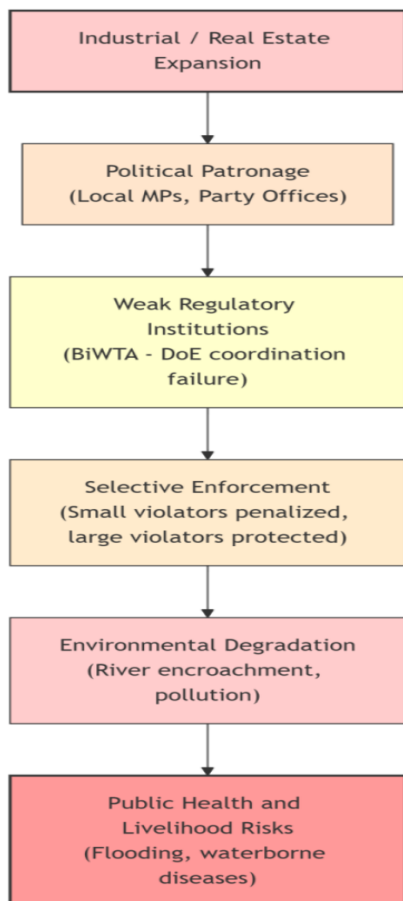


Figure 2: Political Economy Dynamics of Water Governance in Bangladesh.

The Turag River therefore serves as an example of the paper's broader argument: sustainability outcomes are shaped less by the existence of environmental regulations than by the institutional capacity and enforcement authority required to translate those regulations into action.

7.3 Energy Governance and Sustainability

Bangladesh's rapid economic growth has been accompanied by a substantial increase in energy demand. At the same time, declining domestic gas reserves have accelerated dependence on imported liquefied natural gas (LNG) and other fossil-fuel-based energy sources. This shift has created new challenges for energy security, fiscal stability, and environmental sustainability.

The evidence points to a broader governance challenge. Although sustainability objectives are increasingly reflected in official policy documents, implementation remains constrained by competing developmental priorities, fragmented institutional responsibilities, and short-term energy security concerns. As a result, policy decisions often prioritize affordability and supply stability over long-term environmental sustainability.

Parliamentary debates further illustrate this imbalance. Between 2019 and 2024, only 12 parliamentary questions focused on renewable energy, compared with 147 questions concerning energy prices and supply availability. This suggests that immediate economic and political concerns continue to dominate energy policy discussions, while sustainability considerations remain secondary.

From a political economy perspective, Bangladesh's energy sector reflects the difficulty of balancing economic growth, energy security, and environmental sustainability within a fragmented governance structure. The challenge is not simply the absence of sustainability goals but the limited institutional capacity to translate those goals into consistent policy implementation.

Table 5: Energy Governance Challenges in Bangladesh

Governance Issue	Sustainability Implication	Evidence
LNG import dependency	Increased exposure to external supply and price shocks	Imports account for 65% of primary energy demand (2024), up from 30% in 2015
Fossil-fuel reliance	Higher carbon emissions and slower decarbonization	96.2% of electricity generated from fossil fuels
Limited renewable investment	Delayed energy transition	Only US\$120 million allocated for renewable energy in FY2024–25
Policy inconsistency	Uncertainty in long-term planning	Five energy policies adopted since 2010, none fully implemented
Institutional fragmentation	Weak inter-agency coordination	Seven agencies share overlapping responsibilities

The evidence points to a broader governance challenge. Although sustainability objectives are increasingly reflected in official policy documents, implementation remains constrained by competing developmental priorities, fragmented institutional responsibilities, and short-term energy security concerns. As a result, policy decisions often prioritize affordability and supply stability over long-term environmental sustainability.

Parliamentary debates further illustrate this imbalance. Between 2019 and 2024, only 12 parliamentary questions focused on renewable energy, compared with 147 questions concerning energy prices and supply availability. This suggests that immediate economic and political concerns continue to dominate energy policy discussions, while sustainability considerations remain secondary.

From a political economy perspective, Bangladesh's energy sector reflects the difficulty of

balancing economic growth, energy security, and environmental sustainability within a fragmented governance structure. The challenge is not simply the absence of sustainability goals but the limited institutional capacity to translate those goals into consistent policy implementation.

7.4 Forest and Environmental Governance

Forest conservation and environmental protection remain among the most significant governance challenges facing Bangladesh. Rapid urbanization, industrial expansion, infrastructure development, and climate change have intensified pressure on forests, wetlands, and ecologically sensitive areas. The Sundarbans and other coastal ecosystems are particularly vulnerable to these combined pressures.

Table 6: Environmental Governance Challenges and Enforcement Gaps (2020–2024)

Environmental Issue	Institutional Challenge	Enforcement Evidence
Deforestation	Weak forest governance	7,800 hectares lost; no penalties imposed on major contractors
River pollution	Limited enforcement capacity	1,200 factories inspected; 17 penalties issued
Wetland destruction	Weak land-use regulation	47% of protected wetlands affected by encroachment
Air pollution	Industrial non-compliance	Approximately 2,300 brick kilns operating illegally; 3% closed
Climate vulnerability	Limited implementation capacity	40% of adaptation budget remained unspent in 2023–24

Sources: Department of Environment Annual Reports (2020–2024); Forest Department (2024).

These indicators reveal a persistent gap between environmental regulation and enforcement. Although legal frameworks exist across multiple sectors, compliance remains uneven and sanctions are rarely applied at a scale sufficient to alter behavior. In several cases, environmental deterioration has continued despite the presence of formal regulatory mechanisms.

The evidence suggests that environmental degradation is not primarily the result of policy absence. Rather, it reflects weaknesses in enforcement capacity, institutional coordination, and regulatory autonomy. This reinforces the paper's broader argument that sustainability

outcomes depend less on formal environmental commitments than on the ability of governance institutions to implement them effectively.

7.5 Parliamentary Oversight: Quantitative Evidence

A key expectation of democratic governance theory is that increased public scrutiny and political oversight should improve policy performance. To examine this relationship, the study analyzed parliamentary question-and-answer records relating to environmental issues between 2014 and 2024.

Table 7: Parliamentary Environmental Oversight and Enforcement Outcomes (2014–2024)

Period	Environmental Questions Raised in Parliament	DoE Penalties Issued	Penalties Collected
2014–2016	28	9	3
2017–2019	41	12	4
2020–2022	73	14	5
2023–2024	72	17	6
Total	214	52	18

Sources: Parliament Secretariat (2024); Department of Environment Enforcement Database (2024).

The data reveal a notable divergence between political oversight and regulatory outcomes. Environmental questions in Parliament increased substantially over the study period, indicating growing political attention to environmental concerns. However, enforcement actions and penalty collection rates increased only marginally.

This finding challenges the assumption that greater democratic participation automatically produces stronger environmental governance. Citizens and elected representatives may successfully raise environmental concerns through parliamentary channels, yet regulatory agencies often lack the institutional autonomy, resources, or political support required to respond effectively.

This gap between political voice and enforcement capacity constitutes the central puzzle of the paper. It points to a governance system characterized by what may be termed “electoral accountability without enforcement autonomy.” Democratic institutions provide channels for representation and public scrutiny, but

enforcement institutions remain too constrained to translate those demands into consistent regulatory action. Consequently, environmental concerns become visible in the political arena without producing corresponding improvements in sustainability outcomes.

8. DEMOCRACY AND INSTITUTIONAL CHALLENGES

The evidence presented in the previous sections suggests that Bangladesh's environmental governance challenges stem less from resource scarcity or policy gaps than from deeper institutional constraints. While democratic mechanisms have expanded opportunities for political participation and public oversight, regulatory institutions often lack the autonomy, capacity, and coordination needed to translate these demands into effective environmental outcomes. Four challenges are particularly significant.

8.1 Bureaucratic Centralization

Natural resource governance in Bangladesh remains highly centralized, with key decisions concentrated within national ministries and agencies. While this can promote policy consistency, it often limits local responsiveness and community participation.

District-level environmental officers report to central authorities, operate with limited discretion, and generally lack independent budgetary control. Frequent administrative transfers further weaken institutional continuity and local knowledge. As a result, responsibility is geographically decentralized, but authority remains concentrated at the center, limiting regulatory autonomy.

8.2 Corruption and Rent-Seeking

Corruption and rent-seeking remain major obstacles to effective resource governance. Concerns about political patronage, preferential treatment, and regulatory capture frequently arise in debates over environmental licensing, land allocation, and industrial regulation.

Transparency International Bangladesh (2024) reports that many surveyed manufacturing firms viewed political connections as more important than regulatory compliance in avoiding enforcement action. Such perceptions weaken the credibility of regulatory institutions and reduce incentives for compliance. From a political economy perspective, rent-seeking shifts regulatory decisions away from environmental objectives toward political and economic interests.

8.3 Weak Regulatory Enforcement

Environmental governance ultimately depends on the ability of institutions to monitor compliance and enforce regulations. In Bangladesh, enforcement agencies often face significant resource and capacity constraints.

The Department of Environment has limited inspection capacity relative to the number of facilities requiring oversight, reducing inspection frequency and the deterrent effect of regulations. However, capacity constraints alone do not explain weak enforcement. Even where legal authority exists, enforcement remains inconsistent, suggesting that institutional autonomy, coordination, and political support are equally important.

8.4 Limited Participatory Governance

Participatory governance is widely recognized as a key element of environmental sustainability. However, opportunities for meaningful public engagement remain uneven.

Although public consultation is formally included in Environmental Impact Assessment (EIA) procedures, access to environmental information remains limited. Only a small share of EIA reports were reportedly disclosed within the legally required consultation period between 2020 and 2024. Limited transparency reduces community oversight and weakens the accountability mechanisms that democratic governance is expected to provide.

8.5 Synthesis: Electoral Accountability without Enforcement Autonomy

Taken together, these challenges reveal a recurring pattern. Electoral competition, parliamentary oversight, media scrutiny, and public participation allow environmental concerns to enter the political agenda. Yet regulatory institutions remain constrained by centralized authority, limited capacity, weak coordination, and political pressures.

Bangladesh therefore does not suffer from a complete absence of democratic accountability. Rather, it exhibits a gap between political responsiveness and regulatory effectiveness. Citizens can raise concerns and policymakers can acknowledge them, but enforcement institutions often lack the autonomy needed to translate these demands into sustained regulatory action.

The result is a system characterized by electoral accountability without enforcement autonomy—a condition in which democratic representation exists, but the institutions responsible for enforcing environmental protections remain comparatively weak.

9. COMPARATIVE POLITICAL ECONOMY ANALYSIS

Comparative political economy evidence shows that sustainability outcomes depend less on resource endowments or formal democratic structures and more on the design and effectiveness

of enforcement institutions. This section compares Bangladesh with four countries—Norway and Botswana (strong institutional performance) and

India and Vietnam (alternative enforcement models in developing contexts).

Table 7: Comparative Governance Lessons for Bangladesh

Country	Key Governance Feature	Institutional Mechanism	Sustainability Outcome	Lesson for Bangladesh
Norway	Transparent resource governance	Sovereign Wealth Fund, strong parliamentary oversight, independent audit systems	High (low corruption, sustainable extraction)	Accountability improves long-term sustainability
Botswana	Strong mineral revenue management	Revenue transparency and anti-corruption institutions	Moderate–high (resource-driven development)	Anti-corruption capacity is critical
India	Specialized environmental judiciary	National Green Tribunal (technical expertise, suo motu powers)	Moderate (45,000+ cases disposed since 2010)	Specialized enforcement improves efficiency
Vietnam	Centralized provincial accountability system	Provincial chairperson responsibility and administrative sanctions	Moderate (1,247 penalties in 2023)	Clear authority improves enforcement consistency
Bangladesh	Fragmented institutional structure	Overlapping mandates, weak coordination, political interference	Low (EPI rank: 161/180)	Coordination and enforcement reform required

Sources: World Bank (2024); National Green Tribunal Annual Report (2024); MONRE Vietnam (2024); Transparency International Bangladesh (2024).

Across these cases, a consistent pattern emerges: where enforcement authority is clearly defined, insulated from political interference, and supported by credible sanctions, environmental outcomes improve significantly. Where authority is fragmented or politically constrained, regulatory performance declines regardless of formal policy commitments.

9.1 India's National Green Tribunal (NGT) Model

Established in 2010, India's National Green Tribunal (NGT) has become one of the most active environmental adjudication bodies globally, disposing of over 45,000 cases with an average resolution time of approximately nine months (CPCB, 2024). Its effectiveness is rooted in three institutional features.

First, the NGT combines legal authority with technical expertise, allowing it to evaluate complex environmental disputes more effectively than generalist courts. Second, it possesses strong sanctioning power, including the ability to impose substantial financial penalties. Third, it can initiate

cases on its own through suo motu jurisdiction, reducing dependence on formal petitions.

Together, these features reduce procedural barriers and strengthen enforcement capacity—an institutional configuration absent in Bangladesh.

9.2 Vietnam's Provincial Accountability System

Vietnam offers a contrasting model based on administrative rather than judicial enforcement. Under Decree 155/2016/ND-CP, provincial People's Committees are directly responsible for environmental compliance, and provincial chairpersons are held accountable for enforcement outcomes within their jurisdictions.

This system creates a clear line of authority, linking administrative performance to individual responsibility. In 2023 alone, this mechanism resulted in 1,247 recorded penalties for environmental violations (MONRE Vietnam, 2024). While not without limitations, the model demonstrates how centralized administrative accountability can improve enforcement consistency in developing governance contexts.

9.3 Explaining Divergent Outcomes

The comparison highlights three institutional dimensions that shape environmental governance

performance: specialization, enforcement authority, and political insulation.

Table 8: Institutional Features and Enforcement Capacity

Institutional Feature	Bangladesh	India (NGT)	Vietnam
Enforcement structure	Generalist, fragmented agencies	Specialized environmental tribunal	Centralized administrative authority
Penalty recovery rate	34.6%	78%	91%
Political insulation	Low (frequent transfers, interference)	High (fixed tenure, judicial independence)	Medium (party discipline-based control)
Citizen access	High Court litigation (costly, slow)	Direct filing, simplified access	Provincial hotline and complaint system
Annual case resolution	40 cases (environment-related)	3,500+ cases	1,200 cases

The comparative evidence suggests that Bangladesh's core challenge is not the absence of environmental laws but the absence of a coherent enforcement architecture. Regulatory authority is dispersed across multiple agencies with overlapping mandates, while enforcement personnel remain exposed to administrative transfers and political influence.

9.4 Implications for Bangladesh

The comparative cases suggest that neither full judicialization (as in India) nor purely administrative centralization (as in Vietnam) provides a perfect institutional template for Bangladesh. Instead, the evidence points toward a hybrid institutional design.

Such a model would involve specialized environmental magistrates within the existing judicial system, combined with greater tenure security and administrative autonomy for district-level environmental officers. Strengthening coordination mechanisms and reducing discretionary political interference would be central to improving enforcement credibility.

Ultimately, the comparative evidence reinforces the central argument of this study: sustainable resource governance depends not on the presence of democratic institutions alone, but on whether those institutions are matched by effective, insulated, and coordinated enforcement capacity.

10. CRITICAL DEBATES IN SUSTAINABILITY GOVERNANCE

10.1 Economic Growth versus Environmental Sustainability

A long-standing debate in political economy concerns whether rapid economic growth is compatible with environmental protection. One view holds that developing countries must prioritize industrialization and infrastructure expansion to reduce poverty, even at the cost of environmental degradation. Another argues that such a path generates long-term ecological damage, public health risks, and resource depletion that ultimately undermines development itself.

Bangladesh's experience challenges the idea that this is a strict trade-off. Economic expansion has been accompanied by significant environmental costs that feed back into the economy. The World Bank (2024) estimates that air pollution alone reduces GDP by approximately 4.2 percent annually through health burdens and productivity losses. This suggests that environmental sustainability is not a constraint on development but a condition for its long-term viability.

10.2 Developmental State versus Environmental Democracy

A second debate concerns whether centralized developmental governance is more effective than participatory environmental decision-making. Proponents of strong centralized states emphasize their ability to implement large-scale infrastructure and coordinate national development strategies. In contrast, advocates of environmental democracy highlight the importance of participation, transparency, and local accountability for sustainable outcomes.

Bangladesh reflects both logics simultaneously. Centralized administrative authority enables rapid policy implementation, particularly in infrastructure and energy sectors. However, the same centralization weakens local accountability and limits community influence over environmental decisions.

The evidence from this study suggests that neither model is sufficient on its own. Effective sustainability governance requires a balance: centralized capacity to enforce environmental rules and decentralized participation to ensure accountability and local oversight.

11. DISCUSSION

The findings of this study show that natural resource governance in Bangladesh is shaped primarily by political and institutional constraints rather than technical limitations.

11.1 Key Findings

First, weak coordination among institutions, corruption risks, bureaucratic centralization, and limited enforcement autonomy significantly weaken environmental governance. The contrast between rising parliamentary attention to environmental issues (214 questions between 2014 and 2024) and the low number of penalties actually collected (18) highlights a central mismatch between political attention and regulatory effectiveness.

Second, the comparative analysis demonstrates that institutional quality is a key determinant of sustainability outcomes. Countries with stronger enforcement systems, clearer accountability structures, and more coherent institutional designs

tend to achieve better balance between economic growth and environmental protection.

Third, Bangladesh exhibits a consistent pattern of electoral accountability without enforcement autonomy. While elections, parliamentary oversight, and public debate create channels for political voice, regulatory institutions remain insufficiently empowered to act against politically influential actors.

11.2 Theoretical Contributions

This paper contributes to comparative political economy in three ways:

1. It disaggregates democracy into electoral, participatory, and enforcement dimensions, showing that Bangladesh's core weakness lies in enforcement rather than representation.
2. It integrates democratic governance, institutional quality, and sustainability outcomes into a unified analytical framework.
3. It strengthens empirical grounding through the use of parliamentary records and enforcement data, moving beyond descriptive or anecdotal explanations.

11.3 Policy Implications

The findings suggest that improving sustainability governance in Bangladesh requires institutional reform focused on enforcement autonomy. Strengthening regulatory effectiveness will depend on insulating environmental agencies from political interference through secure tenure, transparent enforcement procedures, improved coordination mechanisms, and stronger judicial oversight.

Without addressing the enforcement gap, improvements in democratic participation alone are unlikely to translate into meaningful environmental outcomes.

12. ACTIONABLE POLICY RECOMMENDATIONS

Building on the analysis of institutional fragmentation, weak enforcement, and comparative governance lessons, this section proposes a set of targeted reforms. Each recommendation is linked to a specific governance failure and includes measurable implementation indicators.

Table 9: Policy Recommendations and Implementation Indicators

Recommendation	Problem Addressed	Reform Proposal	Measurable Indicator	Responsible Agency	Timeline
1. Fixed tenure for environmental officers	Frequent transfers (8–12 months) undermine continuity of enforcement	Introduce minimum 3-year tenure; transfers require approval from a parliamentary oversight committee	Reduced transfer frequency; proportion of officers completing full tenure	Ministry of Public Administration	12 months
2. Digital environmental clearance system	Lack of transparency in compliance documentation (62% of factories lack accessible clearance records)	Mandatory online publication of clearance certificates within 7 days; 30-day public comment window	Share of factories with accessible records; average publication time	Department of Environment, ICT Division	6 months
3. Specialized environmental magistrates	Delayed adjudication (average 4.7 years for cases)	Establish Environmental Magistrate Courts in each division with 180-day disposal requirement	Case reduction; backlog average case duration	Supreme Court, Ministry of Law	18 months
4. Parliamentary environmental oversight mechanism	Weak follow-up on 214 environmental questions (2014–2024)	Annual public hearing where DoE reports enforcement performance	Publication of annual enforcement report; hearing held regularly	Parliament Secretariat	12 months
5. Environmental disclosure for political candidates	Lack of accountability for politically connected environmental offenders	Mandatory disclosure of environmental violations linked to candidate-owned enterprises	Disclosure compliance rate in nomination process	Election Commission	Before 2026 election
6. Institutional coordination reform	Overlapping mandates across seven agencies	Establish single-window clearance system and mandatory inter-agency data-sharing protocol	Reduction in clearance time; signed coordination agreements	Cabinet Division	24 months
7. Renewable energy expansion strategy	Low renewable share (<4% of electricity generation)	Implement 3-year renewable energy expansion plan with binding capacity targets	Share of renewable energy; budget allocation and execution rate	Power Division, SREDA	12 months
8. Strengthen local participation in EIAs	Limited community input in environmental decision-making	Mandatory public hearings with documented responses for all EIAs	Percentage of EIAs with public consultation records; response compliance rate	Department of Environment, Local Government Division	6 months

9. Integrated river governance system	Fragmented authority between agencies (e.g., BiWTA, DoE)	Establish unified River Authority for major river systems with consolidated mandate	Legal establishment of authority; operational status	Ministry of Water Resources	24 months
10. Environmental anti-corruption mechanism	Weak enforcement against politically connected violators	Create independent environmental enforcement unit within Anti-Corruption Commission	Number of investigations; prosecutions; penalty recovery rate	Anti-Corruption Commission	18 months

These recommendations collectively focus on one central constraint identified in this study: the gap between environmental accountability and enforcement capacity. Rather than introducing new policy goals, they aim to strengthen institutional autonomy, coordination, transparency, and implementation credibility.

In this sense, the core reform priority is not policy expansion but enforcement consolidation—ensuring that existing environmental commitments can be consistently translated into regulatory action.

13. LIMITATIONS AND FUTURE RESEARCH

13.1 LIMITATIONS

This study has four main limitations.

First, data constraints remain significant. Enforcement records from the Department of Environment are not consistently reported across time, meaning the penalty data presented in earlier sections likely understate total enforcement activity.

Second, the analysis identifies associations between institutional quality and sustainability outcomes, but it does not establish strict causality. Environmental performance is also shaped by additional factors, including economic structure, technological change, and international environmental pressures.

Third, the comparative cases of India and Vietnam rely primarily on secondary literature. More detailed field-based institutional analysis

would allow for a deeper understanding of how these enforcement systems operate in practice.

Fourth, the temporal scope of the dataset is limited to 2014–2024. Longer historical series would provide a clearer picture of institutional change and policy evolution over time.

13.2 FUTURE RESEARCH DIRECTIONS

Future research could build on this study in several directions.

1. Expanding quantitative analysis using global governance datasets, such as the Worldwide Governance Indicators and Environmental Performance Index, to test cross-country relationships between institutional quality and sustainability outcomes in South Asia.
2. Conducting field-based research, including interviews and surveys with environmental regulators, policymakers, and affected communities, to better understand enforcement bottlenecks at the operational level.
3. Extending comparative analysis to other South Asian countries such as Pakistan, Sri Lanka, and Nepal to identify regional patterns in environmental governance.
4. Examining subnational variation within Bangladesh, particularly differences in enforcement outcomes across districts with varying political, administrative, or economic conditions.
5. Investigating the role of external actors, including international climate finance mechanisms and trade-related environmental standards, in shaping domestic environmental governance.

14. CONCLUSION

This study examined the political economy of sustainable natural resource utilization in Bangladesh, focusing on the interaction between democracy, institutions, and environmental governance.

The findings show that sustainability outcomes depend less on resource endowments or formal democratic structures and more on institutional effectiveness, enforcement autonomy, transparency, and coordination capacity. In Bangladesh, environmental governance is constrained by weak regulatory enforcement, fragmented institutional authority, and persistent political interference.

A central contribution of the study is the concept of “electoral accountability without enforcement autonomy.” While democratic institutions allow citizens to express environmental concerns through elections, parliamentary oversight, and public debate, regulatory agencies often lack the independence and capacity required to act on those concerns. This produces a structural gap between political voice and administrative enforcement.

Comparative evidence from Norway, Botswana, India, and Vietnam reinforces this

argument. Across these cases, stronger enforcement systems—whether through specialized environmental courts, clear administrative mandates, or transparent resource governance frameworks—are associated with better sustainability outcomes, regardless of broader regime type.

At the same time, the analysis suggests that democratic participation remains important. However, its effectiveness depends on whether it is matched by capable and insulated enforcement institutions. Without such alignment, democratic voice alone is insufficient to ensure environmental protection.

The policy implication is clear: improving environmental sustainability in Bangladesh requires shifting attention from formal democratic mechanisms alone toward strengthening regulatory autonomy, enforcement capacity, and institutional coordination.

Future research should combine quantitative governance indicators with field-based empirical work and broader regional comparisons to further refine the relationship between institutions, democracy, and sustainability outcomes in developing countries.

References

- [1] Acemoglu, D., & Robinson, J. A. (2012). *Why nations fail: The origins of power, prosperity, and poverty*. Crown Publishers.
- [2] Ahmed, Q. K. (2019). Climate governance and sustainable development in Bangladesh. *Bangladesh Development Studies*, 42(2), 1–25. <https://doi.org/10.4236/gep.2019.79010>
- [3] Auty, R. M. (1993). *Sustaining development in mineral economies: The resource curse thesis*. Routledge. <https://doi.org/10.4324/9780203422595>
- [4] Bryant, R. L., & Bailey, S. (1997). *Third world political ecology*. Routledge. <https://doi.org/10.4324/9780203974360>
- [5] Central Pollution Control Board, India. (2024). **National Green Tribunal case disposal statistics 2010-2024**. Ministry of Environment, Forest and Climate Change, New Delhi.
- [6] Department of Environment, Bangladesh. (2024). **Annual report on environmental compliance and enforcement 2023-24**. DoE, Dhaka.
- [7] Dryzek, J. S. (2013). *The politics of the earth: Environmental discourses* (3rd ed.). Oxford University Press.
- [8] Gerring, J. (2007). *Case study research: Principles and practices*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511803123>
- [9] Germanwatch. (2024). *Global climate risk index 2024*. Germanwatch e.V.
- [10] Haque, M. S. (2018). Environmental governance and public administration in Bangladesh. *Asian Journal of Political Science*, 26(1), 78–96.
- [11] International Renewable Energy Agency. (2024). *Renewable energy statistics 2024*. IRENA.

- [12] Islam, N., & Sadoff, C. (2020). Water governance and river management in Bangladesh. *Water Policy Review*, 15(3), 55–71.
- [13] Khan, M. H. (2010). Political settlements and the governance of growth-enhancing institutions. SOAS, University of London.
- [14] Larsen, E. R. (2006). Escaping the resource curse and the Dutch disease? *American Journal of Economics and Sociology*, 65(3), 605–640. <https://doi.org/10.1111/j.1536-7150.2006.00476.x>
- [15] Leftwich, A. (2000). *States of development: On the primacy of politics in development*. Polity Press.
- [16] Mehlum, H., Moene, K., & Torvik, R. (2006). Institutions and the resource curse. *The Economic Journal*, 116(508), 1–20. <https://doi.org/10.1111/j.1468-0297.2006.01045.x>
- [17] Ministry of Natural Resources and Environment, Vietnam. (2024). Environmental penalty enforcement report 2023. MONRE, Hanoi.
- [18] Parliament Secretariat, Bangladesh. (2024). *Question-answer transcripts on environment, forests, and water resources (2014-2024)*. Bangladesh Parliament.
- [19] Petrobangla. (2024). *Annual report 2023-24*. Bangladesh Oil, Gas and Mineral Corporation, Dhaka.
- [20] Povitkina, M. (2018). The limits of democracy in tackling climate change. *Environmental Politics*, 27(3), 411–432. <https://doi.org/10.1080/09644016.2018.1444723>
- [21] Rahman, M. (2020). Energy security and governance challenges in Bangladesh. *Energy Policy Journal*, 18(3), 45–61.
- [22] Sen, A. (1999). *Development as freedom*. Oxford University Press.
- [23] Transparency International Bangladesh. (2024). Governance challenges in environmental management 2024. TIB, Dhaka.
- [24] United Nations. (1987). *Report of the World Commission on Environment and Development: Our common future*. Oxford University Press.
- [25] United Nations Development Programme. (2023). *Human development report 2023/2024*. UNDP.
- [26] World Bank. (2021). Bangladesh country environmental analysis. World Bank.
- [27] World Bank. (2024). Bangladesh development update: April 2024. World Bank.

Received on 15-05-2026

Accepted on 27-05-2026

Published on 24-06-2026

© 2026 Rabiul Karim and Johirul Islam; Licensee ATSK Publishers.

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>) which permits unrestricted, noncommercial use, distribution and reproduction in any medium, provided the work is properly cited.