

Can ordinary people seek environmental justice in Bangladesh? Analyzing through the lens of legal, policy, and institutional framework

Md. Mizanur Rahman¹

ABSTRACT

The study's overarching objective was to identify the pitfalls and bottlenecks in ensuring environmental justice on an equal basis embedded in the existing legal, policy, and institutional framework. The environmental victims were examined, and the opinions of the line experts were garnered. The study revealed that ordinary people could not seek justice to the court directly for environmental damage due to bubbles in the legal and policy framework. The courts suffer from various challenges like fuzziness in the jurisdiction, lack of legal advisors, and workloads. On the other hand, the court has no power to take cognizance of an offense independently. The wealthy and influential polluters are reluctant to respect the law due to insufficient punishment prescribed by the statutes. The victims are rarely compensated, and there are a few options to resolve the dispute in alternative ways. The provision of legal aid for the poor and disadvantaged people is not much helpful. The public departments are stuck with a lack of logistics and human resources. The jurisdictional overlapping, underlapping, and conflict of interest among the departments worsen monitoring, control, surveillance (MCS), and effective coordination. The regulatory framework does not welcome the community in decision-making and natural resource management. Hence, the study recommends legal and institutional reform. Policy initiatives are warranted for effective environmental governance, green growth, campaign, and volunteerism.

Keywords: Environmental justice; anthropogenic stressors; polluters, co-management, whole society approach, no one is left behind

INTRODUCTION

Environmental justice is considered the equitable treatment and significant involvement of all people irrespective of socio-economic status in developing, implementing, and enforcing environmental laws, regulations, and policies (Andreotta 2019). Consequently, every person enjoys the right to participate as an equal partner in decision-making, including needs assessment, planning,

¹Director (Research and Development), Bangladesh Public Administration Training Centre, Savar, Dhaka (Deputy Secretary to the Government), E-mail: mizan_peroj@yahoo.com; mizan@bpatc.org.bd

implementation, enforcement, monitoring, and evaluation. It also protects the right of victims to receive full compensation for damages and a health hazard. It affirms the sanctity of the species' ecological unity and interdependence and safeguards from destruction and degradation, ceasing toxins' production and hazardous materials. Environmental justice warrants public policy to be based on mutual respect, ensuring justice for all peoples without discrimination and self-determining fundamental rights to the environment. Environmental justice's core issue is to ensure the community's cultural integrity by providing fair access to natural resources. The "United Nations Conference on the Human Environment (the 1972 Stockholm Declaration)" is considered the first significant attempt to make the environment a substantial issue. It acknowledged the global human impact and adopted a set of eco-friendly management principles, including the "Stockholm Declaration and Action Plan for the Human Environment" and some resolutions (Sohn, 1973). The Declaration underlined mostly broad environmental policy goals and objectives rather than detailed normative positions. Later on, the Rio Declaration included 27 principles to guide future sustainable development around the world.

Bangladesh is one of the most affected countries in the world due to incremental pollution and environmental hazards. On average, the government loses nearly about 3.4% of the national Gross Domestic Product (GDP) on account of ecological pollution only in urban areas (World Bank 2018). 28 % of all deaths are caused by pollution, which is much higher than the global average (16%). This degradation includes natural habitat encroachment and unregulated waste disposal, which threatens the vulnerable class, notably women, children, and the poor. It was reported that approximately 1 million population, mostly poor, are exposed to lead contamination. Heavy metals contaminate the more impoverished neighborhoods of urban and suburb of greater Dhaka city. The country faces onslaughts threats from haphazard, fortuitous, and undersigned urbanization and industrialization. Society's most vulnerable members bear the consequences of Environmental injustice (Milman, 2017). The country is losing its wetlands, notably freshwater rivers, canals, and lakes, due to encroachments. Over the last decades, the capital lost more than 75% of its wetlands (World Bank, 2018). A day-long raining causes flooding in most of the areas, especially in the slums. Dhaka has obtained the second position globally in air pollution while named the 3rd worst city for living in 2019 according to the global livability index (Arefin *et al.*, 2017). Bangladesh cannot cope with anthropogenic disturbances to save its ecosystem (Rahman *et al.*, 2009; Rahman, 2009).

The local pressures exaggerate the climatic stressors like increased salinity (Rahman, 2020a). It was reported that widespread non-compliance with the laws and policies is common due to institutional weakness, and subsequently, the degradation of natural resources is quickened on many occasions (Shamsuzzaman & Islam, 2018). The absence of natural resource governance exaggerates environmental degradation (Alam & Xiangmin, 2019). The

existing regulatory regime and the legal framework are not accommodative with international conventions and treaties (Alam & Xiangmin, 2019). Ineffective policies, lack of a sound legal framework, and the absence of more vital institutions at the national and local levels are fueling the degradations (World Bank, 2018).

Das (2019) revealed that the perpetrators, degraders, and polluters are locally influential musclemen backed by public institutions. Shamsuzzaman & Islam (2018) showed that conservation initiatives mainly in the fisheries could not garner sufficient support from the community for disregarding their poverty and rights. Furthermore, environmental degradation is continuing and worsening the scenarios due to the absence of an integrated and holistic regulatory framework to address the community's problems (Akhtar *et al.*, 2017). The root causes of environmental injustice were rarely analyzed systematically. Hence, the study aimed to identify the challenges in seeking environmental justice rooted in the legal, policy, and institutional framework. Akhtaruzzaman & Sajal (2016) reported that the number of case filing in the environmental courts was much lower than that of the regular criminal and civil courts as the ordinary people are averted to the Environment Courts. The community's active participation in the co-management regulated in the ecologically critical areas cannot be ensured due to the public departments' hegemonic behavior (Rahman, 2018). As it is grounded in people's epistemological and ontological foundations, a deeper understanding of people's rights is essential to renew the vision for achieving it. Therefore, it is warranted to determine ordinary people's challenges in getting fair justice and environmental governance. The findings may bridge the knowledge gap about environmental justice in Bangladesh and simultaneously help policymakers take necessary initiatives.

Environmental justice struggles to ensure socio-environmental equity; instead, it threatens the societies, and Bangladesh accepted has approximately many international treaties to show its commitment to conservation (Rahman & Alam, 2020). Many environmental laws are not enforced and not familiar to the people and the law enforcers (Oikya, 2017). Therefore, in recent decades, Bangladesh enacted several environmental laws to comply with international commitments and curb incremental environmental degradation. Similarly, the country established special environmental courts at the operational to ensure environmental justice. Environmental justice considers ethical dimensions, risk bearer, decision-maker, and stakeholder's engagement legally (Clough, 2018). The sharing of burdens and benefits is rooted in distributive justice while valuing society's views is injustice as recognition and their decision-making power in procedural justice (Svarstad & Benjaminsen, 2020). The disproportionate suffering of the vulnerable classes indicates a long-standing injustice that fails to address the moral issues and underlies public understanding (Colten, 2007). The regulatory framework of environmental justice is embroidered with equal distribution of risk and recognition of the community's diversity (Schlosberg, 2004). Therefore, an assessment of

Bangladesh's efforts have become indispensable in understanding the existing legal, institutional, and policy framework efficacies, helping to understand the embedded pitfalls. To achieve upper-middle-income status, it is time for Bangladesh for rising to tackle environmental degradation and upholding the notion of a "whole society approach." The research will help in putting the right policies and institutions for going green.

CONCEPTUAL FRAMEWORK

Legal aspects



Figure 1: Characteristics of the Bangladesh Environment Conservation Act, 1995

Bangladesh made 'the Environment Pollution Control Ordinance 1977' to control different pollutions, but the penalty was insufficient. As a result, the "Bangladesh Environment Conservation Act, 1995" was enacted to conserve the environment, improve environmental standards, and control environmental pollution. This act is considered a breakthrough for safeguarding the environment, which defined conservation, ecosystem, environment, pollution, pollutant, waste, hazardous substance, and occupier at the outset. The act stressed controlling environmental pollution imposing penalties (Figure 1). There are different provisions in framing rules, establishing ecologically critical areas, and establishing environmental courts at the district and divisional level. This act was further amended in 2003 to clarify the divisional court's composition and the status of penalties (Akhtaruzzaman & Sajal, 2016). In compliance with the earlier mentioned act, the "Environment Conservation Rules, 1997" were framed to detail the issuance of environmental clearance certificates. Consequently, the country enacted the "Environment Court Act 2000," outlining the jurisdiction of courts, the penalty for violating the court's order, trial procedure, power of entry, the process for investigation, power of courts, and appellate authority. This act was repealed by the Bangladesh Environment Court Act, 2010, to strengthen the Department of Environment (DOE)'s control. The Legal Aid Services Act, 2000 was enacted to provide legal aid to the left behind and vulnerable people.

The “Bangladesh Biodiversity Act, 2017” focused on meeting the objectives of the “Convention on Biological Diversity (CBD)” and *Aichi* Biodiversity Targets. The act formed different committees and their functions to protect biodiversity without setting out the specific business to any departments. The “Ecologically Critical Area Management Rules, 2016” were approved to form various committees starting from national to grass root levels incorporating diverse stakeholders. These rules restricted all activities against biodiversity conservation, pollution, and exploitation of natural resources; and encouraged co-management in the "Ecologically Critical Areas (ECAs)." Also, the “Protection and Conservation of Fish Act, 1950”, “Fish Rules, 1985”, “Wildlife (Conservation and Security) Act 2012”, “Marine Fisheries Ordinance 1983,” and the “Forestry Act 1927” support biodiversity protection nationally.

Public Policy

Bangladesh framed the "National Environmental Policy 2018" with the motto of maintaining a balance between development and environmental protection to achieve SDGs. According to this policy, compensations should be collected from the polluters by applying Polluter's Pay Principle. Emphasis has been given to preventive measures instead of curative actions. Equitable rights of the dependents on the use of local natural resources have been acknowledged. Additionally, the community will actively participate in the management process. The “National Fisheries Policy 1998” discourages the degradation of the wetlands. Furthermore, the "National biodiversity strategy and action plan of Bangladesh 2016-2021" underscores the community's importance in biodiversity conservation. The newly approved "Delta Plan 2100", a long-term strategy for this ongoing century, prioritizes adaptive management practices to cope with the challenges emerging from anthropogenic-climatic stressors. This plan stresses using a holistic approach and equitable water governance to achieve long-term food and water security, economic growth, and environmental sustainability.

On the other hand, Bangladesh took the "whole society approach," and the aspiration of "no one is left behind" in achieving SDGs (VNR, 2020). Additionally, several public policies like "National Land Use Policy 2001", "National Industrial Policy 2016", "National Agriculture Policy 2018", "National Water Policy 1999", "National Housing Policy 2016", "National Forest Policy 2016" and "Coastal Zone Policy 1995" support many elements of environmental justice sporadically.

Institutional arrangements

“Bangladesh Environment Conservation Act, 1995” established the Department of Environment (DOE), created the Director-General of that department, and described its mandates correspondingly. DOE was legitimized to take action against any environmental degradation. The "Environment Conservation Rules, 1997" spotted the responsibilities of DOE. Bangladesh

Environment Court Act, 2010 appointed DOE as the prosecuting or investigating agency of the filing of the case and its trial in the court (Figure 2).

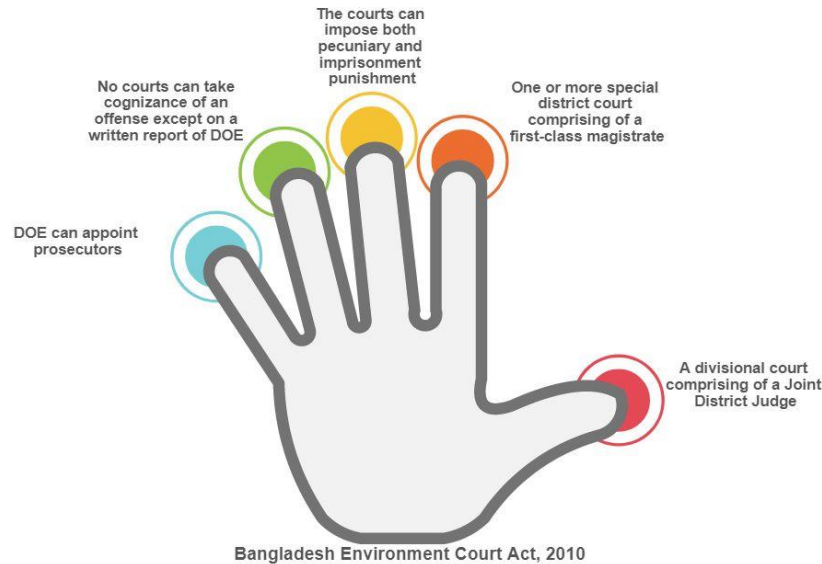


Figure 2: Institutional arrangements prescribed in the Bangladesh Environment Court Act, 2010

DOE can also use public prosecutors from the licensed lawyers in the trial stage. This act appointed a judge equal to the Joint District Judge for an administrative Division, who disposes environmental cases within the jurisdiction besides the routine works. Likewise, one or more Special Magistrate Courts were established in the administrative districts, run by a First Class Judicial Magistrate. Similarly, the Magistrate disposes of the environmental cases together with a typical workload. This act appointed an appellate authority where a district judge hears as a separate court or the concerned district judge of each administrative district can listen to besides day-to-day activities. "Ecologically Critical Area Management Rules 2016" entitled DOE as the nodal institution to identify, declare, and manage an ecologically critical area. Even DOE was empowered to impose a restriction on the change of land category based on usage. These rules embraced participatory governance in ECAs for the first time, where DOE acts as the member secretary. In the absence of DOE, the Forest Department works on behalf. The "Legal Aid Services Act, 2000" formed district, *Upazila* (sub-district), and union (local government bodies at the grass-root level) to offer legal aid to the disadvantaged people. District Committee is the decision-making body where the District Judge of each administrative district holds the chair. Under the "Mobile Courts Act 2009," the Executive Magistrate, with DOE's help, impose penalties for committing minor offenses.

MATERIALS AND METHODS

The study collected both primary and secondary data for the period from March 2019 to December 2019. The existing laws, business rules, policies, strategic plans, gazette notifications, and other official documents related to environmental justice were analyzed critically to develop background information. The study followed an eclectic approach in collecting primary data, including personal and key informant interviews (KKIs).

KKIs were done to collect qualitative data on the challenges rooted in environmental justice in Bangladesh. KII technique is useful for the researcher who faces confusion in concluding and feels the need for experts' opinions (Cossham & Johanson, 2019). Twenty nationally renowned experts in environmental laws, biodiversity conservation, bureaucracy, and climate change were interviewed. Beforehand, a loosely structured checklist, including a list of issues to be discussed, was prepared. A free flow of ideas and information was exchanged during KKIs. The key informants were requested to provide recommendations for overcoming the challenges. A total number of 60 victims due to environmental pollution, notably industrial pollution, were interviewed using a semi-structured questionnaire. The adjacent residential areas near Bangladesh Small and Cottage Industries Corporation (BSCI), *Konabari*, and Gazipur district at the proximity to the Capital Dhaka were selected for a personal interview, which lies at the latitude of 24.00°N and longitude 90.34°E approximately (Figure 3). The brick kiln industry highly pounds the study area. The poor people were selected purposively for the personal interview.



Figure 3: Study area marked by the red arrow sign (Banglapedia 2020)

The content analysis was done considering its uniqueness (Dooley 2016) in that it supports both qualitative (Berg, 2009) and quantitative analysis (Krippendorff, 2004; Neuendorf, 2002; Spencer *et al.*, 2003). The content

analysis helps a researcher to analyze the themes, concepts, and interrelationships. The collected data was coded into various categories and variables. De-contextualization, re-contextualization, categorization, and compilation were followed in this analysis (Bengtsson, 2016). The identified problems were ranked based on the frequency with which they arose in personal interviews and the key informants' weight.

Victim's perception

According to the interviewees' perception, they cannot file a "Compliant Registered Case" directly to the courts for seeking justice against the polluters. There is a lack of awareness and knowledge about their rights to live in a healthy environment (Figure 4). Neither the polluters nor the public departments care about the sufferings of ordinary people. Being poor people, they cannot think of filing cases against the wealthy and powerful industrialists. Razzaque (2000) revealed that even the judiciary's proactive role could not add anything if the people cannot afford the cost involved in case filing. The respondents opined that sometimes DOE's staff are influenced by the polluters contrarily. The polluters never compensated the respondents, and they suffer from various diseases originating from the pollutions. A significant portion of the monthly income is spent on medical treatment and buying medicines that propel their poverty and deprivation of other basic needs. Even newborn babies suffer from various health problems that retard their mental and psychological growth. The ordinary people have no role in managing local resources and protecting the environment. They are not organized and have no cooperative society. Hence, they cannot raise voices against incremental degradation.



Figure 4: Victims' perception of environmental justice

Experts' opinion

The key informants identified several challenges deeply rooted in legal and institutional arrangements (Figure 5). On the other hand, the socio-economic problems and lack of equity have heightened the injustice to ordinary people. The challenges are broadly classified as the following.

1. Laws do not permit ordinary people's access to court	5. There are other scattered laws	9. Laxity and biasness in law enforcement	13. Laxity and biasness in law enforcement	
2. Summary or speedy trial is not possible	6. Lack of coordination among law enforcers	10. Corruption and bribery	14. Corruption and bribery	
3. Laws empowered DOE as the sole authority	7. Lack of alternative dispute resolution	11. Public prosecutors are not neutral always	15. Community's participation in natural resource management is absent	17. Lack of scientific knowledge of the judges
4. Fuzziness in courts' jurisdictions	8. Lack of offices, workforces and logistics of DOE	12. No provision of compensating the victim	16. Lawyers are not always helpful to ordinary people	

Figure 5: Experts' opinion about environmental justice

Limited access to courts

According to the "Bangladesh Environment Conservation Act 1995" and the "Environment Court Act 2010", no environmental courts can take the case into cognizance without DOE reports. If the DOE fails to take action within 60 days based on the victim's personal written request, the courts can directly file the case. On the other hand, the "Environment Conservation Rules 1997" empowered the Director-General of DOE to dispose of an application made by an affected person within three months. The timeframe of disposal claims outlined in the rules contradicts the acts mentioned above. Similarly, the fisheries-related laws empowered the Department of Fisheries while Forest laws authorized DF. In other laws, courts can take a case based on the written report of the Bangladesh Police. In mobile courts run by Executive Magistrates, the offense must be committed before the Magistrate, and law enforcement agencies must submit a written report. Hence, it can be argued that the laws restrict the access of ordinary people to the environment courts to sue or file a case against the degraders and polluters.

Institutional capacity

The Judges and Magistrates work in the environment court beside their regular activities. According to key informants' perception, the judges and magistrates are overburdened with typical criminal and civil cases. On the other hand, the judicial officers come from a general law background, and hence they lack scientific knowledge of the environment and ecology. In the acts, there is no provision of appointing line experts as the legal advisor. Similarly, DOE is stuck with a lack of human resources, logistics, and even offices. It has an office in the more significant districts, run by an inspector (DOE, 2020). In most cases, the sister Forest Department works on behalf of DOE at the management level. Differently, DOE appoints a lawyer at the trial stage based on its choice and social influences of that lawyer mostly. Interestingly, it is highly challenging to manage an environmental lawyer at the district level.

Consequently, the judges are not benefitted from this prosecutor of general law background very often. The respondents opined that the prosecutors are biased to the polluters instead of the victims due to social influence on many occasions.

Fuzziness in the jurisdictions

“Bangladesh Environment Conservation Act, 1995” and “Environment Conservation Rules, 1997” did not outline the environment to be considered. Due to ambiguity in the jurisdiction, DOE can apply its authority to land, freshwater, coast, aquifer, sky, and marine realm. It seems that the ambiguous mandates of the DOE cause overlapping jurisdiction with almost all departments. The regulatory frameworks of land and water management, ecotourism, pollution control, waste management, chemical and poison control, environmental management, biodiversity conservation, and ecosystem management, including marine fisheries, are intercepted. Consequently, the ambiguities result in jurisdictional overlapping, underlapping, and interest conflicts with other public departments (Rahman, 2020b, Rahman & Alam, 2020; Rahman 2021a; Rahman *et al.*, 2020, Alam *et al.*, 2021). Bangladesh could not flourish in those areas on this ground. The respondents stressed abolishing the overlapping mandates to ensure that one's business is not everyone's business through business reallocation and amalgamation of the scattered and fragmented laws. But there are sectoral laws on the forest, fisheries, marine, and maritime shipping that supports environmental justice. On the flip side, the courts can hear a case that occurred within its administrative boundary. Usually, the administrative border is demarked by human settlement, which does not work in the marine environment, including mangroves. Resultantly, an affected person in the sea has no scope to seek justice. Akhtaruzzaman & Sajal (2016) reported that the courts could try the offenses associated with the degradation and destruction of forest resources, wildlife, biodiversity, water resources, and categories of natural resources. Differently, the court's jurisdiction was undermined by not keeping its *suo moto* or epistolary jurisdiction. As a result, the court cannot make any judicial review.

Lack of quick remedy

Even meeting the case filing criteria after two months, a victim cannot expect any quick remedy as the court cannot go for a speedy trial. The court requires written reports and inquiries by the Department of Environment, and it follows routine procedures like other civil and criminal cases. Consequently, the victim has to wait for a long time for the remedial measure.

Insufficient penalty

The environmental court can impose a maximum of 10 lacs BDT as a penalty irrespective of the severity of the environmental damage, which is negligible

to polluters, notably industrialists. Consequently, they are reluctant to comply with laws and guidelines. In contrast, India's green tribunal can punish a company with a fine which may extend to twenty-five crore Indian Rupees (Fatima, 2017).

Ambiguity in alternative dispute resolution and compensation

The Director-General of DOE can impose restrictions on the production and marketing of any environmentally injurious articles. The position can also take necessary remedial measures to control or mitigate environmental pollution and ask for assistance and co-operation from the polluters. The expenses involved in mitigation can be realized from the degraders. It is not clear whether the victims will be compensated or not. On the other hand, the court can impose both pecuniary and imprisonment punishment on the verdict. Usually, the collected money is spent by DOE as the procedural cost, but the court can directly provide a share to the victim. There is no guideline on how the compensation will be made. The respondents opined that the victims are rarely compensated due to ambiguity in the law. Also, a victim can apply formally to DG to remedy the damage, and he/she may hold a public hearing to dispose of the application. There is no further explanation about the way of remedy and compensation.

Lack of monitoring, control, and surveillance (MCS)

Before establishing any industrial unit or operating a project, an "Environmental Clearance Certificate" or "No Objection Certificate" has to be collected from DOE under prescribed terms and conditions. The certificates are categorized into green, orange, orange-B, and red based on probable environmental impact and locations. The respondents opined that the terms and conditions are rarely monitored and controlled after the issuance of certificates. At the operational level, DOE has no well-equipped laboratory and experts. On the other hand, they have not developed or installed any modern tracking system. Sometimes the polluters manage the local staff and maintain a good relation with them.

Poor enforcement of laws

The respondents opined that the public departments and the law enforcers exhibit laxity in proper functioning and enforcing laws very often. Hence, a perception has been developed among the polluters that will be rarely punished. The ambiguous mandate, jurisdictional intersections, and corruption negatively influence law enforcement. Proper enforcement of the laws is contingent upon the institutional capacity, good governance, political interventions, socio-economic vulnerabilities, and awareness level. The law violators frequently collect the patrol campaigns' information in advance from a segment of enforcers involved in the degradation (Shamsuzzaman & Islam 2018).

Lack of cohesion

The respondents conjectured that the presence of bubbles in the business allocation for various departments devises multilayered crossroads. The conflict of interests among multiple departments leads to fragmented "sector-by-sector" and "use-by-use" management policies (Rahman, 2020b). The denial of the liabilities occurs in case of failure and conflict in the event of interests. Finally, the rivalry appears in the case of exercising power on the ground of jurisdictional intersections. Hence, no effective coordination and integration mechanism has been developed to oversee environmental damage.

Shortcomings in legal aid

Though Bangladesh has made a legal and institutional framework to offer legal aid to poor and disadvantaged people, most people are unaware of its existence due to the lack of a campaign. The legal aid seeker has to suffer due to its procedural complexities. According to the respondent's perception, the assigned lawyers often do not help the poor people contradictorily; they sometimes serve polluters' purposes. Mian & Rashid (2014) reported that different committees are comprised of the upper strata of society, who rarely realize the sufferings of the poor.

Absence of participatory natural resource governance

According to the legal framework, the ecologically critical areas are supposed to be managed through participatory governance. But the respondents opined that the co-management is not properly functional, and D.F. (on behalf of DOE) could not ensure active participation of the community due to lack of trust in it. By watching the incremental degradation, the community people are not confident enough to participate in the governance (Rashid *et al.*, 2016). It was also reported that the vested interest groups occupied various committees' key positions on many occasions, which significantly affected participatory governance's notion and zeal (Alam *et al.*, 2021; Rahman, 2018; Rashid *et al.*, 2016).

The drawback in public policy

In the elementary principles of the "National Environmental Policy 2018," some touchy words related to environmental justice fizzled out in the objectives and action plan. The policy included a myriad of public departments without spelling out the specific responsibilities, monitoring and evaluation tools, and coordination mechanisms. The key informants argued that public policy rarely brings out positive results due to formulaic and implemental dilemmas.

WHAT TO DO?

In response to questions, some recommendations were elicited from the key informants. The recommendations highlighted the necessity of legal and

institutional reforms and policy interventions. The Paris climate change agreement emphasized a rapid transition to mitigate environmental hazards. In response, environmental justice scholarships must address injustices and tackling mechanisms. The environmental justice scholarship must explore and promote distributional, procedural, and restorative justice (McCauley & Heffron, 2018). "Living well" or "the good life" should be considered the foundation of mutually respectful relationships with society and this planet. An ethical standard of conduct based on the legal framework should be built to cement the appropriate relationships with the people and nature.

Legal reforms

Environmental scholarship can be coined as a term that is to be linked with the promotion of clean technology, establishing human rights with the assurance of green jobs. Legal reform is warranted to ensure environmental justice on an equal basis. The restriction on ordinary people's direct access to court should be abolished first so that anybody can seek remedy or justice to the court directly. Beforehand, the other sectoral laws should be merged into a single law to tackle the ecosystem's degradation irrespective of habitat type. The court should determine the prosecuting agency. Bangladesh Police can be the primary enforcer, where Bangladesh Coast Guard, Bangladesh Rapid Action Battalion, and Forest Guard can work as auxiliary forces, which will reduce the overburden of DOE. The concerned departments, including DOE, can provide technical support. Unarmed DOE cannot signal any message to the degraders and polluters. On the other hand, this poorly capacitated department cannot manage multidimensional degradation. A separate environmental police unit can be established with trained personnel and line experts. A clear guideline for compensating the victims can enhance the spirit of environmental justice. The court should be empowered with *suo moto* power to take cognizance of any offense on its own. Alternative dispute resolution should be encouraged by detailing a clear guideline to reduce procedural costs and sufferings. The Judge or Magistrate should be appointed only for dealing with cases related to the environment, biodiversity, ecosystem, and natural resources. The judges are burdened by other cases, making it difficult for them to deal with environment-related cases passionately.

The judiciary officer should enjoy the facility to deploy line experts as the legal advisor to come up with an accurate decision. The provision of speedy trial is highly warranted for immediate remedial based on the severity of the incidents. The maximum amount of fine should be equal to our neighboring countries so that the degraders become cautious. A clear guideline mentioning the criteria of the eligibility of prosecutors appointed in the trial phase should be spelled out, which will encourage the junior lawyers to be experts on environmental laws. Necessary legal reforms must ensure the community's active participation on an equal basis in legal aid committees and co-management committees. It is highly essential to restrict degraders, polluters, and other vested interest groups in the committees. The procedural

complexities of the legal aid should be simplified so that any needed person can immediately avail of the assistance.

Institutional capacity building

The Judges or Magistrates must impart a training course in environment and ecology before appointing. The courts should be equipped with sufficient information and technology support so that the victim can file a case online or draw the courts' attention to any emerging issues quickly. DOE and other departments should be equipped with modern tracking technology, sufficient human resources, line experts, and laboratories. The prosecutors' activities and performances in the trial stage and the lawyers appointed under legal aid should be monitored and evaluated for the appraisal and further appointment, which will ensure their accountability and transparency. Moreover, 'no win, no fee' can be another control mechanism. Ethical education should be mandatory for public employees to heighten their patriotism and commitment to society and the country. The departmental proceedings should be accelerated to minimize laxity in law enforcement.

Policy interventions

"People-powered" regenerative public policy based on nature conservation can lead to social and environmental sustainability. The public policy should avoid the top-down approach in the formulaic stage, political agenda and interventions, influences of the vested interest groups, institutional complexities, and line experts' opinions. An atlas map should incorporate the underpinnings of conflict of interests, social metabolism, and the environmental justice process, outlining a tool for activism and advocacy based on research knowledge. It is essential to build trust among the community that none is above the law, and they the right to seek justice against the polluters, whoever he/she is. A particular campaign program is warranted to build awareness about the current environmental justice and legal aid. Bangladesh radio and Bangladesh Television can broadcast this message regularly.

Environmental Governance

As a highly populous country, Bangladesh is confronting diverse challenges emanating from incremental human-climatic stressors. The challenges crossing political and administrative borders like air pollution and periled biodiversity cannot be solved in a top-down approach, which requires the active participation of a wide range of stakeholders. Environmental governance is essential for finding solutions and actualizing the aspiration of the "whole society approach "and" no is left behind." The assemblage of public departments, academia, researchers, non-government organizations, private sector, civil society, public representative, mainly local government, volunteers, domestic donors, and the community can achieve effective governance and build a clean Bangladesh. On the other hand, SDGs' target 1.3

states, "by 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to essential services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology, and financial services, including microfinance. Achieving this target is deeply rooted in effective, competent, transparent, and accountable environmental governance at all levels.

Green taxation and green growth

Environmental justice has become particularly relevant to the "greening" efforts (Wong, 2008). Policy initiatives are required to impose a green tax on the polluters to curb further degradation. This tax can enhance cleaner production and responsible consumption (Verma & Gayithri, 2018). Bangladesh should develop a green bond and insurance in the capital market. Under the Ministry of Finance, the Financial Institutions Division can take the lead role in introducing green banking and credit system and green securities and insurance. The Finance Division should update the "Public Procurement Rules 2008" to incorporate green procurement. The government may promote green innovation. A 'Green Practice Agreement' between DOE and the industrial sector can cement collaboration and lower environmental pollution.

The DOE should ensure 100% national coverage of zero liquid discharge-based effluent treatment plants for the industries. Emphasis should be given to adopting 3R technology to manage urban waste. Two-stage plasma gasification plants can be established in the city corporations (large cities) to meet energy demand and manage waste, notably solid waste. Ramos *et al.* (2019) revealed that this gasification process causes lower emissions and contaminations. Establishing biogas plants can manage biodegradable wastes and meet clean fuel demand and organic manure simultaneously.

National Environment Awareness Campaign

Many successful environmental campaigns worldwide stopped environmentally injurious development projects and restored environmental justice for the rural and urban communities (Martinez *et al.*, 2016). The grassroots community networks can enhance environmental justice by making their voices heard loud and clear (Bullard *et al.*, 2016). Strong environmental identities are more likely to be treated fairly than those with weak identities. The emergence of environmental and sustainability education can move from thinking about injustice singly to collectivity (Skitka *et al.*, 2010; Whitmarsh & O'Neill, 2010; Parris *et al.*, 2014). Through launching such a campaign, DOE can bridge the gap with the community, NGOs, educational institutes, volunteers, and press media. This national campaign will help in raising awareness about environmental conservation. An all-out consensus within the society against environmental damage will sideline the polluters and strengthen the victims' voices. The campaign may include cleaning, tree plantations, cultural shows, fair, field demonstrations, leaflet distribution, and

poster display. This campaign may be a foundation stone of the Environmental Justice Movement, which will come up with accountability of the decision-makers, equitable sharing of risk and benefits, and active participation of the society in decision-making (Roni, 2020).

Enhancing volunteerism

Bangladesh can take policy initiatives to recruit conservation volunteers from the youth class. The conservation volunteers establish a connection between humans, nature, and conservation (Guiney & Oberhauser, 2009). The Recycling Program engaging older volunteers helped in improving environmental injustice and contributing to social good. They recycle waste into eco-friendly blankets for disaster survivors (Hsiao *et al.*, 2020). Rahman and Akter (2020) found that the village-based organization helps in increasing volunteerism. Department of Environment can adopt this program to motivate the people. Some pilot or model programs like creating a recycling society and responsible can be taken to set an example for others.

CONCLUSIONS

Despite having limitations in its legal, policy, and institutional frameworks, Bangladesh is striving to achieve SDGs coupling social, economic, and environmental sustainability. Bangladesh also adhered to the aspiration of the whole society approach, and no one is left behind. SDGs cannot be achieved in conjunction with the incremental degradation of habitats and ecosystems. Environmental justice cannot grow, decoupling political ecology, and hence, the interception of them is crucial for socio-environmental healing. The study aimed to identify the challenges of equal justice embroidered by deprivation of ordinary people's rights. The findings will help policymakers make appropriate adjustments to the relevant laws, policies, and institutional arrangements. On an equal basis, the community's active participation and strengthening of the local government bodies can be a giant leap for environmental governance. The carrot and stick motivation theory may change the current scenarios of the institutional framework. Uprooting all barriers from ensuring environmental justice may help in healing degradation and destruction. The SDGs' targets associated with *Aichi* Biodiversity Targets are to be achieved by 2020. Achieving those targets depend on environmental justice, burden-sharing, and mainstreaming the community in the decision-making. The essence of the "whole society approach" and "none is left behind" is highly interconnected to establishing ordinary people's rights. Without ensuring environmental justice, Bangladesh is unlikely to meet those targets without developing environmental governance immediately.

REFERENCES

Akhtar, MA, Bhuiyan, MM, Mia, MS, Islam, MS & Bhuyan 2017, 'Livelihood Assessment of Artisanal Fishermen in and Around

- Chittagong Coastal area of Bangladesh'. *Soc. Change*, vol. 7, no. 1, pp. 97-113.
- Akhtaruzzaman, M & Sajal, IA 2016, 'Common People's Access to the Environment Courts of Bangladesh: An Appraisal', *Journal of Judicial Administration Training Institute*, vol. 15, pp. 211-220.
- Alam, MW & Xiangmin, X 2019, 'Marine Pollution Prevention in Bangladesh: A Way Forward for Implement Comprehensive National Legal Framework', *Thalassas*, 35:17-27, <<https://doi.org/10.1007/s41208-018-0078-x>>.
- Alam, S, Rahman, MM & Arif, AA 2020, 'Challenges and opportunities in artisanal fisheries (Sonadia Island, Bangladesh): The role of legislative, policy and institutional frameworks'. *Ocean & Coastal Management*, 201, <<https://doi.org/10.1016/j.ocecoaman.2020.105424>>.
- Arefin, M.A, Mallik, A. & Islam, M 2017, 'Air pollution and effect of pollution heightens in Dhaka city', *Int. J. Adv. Res. Sci. Eng. Technol*, vol. 6, no. 2, pp. 19-25.
- Andreotta, M.R 2019, 'Environmental Justice', In: Brusseau, ML, Pepper, IL & Gerba, CP (eds.) *Environmental and Pollution Science*, 3rd edn. Academic Press, pp. 573-583
- Banglapedia 2020, 'Gazipur Sadar Upazila', <<http://en.banglapedia.org/images/8/88/GazipurSadarUpazila.jpg>> Accessed 21 October 2020.
- Bengtsson, M 2016, 'How to plan and perform a qualitative study using content analysis', *Nursing Plus Open*, 2: 8-14.
- Berg, BL 2009, *Qualitative research methods for the social sciences*. Allyn & Bacon, Boston.
- Bullard, RD, Gardezi, M, Chennault, C & Dankbar, H 2016, 'Climate Change and Environmental Justice: A Conversation with Dr. Robert Bullard', *Journal of Critical Thought ad Praxis*, Vol.5, no. 2.
- Clough, E 2018, 'Environmental justice and fracking: A review'. *Current Opinion in Environmental Science & Health*, vol 3, pp. 14-18, <<https://doi.org/10.1016/j.coesh.2018.02.005>>
- Colten, CE 2007, 'Environmental justice in a landscape of tragedy. *Technology in Society*', vol. 29, no. 2, pp. 173-179, <<https://doi.org/10.1016/j.techsoc.2007.01.006>>
- Cossham, A & Johanson, G 2019, 'The benefits and limitations of using key informants in library and information studies research'. In *Proceedings of RAILS - Research Applications Information and Library Studies, 2018, Faculty of Information Technology, Monash University, 28-30 November 2018. Information Research*, 24(3), paper rails1805. Available at <<http://InformationR.net/ir/24-3/rails/rails1805.html>> (Archived by the Internet Archive at <<https://web.archive.org/web/20190818104043/http://informationr.net/ir/24-3/rails/rails1805.html>>

- Das, J 2019, 'Framing and sources News on environmental justice in Bangladesh', *Pacific Journalism Review* vol. 25, no. 1&2
- DOE 2020, List of the subordinate offices, Department of Environment, Government of the People's Republic of Bangladesh. <<http://www.doe.gov.bd/>> Accessed 13 October 2020.
- Fatima, S 2017, 'National Green Tribunal: A New Dimension of Environmental Jurisprudence', *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, vol. 22, no. 11, p.44-53
- Guiney, MS & Oberhauser, KS 2009, 'Conservation Volunteers' Connection to Nature'. *Ecopsychology*, vol. 1, no. 4, pp. 187-197. <<http://doi.org/10.1089/eco.2009.0030>>.
- Hsiao, H-Y, Hsu, C-T, Chen, L et al 2020, 'Environmental Volunteerism for Social Good: A Longitudinal Study of Older Adults' Health', *Research on Social Work Practice*, vol. 30, no. 2, pp. 233-245 <<http://doi.org/10.1177/1049731519892620>>.
- Krippendorff, K 2004, 'Content Analysis: An Introduction to its Methodology', Sage Publications: Beverly Hills, CA.
- Malin, SA 2015, 'The Price of Nuclear Power: Uranium Communities and Environmental Justice', New Brunswick, NJ: Rutgers University Press.
- Martinez-Alier, J, Temper, L, Bene, DD& Scheidel, A 2016, 'Is there a global environmental justice movement?' *The Journal of Peasant Studies*, vol. 43, no. 3.
- McCauley, D & Heffron, R 2018, 'Just transition: Integrating climate, energy and environmental justice', *Energy Policy*, 119: 1-7. <<https://doi.org/10.1016/j.enpol.2018.04.014>>.
- McGregor, D 2018, 'Mino-Mnaamodzawin', *Environment and Society*, vol. 9, no. 1, pp. 7-24. <<https://www.berghahnjournals.com/view/journals/environment-and-society/9/1/ares090102.xml>>.
- Mian, MN & Rashid, MM 2014, 'A Critical Analysis of Legal Aid in Bangladesh', *International Journal of Social Science Research*, vol. 2, no. 1, pp. 1-10.
- Neuendorf, KA 2002, *The Content Analysis Guidebook*, Sage publications.
- Oikya, UA 2017, 'Bangladesh Environment Conservation Act 1995: An Analysis & Review', *Bangladesh Journal of Legal Studies*, <<https://bdjls.org/bangladesh-environment-conservation-act-1995-an-analysis-review/>>.
- Parris, CL, Hegtvedt, KA, Watson, L et al. 2014, 'Justice for All? Factors Affecting Perceptions of Environmental and Ecological Injustice', *Soc Just Re*, 27: 67-98, <<https://doi.org/10.1007/s11211-013-0200-4>>.
- Rahman, MM 2021a, 'Assessing the progress and pitfalls of the Ministry of Environment, Forest, and Climate Change in achieving SDGs in Bangladesh', *Journal of Public Administration (BJPA)*, vol. 29, no. 2. <<https://dx.doi.org/10.2139/ssrn.3773496>>.

- Rahman, MM & Akter, M 2020, Effectiveness of Village-Based Organization (VBO) in improving the livelihood of the rural community in Bangladesh, *Bangladesh Journal of Public Administration (BJPA)*, vol. 28, 2, 145–166. <<https://dx.doi.org/10.2139/ssrn.3759175>>.
- Rahman, MM 2018, 'The pros and cons of co-management: a case study from the Sundarban Delta', Paper presented at the World Social Science Forum 2018, 25-28 September, Fukuoka, Japan. <https://doi.org/10.5281/zenodo.4541022>.
- Rahman, MM 2020a, 'Impact of increased salinity on the plant community of the Sundarbans Mangrove of Bangladesh', *Community Ecology*, vol. 21, no. pp. 273-284, <<https://doi.org/10.1007/s42974-020-00028-1>>.
- Rahman, MM 2020b, 'Achieving Sustainable Development Goals in Bangladesh: An Organizational Analysis', *SSRN Electronic Journal*, <<http://dx.doi.org/10.2139/ssrn.3779081>>.
- Rahman, MM & Alam, MA 2020, 'Regulatory and Institutional framework for the conservation of coral reefs in Bangladesh: A Critical Review'. In: Alam, MA, Alam, F & Begum, D (Eds.), *Knowledge Management, Governance and Sustainable Development: Lessons and Insights from Developing Countries*. India: Routledge, <<https://dx.doi.org/10.2139/ssrn.3794550>>.
- Rahman, MM, Alam, MA, Rahman, MM, Mamun, M & Alam, A 2020a, 'Challenges of Artisanal Fishermen: A Case Study from Sonadia Island, Bangladesh', In: Alam, MA, Alam, F & Begum, D (Eds.), *Knowledge Management, Governance and Sustainable Development: Lessons and Insights from Developing Countries*. India: Routledge, <<https://dx.doi.org/10.2139/ssrn.3773504>>.
- Rahman, MM, Nishat, A & Vacik, H 2009a, 'Anthropogenic disturbances and plant diversity of the Madhupur Sal forests (*Shorea robusta* C.F. Gaertn) of Bangladesh', *International Journal of Biodiversity Science Management* vol. 5, no. 3, pp.162-173.
- Rahman, MM 2009, Plant diversity and anthropogenic disturbances in the Sal (*Shorea robusta* C.F. Gaertn) forests of Bangladesh. PhD thesis, University of Natural Resources and Life Sciences, Vienna, Austria.
- Ramos, A, Teixeira, CA & Rouboa, A 2019, 'Environmental Assessment of Municipal Solid Waste by Two-Stage Plasma Gasification', *Energies*, vol. 12 no. 137, pp. 2-16.
- Razzaque, J 2020, 'Access to Environmental Justice: Role of the Judiciary in Bangladesh', *Bangladesh Journal of Law*, Vol.4, no. 1&2, 1-25
- Roni, H 2020, 'The Environmental Justice Movement as a Model Politics of Risk', *Polity*, <<http://dx.doi.org/10.2139/ssrn.3689820>>.
- Schlosberg, D 2004, 'Reconceiving Environmental Justice: Global Movements and Political Theories', *Environmental Politics*, vol. 13, no. 3, <https://doi.org/10.1080/0964401042000229025>>.

- Shamsuzzaman, MM & Islam, MM 2018, 'Analysing the legal framework of marine living resources management in Bangladesh: Towards achieving Sustainable Development Goal 14', *Mar. Policy*, 87: 255–262.
- Skitka, LJ, Aramovich, NP, Lytle, BL & Sargis, EG 2010, 'Knitting together an elephant: An integrative approach to understanding the psychology of justice reasoning', In: Bobocel DR, Kay AC, Zanna MP, Olson JM (Eds.), *The psychology of justice and legitimacy: The Ontario symposium* (vol. 11, pp. 1–26). Philadelphia, PA: Psychology Press.
- Spencer, L, Ritchie, J & O'Connor, W 2003, 'Analysis: practices, principles and processes', In: Ritchie J, Lewies J (Eds.), *Qualitative Research Practice: A Guide for Social Science Students and Researchers*, Sage Publications Ltd, London, pp. 199–218.
- Svarstad, H & Benjaminsen, TA 2020, 'Reading radical environmental justice through a political ecology lens', *Geoforum*, 108: 1–11. <<https://doi.org/10.1016/j.geoforum.2019.11.007>>.
- Sohn, LB 1973, 'The Stockholm Declaration on the Human Environment', *14 Harv. Int'l. L. J.*, 423.
- Verma, R & Gayithri, K 2018, 'Environmental Fiscal Instruments: A Few International Experiences', *J. App. Eco. Res.*, vol. 12, no. 3, pp. 333–368.
- VNR 2020, 'Accelerated action and transformative pathways: realizing the decade of action and delivery for sustainable development', Bangladesh Voluntary National Reviews. <https://pea4sdgs.org/sites/default/files/2020-08/SDGs-Bangladesh_VNR_2020.pdf>. Accessed 07 September 2020.
- Whitmarsh, L & O'Neill, S 2010, 'Green identity, green living? The role of pro-environmental self-identity in determining consistency across diverse pro-environmental behaviours'. *Journal of Environmental Psychology*, vol. 30, no. 3, pp. 305–314.
- Wong, W 2008, 'Sustainable education: Community colleges as environmental champions', *Community College Journal*, vol. 78, no. 5. Pp. 22–26.
- World Bank 2018, *Enhancing Opportunities for Clean and Resilient Growth in Urban Bangladesh: Country Environmental Analysis 2018* (English). Washington, D.C.: World Bank Group. <<http://documents.worldbank.org/curated/en/585301536851966118/Enhancing-Opportunities-for-Clean-and-Resilient-Growth-in-Urban-Bangladesh-Country-Environmental-Analysis-2018>>

