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Legal Personhood of Rivers in Bangladesh: Promise, Pitfalls, and the Way Forward

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Abstract

The study examines the environmental and governance implications of granting 'Legal Personhood' to all rivers in Bangladesh, following the 2019 Turag River case. It is conducted using a twofold approach, integrating doctrinal legal analysis with empirical inquiry based on the Narrative Thematic Analytical Approach (NTAA). The doctrinal part examines the constitutional and statutory frameworks through the lens of the High Court's directions to determine any gaps between judicial innovation and legislative power. The empirical layer is based on 41 in-depth interviews, with thematic saturation achieved at 36, the remaining 5 interviews confirmed the themes without adding new insights. Interviews are conducted with farmers, fishers, local authorities, and NGO representatives (April-June 2024), in the Baral, Karatoya, and Narod rivers, chosen as ecologically pressured critical cases. Field accounts indicate that pollution, encroachment, and drying have been ongoing issues over time, and that community consciousness has primarily focused on livelihoods and cultural continuity, rather than legal rights. Findings suggest that weaknesses in the institutions, the advisory mandate of the NRCC, and the lack of statutory enforcement powers restrict the practical ramifications of personhood. The study concludes that, without statutory codification, empowered guardianship, and ecological monitoring benchmarks, the concept of river personhood remains symbolic. Implementing rights-standard features into the legislation, decentralizing enforcement, and incorporating local co-guardianship are necessary steps to achieve meaningful ecological outcomes.

Keywords: Legal personhood; NRCC; Policy; Environment; Rights of River

Introduction

Rivers have significantly influenced human civilization and its development by providing water, food, transportation, fertile soil, and cultural value. In most communities, rivers are worshipped or treated as recipients of spiritual beings or Gods as defined by indigenous or religious practices, in most communities showing a sense of ecocentricity[1]; a realization of

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[1] David Schlosberg and Lisette B Collins, 'From Environmental to Climate Justice: Climate Change and the Discourse of Environmental Justice' (2014) 5(3) WIREs Climate Change 359–374

the inherent existence of nature.[2] By contrast, modern legal systems have adhered to a very anthropocentric approach[3], which approaches rivers mainly as objects to be managed or utilized according to the perceived needs of humans[4]. This anthropocentric domination has been overwhelming in the regulation of the environment, to ensure that human affairs are prioritized over nature's rights.[5]

To change this paradigm, the concept of legal personhood has gained widespread acceptance. Legal personhood entails the property of having rights and duties, along with the ability to be represented in court; a property traditionally reserved for humans and corporations, which will now be extended to natural entities.[6] Supporters argue that, given the limitations of the traditional approach to environmental protection, it is more legally secure to present rivers as rights-holding subjects.[7]

This has been the case in several jurisdictions globally. The Constitution of Ecuador of 2008 has granted ecosystems the right to continued existence by providing them with the right to exist, persist, maintain, and regenerate.[8] In 2016, the Constitutional Court of Colombia granted juridical personality status to the Atrato River, citing environmental degradation and the rights of local people.[9] In New Zealand, personhood to the Whanganui River as a person represented by the Crown and the Māori iwi was granted in 2017.[10] The

<https://doi.org/10.1002/wcc.275>.

[2] Claude E Boyd, 'General Relationship between Water Quality and Aquaculture Performance in Ponds' in G Jeney (ed), *Fish Diseases* (Academic Press 2017) 147 <https://doi.org/10.1016/B978-0-12-804564-0.00006-5>.

[3] Christopher D. Stone, 'Should Trees Have Standing? – Towards Legal Rights for Natural Objects' (1972) 45 Southern California Law Review; https://southerncalifornialawreview.com/wp-content/uploads/2022/03/Christopher-D.-Stone-Should-Trees-Have-Standing_%E2%80%94Toward-Legal-Rights-for-Natural-Objects-45-S.-CAL.-L.-REV.-450-1972..pdf.

[4] Kalita, Namita and Jigyasa Barsha, 'Ecocentrism vs Anthropocentrism: Reimagining Humanity's Relationship with Nature' (2024) 4(6) International Journal of Humanities Social Science and Management 448–50 https://ijhssm.org/issue_dcp/Ecocentrism%20vs.%20Anthropocentrism%20%20Reimagining%20Humanity%20s%20Relationship%20with%20Nature.pdf.

[5] ibid.

[6] Erin L O'Donnell and Julia Talbot-Jones, 'Creating Legal Rights for Rivers: Lessons from Australia, New Zealand, and India' (2018) 23(1) Ecology and Society 7 https://doi.org/10.5751/ES-09854-230107.

[7] Peter D Burdon, 'Earth Rights: The Theory' (2011) IUCN Academy of Environmental Law e-Journal (No 1) (University of Adelaide Law Research Paper No. 2011-011) <https://ssrn.com/abstract=1765386>.

[8] Constitution of the Republic of Ecuador (2008, rev 2021), art 71 https://www.constituteproject.org/constitution/Ecuador_2021.

[9] *Center for Social Justice Studies et al v Presidency of the Republic et al* [2016], Judgment T-622/16 (Atrato River Case) (Constitutional Court of Colombia, 2016) http://climatecasechart.com/wp-content/uploads/sites/16/non-us-case-documents/2016/20161125_T-62216_judgment.

[10] Te Awa Tupua (Whanganui River Claims Settlement) Act 2017 (NZ), s 14

Uttarakhand High Court of India also granted rights to the Ganga and Yamuna rivers in 2017, which have since been stayed by the Supreme Court.[11] These events have signified a shift away from viewing rivers as sources to viewing them as rights-bearing subjects, as this has now manifested in Bangladesh.

It is particularly relevant that Bangladesh has adopted this model, given the country's ecologically and historically significant dependence on its waterways. The country, once labelled as the land of rivers, had been home to more than 700 rivers in the past, which contributed to the development of deltaic landforms, supported agriculture, facilitated trade, and boasted abundant biodiversity.[12] Current estimates indicate that there are approximately 230 rivers that are perennially flowing in the face of worsening pollution, encroachment, and certifiably declining hydrology. However, widely variable numbers are noted due to discrepancies in naming.[13] The report published by the Department of Environment (DoE) proves that most major rivers near Dhaka continue to remain highly polluted all year round, to the extent that the dissolved oxygen content is frequently too low to sustain aquatic life; the number of pollution sources nearly doubled over the past five years.[14]

Against this backdrop, on 30 January 2019, the High Court Division of Bangladesh declared the Turag River, and by extension every river in the nation, a legal person, invoking constitutional rights to life and the public trust doctrine in the Human Rights and Peace for Bangladesh (HRPB) and others v. Bangladesh and others, popularly known as the Turag River case.[15] The Court appointed the National River Conservation Commission as its trustee and issued directives that must be carried out to prevent encroachment and contamination (e.g., banning offenders from loans and elections, and the necessity of removing unlawful constructions).[16] The doctrine imposes a constitutional mandate on the State to act as a trustee of natural resources on behalf of current and future generations.

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https://www.legislation.govt.nz/act/public/2017/0007/latest/whole.html.

[11] *Mohd Salim v State of Uttarakhand* [2014] AIRONLINE 2020 UTR 111 (High Court of Uttarakhand, PIL No 126 of 2014)
https://www.ielrc.org/content/e1704.pdf.

[12] 'Endangered Rivers of Bangladesh' *(Lawyers & Jurists)* (no date)
https://www.lawyersnjurists.com/article/endangered-rivers-bangladesh/.

[13] Md Abu Sadath, Md Shahadat Hossain, Md Kamruzzaman and Md Mahbub Alam, 'Restoring and Controlling the Water Pollution of Endangered River in Bangladesh: A Case Study in Pabna City' (2022) 7(2) Journal of Critical Reviews 172
https://www.researchgate.net/publication/341981623_Restoring_and_Controlling_the_Water_Pollution_of_Endangered_River_in_Bangladesh_A_Case_Study_in_Pabna_City.

[14] Helemul Alam, 'Dhaka's dying rivers: Pollution sources nearly doubled in 5 years' Asia News Network (3 February 2025)
https://asianews.network/dhakas-dying-rivers-pollution-sources-nearly-doubled-in-5-years/.

[15] *Human Rights and Peace for Bangladesh (HRPB) and others v. Bangladesh and others* [2019] 71 DLR (AD) 158

[16] ibid.

The landmark ruling not only became a part of Bangladesh's environmental jurisprudence, but it also placed the country within the larger context of global trends in establishing legal rights of nature. Nevertheless, the political, social, and environmental repercussions of such recognition have not been studied well within the academic circle. Unless this significant precedent is given the enduring scholarly treatment it deserves, the transformative potential of such precedents will be underutilised, its principles unevenly applied (or worse, negated) over time.

Despite the significance of this development, scholarly engagement has been limited. Such international works offer a horizon within which to conceive the rights-of-nature doctrine in law, but not in the context of Bangladesh.[17] Prior studies by Siddiki and Tuli (2024) on analysis of Bangladesh and India,[18] and by Begum (2025)[19] on analysis of the Turag River ruling, have presented valuable insights, such as drawing comparisons with statutory interpretation and institutional mechanisms between jurisdictions, or the existence of any constitutional conflict. Nevertheless, there are two gaps in the existing literature. To start with, a doctrinal lapse exists in clarifying the relationship between the directives of the Turag judgment and the current statutes, such as the Environment Conservation Act 1995, the Water Act 2013, and the NRCC Act 2013. Second, it lacks an empirical gap: no research has yet experimented with whether the Turag innovations —i.e., the conferral of river personhood, the NRCC as a guardian, and the 17 directives — have made a difference in the ecological or governance reality of rivers. This paper addresses the latter directly while situating its findings within the broader doctrinal context. This raises a significant gap to be addressed in determining whether legal personhood has yielded quantifiable ecological health benefits in Bangladesh. Even half a decade after the Turag judgment, recent reports from environmental watchdogs and the government's monitoring report indicate that the Buriganga, Turag, and Shitalakkhya Rivers continue to be highly polluted, encroached upon, and in a poor ecological state.[20] These raise great questions: has legal personhood led to greater safety on the ground? Which institutional barriers are left? Has the NRCC served well as custodian?

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[17] Jerzy Bieluk, 'River as a Legal Person' (2020) 29(2) Studia Iuridica Lublinensia https://journals.umcs.pl/sil/article/view/10517/pdf.

[18] Umar Faruque Siddiki and Tamanna Aziz Tuli, 'Legal Personality of Rivers in Bangladesh and India' (2024) 3 (2) Law and Policy Review 1-20 https://journals.umt.edu.pk/index.php/lpr/article/view/6276.

[19] Ferdousi Begum, 'Implications of Conferring Legal Entity to the Turag River of Bangladesh: Recognising the Rights of Nature' in *Environmental Protection and the Law: Perspectives from South Asia* (Bloomsbury 2024) 101–120 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5081184.

[20] Department of Environment (Bangladesh), Surface and Ground Water Quality Report 2023 (Department of Environment 2024) https://doe.portal.gov.bd/sites/default/files/files/doe.portal.gov.bd/publications/edc0f4f2_8346_4f58_bdd1_72978984ba3e/2024-08-27-08-00-a698975451058b1fc83366d454942747.pdf.

This study explores these questions by evaluating the effectiveness of the legal framework, analysing relevant case law, and assessing institutional capacity. It also investigates what could be changed and examines the results by conducting empirical research across three rivers in the northern end of the country: Baral, Karatoya, and Narod. Taking the exposure to drought and a lower institutional presence as a challenging test case, it assesses the impact of these factors on the environment. Employing a mixed-methods design (combined with doctrinal analysis, interviews, field surveys, and environmental data), the research is divided into the following four sections: theoretical & comparative framework; doctrinal analysis; empirical coverage; policy recommendations, all of which explicate the research question: **To what extent has the legal recognition of rivers saved dying rivers since 2019?**

Methodology

The research design in this study employs a twofold approach that combines doctrinal legal research with empirical research, drawing on the Narrative Thematic Analytical Approach (NTAA) by Reissman[21]. This design will be helpful to evaluate both the normative structure of river personhood in Bangladesh and the practical consequences of that on communities and institutions.

The doctrinal analysis examines the provisions of the constitution, statutory laws, and case law that stipulate or shape the legal position of rivers. Articles of the Constitution 1972, the National River Conservation Commission Act 2013, the Bangladesh Environmental Conservation Act 1995, and the Bangladesh Water Act 2013 are considered key documents, and the case of the High Court of Bangladesh in Human Rights and Peace for Bangladesh (HRPB) and others v. Bangladesh and others[22], where all rivers are proclaimed as legal persons.

The empirical data is analysed based on NTAA, in which the report examines how the subject of river personhood is lived and told by the stakeholders. The fieldwork is conducted in three rivers chosen from the northern region of Bangladesh: Baral, Karatoya, and Narod. The sampling strategy for selecting the Baral, Karatoya, and Narod rivers is based on a critical case sampling design[23], as they are geographically prone to environmental stress factors, socio-economically significant, and have been reported to experience environmental stress during droughts in the northwestern region of Bangladesh. Although 41 interviews with community members and stakeholders are conducted for this study, thematic saturation is achieved after 36 interviews, with the remaining five interviews confirming the previously identified themes without providing

[21] Catherine Kohler Riessman, Narrative Methods for the Human Sciences (SAGE 2008).

[22] HRPB and others v. Bangladesh (n 15).

[23] Bent Flyvbjerg, 'Five Misunderstandings About Case-Study Research' (2006) 12 *Qualitative Inquiry* 219–245 https://doi.org/10.1177/1077800405284363.

any new insights. The stakeholders (local farmers, fisherfolk, government officials, and NGO representatives) are interviewed from April to June 2024, using in-depth interviews. The in-depth interviews are conducted using open-ended questions and probes to understand how participants perceive river health, the impact on their livelihoods, their awareness of legal recognition, and their experiences with governance or NGO intervention. To ensure informed participation, all respondents are verbally briefed on the study's objectives, their right to withdraw, and how their confidentiality will be maintained. The transcripts are created verbatim and are backed up by comprehensive field notes. All participant names provided in this paper are pseudonyms assigned for anonymization; no real identities are disclosed. Purposive sampling is employed to ensure that the participants are relevant to the study's objectives. The availability of respondents varies among rivers due to difficulties in establishing local presence. Table 1 lists only the 36 stakeholders whose narratives were coded and analyzed.

Table 1: Demographic Information of Stakeholders Interviewed

S/N	River	Participants (Pseudonyms)	Gender	Age	Occupation/Role
1	Baral	Khalilur Rahman	Male	62	Farmer
2	Baral	Abu Hena Mostafa Kamal	Male	61	Farmer
3	Baral	Juwel Mia	Male	48	Farmer
4	Baral	Imran Hossain	Male	50	Farmer
5	Baral	Helal Uddin	Male	44	Fisherman
6	Baral	Salman Hossain	Male	48	Farmer
7	Baral	Noyon Mia	Male	35	Fisherman
8	Baral	Helalur Rahman Juwel	Male	48	NGO Representative
9	Baral	Arif Chowdhury	Male	32	NGO Representative
10	Baral	Sadia Akter	Female	39	Government Official
11	Baral	SM Mizanur Rahman	Male	62	NGO/Activist
12	Baral	Fahim Ahmed	Male	50	Farmer
13	Baral	Rasheda Parvin	Female	45	Government Official
14	Baral	Kazi Selim	Male	35	Fisherman

15	Karatoya	Abdul Rahman	Male	46	Farmer
16	Karatoya	Shafiqul Islam	Male	41	Fisherman
17	Karatoya	Ismail Khan	Male	56	Farmer
18	Karatoya	Anis Haque	Male	65	Farmer
19	Karatoya	Mahmud Alam	Male	44	NGO
20	Karatoya	Zahid Hasan	Male	44	Government Official
21	Karatoya	Rahim Uddin	Male	46	Farmer
22	Karatoya	Jamal Ali	Male	41	Fisherman
23	Karatoya	Morshedul Islam	Male	60	Fisherman
24	Karatoya	Bazlur Rahman	Male	62	Fisherman
25	Narod	Shibli Sadiq	Male	56	NGO/Activist
26	Narod	Ayesha Khatun	Female	37	Farmer
27	Narod	Abdul Karim	Male	48	Farmer
28	Narod	Fahim Rahman	Male	42	Farmer
29	Narod	Rashedul Islam	Male	41	Fisherman
30	Narod	Jahangir Alam	Male	39	Fisherman
31	Narod	Ripon Mia	Male	35	Fisherman
32	Narod	Selim Uddin	Male	47	Government Official
33	Narod	Rafid Hasan	Male	44	Government Official
34	Narod	Rashed Khan	Male	50	NGO/Activist
35	Narod	Tariq Mahmud	Male	45	NGO Organizer
36	Narod	Hefzur Rahman	Male	48	Farmer

Interview texts are read iteratively, coded deductively using categories of guardianship and enforcement, and inductively to represent emergent themes, such as ecological loss or

invisibility. The codes are grouped into thematic patterns that include enforcement, water quality, encroachment, seasonal flow, and institutional coordination. Ethical approval is obtained in accordance with institutional regulations. One of its shortcomings is that it relies on self-reported perceptions and a seasonal sample of river conditions.

This combined methodology ensures that the legal framework is identified through both doctrinal analysis and empirical research. The rationale behind using ecologically stressed rivers as a stress test is that the impact and improvements should be observed even under challenging conditions; otherwise, the concept of granting legal personhood will remain symbolic. Government monitoring reports, environmental impact assessments, and NGO reports are secondary data that support and strengthen the primary evidence, thereby enhancing its credibility and reliability.

Theoretical & Comparative Framework

The section presents the theoretical premises needed to assess the river personhood system of Bangladesh. It outlines the primary legal and philosophical principles that underpin the justification of rivers as legal entities, followed by a review of notable comparative experiences elsewhere. In combination, these strands give the lens of analysis to the following doctrinal and empirical evaluations.

Environmental governance is between two opposite worldviews. Anthropocentrism puts the interests and needs of humanity at the forefront of making legal and policy decisions, with the natural world being viewed as a resource to satisfy human needs, interests, and desires.[24] On the contrary, ecocentrism determines intrinsic worth in everything that is a part of the natural environment, regardless of its usefulness to people.[25]

The Rights of Nature framework (RoN) is based on ecocentric premises, assuming that natural entities, such as rivers, forests, and ecosystems, have moral and legal status as rights-holders. Instead of keeping the environment safe, RoN attempts to do so because the environment, per se, might have its individual right to exist, persist, and regenerate.[26] Practically, the majority of legal frameworks are anthropocentric, which treats environmental protection based on the overall welfare objectives of humanity. RoN is hence a notable departure in terms of normativity, and preparing the law so that it reflects

[24] J. Baird Callicott, *Earth's Insights: A Multicultural Survey of Ecological Ethics from the Mediterranean Basin to the Australian Outback* (University of California Press 1994) https://www.jstor.org/stable/10.1525/j.ctt1pnbx7.

[25] Klaus Bosselmann, 'The Principle of Sustainability: Transforming Law and Governance' (2008) Ashgate https://www.researchgate.net/publication/268036798_The_Principle_of_Sustainability_Transforming_Law_and_Governance.

[26] Burdon (n 7)

ecocentric rather than anthropocentric values may necessitate either constitutional or legislative innovation.[27]

Juridical legal personhood gives an entity the ability to be endowed with rights and responsibilities as well as to be represented in courts of law.[28] It has long existed to benefit corporations, states, and some organizations. Still, in recent years, there have been attempts to extend it to natural persons or groups of persons to enhance their legal protection. With legal personhood, it enables us to address environmental damage directly to the natural thing rather than going through procedural obstacles commonly limiting actions on behalf of the environment.[29]

This idea is complemented by the Public Trust Doctrine (PTD), which acknowledges that some resources, like rivers, belong in trust to the state on behalf of the people and pre-existing generations.[30] PTD creates a legal duty through which the state is charged with conserving and preserving these resources, which, combined with the aspect of legal personhood, forms a practical foundation of the legal framework governing environmental conditions.

The subsequent doctrinal analysis employs a theoretical and comparative perspective on the legal system of Bangladesh, examining both normative and practical criteria of a successful river personhood to determine whether the given system can be considered suitable for the concepts of river personhood presented.

Doctrinal Legal Analysis of Bangladesh's River Personhood Framework

Constitutional and Statutory Foundations

The constitutional basis for recognising rivers as legal persons in Bangladesh is anchored in Articles 31 and 32,[31] which protects the right to life. These provisions have been judicially interpreted to encompass the right to a healthy environment, most notably in *Mohiuddin Farooque v. Bangladesh*.[32] The insertion of Article 18A[33] in 2011 further strengthened this foundation by directing the State to "protect and improve the environment and to preserve and safeguard natural resources, biodiversity, wetlands, forests and wildlife for present and

[27] Boyd (n 2)

[28] Stone (n 3)

[29] Burdon (n 7)

[30] Michael C Blumm and Mary C Wood, 'The Public Trust Doctrine in Environmental and Natural Resources Law: Chapter 1 (Introduction)' (2013) The Public Trust Doctrine in Environmental and Natural Resources Law (Carolina Academic Press 2013) 1–56 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2276080.

[31] Constitution of the People's Republic of Bangladesh, 1972 http://bdlaws.minlaw.gov.bd/act-367.html

[32] *Mohiuddin Farooque v. Bangladesh* [1997] 49 DLR (AD) 1 https://www.globalhealthrights.org/wp-content/uploads/2013/02/SC-2001-Dr.-Mohiuddin-Faroque-and-Ors.-v.-Government-of-Bangladesh-and-Ors..pdf.

[33] Constitution of the People's Republic of Bangladesh 1972, art 18A

future citizens." Although Article 18A is part of the Directive Principles of State Policy, the courts have read it in harmony with Articles 31 and 32, thereby elevating environmental stewardship to a constitutional imperative.

Statutory instruments elaborate the regulatory framework but also reveal its limitations. The Bangladesh Environment Conservation Act (BECA) 1995[34], Section 3, establishes the Department of Environment (DoE) as the regulatory body and provides the DoE with the authority to identify Ecologically Critical Areas under Section 5. Additionally, it makes the Environmental Clearance Certificate mandatory for all environmentally impactful projects under Section 12, and Section 15 earmarks punishment for environmental wrongs. Under Schedule 3, Category (b) of the Environment Conservation Rules 1997[35], enacted pursuant to the Environment Conservation Act 1995, the maximum permissible BOD for inland surface water is stated.

The Bangladesh Water Act 2013[36] vests ownership of all water resources in the State under Section 3(1), recognises the public trust obligation in Section 3, and allows for the declaration of water-stressed areas in Section 17. However, the Act does not define rivers as legal persons and contains no provision for guardianship.

Similarly, the National River Conservation Commission (NRCC) Act 2013[37] establishes the NRCC as a statutory body in Section 2. It outlines its largely advisory functions in Section 13, including recommending measures for preventing encroachment and restoration. Critically, the Act does not confer eviction powers, prosecutorial authority, or the ability to impose penalties. Thus, while the constitutional framework recognises environmental rights, the statutory apparatus stops short of embedding river personhood into enforceable law. The HCD, through its historic judgement of the Turag River Case, has filled the void.

The Turag Judgment: Reasoning, Directives, and Legal Scope

In Human Rights and Peace for Bangladesh (HRPB) and others v. Bangladesh and others, popularly known as the Turag River Case[38], the HCD declared the Turag and, by extension, all rivers, "living entities" with legal personhood. Drawing on the parens patriae[39] and

[34] Bangladesh Environment Conservation Act, 1995 (Act No. 1 of 1995) https://bangladeshbiosafety.org/wp-content/uploads/2017/05/Bangladesh_Environmental_Conservation_Act_1995.pdf.

[35] Bangladesh Environment Conservation Rules, 1997 https://bangladeshbiosafety.org/bangladesh-environmental-conservation-rules-1997.pdf

[36] Bangladesh Water Act, 2013 (Act No 14 of 2013) https://oldweb.lged.gov.bd/uploadeddocument/UnitPublication/1/840/Water%20Act%202013%20(English).pdf.

[37] National River Conservation Commission Act, 2013 (Act No. 9 of 2013).

[38] HRPB and others v. Bangladesh (n 15).

[39] Wex, 'Parens Patriae' (Cornell Law School Legal Information Institute, undated) https://www.law.cornell.edu/wex/parens_patriae.

public trust doctrines, the Court appointed the National River Conservation Commission (NRCC) as its legal guardian. Although non-codified, the doctrine's recognition by the High Court provides a quasi-legal basis for enforceable guardianship.[40] The Court also issued 17 directives, some of which are directly relevant to this study.

Directive 5 mandated that, before commencing any project involving a river, all agencies involved had to seek a No Objection Certificate (NOC) from the NRCC, thereby allowing it to avert encroachment and pollution. This conflicts with the Environment Conservation Act 1995 in Bangladesh, which places the pollution control in the hands of the Department of Environment without having to consult NRCC under section 3 and creates procedural uncertainty until legislative amendments are made.[41] In comparison, the Environmental Impact Assessment (EIA) Notification of India mandates that various environmental authorities must issue clearances before any given project commences, which includes inter-agency checks.[42] The statutory amendment that Bangladesh may adopt to follow the EIA process and include the requirement of NRCC clearance would codify Directive 5. Directive 6 directed the NRCC, in cooperation with the relevant authorities, to drive out river grabbers and restore rivers to their original status quo. But the eviction power currently rests with the district administration under tenancy[43] and local government laws, a division of power that deprives the NRCC of meaningful enforcement capacity. The 2019 Environment Protection Act of Nepal expressly gives the relevant agencies the right to reclaim encroached riverbanks and wetlands.[44] Similarly, India's National Green Tribunal (NGT) has upheld eviction drives as a legally enforceable environmental remedy.[45] This enforcement gap would be addressed by codifying the eviction authority held by NRCC. Directive 7 required the encroachment and pollution of waterways to be criminalized by amending the NRCC Act, specifying the punishment, investigation process, and trial mechanisms, and also barring these offenders from obtaining bank loans. The NRCC Act of 2013 (Chapter V) criminalizes encroachment and pollution, and the enforcement is in the hands of the district administration and ordinary courts; the NRCC does not have any prosecutorial authority, which restricts the broader vision of this directive. In comparison, the 2008 Constitution of Ecuador, which acknowledges the rights of nature, allows for the direct prosecution of environmental damage.[46] Moreover, the Te Awa Tupua Act (2017) of New Zealand holds offenders

[40] Mohiuddin Farooque v. Bangladesh (n 32)

[41] BECA 1995 (n 34)

[42] Trilegal, 'Supreme Court Mandates Environmental Clearance is Necessary for all Large Scale Building and Construction Projects' (2025) Lexology https://www.lexology.com/library/detail.aspx?g=8b0e2b16-b975-46e3-a7db-fcf8b13a87c3.

[43] The State Acquisition and Tenancy (SAT) Act 1950, s 145

[44] Environment Protection Act, 2019 (2076)

[45] National Green Tribunal, Official Website https://www.greentribunal.gov.in/.

[46] The Constitution of Ecuador 2008 (n 8)

responsible for harming the Whanganui River, as appointed by the Crown.[47] Directive 8 mandated the creation of a comprehensive digital database, driven by satellite imagery, of every river in the country. While visionary, it lacks enabling statutory support. Directive 10 instructed the Ministry of Education to ensure that all students are taught about the importance of waterways and the conservation of rivers. Integrating river conservation into the education system is essential, but without curricular mandates or institutional backing, it risks remaining symbolic.

By law, the judgment has the effect of a continuing mandamus[48]--a mandate of a court that must be obeyed without an end, and allows one to enforce judicial proceedings in case of defaults. It will be binding as per Article 111 of the Constitution

Nonetheless, most of its directives, including electoral disqualification of encroachers (Directives 14 and 15), forced eviction (Directive 6), and criminalisation of pollution and encroachment (Directive 7), do not have a statutory basis in any of the existing legislation, namely the NRCC Act 2013, the Bangladesh Environment Conservation Act 1995, or the Water Act 2013. This gap in existing statute limits the feasibility of their enforcement, and as such, puts their execution at the mercy of executive cooperation and political will. Practically, the continuing mandamus compels executive compliance through judicial oversight, even in the absence of explicit statutory authority.

Institutional Architecture and Statute–Directive Misalignment

As rebuffed under the Turag judgment[49], the role of the NRCC has been interpreted as that of an empowered guardianship position; however, the NRCC Act 2013 limits it to an advisory role (Section 13), rather than granting it the power to evict, prosecute, or impose penalties.

For example, Directive 6 directs the NRCC, in collaboration with relevant authorities, to issue eviction notices to river grabbers and undertake river cleanups. Still, the power to issue instructions on evictions lies with the district administration under the State Acquisition and Tenancy Act 1950[50], and the local government legislations, and not with the NRCC. Likewise, Directive 5 requires the NRCC to regulate encroachment and pollution by withholding No Objection Certificates for projects that involve rivers. Still, the Bangladesh Environment Conservation Act 1995 vests all powers to control pollution in the Department of Environment (DoE), as outlined in Sections 3, 5, 12, and 15. Section 12 puts no statutory requirement of synchronizing the NRCC. This is also reflected in

[47] Te Awa Tupua Act 2017 (n 10).

[48] Harold Respicio, 'Writ of Continuing Mandamus | Rules of Procedure for Environmental Cases [A.M. No. 09-6-8-SC] | SPECIAL PROCEEDINGS' (2025) https://www.respicio.ph/bar/2025/remedial-law-legal-ethics-legal-forms/special-proceedings/rules-of-procedure-for-environmental-cases-am-no-09-6-8-sc/writ-of-continuing-mandamus.

[49] HRPB and others v. Bangladesh (n 15).

[50] SAT Act 1950 (n 43).

Directive 8, which requires the establishment of a satellite-based digital river database. However, there is no enabling provision in existing law to support the establishment of a database in this form that might be binding on parties or as legally acceptable evidence. This translates into an apparent statutory directive deviation: judicial directives envision forceful authority and binding inter-agency arrangements that neither the current statutory structures permit nor compel. This results in a clear statute–directive misalignment: judicial orders envision coercive powers and mandatory inter-agency coordination that the current statutory framework neither grants nor compels.

As the following empirical case studies demonstrate, all misalignments have tangible consequences for rivers across various hydrological and socioeconomic contexts in Bangladesh.

Findings & Analysis

This paper examines the perspectives of 41 stakeholders, including farmers, fisherfolk, government officials, and NGO representatives, from the Baral, Karatoya, and Narod rivers in northern Bangladesh. Thematic saturation is achieved after 36 interviews. The study adopts the Narrative Thematic Analytical Approach (NTAA) by Reissman (2008) because the study is concerned with what is being narrated by the participants in relation to ecological, socio-economic, and cultural changes and not how these narratives are organized. NTAA allows a comprehensive understanding of how people perceive the community, their lives and how they adjust to changes in the environment and institutions. The choice of the stakeholders is determined by their positions and closeness to the rivers. The narratives are coded and arranged into three headings, namely (1) Historical and socio-economic centrality of the rivers, (2) Causes of environmental decline and institutional neglect, and (3) Adaptation, civil society mobilization, and constrained agency. The narratives of each participant are mapped to one or more parts, depending on what they discuss. Interviews are displayed in terms of roles, river, gender, and age, ensuring anonymity while maintaining transparency.

a. Historical and Socio-Economic Centrality of the rivers

The testimonies from the Baral, Karatoya, and Narod rivers consistently frame these water bodies as more than ecological assets: they emerge as economic arteries, cultural markers, and intergenerational lifelines. However, in both instances, the current deterioration is juxtaposed with the abundance of the past, highlighting ecological loss and governance failure.

The Baral is a grounded memory of the subsistence and daily practice of culture. It was to hatch fish that Khalilur Rahman (Farmer, Male, 62) remembered: 'I used to bathe in Baral almost daily before school when I was a boy, and hatch fish for my mother, which was a two-meals long…' It is not just a simple childhood recollection, but a testament to how the river was a direct source of nourishment to homes and an integral part of their

everyday lives. On the same note, Abu Hena Mostafa Kamal (Farmer, Male, 61) insisted that '…the river had numerous indigenous fish species, which were caught by fishermen and supplied to other areas of the country.' These memories demonstrate how the river played a crucial role in supporting local food production and the broader systems of exchange. This was further given an infrastructural twist by Juwel Mia (Farmer, Male, 48), 'Large freight ships used to transport merchandise to serve local as well as distant markets….[and] the river was a source of water that could be used for farming activities, making it a cost-effective option for irrigation.' Collectively, these narratives position the Baral in an active river within the context of the area's economic and cultural infrastructure.

The contemporary contrast sharpens the analysis. Imran Hossain (Farmer, Male, 50) commented, 'We use deep pumps when the Baral is drying... my dad had not even to buy diesel... the river was kind. Now, every drop costs money.' The same sentiment was echoed by Helal Uddin (Fisherman, Male, 44), who pointed out, '…the seniors are attempting to use traditional means. Still, they are seen as outdated by the younger generation. We miss fish and our traditions — but we grow accustomed to the situation, so that we can live.' These voices shed some light on the informal commodification of survival in which cultural practices associated with abundance are being reconstrued as liabilities under ecological scarcity.

The Karatoya stories are the same, with a touch of nostalgia and criticism. Abdul Rahman (Farmer, Male, 46) told his sons, 'This is the river that created your grandfather', highlighting the intergenerational adhesion and current degradation. Shafiqul Islam (Fisherman, Male, 41) compared previous cultural prosperity - 'we used to sing and rejoice in monsoon' - with silted fishing grounds. Meanwhile, Ismail Khan (Farmer, Male, 56) remembered an economy built upon a rich river: 'I had seen great sailboats... coconut-bearing vessels of Khulna had come to the city of Bogura... fishermen had fishing season all year round.' To Anis Haque (Farmer, Male, 65), the Karatoya was not merely an economic lifeline but a cultural center where '..the rural economy was enriched through river-based fairs, festivals, and boat racing.' These testaments identify collective memory as a form of resistance - through the abundance of the river, the communities critique current governance that allows erosion, silting, and cultural dislocation.

The motif of heritage is most evident in the Narod. According to Shibli Sadiq (NGO/ Activist, Male, 56), 'It is indeed true that the Narod River has been the center of development for Natore town and its surrounding settlements', he says. To him, the river is a part of local identity: 'The Narod is directly linked with the past and history of Natore. This was directly associated with a reduction in the farmers' livelihoods.' Ayesha Khatun (Farmer, Female, 37) explained, 'We are making our own canals... what is the use when the river does not fill our fields?' Abdul Karim (Farmer, Male, 48) stated his observation: 'The previously natural irrigation system now requires external replacements.' Fahim Rahman

(Farmer, Male, 42) noted, 'It is only pumps and tanks that we can depend on to give us hope now.' The fishing folk give the same testimony. Rashedul Islam (Fisherman, Male, 41) compared the past and the present: 'The fish came here in the winter and in the monsoon. Now the river dries too early. Nets are empty.' The adaptive hardship was further explained by Jahangir Alam (Fisherman, Male, 39): 'We then push the fishing by the amount of water... it is difficult, but we can cope.' 'Now we fish in the smaller tributaries,' said Ripon Mia (Fisherman, Male, 35). These descriptions portray the Narod as a historical commons and the present-day locus of ecological disconnection, in which the demise of rivers is analogous to the demise of history itself.

Across the Baral, Karatoya, and Narod rivers, a standard scheme of historical prosperity and modern destitution may be traced, with minor variations. The three rivers once supported the local livelihood, trade, and culture. This would have been possibly solved with the NRCC possessing enforceable eviction authority, incorporating desiltation programs, and integrating community-based management using fisher and farmer cooperatives. Sustainable irrigation investments would have diminished the reliance on expensive pumps. Nevertheless, the measures did not materialize due to institutional weaknesses, a developmental preference for infrastructure, social marginalization of key stakeholders, and embedded political-economic forces, such as industrial pollution and land grabbing.

b. Causes of Environmental Decline and Institutional Negligence

Following the historical and socio-economic centrality of rivers, the testimonies have demonstrated that ecological degradation is a biophysical and political phenomenon, arising from infrastructural interventions, industrial pollution, encroachment, and poor institutional governance. Throughout the Baral, Karatoya, and Narod rivers, the stories intersect on a critical observation: rivers, which brought people together in the past, now become arenas of structural neglect and untamed dominion, highlighting the frontiers of legal personhood in the face of non-enforcement.

Baral respondents highlighted infrastructural mismanagement and governance failure as the leading causes. Similar observations were made by Salman Hossain (Farmer, Male, 48), who said, 'We work to maintain embankments, but stronger farmers overcome the water…. It is their river; we can do nothing about it…', which points to the asymmetry between local powers. Noyon Mia (Fisherman, Male, 35) compared the abundance of the past to the degradation of the present: 'Fetes were on the riverbank. Now it's a dusty field. Particularly, there may be one on the other side of the river; they may not be dead yet.' The voices of the NGOs reinforced these structural reasons: Helalur Rahman Juwel (NGO, Male, 48) explained, 'The river was narrowed by infrastructure, including the Nimai Chara-Baghbari flood control embankment, and other smaller sluice gates.' Arif Chowdhury (NGO, Male, 32) added, 'Baral is choked by industrial effluents, sewage and sand mining. Without action knowledge can do nothing....' Sadia Akter (Government Official, Female,

39) put the institutional failure within context, saying, 'We look at the quality of water and its flow, yet lack budget, personnel, or power. The significance of the river does not mean that sand mining and pollution can be evaded in any way. Regression was exacerbated by human activities, such as markets and roads, as well as the legal loopholes that influential individuals exploit.' Together, all these narratives reflect how infrastructural mismanagement, political influence, and local exploitation create an environmental susceptibility, which again perpetuates the doctrine-statute mismatch.

In the Karatoya, the respondents also pointed out gaps in governance and structural upheaval as major forces. Mahmud Alam (NGO, Male, 44) noted, in the case of Karatoya, 'Circulars talk of protection, but we are not given particular guidelines'. Zahid Hasan (Government Official, Male, 44) pointed out that monitoring is lacking: 'Data on flow and sediment change are also not complete. Its restoration will not be possible until it is funded.' Indications of such institutional silences suggest that there is no coordinated monitoring and resource allocation to address what the respondents consider to be policy inertia. Farmers focused on hydrological changes: Rahim Uddin (Farmer, Male, 46) said, 'Water would run in a straight line. Channels are silted now after the monsoons. During the dry season, there is a limited water supply for irrigation. And clear with little canals, we go up, but the river is not so large and strong, and its giving life makes less entabliture.' As Jamal Ali (Fisherman, Male, 41) elucidated, there was a phenomenon of habitat collapse: 'Fish nurseries were placed along rivers. Now, silt and weeds cover them. Fishing is time-consuming…' Morshedul Islam (Fisherman, Male, 60) emphasized Being a farmer, I realize the extent of damage to the river due to unauthorized sand mining, effluents released by the factories and pollution in the market….irrigation activities and posing threats to crops', while Bazlur Rahman (Fisherman, Male, 62) pointed, 'Encroachers and polluters are influential and powerful. They get political shelter.' All these testimonies, in combination, demonstrate that ecological decay cannot exist outside of the realm of political economy: degradation is planned and accepted, rather than natural, and it is the local people who suffer.

The Narod was dominated by industrial pollution and intrusion. Shibli Sadiq (NGO/Activist, Male, 56) shared, 'Several factories discharge the waste into the river... It is choked with rubbish in most places, and in other places almost blocked entirely with it'. Rashed Khan (NGO/Activist, Male, 50) added: 'The effluent released by factories such as Sugar Mills is being emptied into the Narod… The second one is encroachment. The strong people have seized possession of the river and built houses, markets, and other buildings.' Farmers emphasized the short-term ecological effects: Ayesha Khatun (Farmer, Female, 37) said, 'During lean months, the river is mud and sand. Rainwater does not fill it up. Farms, we use little pumps.' 'It is no longer a river, capricious and feeble, ' as Abdul Karim (Farmer, Male, 48) said, and Fahim Rahman (Farmer, Male, 42) described, 'We invent all the time; little plots have to be looked after… Seasonal changes are erratic; we make things up every year.' Fishers reflected the erosion of livelihoods: Rashedul Islam (Fisherman, Male, 41)

said, 'The children will never look upon the river as we did. We forget everything about the river'. Jahangir Alam (Fisherman, Male, 39) noted: 'Fishing is a patient business; we have to tempt ourselves with trifling tributaries,' while Ripon Mia (Fisherman, Male, 35) added: 'The river no longer determines our routine; we are predicting as well as possible'. Authorities admitted the neglect of structures: Selim Uddin (Government Official, Male, 47) confessed, 'There are no guidelines about little rivers such as Narod. There are other priorities…', and as Rafid Hasan (Government Official, Male, 44) observed, 'Larger rivers get attention for funding, Narod has a long way to go.' Shibli Sadiq (NGO/Activist, Male, 51) highlighted: 'The civil society is not very strong, and there is weak enforcement; the judicial orders have been partially applied.' Rashed Khan (NGO/ Activist, Male, 50) added: 'There is a little influence and ineffective enforcement of civil society; judicial instructions have been partially enforced.' Tariq Mahmud (NGO Organizer, Male, 45) emphasized: 'The civil society is not strong and there is weak enforcement, judicial instructions have been implemented partially.'

A cross-case analysis demonstrates convergence across rivers: environmental degradation is not just an environmental issue, but also a political one, organized by infrastructural interventions, industrialization, encroachment, and governance failure. The differences emerge in subtlety: the difficulties faced by Baral lie in the asymmetry of local powers and the embankment projects; Karatoya faces siltation, habitat destruction, and a lack of enforcement; Narod encounters industrial discharge, aggravated by the privileges of the larger rivers in the bureaucracy's priority hierarchy. In all cases, the testimonies reveal a general measure of statutory inconsistency, where rivers are individuals in theory but do not possess custodianship and assets in a formal context. The stories all emphasize that human action creates or encourages degradation, which is often supported or condoned by institutional inertia, resulting in ecological and socio-economic consequences that communities are forced to bear.

c. Adaptation, Civil Society Mobilization, and Constrained Agency

Building on the previous discussion of historical centrality and environmental decline, the narratives reveal that local communities have developed adaptive strategies to cope with river degradation, even as institutional neglect persists. These adaptations, across the Baral, Karatoya, and Narod rivers, demonstrate the ingenuity of humans and the limits imposed by governance failures, as well as the conflict between agency and structural constraints.

Communities in Baral also record individual and group coping strategies in response to ecological stress. SM Mizanur Rahman (NGO/Activist, Male, 62) described, 'Coordination with the national organizations needed to be achieved. A national task force was created, and six points were proposed to Baral, which were not implemented....' Local participants take pragmatic action: Helal Uddin (Fisherman, Male, 44) remembered, 'We lost fish and our ritual--but we get used to it, and may thus live.' Fahim Ahmed (Farmer, Male, 50) said, 'There are interventions, like seasonal deep-pump irrigation, changed fishing methods, etc.

We need each other to use water effectively.' Although systemic forces constrain the effectiveness, Rasheda Parvin (Government Official, Female 45) noted, 'There are several institutions that run the river, but they are not coordinated.' Its social injustice and political prowess are also being perpetuated, as noted by Kazi Selim (Fisherman, Male, 35), as he said, 'No justice exists, we live day to day, how can we stand up to the government?' These considerations highlight the importance of knowledge and social capital, which are insufficient to counteract structural inertia and political inequities.

In the Karatoya, organized, place-based strategies, as opposed to passivity in the face of survival. According to Rahim Uddin (Farmer, Male, 46), 'We drain the little canals and change the planting schedules to cope with low water levels. The stream is smaller, and we make the best of it.' Jamal Ali (Fisherman, Male, 41) said, 'We take it up and take it down. That takes more effort, and we cannot afford to give up.' The NGO actors accentuated the importance of local innovation in plugging institutional gaps. Mahmud Alam (NGO, Male, 44) noted, 'Community innovations emerge when commands fail. Circulars are a promise of protection, and they do not specify how to do things, but rather how small restorations are self-organized. The silt is monitored, and shared knowledge is passed down through experience. People often organize small restorations themselves, as official plans do not reach them on most occasions.' These descriptions underscore the significance of the fact that adaptation, in this case, is not only a viable tool but also a form of civic practice. This element helps bridge the gap between national policy and local realities.

The Narod exhibits constrained agency within oppressive structural forces. A cooperative and technical approach is used by farmers to deal with water shortage: Hefzur Rahman (Farmer, Male, 48) described it in the following way, 'They assist one another when it is dry. My grandfather did not necessarily have to do it that way.' However, Ayesha Khatun (Farmer, Female, 37) explained, 'We use rainwater tanks and mini pumps. Crops are rotated or delayed.' Constant improvisation was stressed by Fahim Rahman (Farmer, Male, 42): 'We are always inventing; petty plots must be taken care of…' Fishers also learn how to be adaptable in times of uncertainty: Rashedul Islam (Fisherman, Male, 41) said, 'Fishing is not good. My cars are in flood plots, and I have a little labour now and then. The holidays are over; the river no longer suits us'. Jahangir Alam (Fisherman, Male, 39) emphasised the inconvenience of their daily regimen: 'Fishing is a long lottery; we must be content with tempting ourselves with trifles…We are making the best we can of it; it is so changeable in its habits.' At the same time, the civil society is organizing to fight against the ecological loss: Shibli Sadiq (NGO/Activist, Male, 56) said, 'Civil society has given a hue and cry to protect the Narod... However, what is most challenging is that the encroachers and polluters are strong, and civil society members are sometimes threatened….I also want to add that we have a slogan that says, 'Unless Narod is saved, then Natore will not survive.' In this spirit, we are endeavoring to keep up the Narod Protection Movement.' Rashed Khan (NGO/ Activist, Male, 50) confirmed the continuing campaign: 'We do workshops and we hold awareness campaigns... However, there are

structural barriers.' Government officials recognized resource and bureaucratic constraints: Selim Uddin (Government Official, Male, 47) said, 'Small rivers such as Narod are not simple in the process of checking, though the river is receding' and Rafid Hasan (Government Official, Male, 44) confessed, 'Institutions sometimes lack motivation when it comes to a coordination of efforts to restore as there are other 'bigger' issues to prioritize.'

There is one noticeable trend across all three rivers: households and civil society engage in adaptive action and unionize, but political, economic, and institutional influences severely limit their agency. Adaptation is not synonymous with resilience; adaptation is limited agency, an ongoing negotiation with scarcity, regulatory loopholes, and power imbalances. As communities become innovative, coordinated, and civil society activists, structural neglect, characterized by weaker enforcement, scarcer resources, and political capture, remains the final obstacle to successful ecological governance, indicating a continued mismatch between local capability and institutional accountability.

Discussion

According to the empirical results of the Baral, Karatoya and Narod rivers, there is a dramatic gap between the principles of the rivers as legal persons and the ecological facts on the ground, which mirrors the statutory–directive misalignments highlighted earlier. These rivers are historically known to have supported agriculture, fisheries, trade, and cultural life, but hydrological pressure, encroachment and infrastructural intervention have added to their degradation. Sluice gates and embankments in the Baral, sand extraction and encroachment in the Karatoya and industrial effluent and waste discharge became the main stressors in the Narod. The continued deterioration of the ecological state in these northern river basins demonstrates a direct correlation between environmental loss and socio-economic vulnerability, as well as cultural loss. Government surveillance supports these perceptions. The Karatoya Department of Environment (2023) records an over 12-15% decrease in the accessible width of the river in urban centres, down to 3.2mg/L, which is well below the 5mg/L needed by most freshwater fish.[51] At the Baral Department of Environment, trend data and satellite observations have been collected since 2019, indicating stagnation and declining surface flow, which is consistent with interview reports about severe encroachment, blockage of sluice gates, and siltation throughout the year. The government water-quality reports are still negligible on the Narod, but local agencies and the local water watch frequently report untreated industrial effluents from local sugar and seed-processing plants. This is in line with national DOE reports[52]of a growing biochemical oxygen demand in small tributary rivers in the north.

The legal personhood conferred by the Turag judicial decision and the establishment of the National River Conservation Commission (NRCC) as its custodian have not yielded

[51] Department of Environment (n 20).
[52] Ibid.

significant ecological benefits, as the findings indicate. Sluice gates, embankments, industrial pollution, and local political interference still limit flows, diminish biodiversity, and restrict livelihoods. Fragmented authority, institutional inertia, and a shortage of coordination across the agencies also diminish enforcement efforts. These findings affirm that legal personhood is primarily a nominal category that lacks active mechanisms, which supports the empirical gap in the literature on the practical effects of rights-based river systems.

Notably, the 17 directives of the Turag judgment, such as environmental restoration, removal of encroaching areas, control of pollution, and active NRCC control, are not fully implemented. Most of the dictates have not resulted in action, even though there has been a slight change with some High Court orders and NGO efforts. This brings out the disparity between normative rights and their actual application, indicating structural failures in administrative capacity, political will and resource allocation.

Local adaptation and civil society mobilization offer essential, though limited, counterpoints. Community strategies—including irrigation innovations, altered fishing practices, and grassroots advocacy—demonstrate resilience and active engagement with river stewardship. NGOs and social movements have leveraged public interest litigation, boundary demarcation, and awareness campaigns to pressure authorities. Yet, structural constraints, entrenched power asymmetries, and inadequate resources restrict the capacity of these actors to restore ecological integrity.

Overall, the study critically underscores that the effectiveness of river personhood depends not solely on judicial or statutory recognition but on the translation of normative principles into enforceable governance actions. Legal rights must be operationalized through coordinated institutional action, robust monitoring, and community engagement to achieve tangible ecological and socio-economic outcomes.

Suggestions for Operationalizing River Personhood in Bangladesh

The doctrinal analysis and empirical findings from the Baral, Karatoya, and Narod rivers show that the transformative potential of the Turag judgment has not been realized. While the Baral, Karatoya, and Narod represent ecologically stressed critical cases, the policy recommendations offered are intended as indicative reforms rather than statistically representative findings for all rivers in Bangladesh. To make legal personhood a functional tool for river protection, Bangladesh must embed it into statutory law, reform guardianship, strengthen enforcement, and integrate participatory and inter-agency governance. These suggestions draw on existing Bangladeshi law, the Turag directives, and comparative lessons from jurisdictions where river personhood has been successfully implemented.

a. Embedding River Personhood in Statutory Law

Judicial precedent under Article 111 of the Constitution is binding but needs further legislative support. The Bangladesh Water Act 2013 should be amended to redefine "river" in Section 3 as a legal person with inherent rights, including the right to flow, the right to be free from pollution, and the right to ecological restoration. A new Section could explicitly enumerate these rights and empower guardians to represent rivers in both judicial and administrative proceedings.

Similar amendments to the Environment Conservation Act 1995 are also essential. It should stipulate that in all projects in the riparian buffer areas, there should be an improvement in Environmental Impact Assessment (EIA) that must include independent ecological tests and public hearings. A new section can be added that would present obligatory restoration orders and penalties that are river-dependent on the rights violation. Such an embedding of legislation would seal this gap salvaged in practice at present, since river personhood is recognized in principle but not as yielding legally enforceable rights.

b. Reforming Guardianship Structures

The National River Conservation Commission Act 2013 currently limits the NRCC largely to advisory functions, as outlined in Section 13. A new Section should establish River Guardian Panels for each major river, comprising one state-appointed guardian and one community-elected guardian. These panels must have legal standing under the Code of Civil Procedure 1908, Order I[53], enabling them to file public interest litigation on behalf of rivers. This hybrid guardianship approach reflects the models of the Whanganui River (New Zealand) and the Atrato River (Colombia), where state-community co-management has increased enforcement effectiveness and legitimacy.

c. Strengthening Enforcement Authority

Without enforcement powers, personhood remains symbolic. The NRCC Act should be amended to include a new Section granting the Commission authority to issue binding remedial notices, enforce stop-work orders against encroachment or pollution, and impose administrative fines. Breach of these should go to Environmental Courts according to the Environmental Court Act 2010, and the fast-track benches (based on the Indian model National Green Tribunal) should ensure that river rights cases are dealt with within 90 days.

d. Institutionalizing Ecological Monitoring and Transparency

There is nothing like rights without data. They could include an amendment to the Environmental Conservation Act 1995 that would oblige the Department of Environment to publish data about the water quality (DO, BOD, turbidity) of all rivers weekly. A River Health Dashboard, modelled on the Ecuadorean public environmental data system, should report the percentage of encroachment being eliminated, the amount of pollution fines

[53] Code of Civil Procedure, 1908 (Act No. 8 of 1908) https://bdlaws.minlaw.gov.bd/act-86.html.

issued, and work on meeting restoration targets. Such a report to the public would facilitate Parliament, civil society, and local communities in monitoring compliance in real-time.

e. Aligning Policy Frameworks with Personhood Principles

The National Water Policy 1999[54] needs to be updated to acknowledge rivers as rights-endowed entities, as well as to incorporate environmental flow requirements into water apportioning and implement a river-first principle in infrastructure and irrigation development modelling. The Ministry of Water Resources could also clarify in Cabinet directives that no project can go ahead in contravention of the legal rights of a river, effectively operationalizing the precautionary principle already enshrined in Bangladesh environmental law.

f. Decentralizing Through Community Stewardship

Statutory River Stewardship Committees at the upazila level should be established to be competent to report violations to the NRCC and Environmental Courts. Universities and NGOs could train committees to practice legal documentation, gather evidence, and restoration practices. Towns making demonstrable gains to environmental quality would be state-incentivized, as is done through the iwi-directed Whanganui stewardship programme in New Zealand.

g. Creating an Inter-Agency River Rights Taskforce

To address the fragmented mandates of the Department of Environment, Bangladesh Water Development Board, and Ministry of Land, a permanent Inter-Agency River Rights Taskforce should be established under the NRCC Act. This Taskforce would prepare river-specific restoration action plans, coordinate enforcement, and report biannually to both Parliament and the Supreme Court, preserving the continuing mandamus oversight envisaged by the Turag judgment.

h. Enhancing Judicial Capacity

Continuing judicial education in the area of rights-of-nature jurisprudence should become an integral part of the ongoing education of judges and magistrates. This can be moved on Green benches in High Court Divisions that have jurisdiction over riverine districts (e.g., Rajshahi, Dhaka). Litigation on river rights could be accelerated, and doctrinal consistency could be achieved. This is comparable to that of the National Green Tribunal in India, which has expedited the process of adjudicating environmental litigations, while also establishing distinct jurisprudence.

i. Advancing International and Transboundary Cooperation

[54] National Water Policy 1999 https://faolex.fao.org/docs/pdf/bgd146075.pdf.

Given that many rivers in Bangladesh, including the Baral and Karatoya, are linked to upstream Indian flows, personhood principles should be incorporated into transboundary frameworks like the Ganges Water Sharing Treaty.[55] Negotiations could include joint river health audits, coordinated pollution control measures, and co-managed flood mitigation efforts. International financing (e.g., Global Environment Facility, Green Climate Fund) could support monitoring technology and institutional strengthening.

j. Establishing Financial Oversight and Accountability

There must also be a River Protection Oversight Committee, which would consist of judicial persons, environmental experts, representatives of civil society leaders, and auditors. This organization would monitor budgetary provisions at the river restoration front, carry out annual audits, and ensure there is no diversion of funds or political interference, as has been witnessed in previous conservation efforts. Such proposals take the form of symbolic acknowledgement but shift towards a rights-based regulation of the river that is legally binding. Empowering guardianship, decentralizing enforcement, promoting transparency in monitoring work, and incorporating personhood into laws can make them a working legal reality, empowering the country to turn the Turag judgment into reality, capable of reversing the ecological slide and securing the rivers of Bangladesh for our children and grandchildren.

Conclusion

The case of the Consecration of all rivers in Bangladesh as legal persons in Human Rights and Peace vs Bangladesh and others (2019) became a landmark step in the process of environmental jurisprudence. Based on the ideas of the Constitution, the Public Trust Doctrine, and the international rights-of-nature movements, the Turag ruling held the promise of placing rivers under the same protections as those of rights-bearing entities. But the field evidence of the Baral, Karatoya, and Narod rivers suggests that this doctrinal breakthrough has not changed reality on the ground. The encroachment is continuing, pollution has not been controlled, and the participation of the communities in the governance of the river is erratic, with significant variance. This paper demonstrated that the failure is not in the very concept of legal personhood but in the lack of a statutory and institutional ecosystem that could realise it. The law has achieved a form of recognition, albeit one that lacks the tools of enforcement, understanding of guardianship, or assimilation into policymaking structures. The Turag judgment has been applied in practice primarily to make a moral statement, rather than as a defence.

[55] Agreement between Bangladesh and India on Sharing of the Ganges Waters at Farakka (signed 5 November 1977, registered 12 January 1978) UNTS vol 1066, I-16210 https://treaties.un.org/doc/Publication/UNTS/Volume%201066/volume-1066-I-16210-English.pdf.

The ten suggestions used in this paper are not theoretical dreams; the patterns are highly based on the patterns that occur continuously in the three rivers. The case of Baral highlights how encroachment flourishes due to a lack of empowered local guardians. The Karatoya reflects the price of sluggish enforcement and weak observation. The Narod presents us with the effects of divided mandates of the agency and the failure of transparency. All these instances demonstrate the necessity of statutory embedding, hybrid guardianship frameworks, real-time ecological monitoring, coordinated execution, and the practices that can be implemented within the administration and the law in Bangladesh today.

Globally, jurisdictions like New Zealand, Colombia, and Ecuador have shown that river personhood can succeed when embedded in statute, backed by strong guardianship, and linked to cultural and ecological stewardship. Bangladesh can adapt these models to its own socio-political context, not as imported ideals but as contextualised legal strategies that bridge the gap between recognition and protection. The path forward demands more than judicial pronouncements. It requires Parliament to legislate, agencies to coordinate, communities to participate, and courts to adjudicate swiftly and sensitively. Only then can the promise of river personhood move beyond symbolism and become a practical instrument of environmental justice. If implemented, these reforms would not only restore the health of waterways like the Baral, Karatoya, and Narod but also position Bangladesh as a regional leader in rights-of-nature governance, a nation where legal recognition is matched by ecological reality.

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