

CSC Evaluation and Monitoring Programme

# Driving Environmental Resilience Across Policy, Community, and Global Diplomacy in Bangladesh

*Farhana Mustari*



**In Bangladesh, a delicate and rapidly shifting balance of environmental pressures defines the landscape. River systems are strained by industrial pollution and transboundary waste; wetlands face biodiversity loss from overextraction and invasive species; and upstream ecosystems are degraded by deforestation and shifting cultivation, leaving communities dependent on increasingly fragile natural resources. These challenges are intensified by climate change, which amplifies existing vulnerabilities and demands governance systems that are scientifically informed, community centred, and resilient over the long term.**

These environmental realities underpin the work of Commonwealth Alumnus Farhana Mustari. Over more than a decade, Farhana has built her career within the Department of Environment under the Ministry of Environment, Forest and Climate Change, Bangladesh. During this time, she has worked on several of the country's most urgent environmental priorities, from safeguarding ecologically critical areas and improving biosafety systems for modern biotechnology to representing Bangladesh in high level UN negotiations on plastics, land degradation, and sustainable resource management. Her contributions extend across multiple levels, encompassing national policy development, community based conservation, international scientific diplomacy, and the creation of long term mechanisms to strengthen ecosystem protection.

Farhana's professional trajectory reflects a sustained engagement with evidence based policymaking and public service. Her work connects scientific analysis with community level realities, emphasising that effective environmental policy must draw on local knowledge while operating within wider international frameworks. Her Commonwealth Shared Scholarship—an MSc in Environmental Science at the University of Aberdeen—strengthened this approach by providing analytical skills, exposure to global perspectives, and opportunities to engage with comparative governance systems. Today, she contributes to both national policy processes and international negotiation spaces, supporting Bangladesh's environmental stewardship while bringing attention to the perspectives of countries facing significant ecological pressures. Her experience illustrates how Commonwealth Scholars can contribute to long-term environmental governance, scientific collaboration, and community focused resilience.



**Farhana Mustari** was awarded a 2021 Commonwealth Shared Scholarship to pursue a Master's degree in Environmental Science in the University of Aberdeen, a turning point that strengthened her technical capacity and reshaped her approach to environmental governance. Since returning to Bangladesh, she has remained at the Department of Environment, where she has made significant contributions to national policy development, biodiversity conservation, and environmental resilience. As Project Director of a Global Environment Facility (GEF) initiative, Farhana oversees work to strengthen the management of two Ecologically Critical Areas through ecosystem restoration, community led conservation, and sustainable livelihood planning. She also serves as National Project Coordinator for a UNEP-implemented regional biosafety programme in Bangladesh, India, the Philippines, and Mongolia, contributing to the development of systems that support the safe use of modern biotechnology. Internationally, she has represented Bangladesh in UN negotiation processes, including the Intergovernmental Negotiating Committee on plastic pollution and the UN Convention to Combat Desertification. In 2025, she joined a European Union-supported Young Negotiators Programme, one of 15 women selected from drought-hit countries to build expertise in global environmental diplomacy. Across her career, she has worked consistently to advance evidence-based policy, community engagement, and environmental equity within Bangladesh's governance systems.

## Academic Foundations and the Commonwealth Scholarship

Farhana Mustari's academic and professional path reflects a steady commitment to contributing meaningfully to public service in Bangladesh. Initially studying Biochemistry and Molecular Biology, she began her career at the Department of Environment under the Ministry of Environment, Forest and Climate Change, Bangladesh, where she encountered the practical challenges of environmental governance and recognised the need for deeper technical and analytical expertise in the field. This experience prompted her to pursue formal training that could strengthen her capacity to engage with increasingly complex environmental issues.

Her decision to apply for a Commonwealth Scholarship grew from this motivation. Drawn by the UK's strong reputation in environmental education and the standing the scholarship holds in Bangladesh, she saw it as an opportunity to build the knowledge base required for more effective policy work. Her eventual selection reflected this commitment to developing the skills necessary for long term environmental governance.

**'Although my background wasn't in environmental science, working in the Department of Environment inspired me to study the subject so I could contribute more meaningfully. Environmental education in the UK is excellent, and becoming a Commonwealth Scholar — one of the most prestigious scholarships in my country — had been a dream since my student days.'**

The Commonwealth Scholarship enabled Farhana to pursue a Master's degree that strengthened both her analytical approach and her professional practice. Immersed in a research-driven academic environment, she developed the ability to examine environmental challenges through evidence based methods while incorporating community perspectives and international frameworks. The programme broadened her understanding of effective governance and enhanced her confidence in working across technical and policy contexts.

**'This Scholarship changed the way I work. It taught me to focus on evidence-based research and to design projects that truly address real problems. That shift has made a tremendous difference in my work and in my area.'**

For Farhana, the Commonwealth Scholarship provided a link between her early academic training, her role in environmental regulation, and her long term commitment to public service. It offered the technical grounding and professional exposure required to engage in national policy processes and to contribute to international discussions on environmental governance.

**Farhana feels that the confidence to speak on a global stage was the most significant change to her personally as a result of her Commonwealth Scholarship:**

'The Scholarship brought a profound change in my confidence, worldview, professional discipline, and analytical capacity. It reshaped my approach to governance by embedding research, evidence, and inclusivity into decision-making and project design.

It also expanded my professional network and strengthened my ability to represent Bangladesh effectively at international platforms.'

## Conserving Ecologically Critical Areas in Bangladesh

As Project Director of the Global Environment Facility (GEF)-funded initiative Implementing Ecosystem-Based Management in Ecologically Critical Areas (ECAs) in Bangladesh, Farhana Mustari leads one of the country's most ambitious efforts to safeguard fragile ecosystems. She applies an ecosystem-based framework for managing ECAs in Bangladesh to enhance the conservation of globally significant biodiversity and support local livelihoods.

Bangladesh has designated 13 ECAs—sites where biodiversity is under acute threat from pollution, unsustainable resource use, or climate-related pressures. Farhana's project focuses on two of these ecologically rich but highly vulnerable systems: the Halda River and a Baor (oxbow lake) wetland.



Farhana leading a consultation workshop on ecosystem-based management of Marjat Baor, promoting sustainable stewardship of oxbow lake ecosystems in April 2026.

The Halda River is globally unique as the only natural spawning ground for major carp species such as Rui and Catla, forming the backbone of Bangladesh's inland fisheries. Industrial waste, agricultural runoff, and domestic pollution have deeply compromised the river's ecological health. The Baor wetland faces its own challenges, including overfishing, invasive water hyacinth species, and declining water quality due to poor land-use practices upstream.



Farhana enhancing community awareness on biodiversity conservation.

**'We're helping communities find alternative livelihoods so they're not completely dependent on fishing ... and addressing upstream deforestation that's harming the watershed of the wetland. The goal is to build a financial mechanism that the community can use to manage the ecosystem itself and keep it functioning.'**

Farhana oversees a comprehensive, three part intervention. The first centres on rigorous ecological assessment, including ecosystem service valuation, management plan, operational guidelines, and the creation of Bangladesh's first Biodiversity Registers in these areas. The second component strengthens pollution control through filtration systems, real-time water monitoring stations, and modernised community patrolling. The third focuses on sustainable livelihoods— supporting fishers during spawning seasons, incentivising upstream communities to reduce jhum cultivation techniques which involve clearing and burning forest, and empowering women to convert water hyacinth into high-demand eco-friendly fibres for export markets.

By linking conservation, technology, and community-driven solutions, Farhana's leadership is helping lay the foundation for long-term ecological resilience and equitable development across Bangladesh.

## Strengthening Biosafety for Modern Biotechnology

Farhana also serves as National Project Coordinator for the Multi Country Biosafety Project, a regional initiative also funded by the GEF and implemented by the United Nations Environment Programme (UNEP) to strengthen institutional, human and regulatory capacities and promote cooperative measures in the implementation of National Biosafety Frameworks for the safe transfer, handling and use of living modified organisms (LMOs) in Asia. Covering Bangladesh, India, the Philippines, and Mongolia, the project aims to ensure that emerging biotechnologies such as genetically modified crops are developed and used safely, without compromising human health, biodiversity, or ecosystem integrity.

Bangladesh has become a significant site of modern biotechnology research. Crops such as Golden Rice, engineered with beta-carotene to combat vitamin A deficiency, and Bt brinjal and Bt cotton, designed to resist destructive pests, offer promising benefits for nutrition and agricultural productivity. Yet these innovations require robust biosafety safeguards and technical capacity at every stage, from laboratory research to farm-level cultivation.

**'We are trying to ensure that research on genetically modified crops can happen without harming our local flora and fauna. We've completed our initial stocktaking and are now training scientists, universities, and farmers to follow biosafety protocols from the lab to the field.'**

In the first project year, Farhana led a nationwide stocktaking assessment to map institutional readiness, regulatory frameworks, laboratory infrastructure, and human resource capacity. This baseline now guides a multi-year effort to train researchers, regulators, university faculties, and farming communities on biosafety protocols and risk management procedures.



Farhana participating in an interactive regional workshop on developing solutions for One Health issues, Thailand, February 2026.

The current phase focuses on raising awareness among farmers cultivating genetically modified crops, strengthening laboratory practices, and supporting universities engaged in advanced biotechnology research. Through workshops, guidelines, and collaborative training, the project promotes responsible innovation that safeguards local ecosystems.



Collaborative work with the Asia Biosafety Family in Bhutan, 2025.

**‘Our aim is to secure biosafety as modern biotechnological research grows in Bangladesh ... identifying what infrastructure and skills we have, and what we need to protect our environment. We’re now working with scientists, universities, and farming communities to build awareness and ensure everyone follows the proper biosafety protocols.’**

With Farhana’s coordination, Bangladesh is enhancing its ability to govern biotechnology responsibly, balancing technological advancement with the long-term health of its people, environment, and agricultural heritage.



Farhana receives a memento recognising her contribution as a speaker at the 11th International Plant Tissue Culture & Biotechnology Conference, University of Dhaka, January 2026.

## Strengthening Research, Reporting, and Scientific Credibility

Although Farhana’s professional responsibilities lie primarily within environmental governance and regulatory work rather than academic research, her career has nonetheless been shaped by the demands of producing rigorous, science-based reporting for international frameworks.

Working within Bangladesh’s Department of Environment, she contributes to major national submissions under the Convention on Biological Diversity (CBD), the UN Framework Convention on Climate Change (UNFCCC), and the UN Convention to Combat Desertification (UNCCD). These reports, submitted every two to three years, shape global understanding of Bangladesh’s environmental progress and challenges. Before her Commonwealth Scholarship, Farhana had co-authored a research article entitled ‘Development of rainfall intensity-duration-frequency relationship and isohyetal map for Bangladesh’. Later, she published a second article in 2026 on Morpho-ecological changes and socioeconomic impacts due to sand mining in the Someshwari River, Bangladesh. She emphasises that her most substantial written outputs are policy documents and technical reports which require the same level of analytical discipline and evidence-based clarity that is expected of academic publications.

**‘Studying in the UK completely reshaped my thinking, my writing, and the way I analyse information.’**

Farhana’s Commonwealth Scholarship transformed her ability to synthesise complex environmental data, articulate national priorities with objectivity, and write with the clarity required for global policy discourse. Exposure to UK academic standards strengthened her confidence in presenting evidence, constructing arguments, and producing work aligned with international expectations. This shift was immediately recognised by her institution. Within months of returning, she was nominated as Bangladesh’s Alternate National Focal Point for UNCCD, and is now under consideration for the role of Science and Technology Correspondent to the same convention.

**‘The Commonwealth Scholarship gave me the confidence to believe I could contribute at an international level — and my organisation saw that difference too.’**

Farhana’s enhanced analytical and communication skills now underpin her leadership in drafting national submissions, guiding scientific negotiations, and shaping environmental policy that reflects Bangladesh’s development needs and global responsibilities.

## Growing as an International Negotiator and Global Delegate

Farhana's expanding leadership in environmental governance has increasingly positioned her on the global stage. Since completing her Commonwealth Scholarship, she has represented Bangladesh at several high-level international forums, contributing to negotiations on issues that have profound implications for low and middle income nations.

In 2023, she joined Bangladesh's national delegation to INC 4 in Canada, part of the United Nations process to develop a legally binding treaty on plastic pollution. For countries like Bangladesh—situated along major transboundary rivers and heavily affected by upstream waste flows—the negotiations carried special urgency. Farhana advocated for stronger accountability from polymer-producing nations and emphasised the disproportionate environmental burden borne by downstream countries. Her intervention highlighted Bangladesh's lived realities: rising river pollution, inadequate waste governance pathways, and the increasing vulnerability of rural communities.

**'We needed the world to understand that plastic pollution does not respect borders — our rivers carry the consequences of decisions made far upstream.'**

In 2024, she served again as a national delegate, this time at the UN Convention to Combat Desertification (UNCCD) Conference of the Parties in Saudi Arabia, contributing to discussions on land degradation, drought resilience, and sustainable land management. Her growing expertise has since been recognised internationally. She was selected as one of only 15 women from developing countries for a European-supported Young Negotiators Programme, receiving training in negotiation, diplomacy, and global environmental governance. The programme includes participation in UN sessions in Panama and Mongolia, preparing her to negotiate effectively on behalf of her country.



Participating in a youth negotiator team training programme organised by the European Union in Panama (2025).

**'Being chosen as a young negotiator confirmed that my voice—and my country's priorities—belong at the global table.'**

Through these roles, Farhana is emerging as a thoughtful and principled environmental diplomat, equipped to bridge national realities with global policy-making.



Farhana with the rest of the Bangladesh delegation at UNCCD COP16 in Riyadh in 2024.

**Reflecting on the most significant change that she has brought to her community, Farhana highlights the example she has set to other young women and her continued advocacy for the inclusion of local people in decision making:**

'I come from a rural background, and my journey has allowed me to serve as a role model for young girls and women in my community. I regularly engage with rural communities through project implementation and was recently invited to speak at a local girls' school to encourage education and ambition.'

Through my professional work, I also contribute by ensuring that community voices are incorporated into environmental decision-making and that conservation initiatives deliver tangible livelihood benefits.'

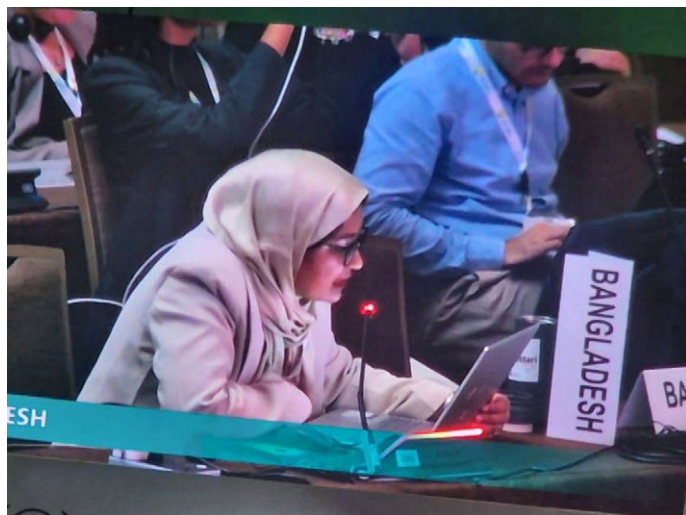
## Future Aspirations and Continuing Commitment to Public Service

Looking ahead, Farhana's ambitions remain closely tied to the long-term sustainability of the environmental initiatives she currently leads. Her foremost priority is to ensure that the ecosystem-based management work in the Halda River and Baor wetland evolves into a self-sustaining model supported by durable financial mechanisms and strong community ownership. For her, the true measure of success is not the lifespan of a project, but the ability of local communities to steward their ecosystems long after external support ends.

**'My wish is for these conservation efforts to continue through the hands of the communities themselves — long after the project has finished.'**

Farhana also hopes to pursue a PhD to deepen her expertise in environmental governance. She remains committed to seeking advanced training that strengthens her contributions to national policy and international negotiations.

Representing Bangladesh on global platforms is another central aspiration. Having already taken part in major UN conventions, she aims to play an even more active role in shaping discussions around climate resilience, biodiversity conservation, and land degradation. Her goal is to advocate for Bangladesh using evidence-based insights grounded in her research, field experience, and policy work.



Farhana representing Bangladesh at the 23rd session of the UNCCD Committee for the Review of the Implementation of the Convention (CRIC 23) in Panama in 2025.

**'Every sector contributes to a country's progress — teachers, policymakers, regulators. My aim is to represent Bangladesh with stronger evidence, greater confidence, and deeper expertise.'**

Farhana's journey reflects a continued commitment to public service—one that she intends to strengthen through lifelong learning, community-led conservation, and principled international leadership.

### Find out more about Farhana Mustari's published work:

[Development of rainfall intensity-duration-frequency relationship and isohyetal map for Bangladesh](#)

[Morpho-ecological changes and socioeconomic impacts due to sand mining in the Someshwari River, Bangladesh](#)

### Explore international negotiations Farhana has contributed to:

[INC negotiations toward a global treaty on plastic pollution](#)

[UNCCD Conference of the Parties](#)

### Learn more about Farhana's projects:

[The Ecologically Critical Areas of Bangladesh](#)

[Global Environment Facility \(GEF\)](#)

[UN Convention on Biological Diversity \(CBD\)](#)

[UN Convention to Combat Desertification \(UNCCD\)](#)

[UN Environment Programme \(UNEP\) Biosafety Programme](#)

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