

Terms of Reference (ToR)

Selection of a Consulting Firm for the Development of Biodiversity Register for proposed Halda Biodiversity Heritage, and Morjat Baor Ecologically Critical Area (ECA)

The Project at a glance:

Item	Description
Title of the Project	Implementing Ecosystem-based Management in Ecologically Critical Areas in Bangladesh
Funding Source	GEF
Package name of consultancy service	Development of Biodiversity Register for Halda Biodiversity Heritage and Morjat Baor Ecologically Critical Area (ECA)
Package number	SD-9
Procurement Method	QCBS
Assignment duration	10 months
Location of assignment	Halda River (Chattogram District) and Morjat Baor ECA (Jhenaidah District)
Procurement Entity	Project Director

1. Background

The Department of Environment (DoE) is implementing a project titled “**Implementing Ecosystem-based Management in Ecologically Critical Areas in Bangladesh.**” The project objective is to apply an ecosystem-based framework for managing Morjat Baor Ecologically Critical Area (ECA) in Jhenaidah and the proposed Biodiversity Heritage Halda River in Chattogram in Bangladesh to enhance the conservation of globally significant biodiversity and support local livelihoods.

The project aims to address increasing degradation of wetland ecosystems caused by anthropogenic pressures including expanding settlements, unsustainable fishing practices, agricultural expansion, pollution from industrial and agricultural sources, and impacts of climate change. These pressures have significantly affected biodiversity and ecosystem services in these areas.

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The Halda River is globally recognized as the only natural breeding ground of major Indian carp species and a unique freshwater ecosystem supporting endangered species such as the Ganges River dolphin. Morjat Baor, an oxbow lake in Jhenaidah district, is well known for its rich diversity of freshwater fish species and wetland bird habitats.

Effective conservation and ecosystem-based management of these areas require comprehensive documentation of biodiversity resources, local ecological knowledge, and patterns of biodiversity utilization. In this context, the development of a **Biodiversity Register**, including a **People's Biodiversity Register**, is essential to systematically document biodiversity resources, traditional knowledge, ecological changes, and affecting biodiversity.

The Biodiversity Register will serve as an important knowledge base to support biodiversity conservation, ecosystem-based management planning, monitoring, and policy development

2. Objective of the assignment

The overall objective of the assignment is to develop a **comprehensive Biodiversity Register for the Halda Biodiversity Heritage site and Morjat Baor Ecologically Critical Area (ECA)** that documents biodiversity resources, ecosystem characteristics, traditional knowledge, and biodiversity utilization patterns.

Specific objectives include:

- a. To document biodiversity resources including flora, fauna, fish species, aquatic biodiversity, and habitats.
- b. To record traditional knowledge and practices of local communities related to biodiversity resources.
- c. To assess current utilization patterns of biodiversity and associate economic benefits to local communities.
- d. To develop standardized formats and guidelines for biodiversity registers. In- built Biodiversity Register into the VCGs.
- e. To establish a web-enabled biodiversity database system for storing and managing biodiversity information.
- f. To support the Department of Environment in developing mechanisms for equitable sharing of benefits arising from biodiversity resources and traditional knowledge.
- g. To develop long-term community-based biodiversity monitoring framework

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- h. . To ensure that biodiversity data collection, documentation, and management align with national legal frameworks and international standards, including safeguards for sensitive biodiversity information and traditional knowledge

3. Scope of the assignment, Tasks, and Expected Deliverables

3.1 Scope of the assignment and Tasks

It is expected that the Consultant Firm/Organization will make best efforts to execute the assigned tasks. The Consultant Firm/Organization is also expected to maintain the highest degree of transparency and integrity while accomplishing the tasks.

The scopes of this assignment are:

- I. To develop a comprehensive biodiversity register for the Halda Biodiversity Heritage site and Morjat Baor Ecologically Critical Area.
- II. To document species diversity and status, habitats, ecological characteristics, and other biodiversity resources in the selected sites.
- III. To analyze the critical habitat for threatened species following the standard methodology.
- IV. To record traditional ecological knowledge and practices of local communities regarding biodiversity resources.
- V. To assess current utilization patterns of biodiversity resources and their socio-economic importance to local communities.
- VI. To develop guidelines and formats for biodiversity register development and community-based biodiversity monitoring framework.
- VII. To establish a web-enabled biodiversity database system for storing and managing biodiversity information.
- VIII. To support DoE in developing access and benefit-sharing mechanisms for biodiversity resources and associated traditional knowledge.
- IX. Ensure that stakeholder consultations include at least 30% women participants and specifically document the role of women in biodiversity utilization and traditional knowledge

The consultant or organization will undertake the following tasks:

1. Baseline Biodiversity Assessment

- a. Conduct a comprehensive assessment of biodiversity in the Halda River and Morjat Baor ECA, including fish species, aquatic flora and fauna including birds, reptiles, amphibians, and mammals.

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- b. Identify key habitats, biodiversity hotspots and zoning, and ecologically important areas within the project sites.
- c. Identify threatened and economically important species.
- d. Organize a workshop to share the findings with stakeholders, including local communities, government agencies, academic institutions, research organizations, and NGOs.
- e. Conduct systematic photographic documentation of all identified species, including flora and fauna, during field surveys. The photographic records shall be geo-referenced (where feasible) and properly catalogued to support species identification, validation, and inclusion in the Biodiversity Register and database system.

2. Documentation of Traditional Ecological Knowledge

- a. Conduct participatory consultations with local communities, including fishers, farmers, traditional egg collectors, and community conservation groups.
- b. Document traditional ecological knowledge related to biodiversity, historical trends, resource use practices, and local conservation initiatives.

3. Assessment of Biodiversity Utilization

- a. Analyze current utilization patterns of biodiversity resources including fisheries, aquatic plants, and other ecosystem resources.
- b. Assess the economic value of biodiversity resources and their contribution to local livelihoods.
- c. Identify drivers of biodiversity change and pressures on ecosystems.

4. Development of Biodiversity Register

- a. Develop a **People's Biodiversity Register (PBR)** for Halda Biodiversity Heritage site and Morjat Baor ECA.
- b. Develop standardized formats and templates for biodiversity registers for future updating and monitoring.
- c. Prepare GIS-based biodiversity maps showing species distribution and ecological zones.

5. Development of Biodiversity Register Management Guidelines

- a. Develop operational guidelines for management of biodiversity registers.
- b. Provide recommendations for integrating biodiversity registers into ecosystem-based management and ECA management systems.
- c. Propose mechanisms for long-term updating, maintenance, and institutionalization of the Biodiversity Register

6. Development of Web-based Biodiversity Database

- a. Establish a web-enabled biodiversity database system for storing biodiversity information.
- b. Ensure the database includes species records, ecological information, traditional knowledge, and spatial data.

7. Stakeholder Consultation

- a. Identify and engage relevant stakeholders including government agencies, local communities, NGOs, and researchers.
- b. Conduct four (04) local level consultation workshops and one validation workshop to validate biodiversity data and biodiversity register formats.

8. Capacity Building

Design and deliver training programmes for the Department of Environment (DoE) officials, local stakeholders, and community representatives on:

- a. Biodiversity register preparation and updating
- b. Use and maintenance of the database system
- c. Community -based biodiversity monitoring

9. Final Reporting

- a. Prepare a final report that includes the biodiversity register, database system, stakeholder consultation outcomes, and recommendations for future community biodiversity monitoring framework and management.
- b. The firm will organize a validation workshop at the national level to get feedback on the report.
- c. The consulting firm/organization will produce minutes/proceedings of all consultation workshops/meetings and required PowerPoint presentations for meetings or workshops required for completion of the assignment.

3.2 Deliverables

The consultant/organization is expected to deliver the following:

1. **Inception Report** outlining the methodology, approach, and stocktaking of available information on each task and timeline. The inception report has to be presented in a workshop organized by the consulting firm. The relevant stakeholders will be presented as the participants. The firm/organization has to prepare the workshop proceedings /minutes of the meetings and that will be part of the final report.

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2. **Baseline Biodiversity Assessment Report** for Halda River and Morjat Baor ECA.
3. **People's Biodiversity Register (PBR)** for both sites in-built into the VCGs.
4. **Guidelines for Biodiversity Register Development and Maintenance.**
5. **Web-enabled Biodiversity Database System.**
6. **Report on Biodiversity Utilization Patterns and Economic Benefits.**
7. **GIS-based Biodiversity Maps and Spatial Database.**
8. **Stakeholder Consultation workshops and reports.**
9. **Final Report summarizing the entire process and recommendations.**
10. **Community based monitoring framework**
11. All reports and the final Biodiversity Register should be submitted in **English**, with the **People's Biodiversity Register (PBR)** and key summaries made available in **Bangla** to ensure accessibility for local communities and local government officials.

Ten (10) copies of all reports must be submitted with colour copies, book binding along with soft copies. All the raw data has to be submitted to the project authority.

4. Team Composition and Qualification Requirements for the key experts

Sl. No.	Position	Inputs (person-months)	Qualification	Experience
1	Team Leader – Biodiversity Specialist	4 months	Master's/PhD in Ecology, Biodiversity Conservation, Wildlife Biology or Natural Resource Management	Minimum 15 years' experience in biodiversity conservation and ecosystem management
2	Aquatic Ecologist / Fisheries Expert	3 months	MSc in Fisheries, Marine Biology or Aquatic Ecology	Minimum 10 years' experience in freshwater biodiversity
3	Plant Taxonomist	3 months	M.Sc./Ph D in Botany	Minimum 10 years' experience as Plant Taxonomist
4	Zoologist (Taxonomist)	3 months	M.Sc./ Ph D in Zoology	Minimum 10 years' experience as

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				Zoologist (Taxonomist)
5	Socio-economic Expert	2 months	Master's in social science / development studies	Minimum 10 years' experience in participatory research and livelihood analysis. Should have experience in gender analysis.
6	GIS and Remote Sensing Expert	2 months	Degree in Geography / GIS / Earth Science	Minimum 5 years' Experience in biodiversity mapping
7	Database / IT Specialist	2 months	Degree in Computer Science / Information Systems	Minimum 5 years' experience in database and web system development
8	Wildlife Photographer/ Nature Photographer	3 months	Bachelor's degree in photography, Zoology, Botany, Environmental Science, Forestry, or related field with Diploma/Certification in Professional Photography / Wildlife Photography/Nature Photography	Minimum 5 years' Experience in professional photography / wildlife photography /Nature Photography
9	Field Survey Coordinator	2 months	Degree in Botany / Zoology / Natural Sciences of relevant field	Minimum 2 years' experience in biodiversity surveys and community engagement

5. Minimum Eligibility Criteria of the Firm

1. The consulting firm must have **minimum 10 years of experience** in biodiversity conservation, natural resource management, ecosystem assessment, or related areas.
2. Experience in conducting **biodiversity assessments, biodiversity registers, or ecological studies.**



3. Successful completion of **at least two similar assignments in the last 10 years.**
4. Submission of latest audit reports showing financial capacity.
5. Submission of bank solvency certificate and financial statements.
6. Submission of VAT registration, Tax identification certificate and updated tax payment documents.
7. Valid trade license and registration documents.

6. Duration of the Assignment

The duration of the assignment will be **10 months from signing of the contract.**

7. Procurement / Selection Method

The Consultancy firm will be selected following the **Quality & Cost Based Selection (QCBS)** method described in the **PPR 2008** and **PPR 2025.**

8. Proposal Submission Requirements

Interested firms must submit a technical proposal including:

- i. Detailed methodology and work plan
- ii. Team composition with CVs of key personnel
- iii. Evidence of relevant experience
- iv. Detailed budget including field visits, consultations, and operational costs
- v. Timeline aligned with the deliverables and schedule outlined above

9. Institutional Arrangement

The Consultancy Firm will work under direct control of the **Project Director.** Reporting will be directly to the Project Director with close collaboration with the Project Manager. The firm will be accountable to the Project Director/PE for its day-to-day activities. The project will not provide any office space.

10. Intellectual Property and Copyright

All reports, data, maps, databases, software, presentations, photos, videos and other outputs produced under this assignment shall be the sole property of the **Department of Environment (DoE), Government of Bangladesh.** The consulting firm shall not reproduce, distribute, publish, or use any part of the materials without prior written consent from DoE.

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5.4.2025