ASSAM UNIVERSITY: SILCHAR

Invitation for Expression of Interest

Assam University, Silchar invites Expressions of Interest (EOI) from qualified individuals, research institutions, and non-governmental organizations (NGOs) to conduct a comprehensive study on **fish diversity, water budgeting, and GHG emission** in a Ministry of Development of North Eastern Region sponsored project entitled **"Social, ecological, environment and economic analysis of Sone Beel: Implications for sustainable management"**.

Objectives of the Study

1. To estimate the fish diversity
   - Assess the diversity and abundance of fish species.
   - Identify potential threats to fish biodiversity.
   - Provide recommendations for conservation and sustainable management.
2. To estimate the avian diversity
   - Assess the diversity and abundance of avian species.
   - Identify potential threats to avian biodiversity.
   - Provide recommendations for conservation and sustainable management.
3. To estimate GHG emission from Sone Beel
   - Measure and analyze the levels of GHG emissions from designated wetlands.
   - Identify the sources and sinks of GHGs within the wetland ecosystem.
   - Provide recommendations for mitigation and management strategies to reduce GHG emissions.
4. To study the seasonal changes of water storage of Sone Beel
   - Assess the seasonal variations in water storage capacity (water budget) of Sone Beel.
   - Understand the hydrological dynamics and contributing factors to these changes.
   - Provide actionable recommendations for sustainable water management in the region.
5. To estimate past, present and future degradation rate of Sone Beel
   - Historical analysis of Sone Beel's ecological and environmental status.
   - Current assessment of degradation factors such as Land use land cover change affecting Sone Beel.
   - Future projections of degradation rates using predictive modelling and recommendations for wetland preservation

Scope of Work

Objective 1: To estimate the fish diversity

- Conducting field surveys to identify and catalog fish species.
- Identifying anthropogenic and natural threats to fish biodiversity.
- Compiling and analysing data to produce comprehensive reports.
- Providing actionable recommendations for conservation and management.

Objective 2: To estimate the avian diversity

- Conducting field surveys to identify avian species.
- Analysing population structures of wetland avian species.
- Identifying anthropogenic and natural threats to Aves biodiversity.
- Compiling and analysing data to produce comprehensive reports.
- Providing actionable recommendations for conservation and management.

Objective 3: To estimate GHG emission from Sone Beel

- Implement field and remote sensing/GIS based measurements of GHG emissions, including carbon dioxide (CO_2), and methane (CH_4).
- Analyze the collected data to determine emission rates and identify patterns.
- Prepare a comprehensive report detailing findings, methodologies, and recommendations.

Objective 4: To study the seasonal changes of water storage of Sone Beel

- Gathering historical and current data on water levels, rainfall, evaporation rates, and other relevant hydrological parameters.
- Analyzing the collected data to identify trends, patterns, and anomalies.
- Preparing detailed reports on findings, including graphical/map representations, and suggesting sustainable water management practices.

Objective 5: To estimate past, present and future degradation rate of Sone Beel

- Reconstruct the historical scenarios of Sone Beel using available historical data, remote sensing images, and local knowledge.
- identify key factors that have contributed to the degradation (land use patterns) of Sone Beel over time.
- Assess the current ecological status of Sone Beel using remote sensing techniques.
- Assess future degradation scenarios using climate models, socio-economic trends, and land use change projections.
- Preparing detailed reports on findings, including graphical/map representations, and suggesting mitigations and policy measures for sustainable management of Sone Beel.

Eligibility Criteria

Interested parties should meet the following criteria:

- Proven expertise in ecological and environmental studies.
- Prior experience in conducting biodiversity assessments and water budgeting.
- Knowledge of GHG measurement techniques and analysis.
- Strong analytical and reporting skills.
- Capability to work within the specified timeframe and budget.

Submission Requirements

Applicants should submit the following documents:

- **Cover Letter**: Introduce yourself/your organization and express your interest in the study.
- **Technical Proposal**: Outline the methodology, work plan, and timeline for conducting the study.
- **Team Composition**: Provide details about the team members, their qualifications, and relevant experience.
- **Past Experience**: Summarize previous work in similar projects, including references.

Evaluation Criteria

EOIs will be evaluated based on:

- Relevance and quality of the proposed methodology.
- Qualifications and experience of the team members.
- Feasibility and clarity of the work plan and timeline.
- Cost-effectiveness and detail of the budget proposal.
- Demonstrated track record in similar studies.

Submission Process

- All EOIs must be submitted by **(30th July, 2024).**
- Submissions should be in PDF format and emailed to **(arun.jyoti.nath@aus.ac.in)**.
- For any questions or further information, please contact
  Dr. Arun Jyoti Nath
  Email: arun.jyoti.nath@aus.ac.in
  Contact No: 7636023026

Selection and Notification

- The consultancy committee will review all submissions.
- The selected entity will be notified.

Confidentiality

All information provided in the EOI will be treated as confidential and used solely for the purpose of this selection process.

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