

Society for the Conservation of Nature of Liberia (SCNL)



Henry's Compound, Opp. German Embassy, Tubman Boulevard, Congo Town,

P. O. Box 2628 Monrovia, Liberia, West Africa

☎: (+231) 886-573-612/0555831170/0777822456

E-mail: info@scnlliberia.org

Website: www.scnlliberia.org

BirdLife Partner

Terms of Reference (TOR) for Consultancy Services for Comprehensive Water and Soil Quality Assessment in Sokpo Clan, Grand Cape Mount County

Date: October 28, 2024

Background

The Society for the Conservation of Nature of Liberia (SCNL) is working on sustainable land use planning in Sokpo Clan, Grand Cape Mount County, through the WABiLEd Project. This area, home to forest reserves, the Gola Forest National Park, two proposed community forests, and vital water and soil resources, faces environmental pressures from mining and fishing practices. SCNL seeks a comprehensive water and soil quality assessment to inform land use planning and mitigate negative impacts from these activities on agriculture, biodiversity, and community health.

The objective of the Assignment

The goal of this consultancy is to conduct an in-depth assessment of water and soil quality in Sokpo Clan, with a particular focus on understanding the impacts of mining chemicals and fishing-related chemicals on local water systems, agriculture, biodiversity, and human health. This data will guide sustainable resource and land management practices within the community.

Scope of Work

The consultant will perform the following tasks:

Develop a Sampling and Testing Plan

- Identify key water and soil sources in Sokpo Clan, especially near mining operations and fishing areas.
- Establish sampling sites for both water and soil and determine the frequency and timing of sample collection, accounting for seasonal variations.
- Ensure provisions for testing chemicals related to mining and fishing practices.

Conduct Water and Soil Quality Testing

- **Water Quality Testing:**
- Conduct on-site testing for core water quality parameters: pH, temperature, dissolved oxygen, and conductivity.
- Focus on identifying contaminants specifically associated with mining and fishing activities, including:

Heavy metals (e.g., lead, mercury, cadmium)

- **Mining chemicals** and other pollutants that may impact agriculture, biodiversity, and human health.
- **Fishing-related chemicals** known to be used for killing fish, assessing their impact on water quality and potential toxic effects on agriculture, biodiversity, and human well-being.
- **Nutrients** (e.g., nitrogen, phosphorus)
- **Microbial indicators** (e.g., E. coli, coliform bacteria)

Soil Quality Testing:

- Test soil samples for heavy metals, pH, organic matter content, and nutrients necessary for agricultural productivity (e.g., nitrogen, phosphorus, potassium).
- Assess soil contamination due to mining chemicals and the runoff of fishing-related chemicals, examining their effects on crop growth, soil biodiversity, and human health.

Helping to Conserve Nature

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Analyze Water and Soil Quality Data

- Evaluate potential contamination sources, focusing on mining chemicals and fishing-related chemicals, and their impact on community resources, agriculture, biodiversity, and public health.
- Compare data to local standards to provide clear insights into contamination risks and necessary interventions.

Prepare Recommendations

- Develop recommendations for improving water and soil quality and controlling pollution.
- Provide guidelines for sustainable agricultural practices and continuous water and soil monitoring, with specific recommendations to address contamination from mining and fishing chemicals.

Report Findings

- Submit a comprehensive report covering methodology, findings, and actionable recommendations, including targeted advice on reducing contamination from fishing and mining activities.
- Present findings to SCNL, Sokpo Clan community members, and the Liberia Land Authority Land Use Planning Unit, focusing on the impact of these chemicals on agriculture, biodiversity, and community health.

Deliverables

The Consultant will submit:

1. **Inception Report:** Detailing methodology, sampling plan, and project timeline.
2. **Interim Report:** Presenting preliminary findings and necessary methodological adjustments.
3. **Final Report:** Including:
 - Comprehensive analysis of water and soil quality data.
 - Identification of contamination sources, particularly from mining and fishing practices, and related risks.
 - Recommendations for water and soil quality management and ongoing monitoring protocols.
4. **Presentation of Findings:** Delivered to SCNL and relevant stakeholders.

Duration of Assignment

The consultancy is expected to last **30 days**, from **November 15 to December 15, 2024**.

Required Expertise

The Consultant or Consulting Firm should possess:

- Expertise in water and soil quality testing, especially concerning chemicals from industrial and fishing activities.
- Experience with communities impacted by mining and fishing-related contamination, with insight into agricultural and biodiversity impacts.
- Knowledge of environmental standards and best practices for water and land use planning.

Budget and Payment Terms

The consultant will submit a detailed, itemized cost estimate. Payments will be based on the completion of deliverables as outlined in the final contract.

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8. Submission of Proposals

Interested consultants should submit a technical and financial proposal that includes:

- Understanding of the TOR and scope of work.
- Proposed methodology and project timeline.
- Relevant qualifications and experience