DUTERIMBERE ONG
B.P. 738 Kigali, Rwanda
Tél. (250) 788442851
KN3, Boulevard de l'OUA
E-mail: info@duterimbere.org.rw
Website: www.duterimbere.org.rw

Terms of Reference (ToR)

Consultancy for technical feasibility study for 2 Marshlands Rehabilitation in Murambi Sector, Karongi District under the Climate Justice Communities (CJC) Programme.

1. Background

The Climate Justice Communities (CJC) Programme, funded by the Scottish Government and coordinated by Trócaire Rwanda, is implemented by Duterimbere ONG in Karongi District. The programme aims to enhance community resilience to climate change by promoting equitable access to and management of natural resources, strengthening livelihoods and restoring degraded ecosystems. Murambi Sector, particularly in Mvunda and Nyabarongo marshlands located in Nyarunyinya Cell, is characterized by vulnerable wetland ecosystems experiencing accelerated degradation due to over-cultivation, erosion, invasive species, poor water management and unsustainable land-use practices. This degradation undermines both ecosystem services and the livelihoods of local communities, many of whom rely on these marshlands for agriculture, water resources, and biodiversity.

This intervention aligns with Rwanda's Environment and Climate Change Policy (2019) and Wetlands Rehabilitation Guidelines (REMA), and contributes to Sustainable Development Goals (SDGs) — notably SDG 13 (Climate Action), SDG 15 (Life on Land), and SDG 1 (No Poverty).

2. Site location and description

The intervention will take place in Murambi Sector, located in Karongi District, Western Province of Rwanda. The targeted sites include Mvunda and Nyabarongo marshlands, both situated within Nyarunyinya Cell. These marshlands are critical natural ecosystems that serve as sources of water, agricultural land and biodiversity for surrounding communities.

3. Objective of the Assignment

The overall of oblective of this assignment is to assess the technical, environmental, social and economic feasibility of rehabilitating of 2 marshlands and develop detailed technical designs, tender documents and implementation strategies.

3.1.Specific Objectives:

- Assess causes of marshland degradation and propose evidence-based restoration approaches.
- Generate geotechnical, hydrological and ecological data for marshland rehabilitation.
- Evaluate land use, soil types, water flow and seasonal agricultural demands.

- Conduct stakeholder consultations, including community and local authorities.
- Design climate-smart and inclusive marshland restoration interventions.
- Prepare technical specifications, drawings, Bills of Quantities (BoQs) and tender documentation.
- Prepare a full Environmental and Social Impact Assessment (ESIA) and secure RDB approval.

4. **Scope of Work**

More specifically, the consultants are required through desk review and field visits complemented with all stakeholder's consultations to:

- Review secondary data and similar previous studies in the area,
- Investigate and identify the main reasons for marshland degradation and provide technical recommendations along with new findings;
- Assess land use and agriculture practices in the area (soil types, land ownership, types of crops grown, and livestock kept, and their respective water demands, seasonality etc.
- Analyze meteorological and hydrological data (including historical, hydrograph and unit hydrograph) on rainfall, surface runoff (flood estimation), vegetation cover & infiltration rates, temperatures, humidity, evaporation, sedimentation rate etc.
- Complete an assessment on Biodiversity, environmental and social impact (risks, opportunities & recommendations) according to standard ESIA methodology.
- Conduct a geotechnical study of sites (in situ tests on soil nature, seepage analysis etc.
- Conduct a thorough topographic investigation & tests on the sites e.g. contours,embankments, rock foundation etc, using Global Mapper or similar GIS tools.
- Survey the type and availability of selected material to be used for the dam rehabilitation
- Review the local material/labour availability, operational and policy/legal requirements etc.
- Specification of design notes and guidelines for a cost-effective construction modality & maintenance with clear division of works to be subcontracted and accomplished by community labour work.
- Analysis and recommendations on requirements for optimum use of the marshland.
- Prepare a final technical document (design specifications using suitable design tools, and BOQ bill of quantities).
- Prepare a tender dossier with clear technical specifications and other guidelines for contractors.

Note:

The Consultant will conduct and prepare a comprehensive Environmental and Social Impact Assessment (ESIA) report in accordance with Rwandan laws and regulations.

5. **Duration of the assignment**

- The technical feasibility study is anticipated to take a maximum of 21 days, tentatively beginning on 8th June 2026. This timeframe includes an estimated 5 days for the preparation or desk phase, 5days for fieldwork, and 10 days for reporting.
- The final report, along with an environmental and social impact assessment, will be submitted by the consultant no later than 3 days following the completion of the field mission. ESIA report must include the RDB certificates along with the conditions for approval.

6. Methodology and standards

- The Consultant is expected to utilize the most effective methodologies and standards to achieve optimal results while actively involving stakeholders and the local community. Additionally, the Consultant will be responsible for the following tasks:
- Collecting data primarily through the review and analysis of existing secondary sources, including assessment reports and various regional publications related to the sub-sector.
- Preparing clear, concise, and focused reports.
- Ensuring that reports and necessary documents are delivered on time.

7. Deliverables

Deliverable	Key Content	Timeline
Inception Report	Consultant's understanding of the tasks assigned to them i.e. purpose and or, objectives and scope of a project, before starting the actual development. Aligns the expectations of the stakeholders/ clients and users and lays a solid foundation for the project. Review of the available data, prior studies and reports that relate to 2, marshaland in Karongi District. Data gaps and other missing information should be highlighted at this stage. (Methodology, work plan, stakeholder engagement plan)	5days
Interim report	The report will detail progress made, including project area specifics, institutional links, lessons from similar projects, and assessments of constraints and opportunities. It will present preliminary results from field investigations. The report will include a comprehensive executive summary, technical descriptions of each alternative with justification, financial analysis, and relevant drawings or maps.	6days
Final interim report	Comments received after the presentation of the draft interim report are to be addressed, and the final report is to be submitted	4 days
Draft detail design report technical specification and unit price market surveying	The draft final report for the selected alternative will include detailed investigations on all aspects, along with calculation notes, layout maps, drawings, a bill of quantities, and updated financial analyses. Presentation by the consultant will occur after approving the interim report and selecting the best scenario.	3 days
Final Report, ESIA Report, Certificate and conditions of approval	After receiving feedback from the Client, the Consultant will prepare and compile the tender documents. These documents will include general, specific, and technical conditions of the contract, specifications, a bill of quantities, tender drawings, and operation and	3 days
	Outcomes, impact assessment, sustainability strategy	

Expected Outputs

The consultancy is expected to deliver the following outputs:

- **Physical/Environmental Outputs**:
  - Recommendations for measures to enhance soil stability and reduce erosion.
  - A plan for restoring hydrological balance in the marshlands.
  - Strategies to improve biodiversity and strengthen ecosystem services such as flood regulation and water purification.
- **Social Outputs**:
  - A stakeholder engagement plan that promotes community ownership and inclusive governance.
  - Capacity-building recommendations for local communities and authorities.
  - Strategies to enhance gender inclusion and reduce conflicts over marshland resources.
- **Economic Outputs**:
  - Proposals for climate-resilient livelihood options and improved agricultural practices.
  - Identification of opportunities for diversified income generation through eco-friendly activities.
  - Analysis of approaches to reduce community vulnerability to climate-related risks.

6. Required Expertise

The team should be made up of specialists, each with relevant qualifications in the corresponding disciplines and experience in undertaking studies related to irrigation development and watershed management. The Consultant may optimize their personnel to demonstrate the competencies required for the assignment. The qualifications of the key experts are as follows:

Position	Person-days	Competences
Team leader (Irrigation and Drainage Specialist)	25	Postgraduate qualification in irrigation, water resources, or hydraulic engineering, with 7 years' experience in the planning and design and construction of irrigation and drainage systems, marshland development/rehabilitation
Biodiversity specialist-	20	He/ She should have at least a post graduate degree in biodiversity or ecology or any related field. He /She should have at least 5 years' with a specific 3 proven certificate years of work experience in biodiversity conservation. Any experience in wetlands conservation will be an

Position	Person-days	Competences
		asset. In addition, he/she should have been involved in at least 1 projects of similar nature.
Structural Engineer	10	Postgraduate qualifications in Structural Engineering and at least 5 generals with specific 2 proven with certificate years of experience as structural engineer for design and construction of hydraulic infrastructure projects.
Geotechnical Engineer	10	Postgraduate qualifications in Geotechnical Engineering and at least 5 general experience with specific 2 proven with certificate years of experience in geotechnical investigations, design and construction of hydraulic infrastructure projects.
Hydrologist/Hydrogeologist	10	Postgraduate qualification in water resources /hydrology, and at least 5 generals with specific 2 proven with certificate years' experience in use of water resources models for surface and groundwater assessments as well as experience in use of GIS/remote sensing in river basins.
Soil Specialist/ Pedologist	25	Postgraduate qualifications in soil sciences and at least 5 generals with specific 2 proven with certificate years' experience in soil investigation for irrigation and watershed projects
Land-husbandry specialist	15	Postgraduate qualifications in soil sciences, agroforestry and at least 5 generals with specific 2 proven with certificate years' experience land husbandry for irrigation and watershed projects

Position	Person-days	Competences
Economist/ Financial Specialist	15	Postgraduate qualifications in economics, and at least 5 generals with Specific 2 proven with certificate years of work experience on development projects, specifically in economic and financial analysis of water resources development projects; and has experience in irrigation water tariff assessment and design
Surveyor	20	Postgraduate qualifications in surveying with demonstrated experience in use of remote sensing/GIS applications. Minimum of 5 general with Specific 2 proven with certificate years' experience in engineering surveys.
Social development specialist	25	Postgraduate qualifications in sociology, development, Minimum of 5 years of general experience with Specific 2 proven with certificate years of work experience. The Specialist will ensure that socio-economic and gender issues are appropriately included during the project preparation/design stage.
Environmental Specialist	20	Postgraduate qualification in Environmental studies at least 5 generals with Specific 2 proven with a certificate years' work experience in Environmental Assessments. Registered under RAPEP

The consultant/firm must demonstrate:

- At least **5 years of experience** in ecosystem restoration, wetland management, or natural resource management.
- Proven skills in **socio-economic analysis**, participatory planning and community engagement.
- Expertise in **hydrology**, **soil conservation**, and **climate-resilient agriculture**.
- Knowledge of **gender and social inclusion** in environmental projects.
- Familiarity with Rwanda's policy environment and Karongi District context is an asset.

8. Outline of the report

The final report should include but not be limited to, the following

1) Executive summary.

- Summary of findings and feasibility analysis.
- This should be a concise summary of the key findings of the feasibility study, with precise recommendations, which can be shared with stakeholders.
- Summary of conclusions and recommendations regarding the economic, social, legal, technical, and environmental feasibility of the project.

2) Background and purpose of the study.
- Owner of the project;
- Purpose of the project;
- Description of study location;
- Details of site visits and investigations.

3) Methodology of the study
4) Summary of team composition
5) The findings of the study by component

5.1. Analysis of alternative options to meet project objectives.

5.2. Analysis of the watershed management or Catchment requirements to meet project objectives-
- Impact on water resources in the area, including volume and quality.

5.3. Site investigations.
- Topography.
- Soils and geotechnical.

5.4. Environmental and Social Impact Analysis (ESIA).
- Detailed ESIA summary.
- Stakeholders.
- Legal implications.

5.5. Hydrological analysis.
- Estimated inflow and design flood
- Risk of sedimentation.

5.6. Identification of design issues
- Criteria.
- Ancillary structures.

5.7. Marshland rehabilitation plan
- Approach – labour-based, mechanised, etc.
- The plan should identify the key steps and expected duration of the project going forward.

5.8. Cost estimate
- A budget for each option should be produced based on the BoQ and estimated rates.

5.9. Economic analysis
- A cost/benefit analysis should be conducted.
- The benefits of the project should be described and estimated and compared to the costs. The intention is to avoid making investments in projects that cannot be justified due to the cost.

5.10. Analysis of risks and proposed mitigation measures

6) Conclusions

This consultancy will provide essential technical, environmental and social insights to guide the sustainable rehabilitation of Mvunda and Nyabarongo marshlands in Nyarunyinya cell, Murambi

sector in Karongi district. The outcomes will support the Climate Justice Communities Programme's goals of ecosystem restoration, climate resilience and improved community livelihoods in alignment with national and global development priorities.

7. Reporting & Supervision

The consultant/firm will report to the Executive secretary of Duterimbere ONG – Karongi, with oversight from Trócaire Rwanda's CJC Programme Chief of party and in collaboration with Murambi Sector and district authorities and local community structures.

8. Proposal Submission Requirements

Interested parties should submit:

- Technical Proposal (understanding, methodology, team, timeline)
- Financial Proposal (detailed budget breakdown)
- Company Profile and CVs of key staff
- At least **2 references** of similar assignments
- Proof of legal registration and tax compliance

Submission Deadline: 06th June 2025
Submission Address/Email: info@duterimbere.org.rw

9. . Ethical, Safeguarding and Environmental Standards

The consultant will adhere to Duterimbere's Safeguarding Policy, Rwanda's Environmental and Social Safeguards Framework and international best practices, ensuring Do No Harm, gender equality and environmental integrity throughout the assignment.

Dative MUKESHIMANA

Executive Secretary