



## **TERMS OF REFERENCE**

### **CONSULTANCY SERVICES TO UNDERTAKE FORESTRY RESOURCES INVENTORY AND ASSESSMENT FOR THE 3 CATCHMENT AREAS OF UNYAMA, SIPI AND NAMALU IRRIGATION SCHEMES AS WELL AS PREPARATION OF FOREST MANAGEMENT PLANS FOR LOCAL FOREST RESERVES, PRIVATE FORESTS (PLANTED, NATURAL AND COMMUNITY FORESTS)**

#### **1.0 BACKGROUND**

##### **1.1 Introduction**

The Government of Uganda with support from the Islamic Development Bank (IsDB) and the Arab Bank for Economic Development in Africa (BADEA) is implementing the Irrigation Schemes Development Project in Unmaya (Adjumani, Amuru, Nwoya and Gulu), Namulu (Moroto, Napak, Nakapiripiriti, Soroti, Katakwi, Ngora, Kumi, Nabilatuk and Amuria) and Sipi (Amudat, Bukedea, Kapchorwa, Bulambuli, Sironko and Kween) regions.

The expected outcomes by 2028 is to enhance agriculture production, productivity and increase farmers' revenue and welfare of the rural communities in a climate of climate change by improving timely water delivery, water use efficiency, and introducing Natural Resource Management (NRM) in the project catchment.

The Project components comprise the following: (A) Agriculture Infrastructure Development; (B) Agribusiness Development; (C) Integrated Natural Resource Management; (D) Project Management and Coordination; (E) Project Financial Auditing; and (F) Contingency Emergency Response Component. These in brief are:

##### **1.1 Agriculture Infrastructure Development:**

This component will focus on irrigation infrastructure and will include the following three sub-components: (i). Irrigation Infrastructure Development, (ii) Sustainable Management of

Irrigation Scheme through Farmer Based Organizations and (iii) Irrigated Agronomy, Soil and Land Improvements.

### **1.2 Agribusiness Development:**

This component aims Capacity building of farmer groups in post-harvest handling & management technologies, food processing technologies and phytosanitary measures, value chain actors on product standards and food safety, farmer groups in commodity bulking ,collective marketing & establishment of sustainable market linkages, equipping farmers with agribusiness skills, financial accessibility & financial management, farmer organizations in business skills and development & general accounting skills and entrepreneurship skills and linking of farmers to input providers, financial institutions, traders and processors.

### **1.3 Integrated Natural Resources Management:**

This component aims at establishing a viable basis for irrigated agriculture and natural resources management in the five irrigation schemes and their surrounding watersheds. It will support Soil and Water conservation, Sustainable Forest Management and Capacity Development.

### **1.4 Project Management:**

The National Project Coordination Unit (NPCU) is responsible for overall project coordination, financial management, procurement, monitoring and evaluation and capacity building.

## **2.0 PURPOSE OF THIS CONSULTANCY**

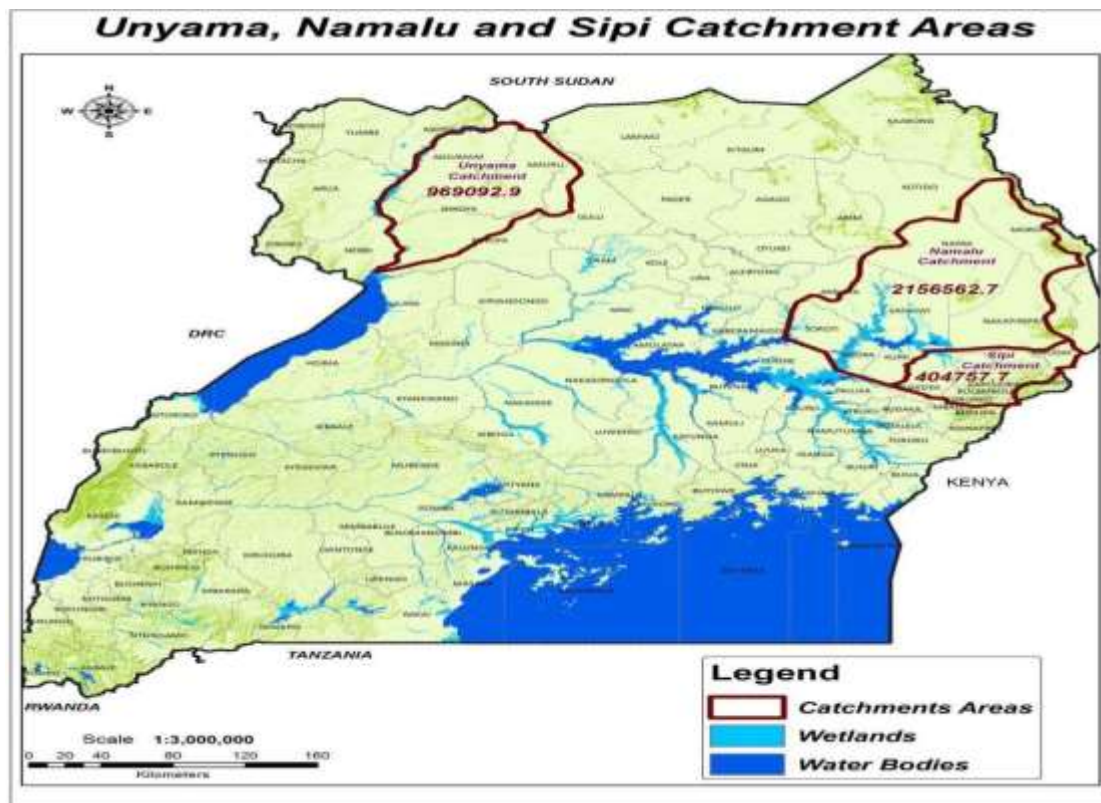
The purpose of this consultancy is to assist the Forestry Sector Support Department (FSSD) to undertake Forestry Resources Inventory and assessment for the three catchments for Unyama, Sipi and Namalu Irrigation Schemes.

The primary purpose of this consultancy is to provide information about forests and trees, including species distribution, stand composition, and tree age in the 3 catchment areas to support resource management and land use decisions. Further to this, the consultant will be required to prepare 15 Forest Management Plans for selected Local Forest Reserves and Private forests selected in the 3 catchments.

### 3.0 SCOPE OF SERVICES

The consultant is expected to work within the agreed scope and it is also envisaged that the consultant will develop their own approach and methodology for use to execute this contract.

The Consultant is required to work very closely with staff from Ministry of Water and Environment including Forestry Sector Support Department (FSSD), National Forestry Authority and Local government staff, CBOs, NGOs and other stakeholders in the catchments as will be identified. The tasks will be executed in the project areas shown by the map below and summarized by catchment:



### FIEFOC-4 DISTRICTS BY CATCHMENT

I. **UNYAMA CATCHMENT:** (i) Adjumani (ii) Amuru (iii) Gulu and (iv) Nwoya

**II. NAMALU CATCHMENT:** (i) Moroto (ii) Napak (iii) Nakapiripiriti (iv) Nabilatuk(v)  
Katakwi (vi) Soroti(vii) Ngora (viii) Kumi and (ix) Amuria

**III. SIPI CATCHMENT:** (i) Amudat (ii) Bukedea, (iii) Bukwo, (iv) Kapchorwa, (v)  
Bulambuli, and (vi) Sironko

### **3.1 Inception phase**

1. The consultant is expected to outline the methodology that suits the task, and undertake a catchment reconnaissance to determine the extent of the scope, and the resources available locally to utilize and execute the task.

2. The consultant will also be expected to profile all the forests for which management plans shall be prepared including Local Forest Reserves and private forests, both planted, natural and potential Community Forests.

*The deliverable will be an Inception report detailing the consultant's understanding of the task, the methodology and the work plan for the execution of the task.*

### **3.2 Forestry Resources Inventory and Assessment**

It is expected that the consultant will:

A) determine the historical trends of forests and current land uses in the catchments and further will determine environmental aspects affecting sustainable forest management considering soil types, climate change impacts, fire hazard areas, existence of exotic and invasive pests as invasive trees and/or weed cover.

highlight critical habitat areas for instance wildlife corridors that need to be rehabilitated, threatened and endangered species as well as water quality and availability issues.

B) determine vegetation types like Canopy cover detailing what percentage of the catchment is covered by trees including determining locations, species, size/age, and condition of trees. The tasks also include determining Tree count in each catchment as well as Tree density by forest type, both in the forests and in areas outside forests.

C) determine the Biomass Stocks and Carbon stocks by management type in forests and outside forests, determine species diversity, including IUCN Listed tree species in the catchment areas, species count including employing Simpson's index.

D) Where tenable, the consultant will estimate the merchantable timber volumes available in the catchment areas.

E) determine management aspects of the forests for instance for different categories of forests in the catchment areas, including determining whose responsibility it is for planting, pruning, tree removal, permitting, outreach and education in the catchment areas.

F) determine the existing plans, policies and regulations including bye laws affecting Sustainable Forest Management.

G) Determines management practices as well as community aspects impacted by forestry management in the landscape.

### **3.3 Forest Management Plans**

The consultant will be required to identify and profile all forests for which management plans will be prepared. At least 15 FMPs will be prepared across all the 2 categories of forests (Local Forest Reserves and private forests). Stakeholder analysis and engagement will be a key requirement for preparation of these FMPs.

Overall, the consultant should endeavor to observe the following:

- (i) Adhere to the principles of sustainable development in the process. These principles include among others sustainable use of the natural resources, integrated and balanced approach to social, economic and environmental interests and natural resources harvesting and efficient utilization;
- (ii) Develop procedures on the implementation for the FMPs and design mechanisms for monitoring implementation;
- (iii) Identify and consider gender issues relating to forest management planning and implementation;

## **4.0 STAFFING REQUIREMENTS AND QUALIFICATIONS**

### **4.1 Staffing/Personnel**

The Consultant is required to elaborate in his/her technical offer on the envisaged logistical set-up and deployment of appropriate skills for the execution of the assignment. The consultant should carefully review the scope of works and propose a team of well-organized competent staff, adequately equipped with the necessary skills/facilities to execute the assignment, bearing in mind that a substantial amount of work in this assignment is field based.

The Consultant will be expected to present his staffing schedule in a manner that makes it clear as to which personnel will be involved in a specific activity. A staff organogram reflecting the envisioned activities should therefore be presented.

#### **4.1.1 Staffing Requirements**

The Consultant shall identify and front a team necessary to carry out the assignment and should describe clearly the functions of each team member. The consultant's team is however expected to provide for the following key staff/expertise.

1. Forestry Resources Management and Planning Specialist /Team leader
2. GIS & Remote Sensing Specialist
3. Sociologist, with a bias on gender
4. Environmental Management Specialist
6. Land Management Specialist
7. Community Forestry Specialist
8. Forest Carbon Expert

In addition, the Consultant is at liberty to propose additional staff/competencies/short-term specialists as deemed appropriate for the successful execution of the assignment.

### 4.1.2 Staffing Qualifications

The Consultant will form a competent team to execute this task. The consultant is expected to field a team of professionals who shall work in an efficiently coordinated process to execute the task as prescribed and implied by the foregoing scope of services.

The Consultants core team shall comprise the following specialists for undertaking the exercise and the key personnel shall have minimum academic qualifications and experience as stipulated below:

- i) **Team Leader:** Forestry Resources Management and Planning Specialist with at least a master's degree and specialization in Forestry management with at least 13 years of experience in Forestry Planning with a bias in Forestry Resources Assessment.
- ii) **GIS and Remote Sensing Specialist:** A master's degree in forestry or natural resources field with GIS and remote sensing knowledge spanning 10 years and more. Cartography skills will be of added advantage
- iii) **Sociologist:** A master's degree in a social sciences-based discipline with over 10 years of relevant experience in undertaking gender assessments. Knowledge of Donor/ WB/IsDB/ADB social safeguards policies is desirable. This Social Development specialist must, likewise, have extensive experience in stakeholder identification, mobilization and engagement;
- iv) **Environmental Management Specialist:** A master's degree in Environment Science with over 10 years relevant experience in undertaking environmental assessments, environmental impact assessments, climate risk and resilience assessments, etc. and in environment management planning.
- v) **Land Management Specialist:** A minimum of master's degree in Land Management with a specialty in use of spatial and modelling tools in assessing land use management and over 10 years of relevant experience in being part of a team undertaking forestry assessments.

- vi) **Forestry Management Specialist:** A minimum of a degree in Forestry with over 10 years of experience in forestry resource management including species identification and assessments.
- vii) **Forest Carbon Expert:** A minimum of Masters in Forestry/Environment/Natural Resources and Climate Change, with experience of not less than 10 years in Carbon estimations and analysis, working preferably in Uganda.

#### Key Personnel and their Required Main Responsibilities

S/N	Position	Main Responsibilities
1	Team Leader	<ul style="list-style-type: none"> <li>● Coordinate the execution of the contract while working very closely with the Contract Manager.</li> <li>● Undertake Quality Assurance of the deliverables, and</li> <li>● Ensure timely submission of the required deliverables.</li> </ul>
2	GIS & Remote Sensing Specialist	<ul style="list-style-type: none"> <li>● Lead the collection of spatial data and production of relevant maps that form part of the Forestry Resource Assessment and Forest Management Planning</li> </ul>
3	Sociologist	<ul style="list-style-type: none"> <li>● Support with stakeholder and/or community mobilization, as part of the processes for consultations required for Forestry Resources Assessment and Forest Management Planning.</li> <li>● Support the preparation of the Forest Resources Assessment report, with focus on ensuring gender issues are well incorporated.</li> </ul>
4	Environmental Management Specialist	<ul style="list-style-type: none"> <li>● Support to ensuring environmental issues are considered as part of the Forest Assessment and Forest Management Planning processes.</li> </ul>



		<ul style="list-style-type: none"> <li>● Propose options that support effective environmental and natural resources conservation</li> </ul>
5	Land Management Specialist	<ul style="list-style-type: none"> <li>● Support in identifying potential land use management issues on the forests and propose options</li> <li>● Support in ensuring social land use aspects is embedded into the Forest Management Planning processes</li> </ul>
6	Forestry Management Specialist	<ul style="list-style-type: none"> <li>● Support and lead while working with the GIS &amp; Remote Sensing expert as well as the Land Management Specialist preparation of Forest Management Plans for selected forests</li> <li>● Support with tree species identification</li> </ul>
7	Forest Carbon Expert	<ul style="list-style-type: none"> <li>● Lead on the methodology and computations on the potential carbon found in the vegetations including trees in the catchment</li> <li>● Work closely with the Natural resources Economist to attach monetary value on the anticipated carbon</li> </ul>

All the experts are expected to have some experience working with government and with good knowledge of Uganda as well as training experience. All Projects illustrating the expert's specific experience for the project (Forestry) and their experience in Africa, and particularly in East Africa, Uganda have to be clearly defined in the expert's CV (including Project name, Location, Country, Duration, Project value, experts' specific tasks, etc).

In addition, short-term specialists in other areas required for targeted input could supplement the core expert team. These short-term personnel are expected to have demonstrated and appropriate technical experience (in the range of 5-10 years). Short term personnel are also expected to provide on-job training and to lead and carry out seminars and other training activities in their areas of expertise.

### 4.1.3 Familiarization with the Assignment

To familiarize with the services to be provided under this invitation, the prospective consultant is advised to visit the Project area.

## 5.0 REPORTING

### 5.1 Reporting Requirements - General

The Ministry of Water and Environment through the Forestry Sector Support Department will coordinate and manage the consultancy and will be represented by the INRM Component Coordinator. All reports will be submitted to:

Permanent Secretary, Ministry of Water and Environment with the attention of the Contract Manager for the task. Forestry Sector Support Department, Ministry of Water and Environment

P.O. Box 20026, Kampala.

The consultant shall hand over all data collected during the course of the assignment to the client in formats approved by the client. Reports shall be delivered to the clients address as stated above with a copy to the FIEFOC IV, National Project Coordinator

### 5.2 Reporting requirements – Specific reports

This Consultancy will be carried out in eight **(08) calendar months**.

It is however the responsibility of the Consultant to establish a detailed work program within the above time frame, taking into consideration the estimated man-month requirements. This should be guided by his professional judgment of the assignment's requirements and knowledge of the local conditions and needs.

The detailed schedule for the required reporting is contained in Table below:

Item	Report/document title	Timing after	Content	No. Of copies	Payment schedule %

		<b>commencement</b>			
A.1	Draft Inception Report	Month 1	The report shall outline the Consultant's mobilization, the work plan, strategy, methodology, a quality assurance plan and timetable for the services. The quality assurance plan shall include the following (i) A quality policy statement setting out the objectives of the plan and (ii) The personnel who will implement the plan, their responsibilities and authority.	6 to FSSD-INRM	
A.2	Final Inception Report	Month 1.5	The final inception report shall incorporate comments that have been received by the consultant from the stakeholder workshop where the draft report was presented.	6 to FSSD-INRM	20
A.3	Draft Forestry Inventory & Assessment Report	Month 5	This will include the historical trends of forests and current land uses in the catchment; Tree vegetation cover including canopy cover, and tree densities, basal volumes,	6 to FSSD-INRM	

			species count and species densities, species diversity, tree volume of merchantable timber; Management aspects.		
A.4	Final Forestry Inventory & Assessment Report	Month 5	As above	6 to FSSD-INRM	20
A.5	Draft FMPs for 15 FMUs Assessment Report	Month 6	The draft FMPs will be preceded by training of relevant stakeholders in forest management planning. The FMP will entail the physical description of the forest, environment assessment aspects, establishment aspects, if planted forest or management aspects, if natural forest; Maintenance aspects and financial analysis	6 to FSSD-INRM	
A.6	Final FMPs	Month 7.0	The final FMPs shall entail details of physical description of the forest, environment assessment aspects, establishment aspects, if	6 to FSSD-INRM	15

			planted forest or management aspects, if natural forest; Maintenance aspects and financial analysis		
A.7	Monthly progress reports, including documentation of lessons learned	Monthly	A report (1-3 pg maximum) comprising of a narrative and bar charts or other graphic presentation, showing details of the Consultant's progress, changes in the assignment schedule, impediments and proposed remedies, in addition to documentation on lessons learned.	1 to FSSD- Electronic	
A.8	2 Workshops	Periodical ly	At review of the draft Inception report and also at review of the draft Inventory and assessment report. Include all people consulted	2 to FSSD	15
A.9	Final Consultancy Report	1-month before of contract	Final consultancy report with all relevant documentations and original copies of attendance sheets and studies	2 to FSSD	30

The consultant is encouraged to assess the appropriateness of the suggested milestones and comment upon realistic expectations, especially with regard to the allocated time frames for the activities in the comments to ToRs.

All reports have to be submitted in both soft (unlocked MS Word, PDF) and hard copy. The hard copies will be prepared in DIN A4 format. The reports should be clearly labelled i.e. title of the deliverable indicated, for easy identification and documentation purposes. All reports shall be prepared in English language.

The Client will provide comments on each report within two (2) weeks of submission, and the consultant will only proceed thereafter.

Please note that the Consultant might be expected to conduct presentations to the Client during designated workshops. Two (4) workshops will be organized. The Client will pay the Consultant based on actual and approved expenditure of the Consultant's budget (for workshops), which will have been discussed and agreed with client prior to commencement of the Consultancy. The basis for payment of participants by the Consultant will be full participation for the entire duration of the workshop together with an authentic invitation letter of the participant.

The Client will coordinate and ensure that the workshops are held at the agreed dates and time. At each workshop, the consultants will make Power Point presentations, provide concise background documents for discussion and prepare workshop reports to document the proceedings.

In addition to the national workshops described above, the consultant will be expected to conduct informal stakeholder engagement sessions (presentations, meetings, etc.) throughout the duration of the assignment.

The costs of holding national workshops and stakeholder consultations must be included in the consultant's proposal.

## **6.0 CAPACITY BUILDING AND KNOWLEDGE TRANSFER**

The Consultant shall train designated staff at the center, Districts in the catchments with the aim of developing capacity and knowledge transfer. The consultants should include in their proposal a training approach and plan.

The consultant is further advised that all the services described in these Terms of Reference shall be performed in close co-operation with the FSSD staff, FIEFOC team, Line Technical staff at districts and representatives of key stakeholders in the catchments.

#### **7.0 DATA, SERVICES AND FACILITIES TO BE PROVIDED BY THE CLIENT**

To the extent possible, the Client will provide free of charge all existing information, data, reports in her custody and will assist the Consultant in obtaining other relevant information and materials from governmental institutions and state authorities as far as possible. Key References will include but not limited to;

1. FIEFOC Project Documents, MWE
2. National Forestry and Tree Planting Act, 2003
3. National Forestry and Tree Planting Regulations, 2016
4. Guidelines for Registration and Declaration of PNFs, FSSD, MWE
5. Guidelines for Registration and Declaration of CFs FSSD, MWE
6. Draft Revised Uganda Forestry Policy, 2023
7. Greening the Economy through massive tree planting, FSSD, MWE
8. Status of Forestry Report for Uganda, 2016
9. Forest Landscape Restoration Assessment report, 2016

The Client will assist the Consultant in obtaining other relevant information and materials from governmental institutions and state authorities by providing an introductory letter.

#### **8.0 REQUIREMENT FOR QUALITY CONTROL**

The Consultant will be required to demonstrate in their proposal, evidence of adoption of use of a Quality Assurance System (ISO 9001 or equivalent) as well as to describe how quality control will be implemented in the course of the project.

**9.0 ESTIMATED DURATION OF THE ASSIGNMENT.**

The assignment is expected to be completed in 8 months from start to finish.