

CALL FOR PROPOSALS

Consultancy Services (Multi-Consultancy Tender)

Peatland Ecosystem Services Monitoring in Uganda

A) Biodiversity protocol and specialized Indicators

and

B) Modelling of hydrological regulation functions

Within

Sustainable peatland management for people, climate and biodiversity (Peat4People)

1. Background

Peatlands are vital wetland ecosystems for climate, biodiversity and ecosystem services. They store in their organic soils about twice the carbon content of the Earth's forest biomass, provide unique habitats for species, minimize flood risk, and ensure safe drinking water. Yet, peatlands are facing rapid degradation due to land use change, pollution and climate change. With over 10 % of global peatlands already drained and 500,000 hectares destroyed annually, they are rapidly transforming from carbon sinks into major greenhouse gas emitters contributing approximately 4 % of global anthropogenic emissions.

In East Africa, peatlands are increasingly recognized for their role in sustainable development and climate resilience. Peatland degradation in the region is driven by drainage for agriculture, peat extraction and infrastructure development. This leads to the loss of important ecosystem services and threatens local livelihoods who rely on peatlands for their daily needs such as water, food and fuel. Balancing conservation with sustainable use remains a key challenge in unlocking peatland's full potential while ensuring their long-term resilience.

Despite growing awareness, more research is needed to fully explore the ecological and socio-economic value of peatland ecosystems. There is a pressing need to demonstrate how integral they are to ecosystem functioning and local livelihoods. Innovative approaches, such as sustainable finance mechanisms and sustainable land-use practices, are gaining interest but remain underutilized. Integrating these concepts into academic and practical training is essential to foster new solutions for conservation and community development.

The global project is being implemented by a consortium led by the Michael Succow Foundation - Partner in the Greifswald Peatland Centre, Food and Agriculture Organization of the United Nations (FAO), and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. GIZ's local partners are the Ministry of Water and Environment, Uganda, and the Ministry of Environment, Rwanda. The aim of the project is to strengthen the technical and financial capacities of relevant actors for the sustainable management of peatlands in Uganda and Rwanda. The project is funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) through its Initiative for Climate and Environmental Protection (IKU). The project is implemented from January 2025 to December 2027.

In Uganda, a demonstration site 'Nabajjuzi' with established water table monitoring transects provides a unique opportunity to develop integrated ecological and hydrological understanding of peatland systems. This comes within two objectives of Peat4People: a- strengthening the baseline information to peatlands ecosystem services and b- capacity development of the toolkits available to the national stakeholders for peatlands sustainable management. Within these frameworks, the project is commissioning two complementary studies:

- A- Development of peatland-specific biodiversity protocol and indicators
- B- Hydrological modelling of the peat layer functions in water regulation and storage

These studies are issued as a single coordinated multi-consultancy call for proposals.

2. Objective of the assignments

The overall objective is to strengthen peatland monitoring in Uganda by:

Assignment A: Developing biodiversity assessment protocols and indicators for peatland ecosystems in Uganda

Assignment B: Developing a hydrological model to quantify the peat layer(s) role in regulation of water flows and storage **under a steady-state scenario** and under scenarios of land use change and/or in response to climate change

3. Structure of the assignments (multi-Assignment)

Applicants may apply for one Assignment (A or B) only.

3.1 Assignment A: Biodiversity protocol and indicators

Objective

Develop, test and validate a practical standardized peatland-specific biodiversity assessment protocols and indicators in Uganda using Nabbajuzi demonstration site.

Key Tasks

Inception

- Desk review of the current state-of-the-art protocols to biodiversity monitoring in wetlands in Uganda: thereby identify key indicators potentially specific to peatlands
- Methodological Protocol development incl. indicators specific to peatlands
- Alignment with transect-based monitoring

Indicator Development

- Vegetation indicators
- Faunal indicators
- Disturbance indicators

Field Assessments

- Biodiversity surveys along water table transects according to developed protocol incl. indicators identified in the desk review
- Vegetation and faunal sampling

Data Integration (with project team), if needed

Project data developed under other studies may be accessed by the consultant, if needed, e.g. to identify disturbed area. The data may include:

- Peat soil properties
- Land cover
- Hydrological data: e.g. water table.

Indicator (naturalness, restoration and disturbance) validation in Nabajjuzi, including:

- Vegetation indicators
- Faunal indicators

Collaboration Requirement

Strong integration with hydrological and land cover teams is required to ensure indicator relevance.

Duration

- 10 months from July 2026 to April 2027
- Minimum 8 months field season coverage across at least three seasons

Expert days

- Maximum: 30 days, with fieldwork: 40-60 % of the total number of expert days.

Deliverables

- Inception Report (10 pages max.)
- Draft Protocol and Indicator Framework (5 pages max. excluding figures and tables)
- Field Report (10-12 pages excluding figures and tables)
- Revised indicator framework (5 pages max, excluding figures and tables)
- Validation Workshop (1 day)
- Final Report and Monitoring Protocol (12 pages max. excluding figures and tables)

Timeline

| Period | Activity | Deliverable / Deadline |
|--------------------------------|---|--|
| 01–15 July 2026 | Contracting, mobilization, access to datasets and background documents | Project initiation |
| 15 July – 15 August 2026 | Desk review and development of methodological framework and indicators | |
| 20 August 2026 | Submission of inception phase outputs | Inception Report |
| 20 August – 10 September 2026 | Development of draft biodiversity protocol and peatland-specific indicators | |
| 23 August – 31 October 2026 | First seasonal biodiversity and disturbance field surveys along monitoring transects | Field datasets (Phase 1) |
| 01 November – 15 December 2026 | Preliminary data processing, indicator refinement and continued biodiversity assessments | Interim analytical outputs |
| 15 December 2026 | Submission of preliminary technical outputs | Technical Draft / Field Report due |
| 05 January – 15 March 2027 | Second seasonal field surveys and targeted validation assessments | Field datasets (Phase 2) |
| 15 March – 31 March March 2027 | Final validation surveys, indicator verification and synthesis across seasonal conditions | Validation datasets completed |
| 10 April 2027 | Final revision of biodiversity indicators and protocol | Revised Indicator Framework due |
| Mid-April 2027 | Validation workshop with stakeholders | Workshop completed |
| 25 April 2027 | Submission of final outputs | Final Report + Monitoring Protocol due |
| 25 April 2027 | Submission of concise communication product | 1-page Policy Makers Summary due |

3.2 Assignment B: Hydrological modelling

Objective

Develop a hydrological model quantifying the role of peat layers in water flow regulation and storage, e.g. base-flow and flood mitigation, including impacts of land use-driven changes in soil properties, i.e. hydraulic conductivity, and corresponding scenarios.

Key Tasks:

Inception

- Review existing hydrological, e.g. annual-monthly flow rate at monitoring stations linked to the study area and peatland data, e.g. hydraulic conductivity ranges in relation to degree of peat decomposition
- Define the appropriate model assumptions, boundaries and scenarios

Field Activities (strict limit)

- Maximum **5 expert days only**, focusing on:
 - Site familiarization
 - Hydraulic conductivity assessment (slug tests), if possible together with the project team, OR protocol design

Hydrological Modelling

- Develop a distributed, process-based hydrological simulation model to simulate groundwater flow through a stratified peatland system, explicitly representing multiple layers with varying hydraulic conductivities and storage properties. This process-based simulation model quantifies lateral water flow regulation by capturing how heterogeneity in peat structure and permeability governs subsurface flow pathways and retention dynamics.
- Define and simulate four scenarios: (a) steady-state baseline conditions; (b) current land cover and land use; (c) land use change scenarios reflecting plausible future developments; and optionally (d) climate change adaptation scenarios incorporating potential management and hydrological interventions (where available).
- The simulation scenarios should incorporate data from the existing land cover maps and water table-pressure monitoring system, i.e. piezometers for calibration, which will be coordinated with the project tea

Collaboration is required with:

- land cover / remote sensing team
- peat soil assessment team

Duration

- 10 months from July 2026- April 2027

Expert Days

- Maximum: 30 days
- Field: max. 5 days (strictly limited)
- Desk: 80–90%

Deliverables

- Inception Report (max. 5 pages)
- Draft Model report (max. 10 pages)
- Scenario Development Report (max. 5 pages)
- Validation Workshop
- Final Model Package and report (max. 12 pages)

Timeline

| Period | Activity | Deliverable / Deadline |
|---------------------------------|--|----------------------------------|
| 01–15 July 2026 | Contracting, mobilization, acquisition of hydrological and peat datasets | Project initiation |
| 15 July – 15 August 2026 | Review of datasets, modelling assumptions, boundaries and scenarios | |
| 20 August 2026 | Submission of inception phase outputs | Inception Report due |
| 20–31 August 2026 | Short field mission for site familiarization and hydraulic conductivity assessment/protocol review | Field assessment notes |
| 01 September – 30 November 2026 | Development of distributed hydrological simulation model | |
| 15 December 2026 | Initial model development and calibration outputs | Technical Draft Model Report due |
| 05 January – 15 February 2027 | Scenario development, simulations and analysis | Scenario outputs |
| 15 March 2027 | Validation workshop and technical review (Hybrid) | Workshop completed |
| 10 April 2027 | Submission of final modelling package and technical report | Final Model Package & Report due |
| 10 April 2027 | Submission of concise communication product | 1-page Policy Makers Summary due |

4. Study site (both assignments)

Both assignments will be conducted at Peat4People demonstration site in Uganda: Nabajjuzi, featuring:

- Established water table monitoring transects
- Integrated peatland monitoring infrastructure

5. Inputs provided by project partners

The Peat4People project will provide access, if needed, to:

- Water table monitoring data
- Peat soil data
- Land cover data
- Site access and logistics support

6. Eligibility (both assignments)

- MSc/PhD in relevant fields
- 10+ years relevant experience
- Proven expertise in:
 - biodiversity or hydrological assessments

- wetland/peatland systems
- data analysis and modelling

7. Evaluation of bids (per assignment)

7.1 Technical evaluation (70%)

| Criteria | Weight |
|--------------------------|--------|
| Methodology and approach | 30% |
| Relevant experience | 25% |
| Team composition | 15% |
| Workplan and feasibility | 15% |
| Collaboration approach | 15% |

Minimum score: **70%**

7.2 Financial evaluation (30%)

- Cost-effectiveness
- Total proposal costs

7.3 Key evaluation emphasis

For Assignments A and B, special attention will be given to:

- Integration with peatland monitoring systems
- Use of existing transect infrastructure
- Strong interdisciplinary collaboration
- Scientific robustness and policy relevance

For Assignment B, specifically:

- Representation of peat layer hydrological functions
- Modelling of scenarios under land cover change and corresponding hydraulic conductivity properties
- Quality of scenario development collaboration

8. Submission of proposals

The application should be a single pdf in English <5 MB, which doesn't exceed 10 pages, excluding annexes and CVs.

The application should be sent by email to: samer.elshehawi@succow-stiftung.de

Subject line:

“PEAT4PEOPLE Call for Proposals – Assignment A or B”

Applicants must clearly indicate:

- Which assignment(s) they are applying for
- Budget detailing team set up (if applicable), expert days rate, and travel costs estimates for field days
- Assignment preliminary timeline

9. Deadline

Deadline: 05.06.2026. Late submissions will not be considered.

10. Conditions

- This call does not guarantee contract award
- Only shortlisted applicants will be contacted
- Full compliance with GIZ procurement rules applies for travel and third parties costs.

11. Key considerations (cross-cutting)

- Strong integration across biodiversity–hydrology–land cover domains
- Use of shared water table monitoring transects
- Collaborative scenario development is mandatory for Lot 2
- Fieldwork intensity:
 - Assignment A: field-heavy
 - Assignment B: field-light (max 5 days including traveling)
- Outputs must directly support Peat4People monitoring and restoration focus.