

Terms of Reference
Mangrove National Forest Inventory Coordinator
at Foundation for Forest Management and Production Control (SBB)

Project Title: Setting up a mangrove biodiversity Monitoring System
Contracting Authority: United Nations Development Programme (UNDP)
Contract Type: Individual Contract (IC)
Duration of Assignment: 12 months
Start Date: December 2017

1. BACKGROUND

The Government of Suriname, the European Union and UNDP through the GCCA+ Suriname Adaptation Project aim to increase Suriname Capacity to address issues related to Climate Change. One of the main result areas of the GCCA+ Suriname Adaptation Project is to address the problem of ongoing destruction of the mangrove ecosystems which provide a natural defense of the coastal area against sea level rise and erosion.

Suriname is currently developing a multipurpose National Forest Monitoring System (NFMS) (SBB, 2017). A centralized NFMS will support information sharing, strengthen institutional capacities, reduce monitoring costs and provide a platform for the management of the forest resource and national policy development. The NFMS serves as a valuable tool to improve mangrove monitoring and enable better mangrove conservation and management. Implementing a mangrove protocol into the NFMS is very important and will ensure accurate and up-to-date information is available to authorities. Furthermore, information on the biodiversity and other characteristics of the mangrove forest will be made readily available, which will be useful to determine the economic value of the mangrove forest.

The project aims at setting up a mangrove biodiversity Monitoring System, by embedding mangrove biodiversity monitoring in existing structures of the NFMS (including the Monitoring, Reporting and Verification (MRV) system for REDD+), building on these structures, and further strengthening them. Accessibility to solid information will be key in further development of relevant policies such as the Mangrove Strategy

The Mangrove Biodiversity Monitoring System is one component of the National Forest Monitoring System as described in NFMS roadmap: *“Status and plans for Suriname’s National Forest Monitoring System”* (SBB, 2017). The work will be carried out in a close collaboration with the partner institutions the National Herbarium of Suriname, the Center of Agricultural Research Suriname (CELOS), the National Zoological Collection Suriname, the Ministry of Physical Planning, Land and Forest Management and the Anton De Kom University.

2. Objective of the Assignment

The Mangrove National Forest Inventory (MNFI) coordinator will contribute to the establishment of a mangrove forest cover monitoring program by:

- Develop and establish a multipurpose forest inventory proposal for the mangrove stratum which can be implemented in the MNFI
- Carry out multipurpose forest inventory in a minimum of 12 mangrove Sampling Units

- Coordinate the processing of all samples in the laboratory and process the resulting data
- Contribute to the publication of the report on the status of the mangrove forest in Suriname, with a specific focus on the biodiversity but including also carbon stocks and other ecosystem services.
- Supporting the development of a remote sensing protocol for mangrove forest cover monitoring

3. Scope of Work

Key functions, responsibilities and tasks for the remote sensing officer are as follows:

- Determine the indicators that will be measured within the mangrove forest NFI in a collaborative process with the partners and stakeholders such as Nationaal Herbarium, CELOS, NC .
- Carry out a desktop study providing a report on the already collected data on biodiversity, carbon stocks within the mangrove forests.
- Report on the socio-economic activities taking place in the mangrove areas and factors influencing these activities.
- Develop a sampling strategy for the mangrove forest which is in line with assessment of the mapping and monitoring of the mangrove forest cover based on remote sensing.
- Develop a field protocol for the establishment of the mangrove forest sampling units, aligned with the field protocols used during the pilot National Forest Inventory project, and where possible harmonized with field protocols used within the region.
- Collaborate with partner institutions to developing field protocols for floristic biodiversity, fauna biodiversity and socio-economic assessment.
- Develop a Quality verification protocol.
- Contribute to awareness and engagement activities in the areas where the sampling units will be established.
- Prepare capacity building activities for the field teams in close collaboration with the relevant experts from SBB and the partner institutions
- Coordinate the logistic preparation and implementation of the field work with field teams composed of experts of the partner institutions.
- Coordinate the lab analysis and plan identification activities in a close collaboration with the relevant partner institutions.
- Collaborate with the data analyst and the field teams on the digitalization of the field data and the data processing
- Contribute to the publication of the report on the status of the mangrove forest in Suriname, with a specific focus on the biodiversity but including also carbon stocks and ecosystem services pertaining to socio-economic activities.

4. INSTITUTIONAL ARRANGEMENT

The MNFI coordinator will work within the NFMS-unit under the guidance of the project manager of the establishment of a Mangrove Biodiversity Monitoring System, at the Department of Research and Development within the Foundation for Forest Management and Production Control (SBB).

The MNFI coordinator will develop a workplan in which all the activities necessary to perform the previously mentioned key functions, responsibilities and tasks will be listed and planned out for the duration of this contract. The approved workplan will govern the work MNFI coordinator will perform. The MNFI coordinator will submit monthly reports on the work done in line with the workplan to the Project Manager and the

GCCA+ Technical officer connected to this project. The final report submitted by the MNFI coordinator will also encompass the status of the mangrove forest in Suriname.

5. REPORTING REQUIREMENTS

The MNFI coordinator will report monthly to the Project Manager *the Setting up a mangrove biodiversity Monitoring System Project* and the GCCA+ Technical Officer to ensure a timely delivery of the expected outputs. All reports should be submitted in Microsoft Word

6. DELIVERABLES

The deliverables for this project are:

- Annual workplan describing the timeframe in which key tasks will be carried out within project lifespan of 12 months
- A list of indicators that will be measured within the mangrove forest NFIA sampling strategy for the mangrove forest which is in line with assessment of the mapping and monitoring of the mangrove forest cover based on remote sensing
- Strategic sampling plan for the mangrove forest
- Field protocol for the establishment of the mangrove forest sampling units, aligned with the field protocols used during the pilot National Forest Inventory project, and where possible harmonized with field protocols used within the region.
- Field protocols for floristic biodiversity, fauna biodiversity and socio-economic assessment.
- Quality verification protocol
- Report on awareness and engagement activities executed in the field sampling areas
- Capacity building plan for the field teams
- Report on capacity building activities executed with field teams according to capacity building plan
- Logistic plan and periodic reports on preparation and implementation of the field work with field teams by the partner institutions.
- List of service providers and vendors of support and field personnel
- An inventory proposal for the mangrove stratum which can be implemented in the MNFI
- Report on multipurpose forest inventory for a minimum of 12 mangrove Sampling Units
- Report on the analyzed lab data from a minimum of 12 mangrove Sampling Units
- Report on the status of the mangrove forest in Suriname, with a specific focus on the biodiversity but including also carbon stocks and other ecosystem services.

7. REMUNERATION

The remuneration will be based on the achievement of monthly targets. Payment will be remitted, subject to clearance and approval of final deliverables from the Project Manager of the *Setting up a mangrove biodiversity Monitoring System Project* and GCCA+ PMU.

Deliverables	No. of days	Percentage of Payment
<ul style="list-style-type: none"> Monthly progress report on the initial dialogue and discussion with the partner institutions TORs of the partner institutions developed in a close collaboration with the project manager Annual work plan describing the timeframe in which key tasks will be carried out within project lifespan of 12 months A list of indicators that will be measured within the mangrove forest NFI Desktop study on the existing methodologies in the region, and the country related the plot establishment within the mangrove forest 	30 days	8.33%
<ul style="list-style-type: none"> Improved work plan based on the input from the partner institutions Final TORs of the partner institutions, submitted to UNDP First version of Field protocol for the establishment of the mangrove forest sampling units and field protocols for floristic biodiversity, fauna biodiversity and socio-economic assessment. Strategic sampling plan for the mangrove forest 	30 days	8.33%
<ul style="list-style-type: none"> Final version of Field protocol for the establishment of the mangrove forest sampling units and field protocols for floristic biodiversity, fauna biodiversity and socio-economic assessment, including quality verification protocol. Monthly progress report including the logistic planning of the next month, including the report of the pilot field work carried out, including the capacity building of the field teams 	30 days	8.33%
<ul style="list-style-type: none"> Monthly progress report, including: logistics plan on multipurpose forest inventory, carried out awareness and engagement report, and report of visited SU's 	30 days	8.33%
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<ul style="list-style-type: none"> Monthly progress report, including: logistics plan on multipurpose forest inventory, carried out awareness and engagement report, and report of visited SU's First draft report on the results of the multipurpose forest inventory for sharing with the partner institutions 	30 days	8.33%
<ul style="list-style-type: none"> Second draft report on the results of the multipurpose forest inventory for sharing with the partner institutions 	30 days	8.33%
<ul style="list-style-type: none"> Final report on the results of the multipurpose forest inventory for sharing with the partner institutions Communication material to share these results with a broader group of stakeholders. 	30 days	8.33%

8. QUALIFICATIONS, EXPERIENCE AND KNOWLEDGE

The MNFI coordinator most suited to complete this consultation should have:

- MSc. degree in environmental sciences, forestry, natural resource management or other related field, or a BSc. degree with at least four years of experience.
- Good understanding of the mangrove forest ecosystem and field experience within the mangrove forests.
- Knowledge of forest inventory methodologies, biometry statistics.
- Excellent communicator with strong team leader skills.
- Strong affinity with biodiversity and mangrove forest
- Proficiency in at least English and Dutch. Knowledge of other languages e.g. Sranan Tongo is an asset.
- Excellent writing, reporting and presenting skills

Other skills:

- Proficiency with Microsoft Office

9. ADMINISTRATIVE INFORMATION

The candidate must submit their curriculum vitae, P11 form, including contact information for three references and a financial proposal to procurement.sr@undp.org by **16:00 5 December 2017**.