UNION DES COMORES

Unité - solidarité - développement

VICE-PRESIDENCE EN CHARGE DU MINISTERE DE L'AGRICULTURE, DE LA PECHE, DE L'ENVIRONNEMENT, DE L'AMENAGEMENT DU TERRITOIRE ET DE L'URBANISME

TERMS OF REFERENCE: EXPERT IN INTEGRATED WATERSHED MANAGEMENT UNDER CLIMATE CHANGE

For the project:

"BUILDING CLIMATE RESILIENCE THROUGH REHABILITATED WATERSHEDS, FORESTS AND ADAPTIVE¬ LIVELIHOODS"
Funded by the Global Environment Facility (GEF)

1. GENERAL CONTEXT

Comoros islands are particularly vulnerable to the effects of climate change, which intensify the economic, political and humanitarian constraints already faced by the country thereby reducing considerably its capacity to eliminate extreme poverty. The poorest community groups will be the most severely affected by these phenomena because they are the least able to adapt to them. Systematic interventions will be required at all levels (regional, national, local) to plan and implement development actions to avoid a reversal of the few development gains made.

The country has identified priority adaptation measures contained in its National Adaptation Program of Action (NAPA). An analysis of the current situation reveals the following: (i) adaptation initiatives currently underway are of limited scale and scope and their impacts are neither consistent nor sustainable; ii) its capacity, relationships, policies and institutional practices regarding risk assessment and management are not sufficiently developed to create an enabling environment where political and social leaders support the development and implementation of efficient solutions to a problem with complex multi-sectoral impacts; (iii) limited knowledge of the most appropriate adaptation policies and measures prevents the country from preparing and building the institutional capacity required to support effective climate change risk management; (iv) the limited funding available to support large-scale adaptation initiatives is an obstacle to building the necessary institutional and technical capacity.

As part of the project "**Strengthening Resilience through Watersheds, Forests, and Suitable Livelihoods**", funded by the Global Environment Facility and jointly implemented by UNEP, the country wants to integrate climate change risks and opportunities in its development processes in order to avoid the loss of development assets under changing climate.

2. BRIEF DESCRIPTION OF THE PROJECT:

The project will strengthen the resilience of Comorian communities to climate change through the rehabilitation of degraded watersheds. The project will also develop the technical and institutional capacity of stakeholders for the sustainable management of forests and river basins as an adaptation strategy at national and local levels.

To ensure the long-term sustainability of watershed rehabilitation, the project will promote the development of alternative and sustainable livelihoods in rural areas that will help ensure diversified and resilient livelihoods, which rely on healthy ecosystems. Through these interventions, the project will lead to the following results:

- Strengthened technical and institutional capacity for integrated watershed management at national and local levels;
- Rehabilitation and sustainable management of watersheds and subwatersheds in project areas; and
- Adoption of a diverse range of resilient livelihood strategies by communities in the project areas.

Project interventions will take place at the national level as well as on each island of the Union, each site representing a watershed, composed of several villages (five in each watershed will participate in the project):

- The island of Grande Comore (Ngazidja): the villages of Mdjoiezi, Mkazi, Nvouni (Mvouni), Pvanadjou (Vanadjou) and Bahani are located in the central zone of the island in the Séréhini watershed bringing together three regions involved in agriculture, fishing, tourism, crafts and trade to know: i) Bambao Region, where is the capital of the Comoros Union, Moroni; ii) Hambou Region; and iii) Itsandra region.
- The island of Anjouan (Nzwani): the villages of Daji (Dagi), Kiyo, Komoni, Mremani and Adda are located in the Nyumakele watershed in the Mremani region (southern part of the island).
- The island of Moheli (Mwali): the villages of Siri-Ziroudani, Wanani (Ouanani), Hagnamouda, Hamavouna and Itsamia are located in the Mibani watershed in the Djando region (southern zone of the island).

Priority activities of the project include the development of watershed management and monitoring tools. As part of his contract, the International Consultant will be in charge of supervising a team of national experts to establish: i) detailed maps of forests and watersheds on each island; and (ii) a geo-referenced information system on the impacts of climate change on primary and secondary watersheds. The International Consultant will work in collaboration with a team of experts in Geographic Information Systems and Computer Science.

3. TASKS DESCRIPTION

Working with the project coordinator and technical advisor, and ensuring close collaboration with VP-MAPEATU, the consultant will perform the following tasks:

A. Stocktake and compilation of available information:

1. Become familiar with the project document and its objectives.
2. Oversee the compilation of all information already produced by partner institutions and projects (FAO, GCCA, IFAD, DGEF, DNSAE, DGM) such as: i) forest inventories; (ii) data and distribution maps of forests and watersheds available at the local level; iii) aerial photos; and (iv) climate scenarios.
3. Identify gaps and weaknesses in the information available.

B. Creation of the Geographic Information System for watersheds:

This activity aims to develop a Geo-referenced Information System that is easy to access and use. As part of this assignment, the current forest distribution and watershed delineation - considered as the baseline situation - will be defined. The Geo-referenced Information System will then be used by the appropriate

government institutions (Directorate of Environment and Forests, and Directorate of Water) who will be in charge of continuously updating the system by integrating the new data collected in the field by extension agents or through a participatory process - by local communities.

4. Identify, in collaboration with the National Consultants and the project team, the anchoring institutions of the Geo-referenced Information System and the different access modalities for each institution.
5. Oversee the collection of the socio-economic and environmental data required on each watershed to complement the available information, and allow the creation of a high-resolution geo-referenced information system of primary and secondary watersheds. This system must contain all the information needed to develop the maps described in Section 3C of the ToR. Among the layers of information developed, the System will highlight the very degraded areas with high economic, ecological and social value, which should be prioritized for restoration activities.
6. Oversee the creation and operationalization of the Geo-Referenced Information System.
7. Oversee the creation and implementation of the online geo-referenced data sharing portal.
8. Develop the strategy for maintaining the Geo-referenced Information System and the online portal beyond the project.

C. Mapping of watersheds and forests

Mapping activities — particularly forest mapping — will be implemented in collaboration with the Directorate General of Environment and Forests. Watershed mapping will be carried out in collaboration with the Directorate General of Environment and Forests, and the Water Directorate. The produced maps should be detailed and clear to serve as tools for government institutions for: i) integrated land-use planning and integrated management of natural resources; and (ii) awareness raising of local communities.

1. Identify the current effects, risks and expected impacts of climate change on: i) Comorian forests; and ii) primary and secondary watersheds.
2. Supervise the development of the following management tools:
    a. maps of current forest distribution for each island: these maps should show priority restoration areas;
    b. maps of the current primary and secondary watersheds for each island: these maps should show priority restoration areas;
    c. maps of future forest distribution for each island based on different climate scenarios and expected effects; and
    d. maps of primary and secondary watersheds for each island according to the different climate scenarios and expected climate change effects.

3. Oversee the organization of one or more workshops for the official validation of the maps produced for each island by the governmental authorities of the relevant sectors (including water, agriculture and environment).

4. CONTRACT DURATION

The contract will have a duration of 40 days over the period January 15th to April 30th, 2018.

5. EXPECTED DELIVERABLES

i. **Methods report** in French detailing the methodology of the analysis, tools for the collection and development of tools, and the planned work plan for the realization of the contract.
ii. **First draft report in French** which must contain at least the following information:

- Description of the methodology used.
- Analysis of available data.
- Illustrated analysis of the current and future distribution and composition of forests.
- Illustrated analysis of the current and future distribution of watersheds.
- The development process, the maintenance strategy and the guidelines for using the Geo-referenced Information System.

iii. **Final version of the report** in French which addresses all the comments of the project team and stakeholders.

6. PLANNING

The consultant will spend:

- Up to 6 days for document analysis, identification of data gaps, development of methodology and detailed workplan.
- Up to 26 working days to oversee the creation of the Geo-referenced Information System, and the development and validation of maps, including at least one mission to the Comoros.
- Up to 8 days for report writing and review process.

A first draft of the report should be completed no later than March 31, 2018. A final addressing all comments should be submitted no later than April 30, 2018.

7. PAYMENTS SCHEDULE

The payment will be divided according to the following schedule and after receipt of the deliverables whose quality is assessed as satisfactory by the project team:

- Payment 1: 20% after the submission of the initial report.
- Payment 2: 30% upon presentation of the first draft report.
- Payment 3: 50% upon presentation of the final report.

No additional cost will be claimed. The financial offer must include fees and travel costs.

8. REQUIRED SKILLS

The selection will be based on the following criteria:

- Master's degree in Ecology, Geography, Forestry, Hydrology, Natural Resource Management, or other related field.
- A minimum of 10 years of relevant work experience.
- Demonstrated expertise in integrated management of watersheds and forest resources.
- Expertise in the analysis of the effects of climate change on forest distribution and composition, and on hydraulic resources, preferably on the African continent and in island systems.
- Demonstrated experience in mapping the distribution of natural resources as a management and planning tool.
- Demonstrated experience in: i) the use of GIS; (ii) multi-criteria analyses; and iii) mapping based on different climate scenarios.
- Strong interpersonal, communication and collaboration skills with professionals from all backgrounds.

- Fluency in English and French with excellent oral and written communication skills is a requirement. In addition, local language knowledge and / or work experience in Comoros is an added advantage.
- Availability to perform this task as soon as possible.

9. ROLE AND RESPONSIBILITIES

VP-MAPEATU will assist with logistics, provide project documents and will be the link between the consultant and the project stakeholders. The VP-MAPEATU will also support the mobilization of the people needed for the interviews. The consultant will be responsible for guiding the entire process of data collection and analysis, and for taking all other specific responsibilities stipulated in his ToRs.

The National Project Coordinator, the Technical Advisor and the stakeholders selected by the project team will be responsible for providing feedback on the reports for quality insurance.

10. APPLICATION PROCESS

Those wishing to apply must include the following in their application:

- Technical proposal: understanding and interpretation of ToRs; planned methodology for the execution of the activities; timetable for implementing activities; statement of organizational and personal capacity; relevant experience related to the mission; and references.
- Financial Proposal (including fees and travel costs).
- Cover letter.
- Curriculum vitae.

The application documents will be submitted before **Thursday 30 November 2017 - 23h (GMT +3)** to the General Directorate of Environment and Forests in Comoros or at the email address: projet.gibv.comores@gmail.com /secretariatdgef@gmail.com