

TERMS OF REFERENCE FOR SMSMCL - GIS MONITORING AND EVALUATION SPECIALIST

A. Project Title:

Strengthening Multi-Sectoral Management of Critical Landscapes in Samoa (SMSMCL)

B. Project Description or Context and Background:

This project is the first upscaling initiative by the Government of Samoa to ensure land degradation issues across all level of society are well addressed through the integration of sustainable landscape management into planning framework and actions across multi-sectoral arrangements in order to achieve the Government of Samoa's long-term goal:

"Samoa's productive landscapes are protected and sustainably managed to mitigate land degradation and to increase soil carbon sequestration so as to contribute to poverty alleviation and mitigation and adaptation to climate change impacts, as well as to contribute to global environmental benefits by overcoming barriers to integrated sustainable land management."

The primary objective of this project is to *strengthen local capacities, incentives and actions for integrated landscape management in order to reduce land degradation and greenhouse gas emissions and promote nature conservation whilst enhancing sustainable local livelihoods.*

In order to achieve this objective the project will support local household and wider community actions to reduce pressures on natural resources from competing land uses in the wider landscape. The project has two outcomes and four outputs:

Outcome 1: Communities and farmers are able to undertake and benefit from integrated land and water management on their traditionally owned land.

Output 1.1: Landowners engaged in farming in the targeted communities increase village land area under Sustainable Land Management practices.

Output 1.2: Community leaders in targeted villages endorse participatory action plans and engage in sustainable land management practices on village land.

Outcome 2: Strengthened national enabling environment to promote integrated landscape management through local households and communities.

Output 2.1: National agencies involved in land use activities are able to effectively coordinate field interventions using a multi-sectoral approach.

Output 2.2: Policy makers and key stakeholders have an increased knowledge of Sustainable Land Management through services and training.

On behalf of the Government of Samoa and the Ministry of Natural Resources and Environment, UNDP is now recruiting an expert to contribute to both Outcomes: a GIS Monitoring & Evaluation Specialist.

C. Scope of Work & Tasks:

A part of the Inception Phase for the project was specifically dedicated to a review of the Strategic Results Framework, its indicators, the baseline and the targets this project is to achieve in a 5-year period. The Inception Phase highlighted that both baseline and target data in the project document are based on outdated estimates from 2004 work on forest and land use in Samoa. The JICS Forest Preservation Project completed in 2014, has updated spatial information on changes in land use cover and deforestation, forest mapping and inventory as well as a first detailed assessment of carbon-biomass for different land cover in Samoa corresponding to 8,814,724 ton for Upolu island and 36,921,502 ton for Savaii island (these measurements include above-ground tree biomass, litter and soil carbon). These valuable new forest and land use data, maps and databases, together with recent climate change impact on forest ecosystems data produced from the ICCRIFS project, are contained in the SamFRIS data system under the custody of the Forestry Division. These can now be layered on the project geographical priority areas for more accurate assessment of avoided GHG emissions through project activities, as well as mapping village land management plans and mapping key biodiversity areas land cover for targeted surveys and SLM activities.

In this context, the GIS consultant's role in the project will be three-fold. The consultant will first assess, review and update baseline and targets of the Strategic Results Framework of the project using most recent GIS maps of land cover data produced as part of the JICS project and then develop the full monitoring framework for the project. He will then assist the project team in close collaboration with the AF project and their review of CIM plans, in developing the template for village land management plans and maps to be developed for coordinating SLM activities on the ground. Finally, he will assist the project team in mapping existing ecological and biodiversity data for the planning, monitoring and reporting on four key biodiversity areas targeted by the project for baseline ecological surveys and management plans. This work will be conducted in close collaboration with the Adaptation Fund experts at PUMA responsible for the development of the new LIDAR mapping system being introduced in Samoa.

Tasks

The GIS Monitoring and Evaluation Specialist will work in close collaboration with the project and MNRE divisions technical staff and will carry the following tasks:

- Assess, review and update indicators, baseline, targets and means of verification of the Strategic Results Framework of the project using most recent GIS maps of land cover and carbon-biomass data produced as part of the JICS project, but also from recent land information data available from other Divisions and Ministries, when appropriate.
- Develop the full monitoring framework for the project including planning and monitoring tools, means of verification, reporting tools needed for the project regular and accurate monitoring and reporting on these revised project key indicators.
- Liaise with MAF and provide a thorough review and update of the GIS soil suitability component to selected crops under the ICCRAHSS project and make recommendation taking into consideration any lesson learnt to assist with formulation of village sustainable development plans and planning for sustainable land management practices at the village and community level.
- Provide capacity-building and training of Land Management Division and project staff in the use

of monitoring and reporting tools for project indicators measurements including the use of SamFRIS, other MNRE environmental databases and tools developed specifically to monitor project indicators.

- Liaison and assistance to the Land Management Division, Forestry Division Planning Unit and AF project team to clarify projects relationships and define roles and responsibilities of partners with the development and mapping of village sustainable land management plans using GIS mapping tools from SamFRIS and other databases. This will include working in close collaboration with the Water Resources Division on the updating of upland forest watershed plans.
- Assist the project team in developing the template for village land management plans and maps to be developed for coordinating SLM activities on the ground. This will include, in particular for the Apia catchments priority area and other project geographical priority sites, the mapping of land cover, soils, GIS analysis of land degradation with identification of possible drivers, and land tenure to assess viability of land acquisition of remaining forests ecosystems.
- Analysis and description of the current ecological condition (component, processes and services) and identification of any changes in ecological character including land degradation, soil and hydrological services of sites and mapping of current and historical ecological data for four key biodiversity areas targeted by the project (Central Upland Forests of Savai'i, Uafato/Tiavea Coastal Forests, Falealupo Peninsula and the Apia Critical Watersheds) and identification of key data gaps for critical landscape and ecosystems/habitats, soil, land degradation, flora, terrestrial fauna (birds, mammals, reptiles, insects, land snails, moths and butterflies, freshwater and invasive species).
- Assist the project team in planning for the pre-surveys and baseline ecological surveys in the key biodiversity areas and preparation of GIS-based maps and applications, as required.
- When relevant, acquire and enter most recent biodiversity data on key threatened species (IUCN Red list) in SamFRIS database to identify biodiversity information gaps to assist the Project Management Unit in planning ecological baseline surveys as well as SLM, restoration and conservation activities.
- Assess the ecological relationships between natural resources such as the plants and the environment, including the climate, and to have better models of future climate data.

D. Expected Outcomes and Deliverables:

The GIS Monitoring and Evaluation Specialist will deliver the following outputs:

- Report on the assessment and review of indicators, baseline, targets and means of verification for the project, including a revised Strategic Results Framework using updated data.
- Monitoring framework, including tools and questionnaires to be used by project staff for monitoring and reporting on each indicator, including frequency and data to be collected and analyzed.
- Report on the development, design and final template for the Village Sustainable Land Management Plans, adapted to the local context including a review and summary report of GIS analysis on Soil suitability for selected crops with possible linkages and recommendations to inform SVDP formulation, project planning and implementation.
- Detailed maps and analysis of Apia catchments priority area and all other project priority

<p>geographical sites by land cover, critical landscapes, soils, land degradation and land tenure.</p> <ul style="list-style-type: none"> • Report on existing ecological information and key data gaps for further ecological survey effort for the four key biodiversity areas covered by the project; • Summary maps showing ecological data availability and data gaps by theme (taxonomic group) and by geographical area; • Updated SamFRIS with user-friendly interfaces incorporating monitoring tools on Sustainable Land management indicators. • User manual for the monitoring and assessment, analysis and mapping of project indicators results. • Capacity-building workshop and training for Land Management Division, Forestry Division and other relevant MNRE divisions staff in the use of SamFRIS and other monitoring tools developed by the specialist during this assignment.
<p>E. Institutional Arrangement:</p> <p>The hired consultant will be under the supervision of the SMSMCL Project Manager. Reports and documentation will be shared with the Project Manager in a timely manner, with copy to the UNDP MCO Programme Officer.</p>
<p>F. Duration of the Work:</p> <p>The total number of the consultancy is expected to be 60 working days. The consultant will be working in close collaboration with the SMSMCL Project Manager, Forestry and Mapping Division of MNRE, as well as with the UNDP multi-country office in Samoa.</p> <p>The services of the consultant to deliver the outputs will be required on a part time basis over a period of four months from 1 September to 31 December 2015.</p>
<p>G. Duty Station:</p> <p>Based at the PMU-MNRE or home-based if required and work collaboratively with Forestry, Mapping and PMU MNRE</p>
<p>H. Competencies:</p> <ul style="list-style-type: none"> • Demonstrates commitment to the Gov. of Samoa mission, vision and values. • Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability • Focuses on result for the client and responds positively to feedback • Consistently approaches work with energy and a positive, constructive attitude • Demonstrates openness to change and ability to manage complexities • Good inter-personal and teamwork skills, networking aptitude, ability to work in multicultural environment
<p>I. Qualifications of the Successful Contractor:</p>

The GIS Monitoring and Evaluation Specialist should meet the following qualifications and requirements:

- A post-graduate degree in natural resource management, sustainable land management or other related disciplines, with specialised GIS training.
- At least 10 Years experience in data base, GIS system management and GIS mapping, as well as experience in natural resources management, land management or conservation planning information systems.
- Extensive knowledge of SamFRIS and/or other land use data information systems used in the Pacific region would be an advantage;
- Fluent in the use of both MapInfo and ArcInfo GIS softwares;
- Demonstrated experience in capacity-building and training of GIS tools to a variety of end-users;
- Proven ability to work in a team and facilitate work of other experts in the field;
- Excellent working knowledge of spoken and written English;

Evaluation criteria: 70% Technical, 30% financial combined weight:

Technical Evaluation Criteria (based on the information provided in the CV and the relevant documents must be submitted as evidence to support possession of below required criteria:

- A post-graduate degree in natural resource management, sustainable land management or other related disciplines, with specialised GIS training; (30%)
- At least 10 Years experience in data base, GIS system management and GIS mapping, as well as experience in natural resources management, land management or conservation planning information systems; (20%)
- Extensive knowledge of SamFRIS and/or other land use data information systems used in the Pacific region would be an advantage; (20%)
- Fluent in the use of both MapInfo and ArcInfo GIS softwares; (10%)
- Demonstrated experience in capacity-building and training of GIS tools to a variety of end-users; (10%)
- Proven ability to work in a team and facilitate work of other experts in the field; (5%)
- Excellent working knowledge of spoken and written English; (5%)

J. Scope of Bid Price & Schedule of Payments:

DELIVERABLES	DUE DATE AND WEIGHTING (%)	AMOUNT IN USD TO BE PAID AFTER CERTIFICATION BY UNDP OF SATISFACTORY PERFORMANCE OF DELIVERABLES
1. Upon completion and approval of the following report and monitoring framework: <ul style="list-style-type: none"> • Report on the assessment and review of indicators, baseline, 	10 working days after the start of contract (20%)	\$xxx

<p>targets and means of verification for the project, including a revised Strategic Results Framework using updated data.</p> <ul style="list-style-type: none"> Monitoring framework, including tools and questionnaires to be used by project staff for monitoring and reporting on each indicator, including frequency and data to be collected and analysed. 		
<p>2. Upon completion and approval of report on the development, design and final template for the Village Sustainable Land Management Plans, adapted to the local context including a review and summary report of GIS analysis on Soil suitability for selected crops with possible linkages and recommendations to inform SVDP review, project planning and implementation.</p>	<p>30 working days after the start of contract (20%)</p>	<p>\$xxx</p>
<p>3. Submission and approval of detailed maps and analysis of Apia catchments priority area and all other project priority geographical sites by land cover, critical landscapes, soils, land degradation and land tenure; including report on existing ecological information and key data gaps for further ecological survey effort for the four key biodiversity areas covered by the project.</p>	<p>40 working days after the start of contract (20%)</p>	<p>\$xxx</p>
<p>4. Submission and approval of summary maps showing ecological data availability and data gaps by theme (taxonomic groups, degraded lands, land use and by geographical area); including updated SamFRIS with</p>	<p>50 working days after the start of contract (20%)</p>	<p>\$xxx</p>

user-friendly interfaces incorporating monitoring tools on SLM indicators.		
5. Upon completion and approval of user manual for the monitoring and assessment, analysis and mapping of project indicators results; and the completion of the capacity-building workshop and training for Land Management Division, Forestry Division and other relevant MNRE divisions staff in the use of SamFRIS and other monitoring tools developed by the specialist during this assignment.	60 working days after the start of contract (20%)	\$xxx
TOTAL (60 working days)		\$xxx

K. Recommended Presentation of Proposal:

Given below is the recommended format for submitting your proposal. The following headings with the required details are important. Please use the template available (Letter of Offer to complete financial proposal)

CVs with a proposed methodology addressing the elements mentioned under deliverables must be submitted by **14th August 2015** electronically on UNDP Job Site: <https://jobs.undp.org>. Incomplete applications will not be considered and only candidates for whom there is further interest will be contacted. Proposals must include:

- **CV** or P11 form addressing the evaluation criteria and why you consider yourself the most suitable for this assignment. The selected candidate must submit a signed P11 prior to contract award.
- **3 professional references most recent**
- **A brief methodology** on how you will approach and conduct the work,
- **Financial Proposal** specifying the daily rate and other expenses, if any
- **Letter of interest and availability specifying the available date to start and other details**

Queries about the consultancy can be directed to the UNDP Procurement Unit
procurement.ws@undp.org.