Empowered lives.
Resilient nations.

TERMS OF REFERENCE FOR HIRING CONSULTANT

A. Project Title:

Economy-wide integration of climate change adaptation and disaster risk management to reduce climate vulnerability of communities in Samoa.

B. Project Description or Context and Background:

The project "Economy-wide Adaptation to Climate Change (EWACC)" implemented by the Government of Samoa in collaboration with UNDP became operational in November 2014 with the objective to address expected impacts of climate change in losses of lives, livelihoods, and assets of vulnerable communities in Samoa.

The US$12.3 million project, funded by the Global Environment Facility's Least Developed Countries Fund (LDCF), will contribute to overcoming barriers to climate change adaptation by strengthening institutional capacity within the government; enhancing inter-ministerial coordination of climate change adaptation; promoting the inclusion of climate change concerns into development strategies across all sectors; climate-proofing of communities' physical assets; introducing more climate-resilient livelihoods options; and sharing lessons learned and best practice on climate change adaptation across the Pacific region. The Implementing Entity is the Ministry of Natural Resources and the Environment in Samoa. Responsible parties include the Ministry of Finance, Ministry of Women, Communities and Social Development, the Land Transport Authority and the UNDP.

MNRE will invest the bulk of the LDCF resources in Component 2, aimed to enhance the resilience of communities as first responders of climate change-induced hazards. This component focuses on flood-protection infrastructure interventions, ecosystem-based adaptation approaches, resilient livelihoods support and revision and implementation of Disaster Risk Management plans for targeted villages. It also involves the development of an Integrated Watershed Management Plan (IWMP) that will address up- and down-stream causes and effects of climate vulnerability within all five watersheds in the Greater Apia area. The IWMP will outline climate risks posed to the communities living in the Faleata West, Faleata East and Vaimauga West Districts in the Greater Apia Catchment Area. It will follow the "Ridge-to-Reef" principle for an integrated approach to building climate resilience and supporting community livelihoods through the inclusion of water, land and coastal management aspects within an overarching framework.

UNDP is recruiting a **Hydro-geology and Climate Change Specialist** to conduct the hydrological and climate assessment for the IWMP for the Greater Apia Catchment Area. This position can act also as

Team Leader and the role of Team leader will selected based on the experience and qualification of applicants.. Please indicate clearly in your bid whether you also wish to take on the role as team leader in addition to the role as Hydro-geology and Climate Change Specialist. The team leader will ensure coordination of a team of 6-8 specialists who will be developing the IWMP.

The Hydro-geology and Climate Change Specialist must have strong expertise in the area of civil and/or environmental engineering or climate science as well as planning and design of climate resilient infrastructure projects, preferably in vulnerability and risk assessment and adaptation related projects.

C. Scope of Work:

The duties of Hydro-geology and Climate Change Specialist will include, but are not limited to:

- Lead a team of specialist in the compilation of the IWMP for the Greater Apia Catchment Area
- Conduct hydrological and climate change assessment for the IWMP incorporating future scenarios and adaptation measures;
- Conduct necessary hydrological modelling, studies and surveys towards planning and design of flood protection measures, flood forecasting and early warning system;
- Incorporate climate resilience into the development of the IWMP by detailed identification of climate change risks and vulnerability that are relevant to the targeted site and the IWMP;
- Review recommendations of other experts, and work closely with drainage and flood control engineer and other experts on the team to incorporate climate resilience/adaptation into both physical and non-physical designs and actual construction works and its components;
- Work closely with the Environmental Engineer in assessing water balance calculations for the sub-catchments, taking into account climate change and increasing future demand projections and strategies for mitigation measures;
- Work closely with the Environmental Engineer in assessing the environmental flows for the sub-catchments;
- Review groundwater monitoring network and provide recommendations on further development
- Look into salinity intrusion and determine any impacts on surface and groundwater resources;
- Conduct physical surveys for identification of subprojects including but not limited to: community conservations areas, community toilets, water supply subproject and other;
- Review the existing policies and plans related to water resources in collaboration with the Socio Economic and Climate/Water Policy specialist. Examples of existing policy and plans are summarized in the Socio Economic and Climate/Water Policy specialist ToR;
- Assist the Project Management Unit in the selection of eligible subprojects using subproject selection criteria;

- Work closely with the engineers to identify, quantify, and clearly report the incremental costs of climate adaptation in the project design.
- Any other responsibilities assigned by the Project Manager

D. Expected Outcomes and Deliverables:

Specific deliverables are:

- Inception report detailing proposed approaches and specific workplan on achieving specific deliverables for the full period (within 5 working days after start of contract);
- Fortnightly progress report of work programme and update to the provided to the Project Manager and ACEO MNRE -WRD
- An Integrated Watershed Management Plan for Greater Apia Watershed Area is available (Plan to take into account a Ridge to Reef approach, addressing issues both high and low-lying areas. The plan will also include watershed characterisation, and management, hydrological/hydraulic modelling, studies and surveys needed to ensure high quality flood protection measures, flood forecasting and early warning systems.
- Necessary hydrological and climate change assessments are done to develop an IWMP plan
- Water allocation for sub-catchments determined
- Report on subprojects available;
- High quality technical advice regarding the construction of flood prevention measures in the Vaisigano is communicated to the project manager in a timely manner, including potential risks
- High quality technical advice on groundwater monitoring and development
- High quality technical advice has been provided in the review of the policy framework for the water sector in Samoa
- High-quality technical advice has been provided to ensure that adaptation concerns is included into both physical and non-physical design components of the project

E. Institutional Arrangement:

The hired consultant will directly be under the close supervision of the EWACC Project Manager, ACEO Water Resources Division in MNRE. Reports and recommendations will be shared with the Project manager in a timely manner, with copy to the responsible Programme Officer in the UNDP MCO.

F. Duration of the Work:

The number of working days is 80, and may be subject to change based on the development and progress of the project.

G. Duty Station:

Home-based with travel to Apia, Samoa. It is expected that the consultant will spend a minimum 50 days in Samoa. When in Samoa the consultant will be based at the Water Resources Division, MNRE.

H. Competencies:

- 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
- Remains calm, in control and good humoured even under pressure
- Demonstrates openness to change and ability to manage complexities
- Good inter-personal and teamwork skills, networking aptitude, ability to work in multicultural environment

I. Qualifications of the Successful Contractor:

- Post-graduate degree in Civil/Environmental Engineering, climate science, or related degree;
- Minimum 8 years of experience, of which at least 5 years involves the planning and design of climate resilient infrastructure projects, preferably in vulnerability and risk assessment and adaptation related projects;
- In-depth and proven knowledge and experience in the implementation of development initiatives, policies and programmes relating to coastal and riparian management, hydrological science; including substantial knowledge of climate change adaptation measures and climate proofing of infrastructure in coastal/riparian zones, including impacts on environment related to human development and poverty reduction;
- Working experience within the Pacific region in general is a strong asset;
- Experience with UNDP-GEF projects in the Pacific is a requirement, in Samoa a strong asset;
- Previous experience with MNRE and knowledge of the watersheds in the greater Apia area is a strong asset;
- Excellent communication, analysis and writing skills;
- Fluency in English (oral and written) is a requirement;
- Good interpersonal skills (the consultants will contact various actors and stakeholders of the project).

Evaluation criteria: 60% Technical, 40% financial combined weight

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

- Post-graduate degree in Civil/Environmental Engineering, climate science, or related degree; 20%
- Minimum 8 years of experience, of which at least 5 years involves the planning and design of

climate resilient infrastructure projects, preferably in vulnerability and risk assessment and adaptation related projects (20%)

- In-depth and proven knowledge and experience in the implementation of development initiatives, policies and programmes relating to coastal and riparian management, hydrological science; including substantial knowledge of climate change adaptation measures and climate proofing of infrastructure in coastal/riparian zones, including impacts on environment related to human development and poverty reduction; (20%)
- Working experience with UNDP-GEF projects in the Pacific in general and in particular Samoa (10%)
- Previous working experience with the Government of Samoa – MNRE and knowledge of the greater Apia catchment area (10%)
- Experience in working as part of a multidisciplinary team of experts and consultants; (10%)
- Excellent communication, analysis and writing skills, fluency in English; (10%)

J. Scope of Bid Price & Schedule of Payments:

DELIVERABLES	DUE DATE %	AMOUNT IN USD TO BE PAID AFTER CERTIFICATION BY UNDP OF SATISFACTORY PERFORMANCE OF DELIVERABLES
Upon completion and approval of analysis for climate smart water infrastructure improvements and components of the IWMP.	30 working days after the start of contract (30%)	$xxx
Upon completion and approval of report on sub-projects and other expected consultancy products outlined in 'Duties and responsibilities'	40 working days after start of the project (20%)	$xxx
Upon submission and presentation of Draft "Ridge-to-Reef" Integrated Watershed Management Plan for Greater Apia	60 working days after the start of contract (20%)	$xxx
Upon submission and approval of "Ridge-to-Reef" Integrated Watershed Management Plan for Greater Apia Watershed Area	80 working days after the start of contract (30%)	$xxx
TOTAL (80 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 **17th July 2015** electronically via email: procurement.ws@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 or anne.trevor@undp.org