

TERMS OF REFERENCE FOR HIRING A CONSULTANCY FIRM/COMPANY TO CONDUCT A SCOPING AND SPECIFICATION OF A SIREN NETWORK FOR THE VAISIGANO RIVER

A. Project Title:

Integrated Flood Management to Enhance Climate Resilience of the Vaisigano River Catchment in Samoa

B. Project Description or Context and Background:

As a Small Island Developing State (SIDS) in the Pacific, Samoa has been heavily impacted by increasingly severe tropical storms. Given the topography of the country, these extreme events have caused significant river discharge that results in flooding of lowland areas. Recent tropical storms like Cyclone Evan have caused floods resulting in serious health impacts and significant damage to both public and private assets. The resulting damages have been estimated at US \$200 million. Urban infrastructure has suffered considerably and is expected to further degrade as extreme weather events are become more frequent.

The objective of this project is to strengthen the adaptive capacity, and reduced exposure to extreme weather events, of vulnerable communities, infrastructure, and the built environment in the Vaisigano River Catchment area. This is the river that flows through the Apia Urban Area (AUA)

The project represents the Government of Samoa's (GoS) initial steps in operationalizing a comprehensive flood management solution. It has three major outputs:

- A. Capacities and information base strengthened for GoS to pursue an integrated approach to reduce vulnerability towards flood-related risks,
- B. Key infrastructure in the Vaisigano River Catchment are flood-proofed to increase resilience to negative effects of excessive water; and
- C. Upgraded drainage in downstream areas to increase capacity and allow for more rapid outflow of flood waters.

In conjunction with GoS co-financing leveraged for this project, GCF resources will be used to address a number of key technical issues including infrastructure; capacity and information based barriers to enhancing the effectiveness of flood management systems. The primary direct beneficiaries include approximately 26,528 people in the Vaisigano river catchment area and 37,000 people indirect beneficiaries.

UNDP-Samoa is seeking the consultancy services of a specialized company/firm "Contractor" to conduct a scoping exercise for a siren network for the Vaisigano River.

The objective of the Siren Network consultancy firm is to;

- Conduct a scoping exercise, including stakeholder consultation, that will result in the specification of equipment and installation methodology for the Vaisigano River siren network

C. Scope of Work:

1. Objectives

The main objective is for the company/firm to produce a specification of equipment and installation methodology for the Vaisigano River siren network. To realize this objective, the following are the required tasks:

- Review existing data available for the existing siren network;
- Conduct appropriate site background information gathering (including but not limited to evaluation of any current systems operating, identification of issues, vulnerability and exposure of current siren network, potential operational opportunities as well as gaps and needs for efficient management of the siren network);
- Consult with relevant Government stake holders DMO, Fire, Police and Ports Authority to develop scope and operational requirements;
- Consult with local private stakeholders to ensure adequate coverage
- Electric Power Corporation operates a hydropower dam the head of the Vaisigano in Alaoa; the contractor is expected to liaise with EPC to discuss their current flood warning/dam failure safety and alert systems and integrate with the proposed system.
- Liaise with planning and urban management agency PUMA and MNRE to confirm accessibility to siren sites and connection to existing services and if necessary
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2. Outputs

- a) Schematic showing location, area and extent of warning system for sirens and sensors following consultation with all relevant stakeholders
- b) Full specification of all relevant equipment including: a proposal for powering the system both to the existing electricity grid and alternative; schedule of quantities
- c) Installation methodology and timeline
- d) Operational Scope: Proposal for operation by emergency service and utilities suppliers
- e) Proposal for connection to existing siren network

3. Activities

The consultancy firm will include, but not limited to the following activities:

- Conduct a scoping mission to Apia, Samoa during which they will;
- To liaise with the relevant experts involved in the project formulation to obtain their expected inputs for the siren network.
- To participate in a series of consultation discussions with stakeholders and obtain technical inputs from UNDP and ministries as deem relevant
- To participate and obtain inputs from private sector meetings which are organised by the UNDP/ ministries

- To participate in community level consultations to validate the design and input in to the full proposal
- Ensure all project interventions are robustly designed meeting GCF investment criteria;
- Prepare the draft feasibility study for the integrated sewage system of Apia

D. Expected Outcomes and Deliverables:

<i>Deliverable</i>	<i>Deadline</i>
1. Inception Report	A brief inception report outlining proposed methodology and any foreseeable issues 17 November 2017
2. Network Masterplan	1 December 2017
3. Installation Methodology	See above
4. Specification of Equipment	See above
5. Operational Scope and connection to existing network	See above

E. Institutional Arrangement

The hired consultancy firm/company will work directly under the close supervision of the ACEO of the Disaster Management Office DMO who will facilitate all stakeholder consultations, MNRE and the ACEO Climate Resilience Investment and Coordination Division (CRICD) in the Ministry of Finance and the Project Manager. All reports and documentation will be shared with the Project Manager in a timely manner, with a copy to the UNDP MCO Samoa.

F. Duty Station

Home-based with travel to Apia, Samoa.

G. Competencies
Corporate 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

Functional

- Members of the team should possess proven and strong analytical and communication skills, including the ability to produce high quality reports.

Project and Resource Management

- The leader of the team should have strong organizational skills;
- The members of the team should be able to work independently and collectively to produce individual high quality inputs and collectively high quality outputs.
- The team leader and members possess sound judgement, strategic thinking and the ability to manage competing priorities.

Team work

- Demonstrated ability of the team to work in a multi-cultural environment

Communications and advocacy

- The team members have strong ability to write clearly and convincingly, adapting style and content to different audiences and speak clearly and convincingly;
- Collectively, the team has strong presentation skills in meetings with the ability to adapt for different audiences;
- Collectively, the team possesses proven strong analytical, research and writing skills with demonstrated ability to think strategically.

H. Qualification and Experience of the successful contractor

The following attributes are *essential*:

- Degree (M.S) in civil/environmental engineering with specific academic or professional background related to the design and installation of sirens, sensors and radio networks for early warning and planning and designing urban infrastructure or other closely related fields;
- At least 7 years of technical experience in planning and designing these activities in Samoa or other Pacific Island countries
- Demonstrated experience related to the scoping specification and installation of early warning radio networks in Samoa or other Pacific Island countries.
- Demonstrated experience in economic and financial analysis for project viability and budget formulations;
- Familiarity with technical issues related to early warning systems and radio networks, methods of cost-benefit analysis, identification of multiple benefits of proposed networks, including, economic, social and gender related;
- Strong analytical skill, exceptional ability in communication and networking, negotiations and writing;
- Demonstrated good interpersonal & teamwork skills i.e. can work as part of a team to carry out specific deliverables;
- Very good command of oral English and excellent writing skills and the ability to prepare clear, concise reports in the English language;

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

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

- Degree in civil/environmental engineering with specific academic or professional background related to early warning radio networks or other closely related fields;
- At least 7 years of technical experience in planning and designing these activities in Samoa or other Pacific Island countries

- Demonstrated experience related to early warning radio networks in Samoa or other Pacific Island countries.
- Demonstrated experience in economic and financial analysis for project viability and budget formulations;
- Familiarity with technical issues related to adaptation, methods of cost-benefit analysis for adaptation options, identification of multiple benefits of adaptation, including, economic, social and gender related.
- Strong analytical skills, exceptional ability in communication and networking, negotiations and writing;
- Demonstrated good interpersonal & teamwork skills i.e. can work as part of a team to carry out specific deliverables;
- Very good command of oral English and excellent writing skills and the ability to prepare clear, concise reports in the English language;

I. Scope of Bid Price and Deliverables

DELIVERABLES	DUE DATE %	AMOUNT IN USD TO BE PAID AFTER CERTIFICATION BY UNDP OF SATISFACTORY PERFORMANCE OF DELIVERABLES
1. Inception Report	17 Nov 2017	\$xxx
2. Network Masterplan	1 Dec 2017	\$xxx
3. Installation Methodology	1 Dec 2017	\$xxx
4. Specification of Equipment	1 Dec 2017	\$xxx
5. Operational Scope and connection to existing network	1 Dec 2017	\$xxx
TOTAL (15 work days)		

J. 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 **3rd November 2017** 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:



*Empowered lives.
Resilient nations.*

- **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