

Terms of Reference

Consultancy Title: Climate Scientist (CS) – International/National Consultant

Project Name: Solomon Island Water Sector Adaptation Project (SIWSAP), Water Sector Climate Change Vulnerability and Adaptation Assessment, Water Sector Climate Change Adaptation Response Plan Development (including Cost Benefit Analysis)

Duty Station: Home Based with travel to Solomon Islands (Honiara and Project provincial site/s)

Duration of the Contract:

- Period: 9 months period (bulk of work is expected to complete in 6 months period. 3 more months required for final adjustments and contingencies)
- Days: 40 days (20 days home-based, 20 days in country over 1 mission)
- Tentative Start Date: 22th July 2015
- Contract end Date: 07 March 2016

Objectives:

In recognition of the available information and know-how as well as the gaps related to the water sector climate change V&A assessments, SIWSAP will assess the vulnerability of water supplies (in terms of quantity and quality) to climate change in 6 pilot sites and 12 communities. The objective of this assignment is to ensure that the V&A assessment utilizes the most up to date knowledge, scenarios, data and tools related to climate change in the Solomon Islands and associated impacts. This will ensure that the V&A assessment and WS-CCA plans are based on the latest scientific knowledge related to climate change in the Solomon Islands.

The V&A Assessment and WS-CCA plan development will be led by national and provincial government stakeholders, community members, SIWSAP Project Implementation Unit, and a team of experts led by the Team Leader (TL). Annex 2 describes overall design of the assignment, key stakeholders and their roles.

Background

The impacts of climate change, particularly sea-level rise (SLR) and pronounced droughts have severe consequences on water and sanitation in the Solomon Islands. Due to SLR, low-lying islands, atolls and flat deltaic regions are faced with salt water intrusion, affecting the groundwater resources and limiting access to freshwater supply. Droughts have severely damaged crops and livelihoods, as well as affecting water supplies; during the 1997/1998 droughts freshwater availability in Honiara decreased by around 30-40%. Climate-related impacts on the quality and quantity of water also has a gender dimension; in the context of ethnic tensions, the safety and security of women and girls is compromised as they need to travel further to collect water, leading to less time for other activities.

In this context, Government of the Solomon Islands, Ministries of Mines, Energy, and Rural Electrification (MMERE), in partnership with Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM), Ministry of Health and Medical Services – Environmental Health Division, Ministry of Development, Planning, and Aid Coordination (MDPAC), and UNDP is embarking on the Solomon Islands Water Sector Adaptation Project (SIWSAP) through support from Global Environment Facility (GEF) Least Developed Country Fund (LDCF). The project objective is to improve the resilience of water resources to the impacts climate change and improve health, sanitation and quality of life, so that livelihoods can be enhanced and sustained in the targeted vulnerable areas in 6 provinces. SIWSAP will

work with partners to achieve this objective through 1) formulating, integrating, and mainstreaming water sector-climate change adaptation response plans into water-related sectors as well as broader policy and development frameworks, 2) increasing the reliability and improving the quality of water supply in targeted areas, 3) investing in cost-effective and adaptive water management interventions and technology transfer, and 4) improving governance and knowledge management for climate change adaptation in the water sector at the local and national levels.

At the end of the project, the Government of the Solomon Islands will have systems, tools, and knowledge which will promote enhanced water resource resilience at the national and local levels, as well as contributing to the implementation and achievement of national priorities outlined in water-related policies and strategies, including the National Adaptation Program of Action (NAPA) 2008, National Development Strategy (NDS) 2011 – 2020, National Water and Sanitation Sector Plan (2007).

Water-Sector Vulnerability and Adaptation Assessment (WS-V&A) in the context of SIWSAP

MMERE Water Resource Division, in partnership with UNDP, and with financial support from LDCF through the SIWSAP project will focus on enhancing the resilience of water resources to the impacts of climate change. In order to do so, the project will conduct climate change vulnerability and adaptation (V&A) assessments in the 6 pilot provinces including 12 pilot communities, which will inform the development and implementation of the water sector climate change adaptation response plans through the LDCF financed project and beyond.

Various climate change V&A assessments have taken place in the Solomon Islands as well as in neighboring Pacific Island Countries with a focus on the water sector, which SIWSAP will build upon. Annex 1 summarizes these related V&As and how they may inform/link with proposed WS-V&A assessments under SIWSAP.

Water Sector Climate Change Adaptation Response Plan

Informed by the WS-V&A and through community consultations, Water Sector Climate Change Adaptation Response Plans (WS-CCA plans) will be developed to inform planning, budgeting and implementation of water-sector vulnerability reduction investments in the 12 pilot communities in the 6 pilot provinces.

Rather than developing stand-alone plans, the WS-CCA plans will be mainstreamed into relevant national, provincial, and local governance, planning, and budgeting systems (i.e. Solomon Island National Water Resources and Sanitation Policy). Where other organizations and initiatives related to CCA, DRM, and/or WASH planning initiatives have already taken place at the provincial or pilot levels, the WS-CCA plans will build on these existing efforts.

Scope of work/Expected Output

The Climate Scientist (CS) will provide the most relevant and updated information on climate change impacts with a particular focus on the water sector, relevant to Solomon Islands and the 6 pilot sites. The CS, utilizing his/her extensive experience and knowledge will provide existing climate change projections, impact assessments, and exposure information utilizing a wide selection of climate models and scenarios (including downscaled scenarios and projections of SLR). The relevance for both the national and provincial / community scales will be evaluated for each data source and the likelihood/confidence of change will be presented in each case.

Based on a desktop literature review, using available online resources, and through available original research outputs (e.g. from downscaling or other experiments), the CS will prepare and present (at the national kick-off meeting) expected climate change impacts. These will be focused on the water sector and be relevant to the V&A and WS-CCA plans.

Based on feedback, inputs and requests received during the kick-off meeting, the CS will refine the

methodology and data, and in collaboration with the TL, GIS specialist, and Water specialist, the CS will draft the climate science chapter of the V&A assessment, which will serve as the basis for further developing and analyzing the climate change impacts for water sector in the Solomon Islands (including social, environmental, and economic impacts) at the provincial and national levels. The format and details of the specific data / information on the climate science required for the V&A will be further discussed, developed, and agreed at the kick-off meeting. Where climate scenarios and data are produced and evaluated (including any derived products), these data will be made available to the project team in easily accessible formats for ingestion into GIS databases used by the project in the future.

The CS will review, provide technical advice, and inputs to the thematic vulnerability maps, vulnerability assessments and other aspects of the V&A Assessment draft, as well as the Water Sector CCA Plans. The CS will be responsible to manage and ensure the overall quality of the climate science utilized and interpreted within the final V&A and WS-CCA.

Expected outputs, required formats, and proposed timelines are described as below:

Outputs / Deliverables	Required format	Proposed Timeline
1.1 Presentation of climate impacts, based on desktop (including online resources), literature review, and through original research, the CS will prepare and present climate change impacts, with a particular focus on the water sector relevant to the V&A and WS-CCA plans.	Presentation (PowerPoint / PDF for Kick-off meeting)	August 7 th 2015 (before the kick-off meeting)
2.1. Report, which will serve as the basis for the chapters/sections on the climate change impacts for the V&A assessments (6 provinces and 1 national-level assessment). This will include a systematic review and analyses of all available scenarios of climate change for the Solomon Islands, including projections of SLR, GCM-based and downscaled scenarios of rainfall, temperature and winds/storms, and will assess/quantify the confidence/likelihood of projected changes. The report should take into consideration recommendations and requests received during the kick-off meeting and in-country consultations. The report format, types/details of the information will be guided by and developed in consultation with the Team Leader (TL), GIS specialist, and Water Specialist, to ensure that it is presented in a way that can be incorporated into the V&A mapping and plan development processes	Word document	September 7 th 2015
2.2 All climate-related and associated impact data used by the consultant to produce the report will be delivered to the GIS specialist in easily accessible formats for ingesting into project databases.	shp, ASCII etc	
3.1 Draft chapters which will form part of the Water Sector Vulnerability Assessment and WS-CCA plan (inputs into TL's deliverable – to be defined more specifically during kick-off meeting)	Word Document and/or PDF, etc	November 6 th 2015
3.2. Presentation (poster / ppt) for stakeholder communication on findings of climate change impact to the water sector at national and provincial level (if appropriate, contribute to same output by TL/ GIS specialist/ water specialist, etc)	Power point presentation or poster (PDF, etc)	

4.1 Revised chapters and inputs to the Final Water Sector Vulnerability Assessment and Water Sector CCA Plans (inputs into TL's deliverable)	Word Document	March 7 th 2016
--	---------------	----------------------------

Resources Provided

- Consultant is expected to utilize their own computer, software, office space etc.

Supervision/Reporting

- The CS will report directly to the SIWSAP Project Manager / Acting Project Manager, UNDP Solomon Island Sub-Regional Office staff, and UNDP Regional Technical Advisor based in Suva, Fiji.
- The CS will consult with and support the work and deliverables of the Team Leader and will be required to be guided by the TL regarding deliverable timing, format, and information
- The CS will coordinate closely with and support the work of the GIS specialist and Water Specialist in their estimation of vulnerability and adaptation options.

Requirement for Qualifications & Experience

▪ Minimum educational qualifications

Recruitment Qualifications

Education:	<ul style="list-style-type: none"> • Minimum Master's degree and above in climate science, geoscience, geology, computer science, hydrology, or relevant field.
Experience:	<ul style="list-style-type: none"> • At least 7 years of experience working on climate change impact assessment in Asia or in the Pacific region. • At least 3 demonstrated successful experience in applying climate science to CCA, in the water sector, DRM policy making and/or planning process at the national and or community level. • Experience of producing high quality climate change impact assessments – the candidates will be assessed through previous work submitted in support of their proposal. • Demonstrated experience working on climate change vulnerability assessments in an international development context
Competency	<ul style="list-style-type: none"> • Demonstrates integrity by demonstrating positive values and ethical standards through his/her actions • Promotes the vision, mission, and strategic goals of SIWSAP project. • Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability • Treats all people fairly without favoritism • Ability to assess community capacity, and formulate proposals to foster positive change • Analytical judgment, results-orientation and efficiency in a multi-tasking environment • Shares information, knowledge and experience through effective and frequent communication • Experience and technical understanding on development context and issues in the Pacific/Solomon Islands/LDCs with a particular focus on water and sanitation and/or climate change adaptation • Ability to plan and prioritize work effectively in order to keep deadlines • Ability to engage various partners and stakeholders and builds strong relationships with clients and other stakeholders • Ability to work in an organized and systematic manner and demonstrate professionalism with high level of integrity in the day-to-day performance

	<p>of duty</p> <ul style="list-style-type: none"> • Good inter-personal and teamwork skills, networking aptitude, ability to work in multicultural environment • Consistently approaches work with energy and a positive, constructive attitude • Demonstrates openness to change and ability to manage complexities • Demonstrates strong commitment and patience to deal with competing deadlines, demands, and interests • Ability to build consensus and garner support under complex situations • Remains calm, in control and good humored even under pressure • Exudes a friendly atmosphere where colleagues/counterparts can easily ask questions and seek assistance.
--	--

Proposal Requirements

Technical Proposal

The applicant should submit the following documents:

- Technical proposal including a P11 form (available on the UNDP website; www.undp.org.fj), an updated current CV, contact details of at least three referees and a cover letter setting out how the applicant meets the selection criteria, and a proposed approach and methodology)
- Letter confirming availability and Interest using UNDP template (available on the UNDP website: www.undp.org.fj)

Financial Proposal

The consultant is requested to provide a quotation or the fees/cost (in USD) for the services which will be rendered using the following format.

Daily consultancy rates	A daily consultancy rate proposed by the consultant
Air Ticket Estimate (UNDP will reimburse based on actual costs)	To and from Home country To and from respective duty station
Living Allowance	Based on the number of days spent at the respective duty station
Other miscellaneous expense	Please state

Travel;

All envisaged travel costs must be included in the financial proposal. This includes all travel to join duty station/repatriation travel. In general, UNDP should not accept travel costs exceeding those of an economy class ticket. Should the IC wish to travel on a higher class he/she should do so using their own resources.

In the case of unforeseeable travel, payment of travel costs including tickets, lodging and terminal expenses should be agreed upon, between the respective business unit and Individual Consultant, prior to travel and will be reimbursed.

Lump sum contracts

The financial proposal shall specify a total lump sum amount, and payment terms around specific and measurable (qualitative and quantitative) deliverables (i.e. whether payments fall in instalments or upon completion of the entire contract). Payments are based upon output, i.e. upon delivery of the services

specified in the TOR. In order to assist the requesting unit in the comparison of financial proposals, the financial proposal will include a breakdown of this lump sum amount (including travel, living expenses, and number of anticipated working days).

- Financial proposal to be submitted separate from Technical proposal

Payment Schedule (if required):

Percent	Deliverable	Target
	Travel Cost	Within 15 working days after contract
30%	Delivery and acceptance of Outputs 1.1 by UNDP	August 07 th 2015
30%	Delivery and acceptance of Outputs 2.1 and 2.2 by UNDP (and Project Manager and TL)	September 07 th 2015
20%	Delivery and acceptance of Outputs 3.1 and 3.2 by UNDP (and Project Manager and TL)	November 06 th December 2015
20%	Delivery and acceptance of Outputs 4.1 by UNDP (and Project Manager and TL)	March 7 th 2016

Evaluation

The proposals will be evaluated using the cumulative analysis method with a split 70% technical and 30% financial scoring. The proposal with the highest cumulative scoring will be awarded the contract. Applications will be evaluated technically and points are attributed based on how well the proposal meets the requirements of the Terms of Reference using the guidelines detailed in the table below: When using this weighted scoring method, the award of the contract should be made to the individual consultant whose offer has been evaluated and determined as:

- a) responsive/compliant/acceptable, and
- b) Having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation.

* Technical Criteria weighting; 70%

* Financial Criteria weighting; 30%

Only candidates obtaining a minimum of 70% out of 100% in technical evaluation would be considered for the Financial Evaluation

Criteria		Weight
Technical		70%
Education	<ul style="list-style-type: none"> • Minimum Master's degree and above in climate science, geoscience, geology, computer science, hydrology, or relevant field. 	20%
Experience	<ul style="list-style-type: none"> • At least 7 years of experience working on climate change impact assessment in Asia or in the Pacific region. • At least 3 demonstrated successful experience in applying climate science to CCA, in the water sector, DRM policy making and/or planning process at the national and or community level. • Experience of producing high quality climate change impact assessments – the candidates will be assessed through previous work submitted in support of their proposal. 	40%

	<ul style="list-style-type: none"> • Demonstrated experience working on climate change vulnerability assessments in an international development context 	
Competency	<ul style="list-style-type: none"> • Demonstrates integrity by demonstrating positive values and ethical standards through his/her actions • Promotes the vision, mission, and strategic goals of SIWSAP project. • Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability • Ability to assess community capacity, and formulate proposals to foster positive change • Analytical judgment, results-orientation and efficiency in a multi-tasking environment • Shares information, knowledge and experience through effective and frequent communication • Experience and technical understanding on development context and issues in the Pacific/Solomon Islands/LDCs with a particular focus on water and sanitation and/or climate change adaptation • Ability to plan and prioritize work effectively in order to keep deadlines • Ability to engage various partners and stakeholders and builds strong relationships with clients and other stakeholders • Ability to work in an organized and systematic manner and demonstrate professionalism with high level of integrity in the day-to-day performance of duty • Good inter-personal and teamwork skills, networking aptitude, ability to work in multicultural environment • Consistently approaches work with energy and a positive, constructive attitude • Demonstrates openness to change and ability to manage complexities • Demonstrates strong commitment and patience to deal with competing deadlines, demands, and interests • Ability to build consensus and garner support under complex situations • Remains calm, in control and good humored even under pressure • Exudes a friendly atmosphere where colleagues/counterparts can easily ask questions and seek assistance. 	10%
<i>**If necessary interviews shall also be conducted as part of the technical evaluation to ascertain best value for money.</i>		
Financial Proposal		30%
Cumulative		100%

Proposal Submission

1. **Deadline of application submission:** 3rd of July 2015, 14:00 local time (GMT +11)
All applications must be submitted either electronically to eddie.meke@undp.org, or addressed under confidential cover to:

Climate Scientist
Attention: Eddie Meke Procurement Assistant
UNDP Solomon Islands Sub-Office,

1st floor, City Centre Building, Mendana Avenue, Honiara, Solomon Islands

Incomplete application will not be considered and only candidates for whom there is further interest will be contacted.

Further Information:

For further information concerning this Terms of Reference, contact Eddie Meke on email eddie.meke@undp.org or / telephone +677 27446 at United Nations Development Programme, Honiara Sub-office, 1st Floor City Centre Building, Mendana Avenue, Honiara