REQUEST FOR TENDERS

RFT: 2021/046
File: AP_3/31/19/1
Date: 17 June, 2021
To: Interested suppliers
From: Monifa Fiu (GCCA+ SUPA Impacts Analysis Adviser)

Subject: **Request for tenders: GCCA+ SUPA Geographic Information Systems (GIS) Spatial Analyst for Impacts Assessment of Past Climate Change Adaptation Actions.**

1. Background

1.1. The Secretariat of the Pacific Regional Environment Programme (SPREP) is an intergovernmental organisation charged with promoting cooperation among Pacific islands countries and territories to protect and improve their environment and ensure sustainable development.

1.2. SPREP approaches the environmental challenges faced by the Pacific guided by four simple Values. These values guide all aspects of our work:

- We value the Environment
- We value our People
- We value high quality and targeted Service Delivery
- We value Integrity

1.3. For more information, see: www.sprep.org.

2. Specifications: statement of requirement

2.1. SPREP would like to call for tenders from qualified and experienced technical consultants who can offer their services in geographic information systems (GIS) and spatial analysis for impacts assessment of past climate change adaptation actions to assist the four trial countries with spatial data collection, data capture, database management, map creation and reporting, including end-user interpretation for the adaptation impact analysis methodology.

2.2. The successful applicant will need to provide the details of works required as referred to in the attached Terms of Reference within a period of 50 days from agreed start date until the end of April 2022.

2.3. The successful consultant must supply the services to the extend applicable, in compliance with SPREP's Values and Code of Conduct. https://www.sprep.org/attachments/Publications/Corporate_Documents/sprep-organisational-values-code-of-conduct.pdf

2.4. The Terms of Reference and the specific statement of work for the consultancy are set out in Annex A.

3. Conditions: information for applicants

3.1. To be considered for this tender, interested suppliers must meet the following conditions:

i. Submit details of qualification and previous relevant experience in Geographic Information Systems (including open-source software), spatial data management (including databases use and development), environmental and natural resource management, including monitoring and interpreting data for reporting.
ii. Submissions must include a technical proposal that includes a detailed work plan and schedule of activities plus a financial proposal.
iii. Submit a CV to demonstrate the consultant has the relevant experience, skills, and qualifications to carry out this contract successfully.
iv. Provide three references relevant to this tender submission, including the most recent work completed.
v. Provide examples of prior relevant work outputs.
vi. Complete the tender application form – (please note you are required to complete all areas in full as requested on the form, particularly the statements to demonstrate you meet the selection criteria – DO NOT refer us to your CV or your Technical Proposal. Failure to complete the tender application form will result in the application not being considered); and
vii. Sign the conflict-of-interest form.

4. Submission guidelines

4.1. Tender documentation should demonstrate that the interested supplier satisfies the conditions stated above and is capable of meeting the specifications and timeframes. Documentation must also include supporting examples to address the evaluation criteria.

4.2. Tender documentation should outline the interested supplier's complete proposal:

a) The CV of the proposed personnel highlighting experience relevant to the tender;

b) A Technical Proposal which contains the details to achieve the tasks outlined in the Terms of Reference and includes a detailed work plan and schedule of activities; and

c) A Financial Proposal to be priced on a work plan on where, when, and how the technical assistance will be provided. The proposal should be for consultancy fees inclusive of all costs, including taxes, facilities, insurance, local travel, and associated costs, should be included in the financial proposal. Submitted proposals will be evaluated based on the best value for money.

4.3. Tender submission must in United States Dollars (USD).

4.4. The Proposal must remain valid for 90 days from date of submission.

4.5. Provide three referees relevant to this tender submission, including the most recent work completed.

4.6. Tenderers/Bidders must insist on an acknowledgement of receipt of tenders/proposals/bids.

5. Tender Clarification

5.1. Any clarification questions from applicants must be submitted by email to procurement@sprep.org before **28 June 2021**. A summary of all questions received with an associated response will be posted on the SPREP website www.sprep.org/tender by **30 June 2021**.

6. Evaluation criteria

6.1. SPREP will select a preferred supplier on the basis of SPREP's evaluation of the extent to which the documentation demonstrates that the tenderer offers the best value for money, and that the tenderer satisfies the following criteria.

i. At least a Master of Science level qualification in the areas of science (biology, physical geography, chemistry, or environmental science) or social science and have more than 15 years' work experience in areas of environmental management, climate change policy, adaptation practice, knowledge and information management, development planning (20%).
ii. At least 7 years' experience in Geographic Information Systems (including open-source software), spatial data management (including databases use and development), environmental and natural resource management, including monitoring and interpreting data for reporting (20%).
iii. Extensive experience and excellent ability in, a) developing and coordinating GIS, data analysis and management training activities, b) applying GIS and environmental spatial data to the production of environmental or social planning and monitoring reports, preferably at national level reporting (20%).
iv. Excellent written and verbal communication skills including high level of presentation and inter-personal skills, collaboration with donors and partners with sound experience in developing and maintaining effective relationships with a diverse group of people and as part of a team within a multi-disciplinary and multi-cultural environment (15%).
v. Detailed technical proposal/workplan and methodology including timeframe (15%).
vi. Detailed financial proposal (10%).

7. Deadline

7.1. **The due date for submission of the tender is: 09 July 2021, midnight (Apia, Samoa local time).**

7.2. Late submissions will be returned unopened to the sender.

7.3. Please send all tenders clearly marked 'RFT 2021/046: **GCCA+ SUPA Geographic Information Systems (GIS) Spatial Analyst for Impacts Assessment of Past Climate Change Adaptation Actions.**' to one of the following methods:

Mail: SPREP
Attention: Procurement Officer
PO Box 240
Apia, SAMOA
Email: tenders@sprep.org (MOST PREFERRED OPTION)
Fax: 685 20231
Person: Submit by hand in the tenders box at SPREP reception,
Vailima, Samoa.

Note: Submissions made to the incorrect portal will not be considered by SPREP. If SPREP is made aware of the error in submission prior to the deadline, the applicant will be advised to resubmit their application to the correct portal. However, if SPREP is not made aware of the error in submission until after the deadline, then the application is considered late and will be returned unopened to the sender.

SPREP reserves the right to reject any or all tenders and the lowest or any tender will not necessarily be accepted.

For any complaints regarding the Secretariat's tenders please refer to the Complaints section on the SPREP website
http://www.sprep.org/accountability/complaints

ANNEX A

TERMS OF REFERENCE

GCCA+ SUPA Geographic Information Systems (GIS) Spatial Analyst for Impacts Assessment of Past Climate Change Adaptation Actions.

1. Background

The Global Climate Change Alliance Plus Scaling Up Pacific Adaptation (GCCA+ SUPA) Project is seeking a Geographic Information Systems (GIS) Spatial Analyst to assist with the mapping needs of the countries to trial methodology for impacts' assessment and analysis of past climate change adaptation interventions. This consultancy will support this by finalising a developed methodology for impacts' assessment of climate change adaptation actions. Impact assessment of climate change adaptation interventions, several years after their completion, is a major gap in the Pacific countries. (Standard end-of-project evaluations focus almost entirely on outputs and are usually conducted around the project end-date). Yet without information about longer-term impact, Pacific nations remain in a cycle of designing and executing new adaptation initiatives which in many cases do not fulfil their hoped-for long-term potential. Pacific countries need an objective impact assessment of past interventions that shifts their planning horizons from the short-term project approach to the medium term (10+ years) sector resilient approach.

In utilising an information and knowledge management approach, an impact methodology designed is tested on a spectrum of adaptation interventions noting that different adaptations may need different methodologies. To do this, information on past adaptation interventions completed in the past 5-years were collated for profiling.

A methodology was developed to assess the impacts of these past sector-focused adaptation interventions. Key criteria for assessing past interventions included:

(i) effectiveness,
(ii) sustainable social and behavioural changes (e.g. enhanced decision making skills for women and vulnerable groups),
(iii) successful lessons and practices, and
(iv) overall resilience of completed climate change adaptation interventions.

The impact methodology is being tested in four trial countries with a plan for results to be integrated into a user-friendly database module which can be added to existing national climate change portals. Training will be provided by GCCA+ SUPA SPREP Project Team in collaboration with country focal points for climate change, and hope to equip countries to install, populate and customise the applied adaptation impacts database to inform their national prioritisation and decision making. The other countries taking part in this GCCA+ SUPA Action will be involved in training activities and information sharing sessions at regional meetings.

Besides supporting longer-term national decision making, the applied adaptation impacts database will also contribute to data for national and regional baselines on which to track progress of the FRDP and for any GCCA+ lessons learnt during upscale of an impacts analysis methodology.

2. Scope of Consultancy

The technical consultant will work with the GCCA+ SUPA SPREP Project Team to provide the necessary capacity, tools, guidance, and practice to measure and demonstrate the results of impacts' assessment of adaptation interventions in response to adverse impacts of climate change. Because of the need to be comprehensive but tailored to the localised conditions where these interventions were established, an analysis of the impact of the adaptation effort will constitute the physical, ecological, and human elements. The data and indicators to capture changes resulting from adaptation in the climatic context of variability and extreme events are location-specific and time-sensitive. It should be noted that some important issues may not be measured by indicators because of data limitations, scientific uncertainty, or a lack of robust monitoring program in place since completion of these adaptation projects.
However, some considerations for measure of effectiveness and/or the impact of the adaptation intervention in question involves:

(i) the ability to bear the cost of maintenance of an adaptation;

(ii) the value placed on the extent of protection of natural assets e.g., mangrove area, beach or a particular habitat before that adaptation measure;

(iii) account for changes be it biophysical, possibly caused by an adaptation within a climatic context;

(iv) comparing perceptions of climate related environmental changes. Special attention should be given to those environmental and social interactions that will merit quantitative analysis and/or those for which qualitative analyses be carried out;

(v) examine results of social surveys on vulnerable groups and impact of the adaptation intervention on their livelihoods and safety, influence of an adaptation on the socio-economic status of benefited families, the disability, elderly, women, youth and children in the targeted community.

The select Pacific countries to trial the impact assessment and analysis methodology for adaptation are as follows by order of progress:

A. Tonga,
B. Palau,
C. Federated States of Micronesia, and
D. Cook Islands.

An adaptation impacts analysis methodology will be designed and tested in close collaboration with trial countries of different geophysical conditions noting the different level of coping capacities, using available skills, resources. From an information and knowledge management perspective, it is of value that trial countries own an existing national climate change portal or accede to curating one with startup support. With a developed methodology into a user-friendly database and training, countries can potentially customise the impacts database with data types to monitor adaptation-invested areas over tie, hence apply it to inform their national prioritisation decision-making.

The better information about the impacts of adaptation measures, the better for planning future adaptation activities and focus on efforts which have the desired, measurable impact. A stock-take of adaptation implemented in the last 4-6 years included categorising information on all possible changes that have occurred during the implementation of an intervention.

2A. Tonga: Since 2015/2016, coastal protection measures were a priority for six country led adaptation projects. There were at least four types of structural interventions built along the east and western coastline of Tongatapu: lagoon revetment at Ahau, 20 permeable groynes at Talafoou and Makaunga villages, 10 detached breakwaters east of Manuka. The rock revetments in parts of the coast of Hahake district with a mix of coastal planting of mangroves and salt tolerant plants for the sand groynes, complimented these engineering structures to safeguard at risk communities from imminent flooding, storms, and sea level rise.
The Pacific Adaptation to Climate Change, PACC project (2009-2013) focused on priority sector water resources with intent to improve community water supply and water management practices at Hihifo district. The GCCA Pacific Small Island Sates, PSIS project (2013-2015) focused on priority sector coastal areas with implementation of protection measures along eastern Tongatapu. Actions included the design, build and monitoring performance of these structural and soft engineering measures. The EU GIZ Adapting to climate change and sustainable energy, ACSE project (2016-2020) focused on reinforcing revetment along west coastline of Tongatapu to reduce inundation with restoration of mangroves in Ahau and Kolovai villages. The ADB Climate Resilience Sector, CRSP project (2014-2019) focused on rock revetment with mangrove restoration along villages in Hahake district. Overall, the suite of adaptation interventions protected 736 families with a target population of 2,464 people living along Tongatapu coastline.

2B. Palau: Priority sectors described in the profiling of adaptation were about safeguarding water resources and food security to increase Palau's resilience to current and future changes in climate. As stipulated in Palau's 2012 Water Policy and mid-term development strategy, this informed the development of country-led adaptation efforts. For instance, the GCCA PSIS project (2013-2015) put into effect the improvement of water infrastructure in the five outlying states. Project activities involved the build of concrete water storage tanks, rainwater catchments (at outer islands Tobi and Sonsorol), installation of new solar pumps and refurbishment of one community cistern (Angaur). The project added 32,550 gallons of rainwater storage across the five states. Improved rainwater harvesting technology with first flush diverters and storage high density polyethylene tanks were also installed for better quality and safer water supply. [1]
The PACC project (2009-2014) addressed sector needs in food production and food security for Ngatpang State in consultation through Office of the Environmental Response and Coordination. Firstly, through utilising a land-to-sea approach with adaptation actions about the taro production with salt tolerant taro varieties grown in patches impacted by saltwater intrusion. Second key activity was the introduction of new innovative techniques into crab farming for alternative choices in safeguarding food security.

2C. Federated States of Micronesia (FSM): The residual impact of the 1998 drought and depleted water supplies set off prioritisation of water security for future interventions. Three projects: the GCCA PSIS, Adaptation Fund (AF), Readiness for El Nino (RENI) focused on the water resources sector and the PACC on coastal protection. The GCCA PSIS (2013-2015) interest activities in outlying islands of FSM States, were aimed at increasing access to quality water with the improvement of existing catchment, storage, emergency services. [1]Additional 54,000 gallons of rainwater storage provided in Fais, benefited 65 residential compounds. Community members, particularly women have less time and distance to access reliable and clean water supply. Solar pump installed at Sahagow Well in Fais proved an essential alternative water supply following Typhoon Maysak.

[1] Global Climate Change Alliance: Pacific Small Island States Evaluation Report. 23 May 2016. PREA.

The RENI project (2017-2020) actioned on enhancing sustainable water use in the outer islands of Yap and Pohnpei, through the refurbishment of community rainwater storage systems, catchments and instalment of solar pumps and environmental purification systems. The AF project (2018-2022) actioned on aspects of strengthening community-based water and livelihood security measures and construction of self-composting toilets across the states of Yap, Chuuk and Pohnpei; Kosrae state activity was on coastal protection. The PACC coastal protection project (2009-2014) focused on climate proofing the coastal road design in Kosrae to withstand torrential rain, surface water run-off and/or storm waves.

2D. Cook Islands: Recent profiling of adaptation interventions implemented since 2012/2014, showed that the much of the effort centred on the sector coastal zones and marine resources. The PACC project (2011-2014) supported climate proofing of coastal development at Mangaia Island at that time. First concern was to increase access to Mangaia harbour with the widening and deepening of the channel.
The GCCA PSIS (2013-2015) increased economic resilience of pearl farmers in Manihiki though increased ability to reduce the negative impacts of climate variability on their pearl shells.[1] Project activities included the training of pearl farmers in water quality monitoring and set up of monitoring equipment to provide real time data of extreme conditions at Manihiki lagoon for the pearl farmers.
The Adaptation Fund (2012-2018) project was implemented across four sectors: coastal zones, water resources, food security and public health, in strengthening the resilience of 11 island communities of Pa Enua. From the vulnerability assessments and in-depth consultations, activities focused on increasing community capacity for adaptation/disaster risk management planning with sector specific interventions. Such as the implementation of climate resilient agricultural practices, enhancement of storage and groundwater management, construction of coastal protection structures and introduction of health support and vector borne disease techniques.

Table A: Summary of sectoral adaptation interventions vs. recently completed projects.

Trial Country	**Focal Sector-Adaptation Actions**				
	Water Resources	Marine Resources	Coastal Zones	Public Health	Food Security
Tonga	X		X		
Palau	X				X
Cook Islands		X	X		
Federated States of Micronesia	X				

The technical consultant will strengthen capacity to demonstrate the impact of sectoral adaptation actions with indicators customised for local, national context and scaling up to the Pacific region. Special attention should be given to those environmental and social interactions that will merit quantitative analysis and/or qualitative analyses.

The technical consultant working remotely will be required to work closely with GCCA+ SUPA SPREP Project Team. It is also expected that this technical consultancy will contribute to analysing the field data and incorporation of appropriate indicators identified in peer-review publications that may have been used to measure the targets of Sustainable Development Goals (SDGs) and of the Sendai Framework for Disaster Risk Reduction (DRR).

3. Specific Tasks

i. Provide technical GIS support with the development of geospatial aspects as part of the impacts' analysis methodology and assist to develop the production of spatial indicator datasets for trial countries, Cook Islands, Federated States of Micronesia, Palau, and Tonga.

Adaptation Sector	Coastal Protection	Coastal Protection	Water resources	Water resources	Food Security	Livelihoods
Subsector	Coastal planting	Infrastructure	Rainwater harvesting	Groundwater resilience	Land-use patterns with increased crop diversity & productivity; improved nutrition with local food consumption; change in household income, gender roles	
Data needs	Mapping information on adaptation measures: spatial change detection of beach rehabilitation, extent of mangrove/plant cover		Public health incidences, Access to water & water quality, storage capacity. Distribution analysis of water tanks & solar pumps.			
General Data needs	Historical climate data for areas; social survey information; disaggregated data on gender; adaptive capacity; documentation of direct beneficiaries.					

ii. Maintain and update the GIS master database structure (quality control, version control, metadata, and multiple data formats) for a diverse set of spatial datasets utilised by the four trial countries.

iii. Perform spatial data collection, data capture, database management, spatial data analysis, map creation and reporting including end-user interpretation for the monitoring and reporting needs for adaptation in the trial countries incorporated into the impact database.

iv. Collate, refine and develop spatial datasets and map products from the field trial and for the indicators and reporting needs of the impacts analysis methodology,

v. Support communication and information sharing on the impacts' assessment methodology through organised virtual sessions.

vi. Perform any other GIS duties related to advancing the trial of a tested methodology for impacts assessment of past adaptation interventions.

4. Logistical and Reporting Arrangements

The consultancy will be funded through the GCCA+ SUPA Project at SPREP.

The consultant will be working remotely to provide technical insight and support to the GCCA+ SUPA SPREP Project Team and National Consultants for Impacts Analysis/Adaptation Specialist in Tonga, Palau, Federated States of Micronesia, and Cook Islands.

The consultant will liaise with the GCCA+ SUPA SPREP Project Team for guidance.

5. Requirements

Technical and Financial Evaluation Criteria	**Obtainable Score**
i. At least a Master of Science level qualification in the areas of science (biology, physical geography, chemistry, or	20%

	environmental science) or social science and have more than 15 years' work experience in areas of environmental management, climate change policy, adaptation practice, knowledge and information management, development planning.	
ii.	At least 7 years' experience in Geographic Information Systems (including open-source software), spatial data management (including databases use and development), environmental and natural resource management, including monitoring and interpreting data for reporting.	20%
iii.	Extensive experience and excellent ability in, a) developing and coordinating GIS, data analysis and management training activities, b) applying GIS and environmental spatial data to the production of environmental or social planning and monitoring reports, preferably at national level reporting.	20%
iv.	Excellent written and verbal communication skills including high level of presentation and inter-personal skills, collaboration with donors and partners with sound experience in developing and maintaining effective relationships with a diverse group of people and as part of a team within a multi-disciplinary and multi-cultural environment.	15%
v.	Detailed technical proposal/workplan and methodology including timeframe.	15%
Total (Technical)		**90%**
Financial Proposal		**10%**

6. Timeline

The consultant will work with SPREP within a period of 50 days from agreed start date until the 30 April 2022.

The consultant is to submit a proposed work plan with clear timelines and milestones as per the requirements of the Terms of Reference.

7. Work Arrangements

The consultant will be based at home and work remotely.

The consultant will work under the direction of the GCCA+ SUPA SPREP Impacts Analysis Adviser and connect regularly with the GCCA+ SUPA SPREP Project Team in sync with progress of field trial of impact assessment at Tonga, Palau, Federated States of Micronesia, and Cook Islands.

8. Duration of the Consultancy

This consultancy will run up to the 30 April 2022 for 50 days and commencing as soon as practicable.