

Request for Quotation

Technical Expert for a Rapid Assessment of Priority Coastal Areas (RapCA)

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INFRASTRUCTURE COOK
ISLANDS



All queries regarding this Request for Quotation should be directed to:

Contact Officer: jaimeshort@cookislands.gov.ck

**QUOTE CLOSING TIME: 12:00 pm (CI
Time) 3pm, Friday 14th February 2020**

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1. Introduction

Infrastructure Cook Islands (ICI) wishes to seek technical expertise to carry out a Rapid Assessment of Priority Coastal Areas (RapCA). The “Pilot Site Diagnostic Report” will collect information and report on the baseline ecological, biological and environmental conditions of the project area, Avana to Muri, landscapes and coast-scape.

Accompanying this document is Annex 1 Terms of Reference for the RapCA, Annex 2 Template for Financial Proposal and Annex 3, Methodology and RapCa Process.

- A site visit is recommended if the tenderer is not familiar with the project area. It is the tenderers responsibility to carry out any site visits in order to assess the true costs to complete the project where necessary.
- RFQ documents may be uplifted from the ICI in Arorangi, sent via email from the Contact Officer or downloaded off <http://www.ici.gov.ck/request-for-quotes>.

2. General Information

All enquiries are to be directed to Jaime Short on 29039 or jaime.short@cookislands.gov.ck.

3. Submitting of RFQ

The quote must be submitted with:

- A cover letter that expresses tenderers interest in this consultancy
- CV including the names and contact information of referees
- Proposal with methodology for achievement of outputs and proposed timeframes
- Annex 2 filled out
- A signed Conflict of Interest Declaration in the submission. If you have not received this document, please request it from the contact person.

Handed to reception at Infrastructure Cook Islands, in a sealed envelope marked:

- **RAPCA** and addressed to **Diane Charlie-Puna, Secretary**, Infrastructure Cook Islands, on 3pm Friday 14th February 2020.
- Proposals received after this date will not be considered.

Annex 1: Terms of Reference

RAPID ASSESSMENT OF PRIORITY COASTAL AREAS (RAPCA)

Background on the Ridge to Reef (R2R) International Waters (IW) Project

The GEF Pacific R2R IW Project aims to test the mainstreaming of ‘ridge-to-reef’ (R2R), climate resilient approaches to integrate land, water, forest and coastal management in the PICs through strategic planning, capacity building and piloted local actions to sustain livelihoods and preserve ecosystem services.

This regional project provides the primary coordination vehicle for the national IW R2R STAR and International Water Projects that are part of the Pacific R2R Program, by building on nascent national processes from the previous GEF IWRM project. The R2R Program shall foster sustainability and resilience for each island through: reforms in policy, institutions, and coordination; building capacity of local institutions to integrate land, water and coastal management through on-site demonstrations; establishing evidence-based approaches to integrated coastal management (ICM) planning; improved consolidation of results monitoring and information and data required to inform cross-sector R2R planning approaches.

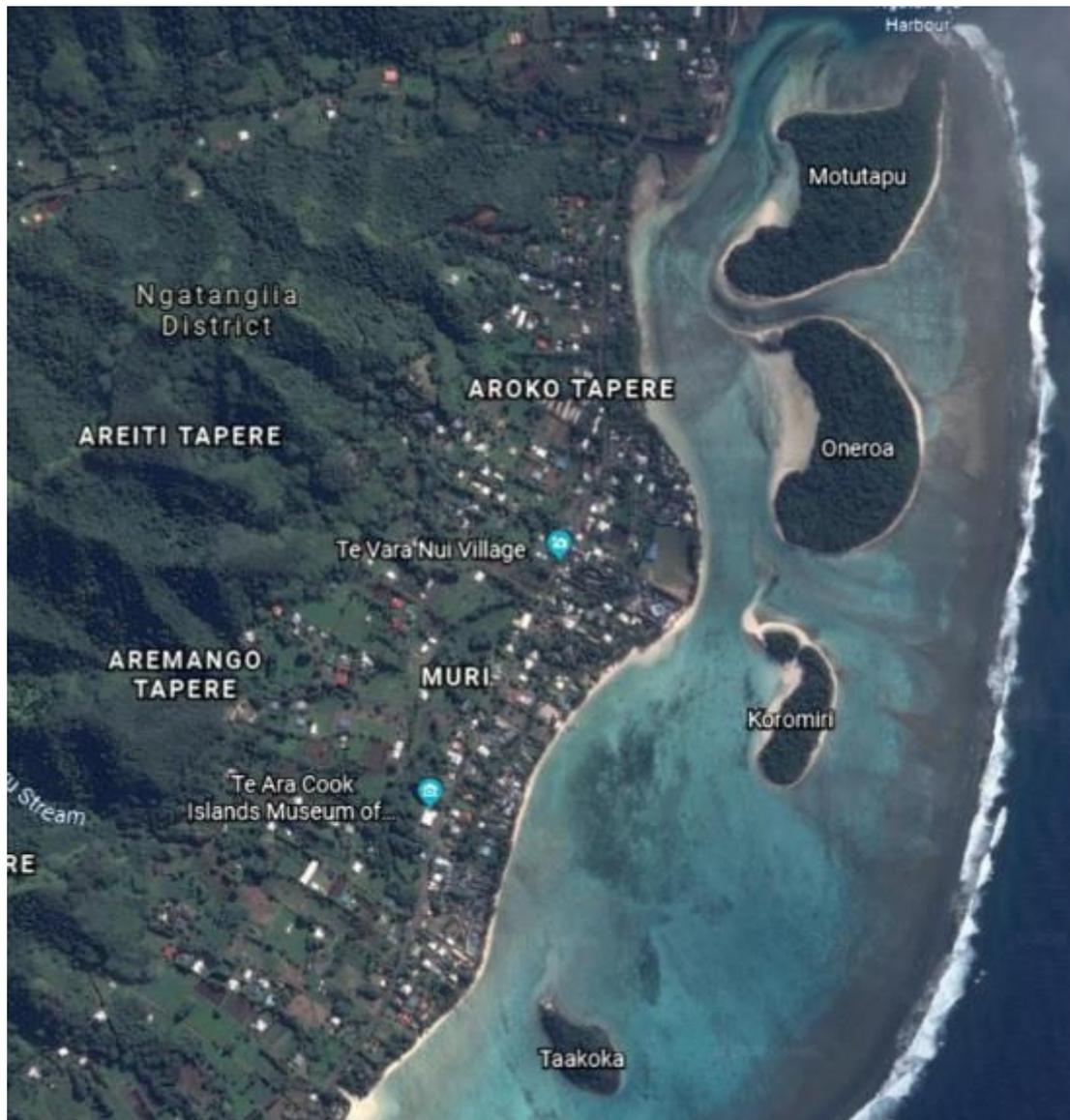
The GEF Pacific R2R IW Project will also focus attention on harnessing support of traditional community leadership and governance structures to test the mainstreaming of R2R, and improve the relevance of R2R investments integrating land, water, forest, biodiversity and coastal resource management, including MPAs, from ‘community to cabinet’.

The focus of the IW Ridge to Reef Project in Cook Islands is on reducing sedimentation into the marine environment. Therefore, the focus of the RapCA needs to provide information for future monitoring to measure changes after sedimentation controls are implemented.

Infrastructure Cook Islands and the Regional IW Ridge to Reef Project, the key implementing partners in the project seek to engage a qualified technical expert to carry out a RapCA of the Avana to Muri landscapes and coast-scape ¹covered under the project. Figure 1 shows the area included in the project.

¹ Landscapes and coast-scape hereto cover the range of features and characteristics of targeted ecosystems in the watershed catchment, which covers terrestrial, freshwater/ river, coastal and marine ecosystems.

Figure 1 – The Project Area, Avana to Muri



Objective

The objective of the RapCA study is to provide technical input into the “Pilot Site Diagnostic Report” and collect data and report on the baseline ecological, biological and environmental conditions of the project area and coast-scape. In particular, the study shall endeavour to deliver on, but not be limited to the following:

- The spatial distribution, conservation status, major disturbances and environmental concerns, and geographical context of the project area.
- A review and establishment of baseline ecological, biological and physical geographical information.
- Analysis of Relative Erosion Potential of the project area.
- State of the environment, including biodiversity, species, commercial resources, habitats and ecosystem processes.

Specifically, the expert will perform the following **tasks**:

- i. Develop proposed methodology for ongoing monitoring. This shall include:
 - a. Implementation plan including site area cover, schedule, logistics etc
 - b. Survey methodology (considering those described in Methodology, Annex 1) considers on-island capacity, resources and data gaps that need to be filled.
 - c. Community engagement and consultation plan
- ii. Collate and assess existing baseline ecological, biological and physical geographical information including the state of biodiversity (i.e. species, habitats and ecosystem processes) of the project area landscapes and coast-scape, providing a gap analysis for additional relevant data
- iii. Analyse the existence of previous monitoring efforts including of indicator species and habitats;
- iv. Conduct field surveys at identified sites. Among key tasks related to the surveys, should include but not be limited to:
 - a. Site and record status of flora, fauna and avi-fauna and provide result analysis;
 - b. Assess and report on riparian vegetation and in-stream habitat diversity
 - c. Assess and report separately on rare and endangered endemic species on the coastal mangrove/wetland areas;
 - d. Report on the presence and impacts of human activities in the sites surveyed;
- v. Perform an analysis on the Relative Erosion Potential (REP) of the Avana Muri Catchment Area, utilizing the Universal Soil Loss Equation (USLE) and other spatial techniques.
- vi. Provide a detailed technical report with results and findings of:
 - a. Assessment of existing literature and prior interventions,
 - b. Sedimentation of marine area
 - c. Observed baseline ecological conditions and human-environment conflicts,
 - d. Outline recommendations on indicators and process that could be used for monitoring change in the health of the wetland ecosystem of the Avana to Muri Catchment.

Scope of the RapCA study

Given the extensive environmental and natural process studies recently undertaken in the Avana to Muri Catchment and Lagoon it has been determined that the scope of the RapCA study will cover physical features, and biodiversity including plants and animal species in the mid and lower reaches of the Avana Muri Catchment and adjacent coastal sites. This is to be confirmed through the gap analysis of existing data. In addition major threats (to environmental quality) maps will be produced for the study area as described below:

- a. Physical features:

- Landforms, geology and soil: The aim shall be to present the major landforms, the underlying geology and major soil types. Expected outputs are descriptions and maps, with particular emphases on vulnerability to erosion, the present coastline, and soil capabilities
 - Climate hydrology and water resources: The aim should be to present the general climate and surface and groundwater resources, including streams, ponds and wetlands. Permanent and intermittent flowing waters should be listed with information on flow regime, source and flow volume; standing waters by hydrological regime, trophic category and naturalness. Any significant human uses should be reported
- b. Biodiversity:
- Flora: The aim is to list plant species that are known or highly probable to occur within the study area, with special emphasis on priority (i.e. endemic or threatened) taxa. Additional spatial information on localities of highly restricted priority taxa would be especially helpful.
 - Fauna: The aim is to list animal species (of particular groups) that are known or highly probable to occur within the study area, with special emphasis on priority (i.e. endemic or threatened) taxa. For all listed taxa, information on ecological requirements, any known or suspected threats which will be the major field work mostly in the catchment, riparian and the areas adjacent to the river/stream mouth.
- c. Major threats and nature protection status:
- The objectives are to identify major (existing and potential) threats, to demarcate areas formally under conservation, and identify sites under pressure from development potential/need, particularly in the mid and lower reaches of the catchment. On-site appraisals and interviews with local stakeholders would improve the final evaluation. A brief review of the institutional and legislative framework with respect to nature conservation should also be taken.

Methodology

The technical expert shall be required to undertake a detailed ecological survey in the study area to produce a comprehensive description of the area, inventories of species and habitats, a snapshot of the current socio-economic situation, and maps (electronic/digital versions). Survey methodology must conform to those outlined in Annex 3 provide for comparison across participating R2R Project countries. In consultation with the IW R2R RPCU and project team, the technical expert's proposal will be confirmed including defined activities that link the budget to the required outputs/results and the timing for delivery. The study approach could be considered but not limited to two phase as follows:

Phase I: Desk studies

- Collation of existing data that includes species information, forest and vegetation maps, coastal maps, land use and other details;
- Consultation with experts and stakeholders to help identify important species, habitats and sites;
- Assessment and report of data gaps
- Analysis of Relative Erosion Potential

Phase II: Field studies

- Habitat and species surveys at potentially ecologically valuable areas (catchment and adjacent coast);
- Assessment of the biodiversity values and threats;
- Broad scale field analysis to identify degraded sites and actual threats that could lower perceived ecological value.

The technical expert shall work closely with the IW R2R Project team, which is led by the Project Manager based in {insert location}. Under close collaboration and guidance of the Project Manager and RPCU, the technical expert will make field visits to engage with key stakeholders in the project areas as appropriate. The project team will provide support to coordinate field visits of the technical expert. In general, the methodology will be consultative in nature with a two way communication maintained between the technical expert and the project team.

Expected Output and timing of deliverables:

A detailed and up-to-date report reflecting the current ecological situation in the Avana Muri Catchment as regards its ecological, biological and environmental conditions shall be produced including the following outputs:

- Database (Excel) of all relevant historical monitoring and research publications and literature to the present day in the Avana Muri Catchment,
- Material, including maps, photos and presentation slides for final consultations with local communities.
- review of current physical and ecological knowledge and monitoring programs in the Avana Muri Catchment;
- identification of important gaps and recommendations of monitoring and research priorities for the Catchment;
- Develop the RapCa methodology and reporting framework/template

Timing of deliverables:

The technical experts shall prepare an Inception, Interim, Draft and Final Report, as well as a presentation/s of key results. The submission of key reports would be as follows:

- **Inception report:** within two weeks of signing of the contract, the technical experts should submit a report outlining the preliminary findings, proposed methodology and schedule for the remainder of the assignment;
- **Interim report:** within 4 weeks from the signing of the contract, the technical expert should submit a report outlining the current status of implementation of the study and problems encountered;

- **Draft final report:** within 6 weeks from the signing of the contract, the technical expert should submit its final draft report, documenting the findings of the entire study. The report will be shared to key stakeholders for comment.
- **Final Report:** A final report will be produced after incorporation of any comments and recommendations from key stakeholders.
- **Powerpoint Presentation:** The technical expert is expected to prepare a power point presentation to present the highlights and key results of this work to an organised forum of stakeholders, and if appropriate, to communities living in the catchment area.

Expected Competencies

The technical expert should:

- (i) Have demonstrated experience and skills in conducting and reporting on Ecological, Biodiversity and Socio-Economic surveys in one or more Pacific Island Countries (PICs), including the coordination and contracting of international and local scientists for the implementation of both field surveys and the drafting of scientific reports on results and findings.
- (ii) Have relevant experience in natural resource ecology and management; and with relevant applied experience in field research on ecosystems and/or biodiversity resources applied knowledge on natural resource conservation work and should have had good exposure to participatory aspects of adaptive and protected areas management.
- (iii) Have natural resource modelling skills, GIS mapping or equivalent capabilities.
- (iv) Have proven coordination and management skills in team-work.
- (v) Should have the ability to train communities, students, researchers, interested persons and conservationists in the field of ecosystem based management, biodiversity use and management. (i.e. flora and fauna species identification and appropriate ways to protect endangered species);
- (vi) Should be able to work effectively in multi-cultural situations and show sensitivity to local cultural values.

Performance Standards

Standards for Technical Advisors

The Technical Advisor will operate to high standards of professionalism, transparency, and demonstrate focus on capacity development where possible.

Quality of work

Quality standards will be measured by the contracting agency and the RPCU when appraising outputs. If necessary, internal or external specialist assistance will be sought for this purpose. Payments for this work are subject to having completed the deliverables to the satisfaction of the contracting agency, and the RPCU.

General

All Services must be provided in a professional manner and in accordance with reasonable expectations of the Cook Islands Government. In respect of implementation, suppliers must meet or exceed the applicable targets stated in the outputs table/results framework. The services will also be delivered in a manner which provides the best outcomes in terms of R2R Regional Project.

Governance and management

Infrastructure Cook Islands (ICI) will be the lead agency for this project and the Technical Expert will be required to work in consultation with the agency. The outputs are to be reviewed and commented on by ICI and after the approval of the final report.

Financial Proposal

The supplier should submit a financial proposal that includes travel, insurance, housing, transportation, customs duty and/or any other expenses to be incurred in the delivery of the services (if and where applicable).

The supplier must be self-sufficient in any equipment or services that they will need, for example laptop, printing, internet connection while out of the office.

The supplier will be able to operate out of the ICI office if required.

The supplier is not entitled to claim expenses, surcharges or margins or disbursements except if otherwise agreed in advance and in writing by the Principle. All costs should be shown with VAT separated and inclusive.

Annex 2: Financial Proposal and Pricing Schedule for RapCA Activities

Fees	<p>The technical expert fee for the work done must be calculated on the following basis:</p> <p>Fixed Fee</p> <p>A fixed Fee of \$[] excluding VAT.</p>			
Expenses	<p>Actual and reasonable — specified expenses</p> <p>The Principal will pay the technical expert actual and reasonable expenses incurred in delivering the services up to the total maximum amounts stated:</p>			
	Item of expense	No. of items	Cost (VAT exc)	Total max cost (VAT exc)
	[Transport]	[Vehicle hire days]	[Cost per day]	[Total cost]
	[Administrative costs, e.g. printing, telecommunications, etc.]	[Flat rate unit]	[Flat rate unit]	[Total cost]
	[Subcontractor, local support costs]	[Hours/days]	[Separate lines for individual costs]	[Total cost]
	[]	[]	[]	[]
	<p>Total Cost (Excluding VAT)</p>			[Total costs]
	VAT			
	Total (Including VAT)			

Annex 3 Methodology and RapCA process

The Secretariat for the Pacific Community requires a standardised methodology to be used to carry out the RapCa across the Pacific region. These are detailed below.

The service provider may liaise with other organisations and people where required.

Coastal & Fisheries Habitat Health - Indicator E3 Habitat Quality

The following table presents some options for indicators that could be used to assess coastal health. Where possible the service provider is encouraged to draw on the coastal fisheries programme of SPC in the design and conduct of monitoring surveys.

Indicator	Parameter	Methodology
Proportional cover of key benthic groups	Coral cover	Line Intercept Transect (LIT), Point Intercept Transect (PIT)
	Algal cover	LIT
Fish diversity	Number of different species	UVC, Point Counts
Fish biomass	Abundance and length data by species	Belt transect
Juvenile coral abundance	Abundance of coral recruits in predefined area	Quadrats along a defined transect
Health of target species	Abundance of juveniles in fishery refugia areas	Line intercept and observation. Creel survey
Frequency of harvest/ fishing	Fishing effort	Interviews, Direct Observations, Log books

Fish counts - Indicator E3 Habitat Quality

The fish counts are done at three of the six transects; Transects 1 and 2 and the third fish count was where transects 5 and 6 were assessed. Counts are done by two divers who counted all fish 2m either side of the tape.

River Survey (Macro invertebrates Sample Collection) - Indicator E3 Habitat Quality

A single sample is collected from each site using a hand-net (mesh 0.5 mm). A hand net is used in two ways to collect the macro-invertebrates. Five stones are randomly collected in the pool and washed inside the hand net detaching loosely attached organisms.

The second way in which it is used is by placing it in the ripples downstream of the water flow after disturbing the habitat to dislodge the invertebrates. Sampling of macro invertebrates was also conducted on aquatic plants on the edges of the stream.

A visual survey is conducted on the edge of a slow flowing stream for taxa like snails and damselflies that prefer such habitats.

Other Aquatic Fauna Survey - Indicator E3 Habitat Quality

A transect line of suitable length is used as a guide to document other aquatic life such as algae, aquatic plants, snails, crustaceans, macro invertebrates and fishes. Snorkel and underwater visual observations a meter on either sides of the transect, are used to document the aquatic fauna and flora. Some of the aquatic fauna are photographed *in situ* and also collected for identification.

Terrestrial Fauna Survey

A visual survey method will be conducted to record frogs, skinks, snakes, butterflies, birds, and dragonflies by extending a 200m transect and recording taxa 1m on either side of the transect. Another opportunistic survey method can be employed whilst walking from the village to the study site and back. Any taxa observed a meter either side of the track were recorded. Birds are documented based on actual sighting and on recognized bird calls.

Spotlighting will be undertaken during the nocturnal surveys using LED flash lights from 6:00pm to 8:00pm to look for frogs, skinks, geckos and snakes along a 200m transect beside the river or stream. Frog calls and bird calls are also used to document those that weren't sighted. The bats are documented at dusk when they started flying around.

Those specimens that could not be identified in the field are collected, sorted and identified at the accommodation using the following guides: Alison 2001 (snails), Gooderham and Tsyrlin 2002 (macro invertebrates), Polhemus et al., 2008 (Freshwater biota), Keith et al., 2010 (Freshwater Fauna), Boseto, 2011 (Freshwater biota), Dutson 2011 (Birds), Marinow and Pikacha, 2013 (Dragonfly), and Pikacha, 2018 (Terrestrial Fauna).

Catchment Protection Measures

The following table presents some options for indicators that could be used to assess 'improved' management. It is suggested that one or two of the following be chosen and used across all countries for comparability. It is also suggested that indicators be chosen that are already being measured in other aspects of the GEF Pacific R2R Programme so as to utilise the equipment, expertise and time involved in monitoring.

Parameter	Field or lab Analysis	Sampling method
<i>Catchment Condition</i>		
Native vegetation extent	Field	Line intercept & Observation
Native vegetation quality	Field	As above
Stream flow	Field	Flow meter
<i>Catchment Management</i>		
Voluntary management activities by stakeholders and/or landowners	n/a	Attendance at trainings; site visits
On-ground operational works by the catchment authority	Na/a	Activity tracking and reports
Community engagement activities	n/a	Activity tracking and reports
Planning controls implemented	n/a	Planning and implementation documents
Data collection and control	n/a	Number of continual and complete metadata sets