Request for Proposals (RfP)

Call for Experts –
Guyana Green-Gray Infrastructure Technical Guidance

Conservation International (CI) Guyana

Issue Date: March 15, 2021
Closing Date: April 5, 2021

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PART 1 – INSTRUCTIONS TO PROPOSERS AND PROPOSAL CONDITIONS

1.1. About Conservation International

Founded in 1987, Conservation International (CI) works to spotlight and secure the critical benefits that nature provides to humanity. Since our inception, we have helped to protect more than 6 million square kilometers of land and sea across more than 70 countries. Currently with more than 1,000 staff working through offices in 29 countries, and with 2,000 partner organizations worldwide, our reach is truly global. Our careful stewardship of contributions and our emphasison programmatic impact have allowed us to consistently earn the highest ratings for efficiency,effectiveness, and transparency from watchdog groups such as Charity Navigator.

1.2. Conservation International – Guyana (CI-Guyana)

Since 1989, CI has been working in Guyana focusing on species conservation and supporting efforts to establish a national system of protected areas as part of its broader mission to protect nature for the benefit of all. CI-Guyana brings together our strong capacity to design and implement effective local solutions that respond to local and national priorities, and the reach of a global network from which experiences and expertise can be drawn. In pursuing our 2025Vision, we will use sound science, demonstrate innovations on the ground, and build effective partnerships at the right levels to achieve programme impact. CI's experience and capacity will affect and help shape how the country transforms itself from traditional dependence on natural resource extraction and primary production, to a diversified, green and resilient economy, in keeping with national green development objectives.

1.3. Summary of the Requirement

CI invites qualified consultants to submit a Proposal to develop "Guyana Green-Gray Infrastructure Technical Guidance". The detailedTerms of Reference can be found in Part 2 of this RfP.

1.4. The procurement process

The following key dates apply to this RfP:

RfP Issue Date	March 15, 2021
RfP Closing Date and Time	April 5, 2021
Estimated Contract Award Date	April 9, 2021
Estimated Start Date	April 23, 2021

PART 2 – THE REQUIREMENT

2.1 Background

Guyana is among the countries most profoundly threatened by climate change induced sea level rise, with 90% of the population and 75% of commercial and subsistence agricultural production situated on a low-lying coastal plain. Located on the sediment rich North Brazil Shelf, Guyana has identified Green-Gray infrastructure solutions as a strategy to reduce climate risks for people, communities, and urban areas across the country's vulnerable coastal plain.

Green-gray infrastructure combines conservation and/or restoration of ecosystems with the selective use of conventional as well as innovative engineering approaches to provide people with solutions that deliver climate change resilience and adaptation benefits. By blending "green" conservation and restoration with "gray" engineering techniques, communities can incorporate the benefits of both solutions while, through a hybrid approach, minimizing the limitations of using individually.

We aim to draw upon the best available practice, science, and technical experience available in Guyana and globally to inform a comprehensive green-gray strategy for Guyana's coastal defense. As an initial phase of this strategy, we have identified the need and opportunity to develop the products described in this RfP:

(1) engineering guidance describing best practices to design and build coastal protection projects that integrate mangrove restoration areas with sea walls to complement each other, and together achieve performance objectives for reducing the effects of storm surge and wind waves, and

(2) develop a simple mass balance model using information available in literature and existing satellite images to predict sediment availability and sediment trapping potential for green-gray coastal engineering works in Guyana based upon mud bank dynamics.

Both products are intended to inform actions by the national and local governments, consultants, and stakeholders. They are intended to be used in the coming months and years to support efforts to optimally plan, design, and build mangrove green-gray projects that leverage the ability of mangroves to capture and consolidate soil, and grow quickly to adapt to rising sea levels – while also providing a host of co-benefits for people and nature. The attached PDF provides additional background on the identified need and opportunity for green-gray nature-based solutions along Guyana's coastline.

2.2 Purpose of the consultancy

CI-Guyana seeks a consultant to produce guidance for integrating mangrove restoration into the design and construction of coastal defense infrastructure along the dynamic and mud-rich Guyana coastline.

2.3 Detailed ToR

Task 1. Mangrove-Seawall Engineering Guidance

The consultant will produce engineering guidance describing best practices to design and build coastal protection projects that integrate mangrove restoration areas with sea walls to complement each other, and together achieve performance objectives for reducing the effects of storm surge and wind waves. For reference, the final formatted engineering guidance document, not including any appendices, is expected to be approximately 20-pages in length.

Task 1.1. Review of Existing Information and Engineering Guidance Outline

Compile a list of resources, including both published and unpublished literature and project examples, applicable to informing best practice for how to design and build mangroves restoration areas and seawalls to optimally achieve storm surge and wind wave attenuation performance objectives.

Based upon reviewed materials and similar examples of engineering best practice guidelines, draft an outline for the engineering guidance document for review and comment by the project team, including a list and description of figures, engineering details, and tables proposed to include in the guideline. It is expected that this guidance will include sediment trapping techniques for assisted ecological mangrove restoration (e.g., groynes and/or sediment trapping fences).

Deliverable: Annotated bibliography and outline for mangrove-seawall engineering guideline

Task 1.2. Draft and Final Mangrove-Seawall Engineering Guidance

Prepare draft engineering guidance for review and comment by the project team and stakeholders. This will include presentation at one virtual national-scale workshop and one virtual international-scale workshop for review and comment from stakeholders.

Based upon comments, the selected consultant will produce a final mangrove-seawall engineering guidance document including final figures, typical details and tables for reference.

Deliverables: Draft and final mangrove-seawall engineering guideline and presentation at 2x external workshops.

Task 2. Sediment Mass Balance Model for Optimal Design and Timing of Coastal Defense Structure Construction

The consultant will develop a simple sediment mass balance spreadsheet model using information available in literature and existing satellite images to predict sediment availability and sediment trapping potential for green-gray coastal engineering works in Guyana based upon mud bank dynamics.

Task 2.1. Conceptual Framework

Based upon available data (e.g., literature and satellite imagery) provide a presentation to the project team summarizing the proposed model elements, and the limitations of the proposed approach.

Deliverable: Slide deck and accompanying presentation to a virtual stakeholder meeting composed of national and international experts on mudbank topics on the North Brazil Shelf.

Task 2.2. Draft and Final Sediment Mass Balance Model

Based upon comments received on the conceptual framework in Task 2.1, the selected consultant will prepare a draft spreadsheet-based sediment mass balance model with accompanying 'How-to-Use' guide or tab. The model should clearly describe (1) when and how this model can inform the planning, design, and implementation of green-gray coastal defense projects, and (2) limitations to use.

A draft model will be provided for review and comment by the project team and stakeholders. This will include a virtual presentation for review and comment from stakeholders.

Based upon comments, the selected consultant will produce a sediment mass-balance-model as a complementary tool to the mangrove-seawall engineering guidance produced in Task 1.

Deliverables: Draft and final sediment mass balance model with accompanying PowerPoint presentations.

Optional Task 2.3. Scope-of-Work for Future Work

The project team recognizes the complexity of developing a comprehensive and predictive hydrodynamic model for mudbank movements along the North Brazil Shelf, and that the proposed sediment mass balance model is an initial step in producing more comprehensive design and monitoring tools relevant to mangrove restoration and coastal defense along the Guyana coastline. The selected consultant is invited to present a scope of work, including a description of tasks, timeline, and costs to develop additional and complementary tools to those produced through this consultancy.

Task 3. Project Management and Meetings

As part of the project team, the selected consultant is invited to participate in regular virtual project-team meetings, 1x 1.5 hour meeting every 2-weeks for the project duration. The consultant will be invited to comment on materials promoting the project findings and outcomes.

2.4 Proposed Project Timeline

Project Activity	2021																					
	March					April				May					June				July			
	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19	26
RfP Issue Date			X																			
RfP Closing Date and Time						X																
Estimated Contract Award Date							X															
Estimated Start Date										X												
Task 1. Mangrove-Seawall Engineering Guidance																						
Task 1.1. Review of Existing Information and Engineering Guidance Outline												X										
Task 1.2. Draft and Final Mangrove-Seawall Engineering Guidance															D		W		W		F	
Task 2. Sediment Mass Balance Model for Optimal Design and Timing of Coastal Defense Structure Construction																						
Task 2.1. Conceptual Framework												X	W									
Task 2.2. Draft and Final Sediment Mass Balance Model																	D	W			F	
Optional Task 2.3. Scope-of-Work for Future Work																					D	F
Task 3. Project Management and Meetings																						

D = draft deliverable, F = final deliverable, W = workshop

2.5 Experience and qualifying requirements

The consultant or consultant team shall be able to demonstrate the following qualifications:

- Advanced qualification or equivalent experience in environmental or related engineering
- Experience in planning and implementing mangrove restoration
- Experience in the design of coastal defense infrastructure
- Proven ability to work well independently and coordinate with teams remotely.
- Outstanding written and spoken communication skills.
- Knowledge and experience on environmental issues, particularly on green-grey infrastructure, nature-based solutions, and climate change mitigation and adaptation strategies;
- Excellent analytical and research skills,
- Strong interpersonal skills are essential, capacity to develop partnerships with a wide range of stakeholders;
- Mastery of computer tools:, Microsoft Word, Excel, PowerPoint and other as applicable
- Advanced written and verbal proficiency in English
- Ability to interact and work effectively with engineers from Government Agencies in Guyana (NAREI, MoPW)

PART 3 – OTHER INFORMATION

3.1 Consultancy duration

The consultancy is expected to start April 23, 2021 and to be completed no later than December 31, 2021.

3.2 Contract value

This assignment has a maximum budget of $45,000 USD.

3.3 Attachments

Green-Gray Nature-based Solutions for Guyana.pdf

3.4 Evaluation criteria and basis for award

The contract will be evaluated based on performance against the following criteria.

Criterion	Points
Demonstrated experience and understanding of integrated green-grey infrastructure solutions, their benefits and the opportunities for implementing them at a global scale.	10
Demonstrated experience with preparing guidance documents for Engineering Design and Construction Management/Implementation. If possible, please provide links or references to published works produced within the last 5 years that are endorsed by governments or professional bodies.	25
Relevant technical expertise in designing coastal defense infrastructure. If possible, provide examples that demonstrate innovative interventions that address broad sustainability criteria, for example those defined by the UN SDGs.	25
Relevant technical expertise in planning and implementing nature restoration in the coastal zone. Experience in planning and undertaking mangrove restoration is preferred.	25
Appropriate budget, demonstrating appropriate allocation of labor days in relation to tasks and deliverables; appropriate consultant daily rates in relation to qualifications; appropriate other direct costs in relation to the scope of work; and overall cost effectiveness.	15
Total	**100**

3.5 Terms of payment

Payment will be based on service provision and is subject to the prior production of an original invoice; advance payment can generally not be granted. Mission costs will be covered directly based on the travel request form to be completed by the contractor before the mission and travel expense claim to be submitted along with supporting documents no later than 5 days after the mission. The consultant is required to comply with our procedures for assignments. We reserve theright to not accept expenditure beyond the agreed budget or whose supporting documentation is not in accordance with our procedures, and to suspend payments in the absence of appropriate deliverables.

3.6 Application procedure

Interested experts are invited to submit a proposal to Emily Corwin by email ecorwin@conservation.org; by April 5, 2021, 23:59pm PST time, including:

1 Cover letter including demonstration of an excellent understanding of the assignment's purpose and aims;

2 Technical approach including methodology for proposed tasks, 2 pages maximum

3 A summary of key personnel involved, no greater than 150 words per person.

4 1-page CV of the project team members, indicating experience relevant to the subject of this assignment, with professional references and area of specialization in appendix;

5 Financial offer of budget broken down by major activities, specifying the number of days and daily fee of consultant, and detailing taxes or exemption thereof.