IKU Living with Change Project

 TERMS OF REFERENCE – GIS Consultancy

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Living with Change - Resilient Mangroves, Fisheries and People of Fiji and PNG Project</th>
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<tbody>
<tr>
<td>Project Location</td>
<td>Fiji (Ba Province) and Papua New Guinea (Madang Province)</td>
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<tr>
<td>Names of Project Executants (WWF Office, name of project manager)</td>
<td>WWF Pacific (Fiji - Alfred Ralifo)</td>
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<tr>
<td>Consultancy Duration</td>
<td>August - September 2020</td>
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PROJECT OVERVIEW

Small Island Development States are a group of countries that share a range of similar development and environmental degradation problems due to the particularities of insular systems, both geographically as well as ecologically. These issues are increasingly aggravated by the effects of climatic change, specifically more frequent extreme weather events, to which coastal communities are particularly vulnerable. Papua New Guinea and Fiji are two examples of countries where local populations that are highly and directly dependent on natural resources and ecosystem services, are continually degrading the very resource base they depend on for basic services such as food production and coastal protection. Notably, mangrove ecosystems that provide these services through fish production as well as storm and wave energy reduction, have been degraded significantly in both countries. Thus, the project is working towards a two-fold outcome:

- The sustainability and resilience of livelihoods and food security of the focal coastal communities in PNG and Fiji have improved to address climate change impacts and
- Critical mangrove ecosystems in the target areas are maintained or restored to effectively secure ecosystem services as an adaptive approach to climate change impacts.

In order to achieve these outcomes, the project applies a range of approaches to create the enabling conditions and increased awareness necessary for climate-adapted livelihoods and resource management. These include:

- Creation of awareness among resource users on climate change and its effects on the marine resource-based livelihoods people depend on
- Mainstreaming of climate change and adaptation considerations in community-based and other sub-national planning instruments including fisheries management as well as disaster risk reduction plans
- Mapping of critical mangrove areas and decision-making on their future management, including restoration measures
- Integration of sustainable fisheries measures under climate change considerations and strengthening of local fisheries management bodies
- Piloting of small-scale livelihoods initiatives to reduce dependency on marine resources
- Strengthening of PNG’s and Fiji’s role in regional initiatives for mangrove conservation

Consultancy Goal

- Mapping of mangrove data for Tikina Nailaga, Tavua and Nacula in the Ba Province - Fiji

Consultancy Outcomes

1. Mangrove cover maps for the three targeted Tikinas
2. Change detection maps

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3. Digitizing key habitats from community participatory mapping
4. Identified community protected areas and rehabilitation sites

**METHODOLOGY CONSIDERATIONS**

2. Sub-setting Global Forest Change data to get Areas of Interest – Nacula, Tavua and Nailaga Districts.
4. Field data collection for verification of baseline maps.
5. Participatory mapping with resource owners
6. Digitization of participatory mapping results
7. Change Detection Analysis
8. Map Verification by WWF

**MTR PROCESS, DELIVERABLES, AND TIMELINE**

*Tentative dates and outputs*

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<thead>
<tr>
<th>Major Evaluation Task/Output</th>
<th>No. Days</th>
<th>Who is Responsible</th>
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<tbody>
<tr>
<td>1. Current Mangrove Cover for the three districts</td>
<td>6</td>
<td>Consultant</td>
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<tr>
<td>2. Change Detection Maps</td>
<td>10.5</td>
<td>Consultant</td>
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<tr>
<td>3. Digitizing key habitats from community participatory mapping</td>
<td>2.5</td>
<td>Consultant</td>
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<tr>
<td>5. Identified community protected areas and rehabilitation sites</td>
<td>2.0</td>
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