



TERMS OF REFERENCE

Reference No.	PN/FJI/003/22
Location	Home based
Application deadline	13 February, 2022
Type of Contract	Individual Contractor
Post Level	National Consultant
Consultancy Title	Geographic Information System (GIS) Consultant
Languages required:	English
Duration of Initial Contract:	180 days between March 2022 to February 2023

BACKGROUND

Introduction – UNCDF

UNCDF is the UN's capital investment agency for the world's 47 Least Developed Countries (LDC). UNCDF uses its capital mandate to support LDCs pursue inclusive growth. UNCDF promotes financial inclusion, also through digital financial services (DFS), as a key enabler of poverty reduction and inclusive growth; and it demonstrates how localizing finance outside the capital cities can accelerate growth in local economies, promote sustainable and climate-resilient infrastructure development, and empower local communities. Using capital grants, loans, and credit enhancements, UNCDF tests financial models in inclusive finance and local development finance; 'de-risks' the local investment space; and provides proofs of concept, paving the way for larger investors.

UNCDF's objective is to develop inclusive financial systems in which a range of financial products are available to all segments of society, at a reasonable cost, and on a sustainable basis. UNCDF supports a wide range of providers (e.g. microfinance institutions, banks, cooperatives, money transfer companies) and a variety of financial products and services (e.g. savings, credit, insurance, pension, payments, and remittances).

Introduction: Pacific Insurance and Climate Adaptation Programme

Pacific Island countries are highly vulnerable to natural hazards like cyclones, floods, earthquakes, and droughts. Such events cause economic losses running into millions of dollars. As climate change increases the frequency and severity of naturally induced disasters, economic losses worsen. With limited insurance protection options in the region, many Pacific Islanders affected by disasters are left with nothing or are dependent on government assistance. These payments can take weeks, pushing vulnerable populations into poverty and economic hardship.

The United Nations Capital Development Fund (UNCDF), through a joint programme with the United Nations Development Programme (UNDP), the United Nations University Institute for Environment and Human Security (UNU-EHS), and in close collaboration with key stakeholders from the government, public, private sector, and other development partners, aims to address the challenge through the workstreams envisaged in the Pacific Insurance and Climate Adaptation Programme (PICAP). The Programme is aligned to the United Nations Pacific Strategy, UNCDF global strategies and the respective

country national development plans. The Programme will specifically target women, youth and MSME segments to work across agriculture, fisheries, and tourism sectors.

The overall program objective is to improve the financial preparedness of “Pacific households, communities, small businesses, organizations and governments towards climate change and natural hazards” through a combination of stakeholder engagement, co-creation of solutions, awareness and capacity building, innovative financing options and digital linkages – with a robust interface to the 2030 Sustainable Development Goals.

Objectives

Under the Pacific Insurance and Climate Adaptation Programme, as part of UNDP’s support to climate finance, financial security, and resilience building towards the adverse effects of climate change, UNDP is seeking to recruit a Geographic Information System (GIS) Analyst. The GIS Analyst will serve as the focal point for all data verification in relation to the Pacific Insurance and Climate Adaptation Programme.

DUTIES AND RESPONSIBILITIES

Scope of Work

The GIS Analyst will work in close collaboration with PICAP partners at regional and national level to achieve the programme outcomes by providing regular technical assistance for a successful implementation of the Pacific Insurance and Climate Adaptation Programme. More specifically:

- **Assessment Preparation and Planning**
- Identification of available GIS data.
- For each aggregator, review plans for related mapping, as well as any data management plan.
- In coordination with project team, co-construct qualitative and quantitative data collection tools, ensuring GIS requirements of research cycle/assessment are met.
- Develop geo-spatial analysis of assessment areas to be used, as relevant, in developing daily assessment plans, field movement plans and accompanying operational maps for field teams.
- Keep track of progress and delays of all GIS and relevant data- and information-management tasks throughout the research cycle. Ensure that delays or identified problems are reported by writing and orally in a timely manner.
- **Data Collection**
- When relevant, ensure that support is provided to the project team and aggregators for the identification and collection of GIS data.
- When relevant, ensure that support is provided the project team and aggregators in overseeing data collection, in line with data management plan, including spatial verification and validation as part of daily assessment checks.
- Ensure that collected data is geo-referenced, enabling the production of maps and related products.

- In coordination with the project team, ensure that all changes in data collection that lead to a modification in beneficiary data are documented; and that the aggregators are informed and agree on the modifications.
- **Data Management & Analysis**
 - Ensure that all collected data is stored in line with global best practice Data Management Guidelines
 - Ensure that data is revised and cleaned, and that all revisions are recorded.
 - Ensure spatial analysis conducted on collected data for timely issue of insurance claims after a trigger event.
 - Ensure that data and its spatial analysis are validated by project team before claims are paid to beneficiaries.
 - Ensure that data and its analysis do not contain personal information and are validated by project team before sharing to external parties.
 - Ensure the quality and accuracy of technical information provided as well as the confidentiality and protection of collected information.
- **GIS Products (Including maps and web-products)**
 - Ensure accurate linkages between spatial databases and assessment data are maintained.
 - Ensures that the produced maps meet the requirements of PICAP and concerned partners/aggregators.
 - Ensure regular communication maintained with project team on progress and deadlines for GIS products.
 - Ensure the drafting of timely and accurate GIS products, which comply with PICAP guidelines
 - Review all products before they are sent to project team for validation.
 - Ensure that all GIS products are validated by PICAP before external release.
 - When relevant, in close coordination with project team, ensure regular maintenance and update of web GIS products.
- **Product dissemination and evaluation**
 - In coordination with project team, promote the dissemination of GIS products in line with PICAP guidelines.
 - Ensure the strictest confidentiality of data and data processes. He/she will actively take measures to prevent the unauthorized sharing of information and data.
 - In coordination with project team, ensure that GIS products are uploaded in relevant data portals for ease of access by aggregators and partners.
 - In coordination with project team, ensure that lessons learned are gathered and documented at the end of the project cycle.

Expected Outputs and Deliverables

- GIS data identified and data management and mapping plans confirmed with aggregator partners.
- GIS data is collected as per data management plans along with spatial verification and validation in line with the production of maps and related products.

- Maps and web mapping applications are developed in line with program objectives.
- Serve as the central focal point for all data MRV (measuring, reporting and verification).
- Ensure timely dissemination of GIS products to aggregators and partners.

Institutional Arrangement

- The GISM Analyst will be working under the overall directions of the Programme Manager, Pacific Insurance and Climate Adaptation Programme and is expected to work closely with the Technical Specialist (Regional) in the implementation of this TOR.
- All reports and documents relating to the assignment will be submitted to the UNDP Pacific Office based in Fiji.
- UNDP Pacific Office will review the outputs/deliverables of the consultant and provide feedback along with any recommendations, as necessary.

Duration of the Work

- 180 days between March 2022 – February 2023.

Duty Station

- Home based with travel as and when needed to meet with stakeholders.

COMPETENCIES

- Open to work with challenging projects in challenging environment.
- Ability to plan, organize, implement, and report on work.
- Strong networking, interpersonal, communication and facilitation skills.
- Strong analytical, reporting and writing abilities skills.
- Experience in managing clients and partners—from early-stage companies to mature organizations.
- Solution-focused and medium-agnostic, willing to step out of your core skill set or discipline to find the correct solution to a challenge.
- Results-driven, problem-solver with structuring and analytic capabilities.
- Strong ability to plan and act strategically, even in situations of ambiguity, to develop tangible solutions.
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability.

REQUIRED SKILLS AND EXPERIENCE

Educational Qualifications:

- Minimum qualifications of a Bachelor's degree in Science, Geographic Information Systems (GIS), Environmental Management, Ecology, Geography, Informatics, or related fields. Post graduate qualifications will be an advantage.

Experience

- At least 5 years' experience in Geographic Information Systems, spatial data management (including databases use and development), environmental and natural resource management,

including monitoring and interpreting data for reporting. Working on international funded projects will be an advantage.

- Excellent experience in GIS:
 - The use of ESRI or Open-Source GIS software products, for mapping and spatial analysis, including the development of (open source) geodatabases.
 - Managing diverse spatial data layers, including quality control, data versioning and proven ability to develop and apply metadata.
 - Sharing spatial data via the web (e.g., ArcGIS Online, Google Earth Engine, GeoServer, GeoNode)
 - Developing and applying data processing workflows and processes to validate national data.
- Excellent knowledge of Geospatial and data issues and challenges within the Pacific Island region:
 - Broad knowledge of spatial data management and spatial planning, preferably in small islands context
 - Spatial data sharing sensitivities and issues within the Pacific Island region.
- Demonstrates initiative and ability to think outside the box in dealing with multiple tasks, demanding deadlines and with little supervision and demonstrate excellent understanding and appreciation of environmental ethics, values, and priorities within the workplace.

Language requirements

- Fluency of English language is required.

Price Proposal and Schedule of Payments

Consultant must send a financial proposal-based o **Lump Sum Amount**. The total amount quoted shall be all-inclusive and include all costs components required to perform the deliverables identified in the TOR, including professional fee, travel costs, living allowance (if any work is to be done outside the IC's duty station) and any other applicable cost to be incurred by the IC in completing the assignment. The contract price will fixed output-based price regardless of extension of the herein specified duration.

Payments will be done upon completion of the deliverables/outputs and as per below percentages:

- Deliverable 1 – Assessment **Preparation and Planning** ; All assessment and planning related to GIS data collection and data management for respective aggregators are complete: 16% of total contract amount
- Deliverable 2 - **Data Collection**; GIS data identified, collated, spatially verified, and stored in an appropriate spatial data infrastructure: 16% of total contract amount
- Deliverable 3 – **Data Management and Analysis**; Ensure accuracy and confidentiality of all collated data. Conduct necessary spatial analysis for payment to affected beneficiaries in the event of a trigger event: 16% of total contract amount
- Deliverable 4 – Production of **GIS Products**; Timely production of web GIS products – web maps, dashboards in line with the expectations of PICAP Programme and partners : 16% of total contract amount

- Deliverable 5 - **Product dissemination and evaluation**; Ensure timely dissemination of GIS products to aggregators and partners: 16% of total contract amount
- Deliverable 6 - Serve as the central focal point for all data MRV (measuring, reporting and verification): 20% of total contract amount

In general, UNDP shall 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 event of unforeseeable travel not anticipated in this TOR, payment of travel costs including tickets, lodging and terminal expenses should be agreed upon, between the respective business unit and the Individual Consultant, prior to travel and will be reimbursed.

Evaluation Method and Criteria

Individual consultants will be evaluated based on the following methodology...

Cumulative analysis

The award of the contract shall 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 set of weighted technical criteria (70%). and financial criteria (30%). Financial score shall be computed as a ratio of the proposal being evaluated and the lowest priced proposal received by UNDP for the assignment.

Technical Criteria for Evaluation (Maximum 70 points)

- Criteria 1: A Bachelor's degree in Science, Geographic Information Systems (GIS), Environmental Management, Ecology, Geography, Informatics, or related fields. **Max 10 Points**
- Criteria 2: Strong knowledge of GIS software products e.g., ArcGIS or QGIS, for mapping and spatial analysis, including the development of (open source) geodatabases and sharing GIS products via cloud-based platforms (ArcGIS Online, GeoNode, GeoServer etc.). **Max 20 Points**
- Criteria 3: Minimum of 5 years' experience in Geographic Information Systems, spatial data management (including databases use and development), environmental and natural resource management, including monitoring and interpreting data for reporting. **Max 15 Points**
- Criteria 4: Excellent knowledge of Geospatial and data issues and challenges within the Pacific Island region. **Max 10 Points**
- Criteria 5: Established networks in the GIS field of practice in Fiji. Record of having successfully worked with Government, civil society stakeholders and local communities in Fiji and establishing effective networks of cooperation. **Max 15 Points**

Only candidates obtaining a minimum of 49 points (70% of the total technical points) would be considered for the Financial Evaluation.

Documentation required

Interested individual consultants must submit the following documents/information to demonstrate their qualifications. Please group them into **one (1) single PDF document** as the application only allows to upload maximum one document:

- **Letter of Confirmation of Interest and Availability** using the template provided in Annex II.

- **Personal CV**, indicating all past experience from similar projects, as well as the contact details (email and telephone number) of the Candidate and at least three (3) professional references.
- **Technical proposal**, including a) a brief description of why the individual considers him/herself as the most suitable for the assignment; and
- **Financial proposal**, as per template provided in Annex II. Note: National consultants must quote prices in United States Dollars (USD).

Note: Successful individual will be required to provide proof of medical insurance coverage before commencement of contract for the duration of the assignment.

Incomplete, joint proposals and proposals sent to the wrong mailing address will not be accepted and only candidates for whom there is further interest will be contacted. Individuals interested in this consultancy should apply and will be reviewed based on their own individual capacity. The successful individual may sign an Individual Contract with UNDP or request his/her employer to sign a Reimbursable Loan Agreement (RLA) on their behalf by indicating this in the Offerors letter to Confirming Interest and Availability using Annex II.

Annexes

- Annex I - Individual IC General Terms and Conditions
- Annex II – Offeror’s Letter to UNDP Confirming Interest and Availability for the Individual IC, including Financial Proposal Template

Proposal Submission

- All applications must be clearly marked with the title of the consultancy (Geographic Information System (GIS) Consultant) with reference **(PN/FJI/003/22)** and submitted via **UN Job shop by 13 February 2022**.
- **Note: UNDP Jobs only supports single document upload hence ensure that the proposal is consolidated and submitted as one single document.**
- For further information concerning this Terms of Reference, please contact UNDP Pacific Office by email: procurement.fj@undp.org.

Women applicants are encouraged to apply