



ANNEX 1- TERMS OF REFERENCES (TOR)

Location:	Port Moresby, Papua New Guinea
Application Deadline:	4 th August, 2017
Title:	Support in the Design of an integrated Environment Information Management System for Papua New Guinea
Project Name:	Cross-cutting Capacity Development Project
Type of Contract:	Individual Contract
Languages Required:	English
Starting Date:(date when the selected candidate is expected to start)	14 th August, 2017
Duration of Contract:	8 weeks over 3 months from August - October 2017

1. BACKGROUND

UNDP in Papua New Guinea works with the Conservation and Environment Protection Authority (CEPA) to foster action on conservation of PNG's rich and distinctive biodiversity – which holds 7 percent of world's biodiversity within 1 percent of the world's land mass. In this context, UNDP and CEPA recently launched a 3-year project *Cross-Cutting Capacity Development (CCCD) Project*, funded by the Global Environment Facility (GEF), to develop and establish an integrated Environment Information Management System (EMIS) within the Authority.

EMIS has been piloted around the globe since 2002 and relatively new in the country.

Currently, there are few databases within CEPA that are in different stages of readiness to serve as data sources that will be amalgamated through the EMIS that provides for a functional interface primarily on species and protected areas in PNG. These stand-alone databases are:

- ***Species Information Management System.*** This initiative completed in 2015 built and cleaned the legacy data for all currently recognized 2,113 species of vertebrates excluding marine fishes recorded from PNG. The updated list using Excel file has the basic taxonomic information with fields on class and order of the species; full taxonomic name, taxon type, family, genus, taxon authority, its common name with georeferenced location where the species was seen.
- ***National Biodiversity Information System.*** Mainly funded through the Kokoda Initiative, this stand-alone system uses an SQL that is currently undergoing testing before considered functional. It uses the authority file of SIMS that is juxtaposed into a map.
- ***Wildlife and CITES database system.*** Recently commenced in December 2016, this initiative aims to redesign and establish an online software application for the permitting and licensing of wildlife and endangered in Papua New Guinea. The system will provide CEPA the ability for storing and analyzing information, reporting, extracting indicators and facilitating statistics and assessments on key species.

- **Protected Area register.** CEPA through the Coral Triangle Initiative have completed information and data on the various formal and informal community managed marine protected areas in several countries in the Pacific region including PNG known as the CT Atlas. This comprehensive system will be expanded to capture also the data for terrestrial protected areas to provide the State recognition and registration for Protected Areas in the country. CEPA will start this work towards the middle of this year.
- **Strengthening Essential Biodiversity Information Management for PNG.** CEPA collaborated with Bishop Museum in late 2016 to progress in updating the authority file of species in PNG such as records (and in some instance of georeferenced records or map of amphibians, reptiles, mammals, birds, marine/brackish/freshwater fishes, plants and even CITES species). It is anticipated that all available data will be assembled into shapefiles for selected sites in the country.

It should be also noted that there are other information systems in the process of development such as the permitting and licensing on environment regulation, financial management, among others.

At this stage, the integrated Environment Information Management System will be set up to support CEPA to address the convention obligation related to reporting requirements under the UN Convention on Biological Diversity.

To meet this challenge, UNDP seeks a highly qualified and competent international/national expert with whom to collaborate in a scoping assessment and put forward recommendations on the how to strengthen the availability, storage and use of environmental information while at the same time strengthen in-house capacities to measure, report and verify indicators on biodiversity conservation.

2. OBJECTIVES

The overall objective of this consultancy is towards the establishment of an integrated Environmental Management Information System within CEPA that will put in place a system for information and data management system that will provide a method to organize, store and display data in a uniform format in order to facilitate sharing among CEPA division and staff. Effort will be made to unpack any unnecessary duplication and facilitate the buy-in of senior management for a phased approach and streamlined process to develop the architecture EMIS including hardware and software solutions to accompany this change.

3. SCOPE OF WORK, ACTIVITIES AND DELIVERABLES

Scope of Work

A short-term consultant is expected to complete the Phase 1 of the EMIS design, in close collaboration with CEPA and the CCCD project team:

Output 1: Analysis and Stocktaking

- Review of all relevant background documents and materials as well as conduct interviews pertaining to the stand-alone information systems supported by donor-funded projects in CEPA, particularly similar work that have conducted on the technical analysis of current IT system and infrastructure.
- Key interviews with the Climate Change Development Authority (CCDA) and PNG Forest Authority including the foreign-assisted projects which supports the building or establishment

of national meta databases on the land use, climate change and forest changes. These involve: (i) PNG Forest Authority, UN FAO, JICA and UN REDD (<http://png-nfms.org/portal/>); (2) EU and a firm hosting remote sensing on forest monitoring (<http://forest.pngsdf.com/>), and (3) World Bank and Climate Change Development Authority developing Geonode to be a web-based application and platform for deploying GIS on hazard and climate change affecting the transport sector. This activity is aimed to find the niche and collaboration points with these information system/applications.

- Conduct comprehensive discussions with CEPA to establish the design and necessary steps to establish the EMIS. This is intended to outline the existing system extent and boundaries, and to identify possible bottlenecks and capacity limitations of the current IT systems, resources and infrastructure in terms of capacity to scale up and absorb new technologies and behavioral change in sharing data and information among staff;
- Identify and list down top 3-5 Rio Convention indices related to biodiversity that has the best possibility of being updated regularly by CEPA;
- Facilitate 2 discussion meetings with senior management and technical staff of CEPA to present best and realistic options and facilitate for a consensus on way forward to establish a functional EMIS.

Output 2: Draft Action Plan and TOR to design, develop and establish the EMIS

- Develop a working draft which covers both the short and medium term Action Plan that may be supported by the CCCD project and other donor supported projects within CEPA. This will also involve proposing EMIS as a new model that will enable business continuity with the buy-in from the CEPA senior management;
- Draft a detailed Terms of Reference for the Second Phase which may include follow-up actions and detailed specifications of the design and establishment of EMIS as a platform that is compatible with existing systems.

Key deliverables and payment schedule

Deliverables/ Outputs	Duration	Report Due Date	Percentage Payment	Review and Approvals Required
Upon submission of an Inception Report with the proposed approach, literature review and detailed schedule for this engagement	At least 1 week after contract has been signed by both parties; 10% of total contract cost	25 Aug 2017	20%	Project Technical Specialist and the National Project Director
Upon submission and acceptance of Inception Report which includes 3 best and realistic options with financial estimates on EMIS/biodiversity conservation to facilitate informed decision of CEPA senior management within the context of other web-based portals being established in PNG	Max of 4 weeks; 30% of total contract cost	11 Sept 2017	30%	Project Technical Specialist and the National Project Director

Deliverables/ Outputs	Estimated Duration to Complete and Payment Schedule	Report Due Date	Percentage Payment	Review and Approvals Required
Upon submission and acceptance of the short and medium-term Action Plan to design and establish the EMIS which is compatible with existing and/or appropriate system with a list of the top 3-5 Rio Convention indices related to biodiversity that has the best possibility of being updated regularly by CEPA	Max of 3 weeks; 30% of total contract cost	2 Oct 2017	30%	Project Technical Specialist and the National Project Director
Upon submission and acceptance of a draft detailed Terms of Reference for the Second Phase of work to design and establish EMIS	Max of 1 week; 30% of contract cost	9 Oct 2017	20%	Project Technical Specialist and the National Project Director
Total	100%; 8 weeks			

5. Resources Provided

The consultant will be provided with an office space in CEPA. Team members will interact with relevant divisions and staff within CEPA and field level work will not be required. Access to Internet and a telephone line will need to be ensured by contractor, therefore additional costs for communication (internet, mobile) should be considered when developing the financial proposal. If the consultant/s' home-base is outside of Port Moresby, costs of the transportation and other related costs such as accommodation should be included in the consultant/s' financial proposals for this assignment.

6. INSTITUTIONAL ARRANGEMENTS

The Contractor will undertake the activities described above under the supervision of the Project Manager, to whom the Contractor will be directly responsible and will report. All deliverables provided by the Contractor under this project must be reviewed, approved and signed off by CEPA Senior Management and UNDP Technical Specialist as being fully accepted by CEPA. After this process is completed, a milestone payment will be made accordingly. The National Project Director and Project Technical Specialist will approve and provide the certificate of acceptance of output.

Reporting Requirements

The consultant/s will report to the UNDP Project Technical Specialist on a day-to-day basis and will liaise closely with CEPA Policy Senior Officer and GIS Manager who serves as the National Project Director. The consultant is required to provide monthly updates to UNDP and CEPA. With the support of the UNDP Project Technical Specialist and National Project Director, the consultant/s will also work in collaboration with other units in CEPA.

6. REQUIREMENTS FOR EXPERIENCE AND QUALIFICATIONS

The following is recommended however the contractor is free to recommend the best team composition which suits the requirements of this TOR. The following are the minimum qualifications that would be used to assess the team members:

Academic Qualifications:

University degree on GIS, environmental management, database management or related field

Years of experience:

- 5 years of project & team management experience;
- 5 years of experience in the development of information databases and IT systems;
- 2 years of experience with UN(DP) or other multilateral/bilateral agencies, preferably in Asia-Pacific region.

Competencies and special skills requirement:

- Effective and timely coordination with different stakeholders
- Proven ability to deliver quality output working under tight deadlines
- Ability to work independently and resolve issues, but also to work as part of the CEPA/UNDP team
- Excellent command of English

7. EVALUATION METHOD AND CRITERIA

Cumulative analysis

The proposals will be evaluated using the cumulative analysis method with a split 70% technical and 30% financial scoring. The proposal with the highest cumulative scoring will be awarded the contract. Applications will be evaluated technically and points are attributed based on how well the proposal meets the requirements of the Terms of Reference using the guidelines detailed in the table below:

When using this weighted scoring method, the award of the contract to 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 a pre-determined set of weighted technical and financial criteria specific to the solicitation.

* Technical Criteria weighting; 70%

* Financial Criteria weighting; 30%

Only candidates obtaining a minimum of 49 points in the Technical Evaluation would be considered for the Financial Evaluation. Interviews may be conducted as part of technical assessment for shortlisted proposals.

Criteria	Points	Percentage
Qualification		10%
University degree on GIS, environmental management, database management or related field	10	
Experience		55%

• 5 years of project & team management experience;	20	
• 5 years of experience in the development of information databases and IT systems;	20	
• 2 years of experience with UN(DP) or other multilateral/bilateral agencies, preferably in Asia-Pacific region	15	
Competencies		5%
• Effective and timely coordination with different stakeholders	2	
• Proven ability to deliver quality output working under tight deadlines	1	
• Ability to work independently and resolve issues, but also to work as part of the CEPA/UNDP team	1	
• Excellent command of English	1	
Technical Criteria		70%
**If necessary interviews shall also be conducted as part of the technical evaluation to ascertain best value for money.		
Financial Criteria – Lowest Price		30%
Total		100%

Documents to be included when submitting Consultancy Proposals

The following documents may be requested;

- Duly executed **Letter of Confirmation of Interest and Availability** using the template provided by UNDP;
- Signed P11**, 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;
- Brief description** of why the individual considers him/herself as the most suitable for the assignment, and a methodology, if applicable, on how they will approach and complete the assignment. A methodology is recommended for intellectual services, but may be omitted for support services;
- Financial Proposal** that indicates the all-inclusive fixed total contract price, supported by a breakdown of costs, as per template provided. If an Offeror is employed by an organization/company/institution, and he/she expects his/her employer to charge a management fee in the process of releasing him/her to UNDP under Reimbursable Loan Agreement (RLA), the Offeror must indicate at this point, and ensure that all such costs are duly incorporated in the financial proposal submitted to UNDP. **The financial proposal must be submitted separately from other documents.**

The P11 form and Template for confirming availability and interest is available under the procurement section of UNDP PNG website (www.pg.undp.org).

Lump-sum contracts

The financial proposal shall specify a total lump-sum amount, and payment terms around specific and measurable (qualitative and quantitative) deliverables (i.e. whether payments

fall in instalments or upon completion of the entire contract). Payments are based upon output, i.e. upon delivery of the services specified in the TOR. In order to assist the requesting unit in the comparison of financial proposals, the financial proposal will include a breakdown of this lump-sum amount (including travel, living expenses, and number of anticipated working days).

Travel

All envisaged travel costs must be included in the financial proposal. This includes all travel to join duty station/repatriation travel. In general, UNDP should 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 case of unforeseeable travel, payment of travel costs including tickets, lodging and terminal expenses should be agreed upon, between the respective business unit and Individual Consultant, prior to travel and will be reimbursed.

Incomplete proposals may not be considered. Failure to submit these documents may result in disqualification of proposal.

Relevant templates can be obtained from the UNDP PNG website under the procurement section: www.pg.undp.org

Completed proposals should be submitted to tirnesh.prasad@undp.org, no later than 4th August, 2016.

For any clarification regarding this assignment please write to Tirnesh Prasad on tirnesh.prasad@undp.org

Women candidates are encouraged to apply.