Terms of Reference

International Consultant on agricultural mapping assessment in Papua New Guinea

Project Title: REDD+ Readiness project – Forest carbon Partnership Facility
Type of Contract: Individual Contract
Duration: 50 days over three months from May – August 2016
Location: Port Moresby
Application Deadline: May 11, 2016

Please note that UNDP is not in the position to accept incomplete applications - please make sure that your application contains all details as specified below in this notice.

1. PROJECT DESCRIPTION

As part of the REDD+ readiness development process Papua New Guinea (PNG) must consider a number of approaches to addressing the drivers of deforestation and forest degradation and strengthening land use management. Previous analyses of deforestation and forest degradation have highlighted the role of both agriculture and logging as key drivers.

Deforestation has occurred through the conversion of primary and degraded forest-land into cropland by commercial companies or smallholders (many also containing cash crops). These drivers, along with others, are estimated to have resulted in over 4 million hectares of deforestation over the 30 years prior to 2009. Increasing demand for agricultural commodities, palm oil in particular, is likely to see levels of land use conversion rise, with the 4 million hectares approved for conversion under Special Agriculture and Business Lease (SABL) agreements between 2003 and 2010 providing a clear indication of the demand for land. Rapid increases in land clearance for agriculture are also likely given the increasing domestic (linked to a population growth rate of 2%) and global demand for agricultural commodities, and the relatively limited area, just 8.4%, of land currently dedicated to agriculture in a country where over 30% is estimated to be suitable for cultivation.

Agriculture is a mainstay of the PNG economy and represents an important area for economic growth and stability. The sector accounted for 19% of total exports and 25% of GDP in 2010, as well as forming a major part of the rural economy on which 80% of the population directly depend. As such there is a need to ensure that continued agricultural development not only supports economic growth and poverty alleviation, but is...
also socially and environmentally sustainable. This is particularly important if the country is to meet its objectives under the Vision 2050 development strategy, including that of becoming carbon neutral by 2050.

UNDP Country Office in PNG is therefore seeking a potential International Consultant to develop a model of future commercial agricultural expansion within PNG based on historical trends and key variables that can be used to help guide policy decisions with regard to agricultural development and forest management.

Within this the assignment should identify data needs and contribute to strengthening systems for collection and analysis of data within PNGFA and the CCDA to improve its applicability for modeling future change in forest cover specifically with relation to agriculture. Conduct an analysis of historic rates of deforestation related to commercial agriculture and to develop model(s) to predict future change under a number of scenarios.

The work will be undertaken in close collaboration with PNGFA and the CCDA within the government of PNG as well as programs providing support to the these bodies including JICA support to PNGFA and FAO’s support to PNGFA through the UN-REDD Programme. It will also work closely with other consultants working within the FCPF project specifically the team working on commercial agricultural policy considerations.

2. **SCOPE OF WORK**

Under overall supervision of FCPF REDD+ Readiness Project Chief Technical Advisor and technical guidance of UNDP REDD+ team in Regional Hub in Bangkok, as well as in close collaboration with relevant stakeholders, the consultant will lead in the undertaking of the following activities, with exact approach to be finalized during the inception phase of the assignment based on discussions between the consultant and in country team.

- **ASSESSMENT AND PLANNING:**

A range of data is already available on the status of PNG’s forests and the impacts of agriculture within them from both international and domestic sources with further work planned to assess historical drivers of forest cover change at the national level (PNGFA/FAO under UN-REDD) and to develop improved information on forest degradation from logging (PNGFA/JICA). Additional information on potential policy approaches is also being collected through the FCPF project reviewing potential approaches to agricultural commodity development guidelines for PNG.

Based on this assessment the consultant will design an approach to modeling forest cover change resulting from the expansion of commercial agriculture and provide recommendations on:

- Additional information that should be included within national assessments of land use change, as necessary;
- Additional parameters that may be of value for collection within other studies;
- Data required to develop an historical assessment of forest cover change from commercial agriculture and the geographical areas that this should focus on.

- **DATA COLLECTION,** including:

Identification of stakeholders in possession of relevant datasets, including GIS shapefiles, databases, spreadsheets and metadata and work with the national consultant team as well as project partners to obtain access to it;

- Collation of relevant datasets;
- Gap-filling of datasets including through shapefile creation, as necessary;

- **DATA ANALYSIS OF HISTORICAL TRENDS SINCE 1999:**
  Development of a historical assessment of commercial agriculture expansion and impacts on forest areas. This can be based on existing mapping work undertaken by PNGFA and other partners and will focus on identifying a number of target provinces (at least three provinces are anticipated) in which to review past levels of commercial agricultural expansion and its impacts on forest cover. It is anticipated that this approach will utilize a combination of Hansen forest loss data and assessment using collect earth to identify ‘areas of interest’ in forest loss and then identify what drivers have been at work and their relation to commercial agriculture.

- **DEVELOPMENT OF A MODEL OF POTENTIAL LEVELS OF COMMERCIAL AGRICULTURAL EXPANSION IN PNG**
  Based on planning done during phase 1, develop a model to project potential expansion trajectories of commercial agriculture in PNG. It is anticipated that this model will utilize core biophysical parameters to identify areas that are feasible for development (species habitat envelopes) and will then utilize information on the economic and infrastructure variables combined with information on potential policy recommendations relating to commodity sustainability standards to develop three scenarios for commodity expansion in the country.

- **SUBMISSION OF FINAL PRESENTATION AND DATA SETS**
  Findings from the assessment should be presented to key stakeholders in PNG along with a final report and access to all data and modeling information.

### 3. EXPECTED OUTPUTS/DELIVERABLES

The International Consultant will deliver the following outputs:

<table>
<thead>
<tr>
<th>Deliverables/ Outputs</th>
<th>Estimated Duration to Complete</th>
<th>Target Due Dates</th>
<th>Certifying/Authorizing officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Inception report outlining approach to assignment and proposed modeling approach to include assessment of data availability and requirements;</td>
<td>5 days (home-based)</td>
<td>15 May 2016</td>
<td>FCPF CTA</td>
</tr>
<tr>
<td>• Spatial and quantitative assessment of past rates of deforestation resulting from agricultural commodity expansion;</td>
<td>15 days (5 days in-country; 10 days home-based)</td>
<td>20 June 2016</td>
<td>FCPF CTA</td>
</tr>
<tr>
<td>• Draft report outlining initial modeling findings and key parameters affecting rates of change in agricultural commodity expansion;</td>
<td>10 days (Home-based)</td>
<td>15 July 2016</td>
<td>FCPF CTA</td>
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4. INSTITUTIONAL ARRANGEMENTS

The work will be undertaken over period of May - August 2016, with the international consultant undertaking at least two visits to PNG. The international consultant will conduct a small inception workshop to discuss the draft report on stakeholders’ participation with key stakeholders at the national level and will follow this with further stakeholder consultations.

Following the development of a draft final report the consultant will also conduct a validation workshop to present findings and gather final feedback on their recommendations.

The International Consultant will be accompanied by National Experts who will provide necessary support during the assignment.

The International Consultant will provide reports according to Section 3 of the ToR “Expected outputs and deliverables”.

The FCPF project management unit (PMU) will provide support to the consultant with regard to logistics when in PNG, including introductions to key stakeholders and organization and financing of workshops. The consultant will be responsible for her/his own transport within Port Moresby.

5. DURATION OF THE ASSIGNMENT

The duration of the assignment is 50 days over four months from May to August 2016. In accordance with expected outputs and deliverables, the International Consultant submits reports to FCPF REDD+ Project Chief Technical Advisor for review outputs, comments, certify approval/acceptance of works afterwards. In case of any delays to achieve the expected outputs, the International Consultant should notify the FCPF REDD+ Chief Technical Advisor in advance to take necessary steps.

6. DUTY STATION

The duty station for this assignment is Port Moresby, Papua New Guinea and Homebased.
7. DEGREE OF EXPERTISE AND QUALIFICATIONS

Education
- Post-graduate degree (MSc or PhD) in modelling of environmental change or related field.

Work experience
- A minimum of 5 years progressive experience in natural resource management, agricultural commodities and the development of computer based models and decision support tool;
- Experience with agriculture commodities and assessing forest cover change;
- Knowledge of commercial agricultural development within developing nations would be an advantage;
- Strong inter-personal skills, in particular, demonstrated team leadership qualities and excellent oral communication skills.
- Experience of PNG and the Pacific is an advantage.

Language requirements
- Fluency in written and spoken English.

8. SCOPE OF PRICE PROPOSAL AND SCHEDULE OF PAYMENTS

In accordance with UNDP IC guidelines, the proposal must include “Lump Sum Amount” approach which is closely linked to deliverables. It must be “all-inclusive” and shall take into account various expenses incurred by the consultant during the contract period (e.g. fee, health insurance, vaccination, office costs and any other relevant expenses related to the performance of services.

All envisaged travel costs must be included in the financial proposal. If duty travels are expected, UNDP will provide the Consultant with the UN’s Daily Subsistence Allowance (DSA) rates prevailing at the time of sourcing, for the duty station and all other cities indicated in the TOR as part of duty travel destinations. This will give the Consultant an indication of the cost of living in a duty station/destination, to aid their determination of the appropriate fees and financial proposal amount, but it does not imply that Offerors are entitled to DSA payment.

The initial payment shall include the actual cost of the IC’s travel to arrive at the designated Duty Station. Such cases therefore imply that the completion of the journey can be considered as one of the deliverables payable upon arrival.

Payments will be made only upon confirmation of UNDP on delivering on the contract obligations in a satisfactory manner.

International Consultant is responsible for ensuring they have vaccinations/inoculations when travelling to certain countries, as designated by the UN Medical Director. Consultants are also required to comply with the UN security directives set forth under dss.un.org

9. APPLICATION PROCEDURES

Qualified candidates are requested to apply by May 11, 2016 by sending their application packages to registry.pg@undp.org with the subject line “FCPF REDD+ International Consultant on agricultural mapping assessment in PNG”.

1 Individuals on IC are not UN staff are therefore not entitled to DSAs. All living allowances required to perform the demands of the TOR must be incorporated in the financial proposal, whether the fees are expressed as daily fees or lump sum amount.
The application should contain:

- **Cover letter** explaining why you are the most suitable candidate for the advertised position and a **brief methodology** on how you will approach and conduct the work (if applicable). Please paste the letter into the "Resume and Motivation" section of the electronic application.

- **Filled P11 form** including past experience in similar projects and contact details of referees, please upload the P11 instead of your CV.

- **Financial Proposal*** - specifying a total lump sum amount for the tasks specified in this announcement. The financial proposal shall include a breakdown of this lump sum amount (number of anticipated working days – in home office and on mission, travel – international and local, per diems and any other possible costs). For more details, please see Section 8. “Scope of Price Proposal and Schedule of Payments”.

**Note: Incomplete applications will not be considered. Please make sure you have provided all requested materials.**

10. EVALUATION OF APPLICANTS

Applicants will be evaluated based upon the offer which gives the best value for money based on the Lump Sum proposal submitted, selected by the UNDP PNG Country Office.

The Technical and the Financial Proposal submitted to by the International Consultant will be evaluated on the basis of the weight of the technical criteria [70] and of the financial proposal [30]. The evaluation will be performed in two stages:

**Stage One (Technical Evaluation of Proposals).** All Individual Consultants proposals comprising the information/documentation provided will be evaluated to ascertain the suitability of the individual consultants to carry out the assignment. Candidates who obtain the minimum of 49 points of the full mark (70 points) will be considered technically compliant and their financial evaluations will be evaluated thereafter.

**Stage Two (Financial Evaluation).** The financial proposals of all the individual consultants who pass stage one will be evaluated. The maximum 30 points will be allotted to the lowest financial bid, and all other bids shall receive points in inverse proportion to the lowest fee e.g. [30 Points] x [USD lowest] / [USD other] = points for other proposer’s fees

The award of contract shall be based on the individual consultant who receives the highest cumulative score.

**Technical criteria**

The following criteria will be used to evaluate the individual consultants’ technical proposals:

Education – **10 points**

- Post-graduate degree (MSc or PhD) in modelling of environmental change or related field.
Experience – 50 points

- A minimum of 5 years progressive experience in natural resource management, agricultural commodities and the development of computer based models and decision support tool;
- Experience with agriculture commodities and assessing forest cover change;
- Knowledge of commercial agricultural development within developing nations would be an advantage;
- Strong inter-personal skills, in particular, demonstrated team leadership qualities and excellent oral communication skills.
- Experience of PNG and the Pacific is an advantage.

Language Requirements – 10 points

- Fluency in written and spoken English.

Prepared by: ____________________

Mirzohaydar Isoev, FCPF REDD+ Chief Technical Advisor

Approved by: ____________________

Hisashi Izumi, Head of Programme, UNDP PNG Country Office