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TERMS OF REFERENCE (TOR)

GEOGRAPHIC INFORMATION SYSTEMS (GIS) SPECIALIST – INTERNATIONAL CONSULTANT (IC)

A. GENERAL INFORMATION

Services/Work Description: Engagement of a Geographic Information Systems (GIS) specialist to engage and support the existing GIS capacity and facilitate and mentor the process of mapping, gathering, storing, evaluating and uploading the data of climate change interventions into the database, for the three community councils of Lithipeng, Khoelenya and Thaba-mokhele in the Mphahle's hoek district, where the project operates.

Project/Program Title: Reducing Vulnerability from Climate Change in Foothills, Lowlands and Senqu River Basin

Type of Contract: Individual contract – International

Post title: Geographic Information Systems – GIS Specialist

Duty Station: Home based with frequent trips to Lesotho (Maseru and site visits to the project area Mphahle's Hoek)

Duration of Contract: 12 Months

Expected Start Date: Immediately after signing the contract

B. BACKGROUND AND PROJECT DESCRIPTION

The Lesotho UNDP Country Office and the the Ministry of Forestry, Range and Soil Conservation (MFRSC) of the Government of Lesotho are implementing a five-year (2015-2020) GEF-financed project “**Reducing vulnerability from climate change in Foothills, lower Lowlands and Senqu River**”. The objective of the project is to mainstream climate risk considerations into the Land Rehabilitation Programme of Lesotho for improved ecosystem resilience and reduce vulnerability of livelihoods to climate shocks. The project is supporting the integration of climate change adaptation into national and sub-national land use planning and decision-making.

Climate change – including rising temperatures and a greater frequency of droughts and extreme rain events – are negatively affecting local communities living in rural parts of Lesotho. The fragile mountain ecosystems of Lesotho provide a range of benefits that increase the resilience of such communities to climate change. These include regulating services such as storing and retaining water as well as mitigating floods. However, these ecosystems are characterised by widespread degradation because of unsustainable land management and exploitation of natural resources. The effects of this ecosystem degradation in Lesotho include loss of vegetative cover and extreme soil erosion. Such effects reduce the capacity of these ecosystems to protect vulnerable communities from the increasingly negative impacts of climate change that are threatening their livelihoods.

The preferred solution to the climate change problem facing Lesotho is to strengthen the resilience of climate-vulnerable communities by: i) enhancing the capacity of government institutions and local communities to mainstream climate change risks into policies, plans and programmes; ii) implementing climate-smart ecosystem rehabilitation and management measures using a community/household based approach; and iii) establishing a system for monitoring and evaluating the effectiveness of various approaches to climate change adaptation to inform a process of adaptive management.

The project is being implemented in Southern Lesotho in Mphahle's Hoek District, specifically in the three Community Councils of Lithipeng, Khoelenya and Thaba Mokhele. These community councils have been selected because they provide a continuous stretch of the Lowlands, Foothills and Senqu River Valley. The approach for selecting participating villages was watershed/catchment-based, in accordance with on-going criteria utilised by the MFRSC in selecting participating communities in the Land Rehabilitation Programme.

The technical staff of the MFRSC and relevant departments of line ministries, land managers and communities have received / are receiving different forms of training on climate change adaptation, climate science and planning, implementation, monitoring, evaluation and management of ecosystems. There is also a socio-economic unit (SEU), that has been established whose role is to consider social capital issues in the selection of interventions.

Project Goal, Objective and Outcomes

The project Goal is to ensure that by 2021 Lesotho adopts environmental management practices that promote a low-carbon, climate-resilient economy and society, sustainably manages natural resources and reduces vulnerability to disasters.

Project objective: To mainstream climate risk considerations into the Land Rehabilitation Programme of Lesotho for improved ecosystem resilience and reduced vulnerability of livelihoods to climate shocks.	
Outcomes	Outputs
Outcome 1: Increased technical capacity of the Ministry of Forestry, Range and Soil Conservation and relevant Departments to apply up-to-date climate science for the	Output 1.1: A geo-based climatic agro-ecological and hydrological information system to support better planning for climate change adaptation under the Land Rehabilitation Programme established.

management of evolving risks and uncertainty linked to climate change.	<p>Output 1.2: Socio-economics unit in the Ministry of Forestry, Range and Soil Conservation strengthened.</p> <p>Output 1.3: Assessment of climate-driven vulnerability in the Lithipeng, Khoelenya and Thaba-Mokhele Community Councils and cost-benefit analysis of specific adaptation interventions conducted.</p> <p>Output 1.4: Technical guidelines for climate change adaptation interventions developed and implemented.</p> <p>Output 1.5: Training of engineering, planning and monitoring sections of the Ministry of Forestry, Range and Soil Conservation on climate science designed and implemented.</p> <p>Output 1.6: A strategy for maintaining technical capacity in the Ministry of Forestry, Range and Soil Conservation and relevant departments developed and implemented.</p>
Outcome 2: Communities empowered with skills, knowledge, partnerships and institutions for managing natural resources to reduce vulnerability to climate change and increase resilience of natural and social capital (over 7000 households with potential for up scaling to cover 20,000).	<p>Output 2.1: Training of technical staff of the District Technical Teams, Community Council staff and land managers on restoring and managing ecosystems and agro-ecological landscapes in a climate-smart manner designed and implemented.</p> <p>Output 2.2: Local community members from the Lithipeng, Khoelenya and Thaba-Mokhele Community Councils trained on the construction and maintenance of climate-smart ecosystem rehabilitation and management interventions.</p> <p>Output 2.3: Inter-council and rehabilitation committees established in the Lithipeng, Khoelenya and Thaba-Mokhele Community Councils.</p>
Outcome 3: Over 50,000 hectares of land across the Foothills, Lowlands and the Lower Senqu River Basin rehabilitated through operationalization of the climate-smart Land rehabilitation programme.	<p>Output 3.1: Climate-smart ecosystem rehabilitation and management interventions in the Lithipeng, Khoelenya and Thaba-Mokhele Community Councils completed.</p> <p>Output 3.2: A long-term strategy for monitoring and evaluating climate-smart ecosystem restoration and management interventions using grass cover as a proxy for rangeland productivity established at the Ministry of Forestry, Range and Soil Conservation and relevant departments.</p>
Outcome 4: National strategies for rangelands and wetlands management strengthened by the integration of climate change/variability and ecosystem management.	Output 4.1: Policy guidelines for incorporating climate science in the review/formulation processes of national sectoral strategies by the Departments of Rangelands Management and Water Affairs produced and disseminated.
Outcome 5: NSDP mainstreamed into local development strategies to support the constituency-wide adoption of the climate smart land rehabilitation programme.	<p>Output 5.1: Strategy for improved coordination between regional and district development teams to reduce vulnerability to extreme climatic events in the Foothills, Lowlands and the Lower Senqu River Basin developed.</p> <p>Output 5.2: Revised local policies across productive sectors – agriculture, infrastructure and rural development with identified best practices and budgets for climate-smart interventions produced and disseminated.</p>

	<p>Output 5.3: Policy recommendations for the integration of climate risk considerations in the Lithipeng, Khoelenya and Thaba-Mokhele Community Councils' development plans, as well as the Mohale's Hoek District development plan implemented.</p> <p>Output 5.4: Training on climate-resilient construction, climate-smart land uses, climate-smart water resource planning, and climate risk management designed and implemented for staff of structural engineering unit, urban and rural infrastructure planning units, local authorities, district planning units, Ministry of Development Planning, and teaching staff from technical colleges and vocational training institutes.</p> <p>Output 5.5: Best practices and documentation on climate-smart land management in the Lithipeng, Khoelenya and Thaba-Mokhele Community Councils disseminated through existing national and international platforms.</p>
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Context of the Required Service for the assignment

Outcome 1 seeks to increase technical capacity of the staff of MFRSC and relevant Departments to apply up-to-date climate science for the management of evolving risks and uncertainty linked to climate change; and output 1.1 is about the establishment of a geo-based climatic agro-ecological and hydrological information system to support better planning for climate change adaptation under the Land Rehabilitation Programme.

The project has established a GIS team whose task is to measure and monitor land degradation issues and as well map the project interventions across the project area. The team did receive some training at the beginning of the project. As part of capacity building efforts by the project, staff from Government Departments were capacitated on GIS and the participant were exposed to a variety of GIS tools and functionality from creating basic maps by adding a variety of layers to undertaking useful analysis of spatial data. However, with staff movement and rotation and also lack of practice, this important aspect of the project has been compromised.

As such UNDP Lesotho is planning to engage a consultant to further build the capacity of and support the GIS team to effectively monitor and map all the project interventions in the three community councils, and to provide mentorship and support to GIS team field missions to ensure that they collect and store spatial data appropriately. In addition to collecting data, they need support and training in the correct storage of the data, its analysis and in the compilation of M&E reports. Such report will then be uploaded in the data base for public access. Therefore, the project seeks to procure the services of a GIS consultant who shall assist the Government and the Project (RVCC) with those aspects of Project Outcomes 1, 2 and 3 that require GIS support.

C. SCOPE OF THE WORK

The overall scope of the consultancy is to assess the trainings that were conducted in the previous assignment (with reference to the GIS Mapping Technical Report and Land Degradation Monitoring Programme), conduct Capacity Needs Assessment (CNA), develop training plans and conduct training. The consultant will also be required to support the GIS team to collect, store and evaluate data on project interventions and to produce maps, reports and spatial products that can be uploaded in the data base/storage tool. The Lesotho Land Cover Atlas is another important tool that should be used. It will also be required of the consultant to compile a policy brief towards the end of their contract in which recommendations are made in relation to the collection, storage and evaluation of spatial data related to climate change resilience interventions.

Specific tasks

- Assessment of GIS capacity – engage with the GIS Team to fully understand their responsibilities towards the RVCC project both now and into the future and identify the gaps in terms of skills, hardware and software.
- Compile and implement a capacity development programme – on the basis of the gaps identified, compile and implement a capacity development programme that includes the development of GIS skills; including off-the-shelf data collection and analysis tools (e.g. KoBo) and the augmentation of technical requirements in terms of hardware and software and work with the project team to ensure that the latter are procured as soon as possible.
- Establish and compile database of all project interventions and; work with and mentor the GIS Team in the collection/gathering, storage/uploading and evaluation/analysis of spatial data necessary to capture all project interventions as well as the monitoring of their effectiveness – this will require sufficient desk top review and field visits to ensure that all project interventions are mapped, measured and assessed from a spatial data perspective and at least twice during the contract, i.e. at a six month interval.
- Provide technical backstopping to project team to map all project interventions and; work with and mentor the GIS Team to produce maps, evaluation/analysis reports and supporting spatial products and uploading in the data base – these reports and spatial products must be produced within the context of the overall project progress reporting requirements and will need to be timed accordingly.
- Compile a policy brief with management recommendations – on the basis of the findings made during the implementation of the contract, the consultant must produce a policy brief with relevant recommendations aimed at ensuring that the progress made is sustained until the end of the project and beyond. This policy brief must also include a summary of the consultants work with the GIS team as a record of their involvement.

Note that the above must take into consideration the data to be developed by the Socio-Economic Team that will need to be georeferenced and therefore need to collaborate with the Team in this regard.

D. EXPECTED OUTPUTS AND DELIVERABLE

Table 1. Deliverables/Milestones

Milestone/Deliverable	Estimated Time Required For Compilation	Target Due Date	Review and Approvals Required (Indicate designation of person who will review output and confirm acceptance)	
Assessment of GIS capacity, compilation and presentation of a workplan and inception report inclusive of a capacity development plan detailing how support will be provided to the GIS Team.	10 days	31 January 2020	Project CTA	Coordinator &
Implementation of GIS capacity skills development plan/training and assistance to the procurement of necessary GIS software and hardware, and the compilation of an interim report providing detail of the capacity development achieved.	10 days	28 February 2020	Project CTA	Coordinator &
Establish and compile database of all project interventions and; work with and mentor the GIS Team in the gathering, storage and evaluation of spatial data necessary to capture all project interventions as well as the monitoring of their effectiveness	40 days	31 March and 30 September 2020	Project CTA	Coordinator &
Provide technical backstopping to project team to map all project interventions and; work with and mentor the GIS Team to produce maps, evaluation reports and supporting spatial products and uploading in the data base	40 days	30 April and 30 October 2020.	Project CTA	Coordinator &
Compile a policy brief with management recommendations	10 days	30 November 2020	Project CTA	Coordinator &

E. INSTITUTIONAL ARRANGEMENT/REPORTING RELATIONSHIPS

The Consultant will report to, and work under the supervision of the Project Coordinator with technical support provided by the Chief Technical Officer (CTA) as maybe required. Overall guidance will be provided by UNDP Lesotho Sustainable Development Specialist and UNDP Lesotho Deputy Resident Representative. The Consultant will be required to

make presentations to the Technical Advisory Committee (TAC) and the Project Steering Committee (PSC) as may be required during the contract.

The Consultants will be expected to utilise their own transportation to and from the project areas as well as stationery etc. They will have access to the PMU offices if necessary and will be supported by the Project Officer in setting up meetings with various stakeholders. The PMU will provide logistical assistance in the setting up of training venues, identifying and liaising with trainees, logistical assistance with in-field training, and the carrying of costs associated with these, i.e. transport, accommodation, catering for trainees and the project team.

F. DURATION OF THE ASSIGNMENT

The consultant is expected to dedicate approximately 110 days over a 12 month period to the whole process, including both home-based and in-country/field work in the project sites, starting January 2020 to December 2020.

G. DUTY STATION

The Contractors will operate from own office base with in-country travel , i.e. Maseru and the project sites in Maseru's Hoek District, for the duration of the assignment and as per the detail provided in deliverables.

H. QUALIFICATIONS OF THE SUCCESSFUL CONSULTANT/S

Educational Qualification and competence of the GIS expert:

- A minimum of first university degree in GIS plus 5 years' experience in GIS.

Experience:

- A minimum of 10 years of extensive and relevant experience of working with GIS and geo spatial data gathering, storage and evaluation.
- At least 5 years' experience in conducting capacity gap assessments, developing training plans and training manuals, and in conducting technical trainings on geo spatial data gathering, storage and evaluation.
- Have good organizational, report writing, presentation, communication and interpersonal skills.
- Experience working with international organizations, including UNDP/GEF, will be an added advantage, as will experience in working in Lesotho and/or similar environments with land degradation and rehabilitation challenges.

- Relevant experience in working with government officials at the technical level, as well as non-state actors.
- Proficiency with various GIS software; specifically ArcGIS.
- A minimum of 5 years of experience on application of GIS in the field of Climate Change, Agriculture Sectors or related field.
- Proven track record in performing similar assignment will be an added advantage.

Language:

Excellent knowledge of both written and spoken English.

- Knowledge of Sesotho would be an added advantage.

Core values to subscribe to:

- Demonstrates integrity by modelling the UN's values and ethical standards;
- Promotes the vision, mission, and strategic goals of UNDP;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability;
- Treats all people fairly without favoritism; and
- Fulfils all obligations to gender sensitivity and zero tolerance for sexual harassment.

I. SCOPE OF PRICE PROPOSAL AND SECHDULE OF PAYMENTS

The prospective consultant will indicate the cost of services for each deliverable in US dollars when applying for this consultancy:

- The proposed price must be a lump-sum contract amount which is an 'all-inclusive package' including duty travel, accommodation and daily subsistence allowances.
- The contract price is fixed regardless of changes in the cost components;
- Payment shall be done after satisfactory completion, submission, delivery and approval of every milestones outlined in the table in Section D above.

Table 2: Payment Schedule

DELIVERABLE/OUTPUT	TARGET DUE DATE	PAYMENT SCHEDULE
Assessment of GIS capacity and the compilation and presentation of an inception report inclusive of a capacity development plan and a work plan detailing how the exercise will be executed and how support will be provided to the GIS Team.	31 January 2020	10%

Implementation of GIS capacity skills development plan/training and assistance to the procurement of necessary GIS software and hardware, and the compilation of an interim report providing detail of the capacity development achieved.	10 days 28 February 2020	10%	
Establish and compile database of all project interventions and; work with and mentor the GIS Team in the gathering, storage and evaluation of spatial data necessary to capture all project interventions as well as the monitoring of their effectiveness	40 days 31 March and 30 September 2020	30%	
Provide technical backstopping to project team to map all project interventions and; work with and mentor the GIS Team to produce maps, evaluation/analysis reports and supporting spatial products and uploading in the data base.	40 days 30 April and 30 October 2020.	30%	
Compile a policy brief with management recommendations	10 days 30 November 2020	20%	

J. Recommended Presentation of Offer

Interested consultants must submit the following documents to facilitate evaluation of their suitability for this assignment:

1. Duly accomplished **Letter of Confirmation of Interest and Availability** using the template provided by UNDP (Annex I);
2. **Personal CV or 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 (Annex II);
3. **Brief description** of why the individual consider themselves as the most suitable for the assignment.
4. **Technical Proposal/methodology**: Provide detailed description and approach, with timelines, of how the assignment will be conducted in relation to the terms of reference and proposal format provided (Annex III).
5. **Financial Proposal** that indicates the all-inclusive fixed total contract price, supported by a breakdown of costs, as per template provided (Annex IV).

K. Criteria for Selection of the Best Offer - Cumulative analysis

The award of the contract will be made to the 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 weight (Qualification, Methodology, Experience); 70%

* Financial Criteria weight; 30% (to be computed as a ratio of the proposal's offer to the lowest price among the proposals received by UNDP)

Only candidates obtaining a minimum of 70 points in the technical evaluation will be considered for the Financial Evaluation as per evaluation criteria in table below:

Table 3: DETAIL EVALUATION CRITERIA

Criteria	Total	point 100
<i>Technical</i>	70%	
Qualification		
A minimum of first university degree in GIS plus 5 years' experience in GIS.	10%	
Methodology:	15%	
Experience:		
A minimum of 10 years of extensive and relevant experience of working with GIS and geo spatial data gathering, storage and evaluation.	5	
At least 5 years' experience in conducting capacity gap assessments, developing training plans and training manuals, and in conducting technical trainings on geo spatial data gathering, storage and evaluation.	5	
Have good organizational, report writing, presentation, communication and interpersonal skills.	5	
Experience working with international organizations, including UNDP/GEF, will be an added advantage, as will experience in working in Lesotho and/or similar environments with land degradation and rehabilitation challenges.	5	
Relevant experience in working with government officials at the technical level, as well as non-state actors.	5	
Proficiency with various GIS software; specifically ArcGIS.	5	
A minimum of 5 years of experience on application of GIS in the field of Climate Change, Agriculture Sectors or related field.	5	
Proven track record in performing similar assignment will be an added advantage.	5	
Fluent in English.	5	
<i>Financial</i>	30%	
Total – technical + financial (70% + 30%)	100	

L. CONFIDENTIALITY AND PROPRIETARY INTERESTS

The Individual Consultant shall not either during the term or after termination of the assignment, disclose any proprietary or confidential information related to the consultancy service without prior written consent. Proprietary interests on all materials and documents prepared by the consultants under the assignment shall become and remain properties of UNDP.

M. Annexes to the TOR

Annex 1- Duly accomplished **Letter of Confirmation of Interest and Availability** using the template provided by UNDP;

Annex 11- **Personal CV or 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;

Proposals with the requirements listed above may be submitted to:

United Nations Development Programme.

The Resident Representative.

REF:-IC; Geographic Information Systems Specialist

3rd Floor UN House.

P.O. Box 301

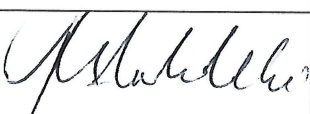


MASERU, LESOTHO.

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Only short-listed contractors will be responded to.

This TOR is:

	Prepared by:	Endorsed by:	Approved By:
Name	Lebone Molahlehi	Limomane Peshoane	Maseithati Mabeleng
Designation	Project Coordinator	Sustainable Development Specialist	PS – Ministry of Forestry, Range and Soil Conservation
Signature			
Date	12-12-19	12/12/2019	12/12/2019