



TERMS OF REFERENCE

ICLEI Africa - Local Governments for Sustainability

ICLEI Africa seeks a professional service provider to conduct geospatial mapping within the framework of the 100% Renewables Cities and Regions Roadmap project in Kisumu County, Kenya

19 March 2021

Bids due: 19 April 2021

Email bids and technical queries to Ms. Nachi Majoe: nachi.majoe@iclei.org
and copy Mr. Takunda Mambo: takunda.mambo@iclei.org and Ms. Carine Buma:
carine.buma@iclei.org

Please indicate interest for submitting a bid and any queries by 02 April 2021, so responses to queries may be shared with all bidders.

Bids will still be accepted if interest is not indicated, but bidders must accept that they may not have received the responses to questions other bidders may have received.

ICLEI Africa reserves the right not to appoint a service provider in relation to this Terms of Reference.



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As part of the 100% Renewables Cities & Regions Roadmap (100% RE) project, ICLEI Africa seeks the services of an expert to support the County Government of Kisumu with the development of land use and land cover data which will contribute to estimating renewable energy potential in the County and provide an overview of areas which can be considered for renewable energy project development in the future. The service provider is expected to only undertake work indicated within this Terms of Reference.

1. BACKGROUND

The 100% Renewables Cities & Regions Roadmap project (100% RE) project is a global initiative supporting national and local level governments to promote a move towards 100% renewable energy strategies in Kenya, Indonesia and Argentina. The 100% RE project works with cities (counties in Kenya's context) and regions in these focus countries to build a path for cities to finance and implement renewable energy projects, through the assessment of local renewable energy potential and project concepts, as well as the development of financeable projects.

Of the three selected counties, the County Government of Kisumu is the 'deep dive/pilot' while the County Governments of Mombasa and Nakuru are the 'network' counties. As the deep dive city, the County Government of Kisumu is receiving focused attention; particularly on capacity building, development of a roadmap to identify pathways for expanding its renewable energy generation, and promotion of renewable energy policies and related strategies; with the goal of meeting all local energy demands in households and industry through renewables. An outcome of this process will include the County Government of Kisumu receiving advice on the development of 1 to 3 bankable projects that contribute to the achievement of local 100% RE strategies, considering the funding criteria of potential funding institutions.

In order to develop the strategy towards 100% renewable energy and identify the bankable projects, the County Government of Kisumu will receive support from ICLEI Africa and the Fraunhofer Institute for Solar Energy Systems (ISE) to develop energy demand scenarios, the assessment of renewable energy potential and the modeling of cross-sectoral energy scenarios based on 100% renewable energy sources. The data required in this Terms of Reference will serve as the basis for such a model. Furthermore, the dataset will assist County officials and project developers to identify areas around Kisumu County which can be considered for various RE projects based on the various vegetation land cover types, while also assisting with other development practices in the county such as infrastructure planning as part of the 100% RE Roadmap process.

2. KEY PRINCIPLES

The service provider is required to work in close collaboration and under supervision of the ICLEI Africa team in adherence to the following key principles:

- To work under the support and guidance of ICLEI Africa and the County Government of Kisumu.
- Ensure coordination and collaboration with other implementing partners supporting 100% RE project activities, including Fraunhofer ISE.

3. OBJECTIVES AND DELIVERABLES

The objective of the assignment is to develop shapefiles of various land cover and land use types across Kisumu County using image classification and digitization. The data generated will serve as input for the elaboration of models of the county's energy system and, therefore, must present detailed information on the various land uses and land covers across Kisumu County. In order to meet the requirements of this Terms of Reference, the appointed service provider is expected to undertake the following deliverables:

Deliverable 1: Shapefile(s) of land use and land cover types in Kisumu County



- Shapefiles(s) should include the following land covers as part of the classification scheme:
 - Forest cover
 - Shrubs: Woody perennial plants with persistent and woody stems and without any defined main stem being less than 5 m tall. The shrub foliage can be either evergreen or deciduous.
 - Herbaceous vegetation: Plants without persistent stems or shoots above ground and lacking definite firm structure (tree and shrub cover would be expected to be less than 10%).
 - Herbaceous wetland: Lands with a permanent mixture of water and herbaceous or woody vegetation. The vegetation can be present in either salt, brackish, or fresh water.
 - Bare/sparse vegetation: Lands with exposed soil, sand, or rocks and never has more than 10% vegetated cover during any time of the year.
 - Cultivated and managed vegetation/agriculture (cropland): Lands covered with temporary crops followed by harvest and a bare soil period (e.g. Single and multiple cropping systems). Note that perennial woody crops will be classified as the appropriate forest or shrub land cover type.
 - Urban/built up: Land covered by buildings and other manmade structures.
 - Permanent water bodies, lakes, reservoirs, rivers: Can be either fresh or salt-water bodies
- The service provider should use the coordinate reference system (CRS) WGS 84 to develop the shapefile(s) and save these for the final output.

Deliverable 2: Succinct report of the methodology and tools used to develop the shapefile

- The service provider should provide a succinct report (maximum 5 pages) detailing the methodology, tools and processes used to develop the shapefiles, and any other verification methods incorporated.

4. PROJECT MEETINGS AND REPORTING

Communications between ICLEI Africa and the service provider will be throughout the assignment to allow for a close working relationship. The following key project meetings will be held using a remote platform such as Zoom or similar:

- Inception and briefing meeting: where the process, method and outputs will be discussed and agreed.
- Mid-assignment update meeting: to provide progress on the tasks and quality check.
- Close out meeting: to discuss the assignment in full and finalise any outstanding matters.

5. BUDGET

It is envisioned that this assignment will require 15 days to complete.

The service provider is required to submit a detailed budget clearly demonstrating the tasks to be undertaken including hourly/daily rate and the total cost thereof as well as the number of consultants (if applicable) and the number of hours/days per consultant.

6. SERVICE PROVIDER REQUIREMENTS

- Proposals may be submitted by an individual or a group of individuals (as a consortium).
- The service provider must demonstrate experience working with national and sub-national governments in Africa (Kenya and/or County Government of Kisumu will be an added advantage)
- The service provider may be based anywhere, however preference will be given to Kenyan-based service providers.
- The service provider must demonstrate experience (e.g. proof of previous assignments and/or contactable references) in completing similar projects in Africa, in particular in remote sensing and geospatial analysis.
- Ability to access the relevant information required for the completion of the activities.



- The service provider must have access to required satellite imagery, remote sensing and GIS software (e.g. Earth Resources Data Analysis System (ERDAS IMAGINE), ArcGIS, and Environment for Visualizing Images (ENVI)).
- The service provider must have demonstrated skills in managing projects timeously and producing high quality outputs within short delivery periods.
- The service provider must be able to supply accurate and comprehensive financial records of project-related expenses to ICLEI Africa.
- The appointed consultant or team lead must have a Master’s Degree in Environmental Sciences or Geography with a specialisation in GIS and/or Remote Sensing or a Masters in GIS and/or Remote Sensing.

7. EVALUATION CRITERIA

Bids will be evaluated on the response to the Terms of Reference, Qualifications/Skills, Demonstrated Experience, Methodology proposed, Budget, and, if a South Africa service provider: B-BBEE Criteria.

8. SUBMISSION PROCESS AND TIMELINE

The project may be active for a maximum of 3 weeks, starting on 26 April 2021 and culminating on 14 May 2021.

- 19 March 2021: Terms of Reference released
- 19 April 2021: Proposal submission closing date
- 26 April 2020: Service provider appointed
- 14 May 2021: Close-out meeting and final payment processed

9. SUPPORT TO BE PROVIDED

The following services and resources will be provided by ICLEI Africa:

- Contact details: ICLEI Africa will provide the service provider with an introduction to stakeholders in Kenya and Kisumu County, including project partners and government officials, as is required.
- Base shapefile: ICLEI Africa will provide a base shapefile or template for the service provider to use which details the resolution and level of detail required.
- Dedicated staff and timely feedback: ICLEI Africa will designate a focal person to serve as direct point of contact for all issues related to this assignment and shall strive to provide timely responses to service provider inquiries.

10. ACCESS TO DATA AND INTELLECTUAL PROPERTY

For the purposes of this assignment some data has to be collected, but this will need to be finalised in consultation with key stakeholders. All data used (that is not available from a public and/ or open source platform) and related outputs produced are confidential and not to be shared without written permission of ICLEI Africa and the relevant government representative(s). On completion of the contract, the intellectual property of all outputs will be transferred to ICLEI Africa.

11. SUBMISSION PROCESS

Kindly submit your proposal, budget, supporting documents and curriculum vitas to Ms. Nachi Majoe at nachi.majoe@iclei.org and copy Mr Takunda Mambo and Ms Carine Buma at takunda.mambo@iclei.org and carine.buma@iclei.org respectively. Submissions should be made by 16:00 (SAST) on 19 April 2021.

Please use the subject line: ‘Service Provider: Geospatial Mapping Kisumu County, Kenya’ when submitting your proposal. When submitting your proposal, please include the following information:

- 1) Proof of all requirements for this work.
- 2) For South African-based service providers only, provide proof of status for preferential procurement:



- a) If the service provider is based in South Africa, a B-BBEE certificate must be provided.
- b) If the service provider is based in South Africa and has an annual turnover of less than R10 million and/or does not have a B-BBEE certificate, a completed and signed sworn affidavit must be provided.
- 3) Work plan and related budget in Euros. Each deliverable should be unpacked to include the following information:
 - a) An outline of the team working on each deliverable including staff rates and number of hours/ days per staff member declared against deliverables.
 - b) Total number of hours/ days assigned to each task
 - c) Approach and methodology
- 4) Curriculum vitae of the service provider and/ or each team member of service providers.
- 5) Company profile (if relevant).
- 6) Risk matrix and mitigation measures (including in light of COVID-19).

ICLEI AFRICA RESERVES THE RIGHT NOT TO APPOINT A SERVICE PROVIDER IN RELATION TO THIS TERMS OF REFERENCE.

If you have not heard from ICLEI Africa by 30 April 2021, please note that either ICLEI Africa has decided not to appoint a service provider for this piece of work, or you have been unsuccessful in your application.

For more information on ICLEI Africa see: <http://africa.iclei.org/> and <https://africa.iclei.org/project/towards-100-re/>.

For more information on the 100% Renewables Cities and Regions Roadmap project see: <https://renewablesroadmap.iclei.org/>.