



UNITED NATIONS
UNIVERSITY

INTERNATIONAL RECRUITMENT (Home based or in Beira, Mozambique)

VACANCY ANNOUNCEMENT

GIS ANALYST for a Study on the Effects of Climate and Urbanization on Water Resources in Mozambique (Consultant Contract - CTC)

Organizational Unit : United Nations University Institute for Integrated Management of Material Fluxes and of Resources (UNU-FLORES)

Reference Number : 2013/UNU/FLORES/CTC/GISS/WRM/63

Applications to : hrflores@unu.edu

Closing Date : 13 October 2013

United Nations University Objectives:

The UNU is an international community of scholars engaged in research, postgraduate training and the dissemination of knowledge in furtherance of the purposes and principles of the United Nations, its Peoples and Member States. The University functions as a think tank for the United Nations system, contributes to capacity building, particularly in developing countries, and serves as a platform for new and innovative ideas and dialogue. For more information please visit <http://unu.edu>.

United Nations University Institute for Integrated Management of Material Fluxes and of Resources (UNU-FLORES):

The mission of UNU-FLORES is to contribute to the development of integrated and sustainable management strategies for the use of water, soil and waste resources in particular in developing and emerging countries in scientific, educational, managerial, technological and institutional terms. Potential issues of focus include: urban water management, nutrient cycles and budgets, methods for reclamation and rehabilitation of degraded sites, site-specific river-basin scale water management; interaction of land use management and water inventory under differing climate conditions, efficient site-adapted waste management strategies, among others. The Institute will develop innovative concepts for target- and region-specific knowledge transfer as well as appropriate methodologies and approaches for postgraduate and professional education. The Institute is located in Dresden, Federal Republic of Germany. For more information please visit <http://flores.unu.edu>.

Brief Description of the Project:

The city of Beira, located in Central Mozambique between the Indian Ocean and the Pungue river estuarine, forms an economical hub of the southern African region. Beira is considered to be one of the African cities that will be most affected by the increase of heavy rainfall events, the increase in the frequency of cyclones and sea level rise as a result of climate change. In addition to climate change, rapid population growth has induced some people to start new settlements and industrial activities in the wetland areas which were formerly left out from urban development prospects. The city masterplan was revised and large infrastructure projects are underway such as the redesign and re-dimensioning of the pluvial drainage system, the rehabilitation and redesign of the coastal protection system, and the renaturalization and restoration of parts of a river that drained the oldest parts of Beira. In this challenging environment associated with water resources, the project is to evaluate the effects on water resources of local climate, possibly including extreme events, and hydrological patterns as well as the influences of urban development by monitoring selected parameters and elements in local water resources. The project is under the co-supervision of UNU-FLORES and the University of Zambeze (UniZambeze) Centre of Studies, Innovation and Advanced Education (CEIFA), based in Beira, Mozambique.

Responsibilities:

The main objective of the position is to assist in collecting, organizing, processing, and analyzing geospatial data and information and establishing and maintaining a database of geospatial and other non-geospatial data to be used or to be generated in the project housed at the CEIFA at the UniZambeze in Beira, Mozambique through the tasks as follows. The consultant will submit [a] maps in electronic format of watersheds and contributing areas to the actual and potential sampling points; [b] maps in electronic format of landcover/land use categories, including those in city planning, with the identified boundaries of watersheds and contributing areas to the actual and potential sampling points; [c] the data based on the computation of landcover/land use categories in each of watersheds and contributing areas to the actual and potential sampling points; [d] a database framework of geospatial and other non-geospatial data to be used or to be generated in the project; [e] other products related to geospatial data or database to be used in the project requested by the supervisors; and [f] a summary report on the procedures taken to produce these products with the sources of the data and information and the quality assurance measure to ensure data conformity and integrity.

Under the authority of the Director of UNU-FLORES and direct supervision of the Academic Officer-Water Resources Management, who is in collaboration and coordination with the CEIFA, the successful candidate shall undertake the following tasks:

- Create, edit, collect and organize and analyze geospatial data related to land use/land cover in and near the city of Beira, Mozambique, including DEM, etc.;
- Conduct quality assurance and quality control measures to ensure the data conformity and integrity;
- Provide data and support for field work and other project activities, including the assistance to the identification of sampling points, among others;
- Establish a database framework for the data collected or generated for the project and other related work;
- Report the results of data analysis;
- Assist other project personnel in processing geospatial data;
- Perform other tasks as requested by the supervisors.

Required Qualifications and Experience:

- A Master's degree in geography, natural sciences or engineering, computer science or engineering or a related field. Candidates with a Bachelor's degree or education equivalent to four (4) years of college education with a certificate in Geographic Information Systems or a related discipline would also be considered.
- Minimum two (2) years of experience in the use of GIS software application;
- Proficiency in using ESRI software is requested. An additional experience in using Quantum-GIS is a high advantage;
- For a home-based consultant, have access to the necessary software (e.g., the ESRI software, etc.);
- Good experience in establishing or maintaining a database that contain a large data set;
- Good experience in presenting a summary of the activities and discuss with project personnel;
- Working oral and written communication skills in English are required.
- Ability to work within agreed timelines;

Remuneration:

Remuneration will commensurate with qualification and experience of the successful candidate.

Duration of Contract:

The successful candidate shall work remotely under the Consultant Contract (CTC) for a fixed period of two (2) months for the above-mentioned tasks and will not hold international civil servant status nor be a staff member as defined in the United Nations Staff Rules and Regulations.

Applications from suitably qualified woman candidates and those from developing countries are particularly encouraged.

Starting Date: As soon as possible.

Application Procedure:

Interested applicants should submit their applications by email (to hrflores@unu.edu), and must include the following:

- a cover letter setting out how the qualifications and experience match the requirements of the position;
- a curriculum vitae and a completed and signed UNU Personal History (P.11) form downloadable from United Nations University website at <http://unu.edu/about/hr>. Please avoid using similar forms provided by other United Nations organizations;
- full contact information of three (3) referees; and
- an indication of the reference number of the vacancy announcement (2013/UNU/FLORES/CTC/GISS/WRM/63) in the email subject.