



REGIONAL CENTRE FOR
MAPPING OF RESOURCES
FOR DEVELOPMENT



GMES
AND AFRICA

Consultancy on Wind Erosion Modelling using GIS Analysis Tools

Organization: RCMRD

Project: GMES & Africa - East Africa Region

Duration: 2 months

Background

The GMES (Global Monitoring for Environment and Security) & Africa Programme is a joint initiative co-financed by the European Commission and the African Union Commission. The objective of the GMES & Africa Programme is to address the growing needs of African countries to access and use Earth Observation (EO) data for the implementation of sustainable development policies across the continent. The Program, specifically is designed to respond to African needs in water, natural resources, marine and coastal areas as well as address global needs to manage the environment, mitigate climate change and ensure civil security. It is further designed to enable the implementation of the African Space Policy and Strategy, formulated to harness the continent's capabilities in utilizing space science and technology for economic growth and sustainable development.

The RCMRD (Regional Center for Mapping of Resources for Development) is awarded a grant by the African Union Commission (AUC) to implement the GMES & Africa thematic areas focusing on:

1. Land Degradation Monitoring and Assessment
2. Wetlands Monitoring and Assessment and
3. Open Geographic Reference Vector Database for Agro-ecological Zonation and Water.

The program runs in 10 eastern Africa countries, namely: Djibouti, Eritrea, Ethiopia, Kenya, Mauritius, Rwanda, Somalia, South Sudan, Sudan and Uganda.

Overall Purpose

The aim of Wind Erosion Modelling is to assess and analyze the impact of wind on land degradation in the region. This is being achieved by using improved earth observation datasets and improving the methodology that develops the wind model. The information products developed will support policy intervention at regional and national level to support efforts towards land degradation mitigation. Specific objective of the consultancy service is to develop EO based methodology of wind and related erosion analysis in relation to the land degradation monitoring and assessment.

Expected output of the Consultancy is

- Developing Methodology using EOs processing tools
- Developing a prototype model
- Training of GMES staff
- Organizing a workshop and presenting the approaches and results.

Scope of Work

The Consultant/s will be responsible for:

- Developing Methodology and tools for the analysis of wind erosion,
- Developing training materials

- Developing a prototype model,
- Training of GMES staff and
- Organizing a workshop for the staff from Partner, associate and other RCMRD member states for the purpose of information dissemination and technology transfer.

Technical Experiences/Capacity

- Evidence of recent and successful projects in Geoinformation related activities
- Good experience on wind erosion model developing using geoinformation technology
- Solid understanding of the concepts wind erosion modeling and effects in relation to the earth Observation
- Expert knowledge on digital image processing of remotely sensed data using both open and commercial software like QGIS and ArcGIS respectively.
- With a good capacity of technical paper presentation
- With a good experience and capacity of training on the subject.

Core Competencies

- Strong knowledge in the wind erosion modeling ability to understand complex problems and to deliver appropriate solutions.
- Good spoken and written communication skills.
- Good interpersonal skills and ability to establish and maintain effective working relations in a multicultural, multi-ethnic environment with sensitivity and respect for diversity.
- Ability to plan projects and activities, work to tight deadlines, and manage conflicting priorities.
- Ability to understand users' needs and to customize services and products accordingly, in order to provide user-friendly and ergonomic solutions that meet user requirements.
- Willingness to keep abreast of new developments in the field of expertise.

The Firms must meet the following criteria:

- Be a private company registered in at least one of the 10 eastern Africa countries
- Demonstrate at least three years' experience in developing models and analysis of wind erosion modeling using geoinformation techniques..

Submission by firms shall include:

- Certificate of registration / certificate of incorporation
- Valid tax compliance certificate
- Brief Company / organization profile in narrative form
- References of similar assignments with full contact information of clients (Name of organization, name of contact person, telephone numbers and email address)

How to apply

Interested and qualified consultancy firm in the Region should submit the following:

1. Technical proposal:

This should provide information on key aspects of the methodology process including time frame to accomplish the task. The proposal should demonstrate that the consultancy firm understands what needs to be done, types of equipment and tools to be used, data collection and verification methods and products of the assignment.

2. The financial proposal should include professional fees (daily and total rates (where applicable) costs of all other inputs necessary to undertake the assignment. Clear break down of costs should be provided).
3. Application letter, profile of the organization and CVs of both the lead and other consultants who will be conducting the consultancy.

Documents should be submitted to RCMRD by 8th November 2019. Submission documents are to be delivered in 2 HARD copies duly labeled and sealed and addressed to:

THE DIRECTOR GENERAL
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