JUNIOR GIS NATIONAL/INTERNATIONAL CONSULTANT OPEN POSITION

TERMS OF REFERENCE

Category: Junior

Field: GIS and Disaster Risk Reduction

Background:

In 2018 CIMA Research Foundation was awarded a 10 months Grant contract from UNDRR Office for Africa. The scope of the grant was to develop 16 Probabilistic risk profiles for floods and droughts at national level. The project is extended and continues in the period 2019 – 2020 and embraces the fine tuning of risk profiles generated for four out of the sixteen beneficiary countries of the first Grant, where availability of new data and information could allow for better characterization of the risk profiles. As per the previous Grant, results will be combined with outcomes of a national DRR budget review, performed in the same countries under different components of the ACP-EU Project. As such the involvement of stakeholders in the partner countries and the collection of local data and knowledge is essential for the development of the updated profiles. To support this, CIMA Research Foundation intends to engage a junior position for a local expert that will facilitate data collection and organization from the different institutions under the direct coordination of the beneficiary country focal point and supervision from CIMA Research Foundation experts.

Objective of the assignment:

Starting from the achievements of the first phase of the Africa Project and in particular on the Risk Profiles and the outcomes of the National workshops, a clear need to consolidate such profiles emerged. One way to do this is to insert as much as possible national data into the modelling methodology that so far is mainly based on regionally if not globally available data. The availability of National and local data produced by the competent institutions should be a strong added value of the credibility of the risk profiles results.

This assignment has as a main objective to support the data collection and organization for this purpose with a resource on site that can physically meet with the beneficiary institutions and with all stakeholders that will be identified as useful for the purpose.

General Professional Experience

- The expert must have minimum 2 years of relevant professional experience in the field of DRR and GIS technologies;
- At least 1 year of professional experience in data collection in environment related data;
- Good knowledge of the country institutional setup;

- Working experience having had close links with public institutions related to the DRR field;
- Specialized degree in Geomatics or similar and at least 2 years of proven activity on geospatial issues and GIS elaborations, is a preferable asset;
- Good relationship and team work skills;
- Excellent knowledge of English and Portuguese;
- Availability for traveling in countries and abroad for short missions.
- The candidate shall be <u>resident in Angola</u> (a residence certificate will be required).

Specific Professional Experience

- Knowledge of GIS software commercial and open-source;
- Knowledge of Geoserver and Geonode applications is a preferable asset;
- Knowledge of Database Management Systems is a preferable asset;
- Experience in working with governmental institutions will be considered as an advantage.

1. Tasks of the Consultant

Consultant will work on the following tasks:

1. **Meetings** with the institutions involved in the Program, and in particular with the national DRR focal point and with the managers for production and management of specific data in proper institutions: this activity has the target to facilitate the collection and organization of the geographical information of interest for the Program; in cases where the institutional mapping is not already outlined and consolidated, mapping of the producers and suppliers of data must be carried out too;

2. **Collection** of geospatial data identified within the reference dataset proposed by the Programme, at least for the national geographic coverage, as described in Annex 1. **Deadline 30th July 2019.**

3. Activities of **analysis, editing and manipulation of geospatial data** retrieved in Activity 2, to be carried out with the GIS hardware and software of the Consultant, in order to guarantee topological consistency and IT standards. **Deadline 30th August 2019.**

4. **Archiving, metadata production and publication on Geonode** (africa.cimafoundation.org) of a selection of the geospatial data retrieved and analysed in the previous activities, through the use of procedures, instruments and services adopted within the activities of the Programme. **Deadline 30th September 2019**.

It is here specified that the work should be performed as a priority on the official institutional data as identified in conjunction with the National Civil protection and National Statistical Office. In case such data are deemed insufficient, after consultation with experts from CIMA Research Foundation, additional non institutional data sources such as: DRR Projects, Open data repositories will be considered. All material must be available in English and Portuguese.

2. How to proceed

The working methodology must provide for:

A. continuous consultation process with project managers and national coordinators;
B. data collection and analysis;
C. cataloguing data according to the criteria establish
D. ed by the Program: in case of collection of not official data, this has to be clearly visible at every step of the process of management and written with suffix '_TEMP' in the names of layers and folders collected, plus described in their metadata;
E. data Upload on the web catalogue (Geonode – africa.cimafoundation.org) with respective Metadata;
F. metadata compilation of the web catalogue (Geonode – africa.cimafoundation.org).

The verification of work progress is carried out through (at least) a weekly briefing with the National DRR focal point and with a contact person of the CIMA Research Foundation team, in the procedures that will be agreed. The activities of GIS analysis and cataloguing must be carried out with the supplier's own tools, those of points C, D and E are carried out within the applications envisaged by the Program using tools from the supplier or others, if envisaged.

3. Expected products

I. Activity plan and update of Annex 1 with indication of datasets that have been retrieved
   Deadline: two weeks after contract signature
II. Intermediate products
   Deadline: when the agreed minimum quantity of layers is reached and in any case by 30th July 2019.
   Products include:
   - report on data collection and analysis process;
   - dataset containing data obtained in raw form, as indicated in Annex 1, modifiable in the themes following the evolution of the work of the group of experts: please consider that not georeferenced data (for example, .pdf format) can be catalogued for information purposes, but do not contribute to the population of the database at the next point;

- • database compiled according to the categories in Annex 1, modifiable in the themes following the evolution of the work of the group of experts;

III. Products on additional layers in the process of consolidation.
   Deadline 30th September 2019
   - • report on data collection and analysis process and on assistance activities;
   - • dataset containing raw data found in the process of harvesting;
   - • database compiled according to categories of Annex 1, modifiable in the themes following the evolution of the work of the group of experts;
   - • population of the Geonode with data present at the previous step, including their metadata and thematic maps;

IV. Final Report on the activity of publication and management of data in africa.cimafoundation.org .
   Deadline 30th September 2019

All required documents must be produced in **English and Portuguese**.

4. Duration

Activities from A to E are intended to be distributed from the beginning of the work until the end of September 2019.

5. Compensation and milestones

The expert shall be payed a lump sum of 200 USD per day for a duration up to 60 working days maximum.

Payment will be made in three solutions at the following deadlines:

- • 20% of the total amount at the presentation and approval of work plan and update attached to Annex 1 (product I).
  Deadline: two weeks after contract signature.

- • 40% at the delivery and approval of product II.
  Deadline: 30th July 2019.

- • 40% at the delivery and approval of product III and IV.
  Deadline: 30th September 2019.

Reimbursable expenses
All travel expenses and accommodation out of city of references, that will be necessary for carry out the work, are reimbursable, and are covered by the project budget.

Location of the assignment
Home based with travel within Angola. Availability for a short training mission to Italy.

Other arrangements

The Expert will report to the Project Leader (or delegates), who is responsible for approving the outputs. the consultant will work in close cooperation with the National DRR Focal Point and the Country responsible officer from the CIMA Research Foundation Team.

Candidates should submit:

i)   ID (Passport or National Identify Card);
ii)   CV;
iii)   motivation letter;
iv)   certificate of residence;
v)   statement required by Article 57*

*Statement required by Article 57 of the Directive EC 2014/24/UE (template of statement can be downloaded at the following website www.cimafoundation.org/en under the session OPEN POSITION).

Applications shall be received by **21/06/2019, 17.00** pm CEST to the email ricerca.personale@cimafoundation.org, specifying in the subject: **Consultor Júnior em Sistemas de Informação Geográfica (SIG) or GIS Junior Consultant.**

The selected candidates, after CV evaluation, will be contacted for a phone/skype interview. Any questions can be directed to Dr. Isabel Gomes (isabel.gomes@cimafoundation.org).

Any application not received in due time at the specific address will not be considered.

Please note: CIMA Research Foundation as data controller, informs you pursuant to art. 13 of the GDPR 679/2016 and to Law 196/2013 that the data supplied by you, will be managed in compliance with the aforementioned law and the obligations of confidentiality.

Savona, 4th June 2019

Manager Director

Annexes: ANNEX 1 and ANNEX 1a

ANNEXES

ANNEX 1 - LIST OF DESIDERABLE INFORMATION

	Desiderable information	Possible Formats		
		Geographic layer with associated attribute table	Information provided through the corresponding section in the Survey	Table or document
	Official Country Boundaries	▓		
Built - up	Building blocks or building footprints (possibility with attribute information see detailed methodology)	▓		
	Statistical information on built-up area characterization		▓	
Population	Population census polygons at sub municipal scale with information on gender, age minorities.	▓		
	Population statistics (age distribution, gender minorities at national or sub national scale			▓
GDP	Sector-specific gross domestic product			▓
	Local gross domestic product (e.g. regional municipal)	▓		▓

Agricultural production				
	Agricultural areas with associated type of crop production cost and / or wholesale price in $ per ton			
	Information on the growing cycle of each crop			

ANNEX 1a - Historical hydro-meteorological data

	Desirable Information Longitude and latitude information for each location is need	**Notes**
HAZARD	Daily rainfall for as many locations as possible (at least 10 years of observations)	
	Monthly rainfall for as many locations as possible (at least 10 years of observations)	
	min/max and average daily temperature for as many locations as possible	
	Intensity-Duration-Frequency curves if available	
	Model parameters and/or model output for climate models already used in the country (e.g., reanalysis)	
	Daily discharges for as many locations as possible (at least 10 years of observations)	
	Monthly discharges for as many locations as possible (at least 10 years of observations)	
	Rating curves	
LOSS DATA	Type of event (flash flood, riverine flood, storm event, drought etc…)	
	Economic loss characterized by location and date of occurrence	
	most affected sectors	
	n° people affected/displaced	
	physical damages (e.g., number of houses destroyed/damaged/km of roads affected)	

	secondary effects (risk cascading effects)	
	DesInventar data	(completed since...)
	PDNA	
	Humanitarian support	