



TERMS OF REFERENCE FOR TRADITIONAL FORECAST INDICATORS

1. BACKGROUND

The Protocol Agreement between the African Development Bank Fund (ADF) and the African Centre of Meteorological Applications for Development (ACMAD) in connection with the Institutional Support to African Climate Institutions Project, and that between ACMAD and the Southern African Development Community (SADC) has approved a Grant for the Institutional Support to African Climate Institutions Project (ISACIP).

This ISACIP will support the first component of the ClimDev-Africa program, which seeks to enhance the capacity of African climate centres to generate and make widely available relevant climate-related information to end users. These centres are: the African ACMAD, the Agro meteorology and Hydrology Regional Centre (AGRHYMET), IGAD Climate Prediction and Application Centre (ICPAC) and SADC Climate Services Centre (CSC) former Drought Monitoring Centre (DMC). It will also enhance the capacities of selected African scientists to generate appropriate climate-relevant information and disseminate these through appropriate channels to intended end-users.

SADC CSC is the Regional climate organization hosted by the Botswana Department of Meteorological Services (BDMS) since its relocation to Gaborone. The purpose of the SADC CSC is to ensure that a sub regional mechanism for monitoring and predicting extremes in climate condition is operational. The CSC carries its mandate through development, generation and dissemination of meteorological, other environmental and hydro-meteorological products. The products have also made valuable contribution to increasing the region's disaster preparedness for and efficient management of weather and climate-induced calamities which constitutes more than 80% of all natural disasters worldwide. It trains personnel from principally the SADC national Meteorological/Hydrological Services (NMHSs) in climate prediction and the user-communities in the region in application of climate products and services for optimum socio-economic development which is highly sensitive to vagaries of weather and climate. One of the sub-component of the project is conducting of the traditional forecast indicators study in the Southern Africa Development Community Region.

2. Description

The modern scientific community recognises the indigenous knowledge on weather and climate developed over countless generations by traditional peoples and understands the importance of building and mainstreaming the use of that Indigenous Weather Knowledge (IWK) to support the sharing of knowledge in the development of climate information and services.

For many years traditional communities have observed how plants, animals and the landscape react to weather. Different tribal groups and communities studied and categorised weather over their own area. They created calendars by closely studying the natural environment and changes in flora, fauna and climate. Calendars have been passed down over thousands of years of ancestral generations within Indigenous communities.

Seasonal weather indicators, developed over thousands of years by indigenous communities, should nicely complement science and statistically based approaches. They provide an opportunity for communities to showcase their knowledge and to learn more about the traditional African life and culture.

This climate culture, with an underlying philosophy that all things are connected, is the basis of Indigenous weather knowledge. Indigenous weather knowledge and culture absorbed the dramatic changes in the continent's climate with drops in temperature, rainfall and sea levels—and cold and dry winds. This can give insight to contribute in the improvement of climate forecast process in the region.

3. Terms of the Consultant

Within the specific context of Southern Africa Region the following are the Terms of Reference for the Consultant

3.1 Objective:

Central to the work is striving to understand, and then harness and incorporate, the unique skills and perspectives of the Indigenous Weather Knowledge of African people into the Southern Africa Regional Climate Outlook Forum (SARCOF).

3.2 Specific duties:

- To involve traditional peoples in the development, implementation and evaluation of the indigenous weather knowledge for the improvement of seasonal weather forecast;
- To liaise with community elders to expand traditional knowledge of weather and climate for their use in the decision making process in the region;

- To partner with other agencies such as Universities to share knowledge and promote understanding of the rationality of their essence;
- To develop a database on Indigenous weather knowledge for further analysis;
- To develop and implement a Graphic Information System overlay to identify sensitivities, relating to the relationship between the indigenous climate knowledge and the based-physical climate system;
- To document and identify the challenge and learnings to reconcile the indigenous weather knowledge with the based- physical climate knowledge under climate variability and change.

3.3 Scope of Assignment:

The consultant will work under the coordinator of the project and will maintain close collaboration with each National Meteorological and Hydrological Services (NMHSs).

He/she will organise meetings with the national indigenous organization and Universities dealing with the matter. Most of the work will need to be conducted in rural area of Member States in order to facilitate close collaboration with the traditional communities and to have easy access to local indigenous climate culture.

3.4 Deliverables:

1. The main deliverable is a comprehensive report detailing the findings of the assessments including recommendations including at least the following context:
 - Problematic of traditional forecast indicators;
 - Methodology used;
 - Results and Discussion of the outputs
 - Conclusion and Recommendation
2. All documentation and reports must be given to the client in both electronic and hard copy.
3. Presentation of all findings and recommendations of the study to stakeholders prior to completion of the assignment.
4. Final Report incorporating all comments and corrections from stakeholders provided.

3.5 Timeline

The assignment is expected to start around 1st March 2014. The consultant is expected to spend 60 days collecting background information, and 120 days to carry out the assessments and to produce the expected deliverables.

3.6 Required skills and experience

The team will be compound by:

- (i) A Lead Consultant,

Provides leadership of the overall assignment and provide technical guidance and coordinate the work of the national indigenous knowledge experts. The lead consultant shall be a climate scientist or equivalent with at least 15 years working in areas relevant to the study. Other competences include evidences of having undertaken similar assessments in the past,

The lead consultant will be responsible for producing the final report.

- (ii) National Indigenous knowledge Experts

At least one expert from each of the fifteen (15) SADC-CSC member countries. The National Indigenous knowledge Experts should have good knowledge of the traditional community, and must have undertaken similar tasks in the past. He/she should have a working experience of not less than 10 years

Education:

- Post graduate university degree in physics, Meteorology, environmental science, social studies or acceptable qualification in relevant field, plus specialization in indigenous knowledge, GIS, environment and climate change or related area is desirable.

Experience:

- At least 10 years of professional experience in the area of Climatology with specialization in Indigenous knowledge, climate adaptation of natural systems to climate change and climate change vulnerabilities;
- Demonstrated experience in social study, analysis and interpretation;
- Excellent understanding and familiarity with traditional communities and their culture;
- Demonstrated understanding of international policies and programmes as they relate to climate variability and predictability;
- Ability to communicate effectively orally and in writing in order to communicate complex, technical information to both technical and general audiences;

- Demonstrated experience in designing, coordinating and managing research projects/activities;
- Excellent communication, writing and reporting skills;
- Demonstrated effective interpersonal and negotiations skills and ability to coordinate complex, multi-stake-holder projects;
- Maturity and confidence in dealing with senior and high-ranking members of international, regional and national institutions;
- Good team player and has ability to work under minimum supervision and maintain good relationships;
- Computer literacy;
- Excellent written and spoken fluency in English.