



SAP001: IMPROVING RANGELAND AND ECOSYSTEM MANAGEMENT PRACTICES OF SMALL HOLDER FARMERS UNDER CONDITIONS OF CLIMATE CHANGE (IREMA) IN SESSFOINTEIN, FRANSPONTEIN AND WARMQUELLE AREAS

Terms of Reference

For

Development of Early Warning System (EWS) tailored for Kunene Region.

1. Background of the IREMA Kunene Project

The Environmental Investment Fund of Namibia (EIF) in conjunction with the Ministry of Agriculture, Water and Land Reform (MAWLR) is implementing Green Climate Fund (GCF) funded project titled **SAP001: “Improving Rangeland and Ecosystem Management Practices of Smallholder Farmers Under Conditions of Climate Change in Sesfontein, Fransfontein, and Warmquelle Areas “IREMA Kunene Project**. The project period spans from 2019 to 2023. The broad aim of this project is to reduce the vulnerability of smallholder farmers under climate change conditions by safeguarding natural capital that generate ecosystem services to sustain agricultural production systems. More specifically, this project is intended to: (1) Promote investments in integrated drought early warning systems and improve the existing ones; (2) Strengthen and improve the capacity of key stakeholders in drought risks management at regional, national and local levels; and (3) Support communities to undertake innovative adaptation actions that reinforce their resilience to drought.

Component one (1) of this project is to promote cost effective investments in early warning systems that determine climate-driven vulnerabilities and effective adaptation options. The main output of this component seeks to establish a well-functioning Early Warning System (EWS) tailored for the Kunene region. This will address adaptation needs of smallholder farmers through

access to accurate and up-to-date information on climate to enhance adaptation responses. Early Warning system will alert the population under threat of an imminent disaster to undertake proactive actions through effective EWS built upon four components: (i) hazard detection, monitoring and forecasting; (ii) analyzing risks and incorporation of risk information in emergency planning and warnings; (iii) disseminating timely and “authoritative” warnings; and (iv) community planning and preparedness. The farming communities in the Kunene region will then be supported to access early warning information for sustainable agricultural practices with a strong focus on learning and knowledge management component to capture and disseminate lessons learned.

This consultancy seeks to contract a suitable professional to work with the Namibia Meteorological Services of Namibia, Office of the Prime Minister (Disaster Risk Management Division), Ministry of Agriculture, Water and Land Reform as well as the IREMA Kunene Project Team to develop an EWS tailored for Kunene Region.

Rationale of the consultancy

The Sendai Framework for Disaster Risk Reduction 2015-2030, recognizes the need for the national and local levels, “To invest in, develop, maintain and strengthen people-centered multi-hazard, multi-sectoral forecasting and early warning systems, disaster risk and emergency communications mechanisms, social technologies and hazard-monitoring telecommunications systems; develop such systems through a participatory process; tailor them to the needs of users, including social and cultural requirements, in particular gender; promote the application of simple and low-cost early warning equipment and facilities; and broaden release channels for natural disaster early warning information”. Early warning system is an adaptive measure for climate change, using integrated communication systems to help communities prepare for hazardous climate-related events. A successful EWS saves lives and jobs, land and infrastructures and supports long-term sustainability. Early warning systems will assist public officials and administrators in their planning, saving money in the long run and protecting economies

According to the World Meteorological Organization, there is a global need to urgently develop better drought monitoring and early warning systems. A critical component of drought strategies should be a comprehensive climate and drought monitoring system that can provide early warning of a drought’s onset and end, determine its severity, and deliver that information to a broad group of users in a timely manner. With this information, the impacts of drought can be reduced or avoided in many cases. Research suggests four (4) basic approaches to measuring drought:

Meteorological, Agricultural, Hydrological and Socioeconomic, and four (4) drought responses: Drought Alert, Response Processes, Coordination and Listening to Local Communities.

Namibia has an Early Warning System (EWS) Framework, and a Multi-Hazard Preparedness and Response Plan which guides actions in the event of a national disaster. This framework, however, needs to be strengthened particularly at local levels where the impacts of climate change and variability are felt. Actions include advancement in the EWS Protocol that provide an opportunity for inclusion of drought and other shocks in an early warning system, a focused appraisal to inform decision makers of an early warning system and climate change that is relevant and appropriate to Kunene Region's context.

While Agriculture Strategies in Namibia recognize the priority to adapt to climate change through climate-Smart Agriculture practices, there is still no well-functioning EWS at the local level to allow farmers make well informed decisions. Early warning systems have only been implemented in the broadest terms, and this is not yet felt to be sufficiently accurate. The Meteorological Services does not yet have an adequate database, observations are not always systematically conducted and information received from the regions is not computerized, and may be unreliable. All of these factors mean that climate risk information, both in terms of climate observations and projections, is scanty and poorly understood by policy makers, smallholder farmers, and civil society. An in-depth assessment of the potential changes in climate from national to local/community scale has yet to be undertaken.

Although Namibia receives timely and understandable warnings of impending hazards, there is a lack of communication systems and arrangements for ensuring that early warnings are acted on successfully. Elements of an effective early warning system are missing. In order to address climate change, Namibia needs to promote education and awareness for mainstreaming early warning systems into climate change concerns at different levels in society; and, stated broadly, to develop capacities to climate proof development at the national and sectoral level. A previous initiative to develop a national early warning system has not been taken to fruition because information stopped at academic level only and did not focus at community level. It is evident that communities in Namibia lack systematic advance warning of climate risks such as drought, hampering their ability to build adaptive capacity

This project will fulfil the EWS through its component one (1) the establishment of an EWS Protocol relevant to Kunene Region.

2. The objective of the consultancy

The overall objective of this consultancy is to support the IREMA Kunene Project in its efforts to develop and implement an EWS protocol tailored for Kunene Region. This will eventually strengthen the resilience of agricultural farming systems for enhanced food and nutrition security in Kunene region.

3. Expected Outputs

3.1 **Comprehensive EWS Report** on the analysis and assessment of existing EWS in Namibia with a special focus on Kunene region as a target area for this project;

3.2 **Report for Recommendations** for an EWS Protocol for hazards including drought, analysis of adaptation capacity and an **Implementation Plan** that clearly indicates improvements and actions required to strengthen EWS in Kunene Region;

3.3 Established **EWS** tailored for Kunene region inclusive of a **Training Manual** for implementation.

3.4 **Training Workshop** for key stakeholders and communities and produce a **training Workshop Report**

4. Scope of the Consultancy

The scope of the consultancy includes but is not limited to the following tasks:

- 4.1. In consultation with the Project Team, prepare and submit an **Inception Report** which include, *inter alia*, details the methodology/ approach to the assignment and a **work plan**;
- 4.2. Undertake a desk review of the project document and other relevant documents in the field of EWS, CCA, DRM etc.
- 4.3. Review the existing EWS Protocol in Namibia at all levels (National, Regional and local) to identify gaps, challenges and opportunities for improvement.

- 4.4.** Review policies, rules and regulations for mainstreaming early warning information to assess and identify gaps and challenges in mainstreaming early warning information into public and private decision-making;
- 4.5.** Review and gather information on past, current and planned projects related to the EWS, including disaster risk management and risk reduction activities.
- 4.6.** Engage with both public and private institutions to determine the current state of the EWS, including equipment, telecommunications, databases, forecasting and monitoring products, advisories and communication of EWS information;
- 4.7.** Determine the costs associated with the climate and hydrological observing network, including equipment purchases, operations and maintenance, and human resources at a regional level;
- 4.8.** Undertake field visit to collect and document project interventions at targeted geographical area for community based early warning system and institutional mechanism formed at the local level such as: local volunteer gauge readers, rain gauge stations, flood gauge stations, early warning task forces, Constituency DRMCs and Settlement DRMCs.
- 4.9.** Undertake consultative meetings with Regional, Constituency and Settlement Disaster Risk Management Committees as well as project beneficiaries on the functionality and effectiveness of the existing EWS
- 4.10.** Conduct consultations to determine how an EWS for drought and other shocks impacting the region could be integrated and mainstreamed into existing National EWS protocol.
- 4.11.** Based on the field visits, develop a draft Standard Operating Procedure (SOP) on Community Based Early Warning Systems (CBEWS) including a poster to depict the mechanism and information flow.

- 4.12.** Review the capacities available at various public and private institutions, and identify capacities needed to support the institutions for long term monitoring and data management
- 4.13.** Prepare a **Draft Report on the recommendations** for an EWS Protocol for Kunene Region. This should cover but not limited to the aspects of:
- a) Network design
 - b) Technology/Equipment needed (should suit local conditions and circumstances)
 - c). Estimated costs of any equipment proposed for use
 - d) 'Last mile' connectivity of EWS – What communications and community tools (e.g. community mobilization methods), methods and processes are the most effective in accomplishing this?
 - e) Dissemination of messages
 - f). Possible private-public partnerships (for example with MTC, Telecom mobile, NBC, local newspapers) and advice on how best to integrate such a system with the existing national Disaster Risk Management (DRM) systems
 - g) Identification of capacities required to improve existing EWS
 - h) Training needs for capacity building
 - i) Governance and institutional arrangements required to sustain EWS
- 4.14.** Based on the gaps identified, develop a **Community Based EWS Toolkit (CBEWST)** inclusive of a **Training Manual** for Kunene region taking into consideration gender, cultural diversity, norms, believes, marginalized communities and vulnerable peoples.
- 4.15.** Conduct and facilitate a Community Based Early Warning System Training Workshop.
- 4.16.** Finalize and submit all Reports based on comments/ feedback from stakeholders.

5.Key deliverables and Timelines

5.1 The Consultant will submit the following to the Project Manager for approval:

Item No	Deliverable	Format	Expected Timeframe
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1	Contract signing and Official Commencement of Assignment	Engagement /Document	1 st Week of award of contract
2	Inception meeting, Draft Inception Report (include detailed proposed methodology and workplan and	Document (PowerPoint presentation)	2 Week from award of contract
3	Final Inception Report incorporating comments of stakeholders	Document	3 Weeks from award of contract
4	A draft EWS Assessment Report	Document	10 th Week from award of contract
5	A draft Recommendations Report	Document	11 th Week from award of contract
6	Final EWS Assessment Report with Executive Summary, that includes any amendments required after review of draft	Document	15 th Week from award of contract
7	Final Recommendations Document that includes any amendments required after review of draft Document	Document	15 th Week from award of contract
8	A draft Community Based Early Warning Toolkit inclusive of Training Manual	EWS Toolkit with an accompanying user/training manual	24 th Week from award of contract
9	Conduct and Facilitate a Community Based EW Training Workshop	On-site Engagement	28 th Week from award of contract

10	Final Community Based Early Warning Toolkit inclusive of Training Manual that includes any amendments required after review of draft and feedback from workshop	EWS Toolkit with an accompanying user/training manual	30 th Week from award of contract
11	A draft Workshop Report	Document	1 Week post workshop
12	Final Workshop Report	Document	2 Weeks post workshop
13	Presentation of outcomes of consultancy to the key stakeholders	On-site Engagement	Final month of contract

6. Qualifications and Experience of the Consultant

The study will be conducted by a qualified consultant. The suitable consultant should meet the following minimum requirements:

- Should have at least postgraduate degree in Environmental Management, Agricultural Sciences such as Rangeland Science or Economics, Natural Resource Management, Disaster Risk Management, Development Planning or any other related fields
- Proven expertise in vulnerability assessment and mapping, National and sub-National DRR planning, Integrated drought risk assessment, planning and management
- At least 5 years of experience in Research; Climate Change Adaptation, Vulnerability Assessment, DRM, NRM and Agriculture development planning;
- Demonstrated experience in DRR risk and vulnerability assessment & mapping, GIS applications; National and sub-National DRR planning, DRR and CCA policy development
- Excellent analytical and reporting skills and fluency in written and spoken English are essential
- Good training and workshop facilitations skills are mandatory
- Demonstrated ability to assess complex situations in order to succinctly and clearly distill critical issues and draw forward looking conclusions
- Good interpersonal and general communication skills including client-oriented interpersonal skills, planning and coordination skills;
- Sound understanding of Climate Change and environmental Management;

- Ability to work in a multi-cultural environment;
- Good interpersonal skills and communication skills with government officials, leaders of parastatals, NGO's, as well as the local community are required.
- Knowledge of methodologies for reducing vulnerability to climate change and drought will be a distinctive advantage
- Technical expertise and experience in undertaking assignments of this scale/specification
- Past experience in setting-up and operating EWS in the Sub -Saharan Africa region would be an asset.
- Experience in Geographic Information Systems (GIS) and Earth Observation (EO) with proven work in these fields will be an asset.
- Experience with developing guidelines and training manuals
- Experience in emergency communications.
- Strong oral and written communication skills
- Strong interpersonal and facilitation skills
- Good written and spoken English

7. Duration of the Assignment

Duration of the assignment is **75 days of work effort** over the spread of **eight (8) months**.

8. Execution and Reporting Requirements

8.1. The Consultant will be contracted by the EIF

8.2. The Consultant will report directly to the National Project Manager who will supervise the consultancy, and to the EIF upon request.

8.3 The Consultant will be required to submit to the Project National Project Manager periodic status update reports, meeting reports for any meetings/consultations held, and copies of any presentations made at meetings/workshops (may be done via e-mail).

8.4. The Project Team/Staff will provide administrative and coordination support to the project to facilitate workshops.

8.5 Travel within the country will be required to facilitate the completion of the consultancy.

8.6 At the end of the contracted time period, the Project Consultant shall submit all project outputs to the National Project Manager, which will be assessed for validity and completeness of required information, and should be in the desired format specified by the EIF. Once approved by the National Project Manager, all outputs delivered in full or in part become the property of the client to utilize and disseminate as deemed necessary.

9. Payment Schedule 1

9.1. Payment will be based on the acceptance of the deliverable by the EIF/MAWLR.

9.2. Payments are depending on performance, which include:

- Timely achievement of satisfactory outputs
- Demonstrated reliability

Payment schedule

10% upon submission and acceptance of the Final Inception report.

20% upon submission and approval of the Final EWS Assessment Report.

20% upon submission and approval of the Final Recommendations Report.

30% upon submission and approval of the Final Community Based Early Warning Toolkit and Training Manual.

20% upon submission and approval of the Final Training Workshop Report.

10. DOCUMENTS TO BE INCLUDED WHEN SUBMITTING THE PROPOSALS.

Interested individual consultants OR a team of consultants must submit the following documents/information to demonstrate their qualifications in **one single PDF document**:

- 1) Duly accomplished **Letter of Confirmation of Interest and Availability**.
- 2) **Personal CV/s**, indicating all past experience from similar projects, as well as the contact details (email and telephone number) of the Candidate and at least three (3) professional references.
- 3) **Technical proposal**:
 - a. Brief description of why the individual considers him/herself as the most suitable for the assignment

- b. A methodology, on how you will approach and complete the assignment.
- c. Electronic version of the technical proposal should be in a USB (flash drive/memory stick)

4) Financial proposal that indicates the all-inclusive fixed total contract price, supported by a breakdown of costs.

Contact Persons:

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