





TERMS OF REFERENCE

Intra-ACP Global Climate Change Alliance Plus (GCCA⁺) and AICCRA Projects

DEVELOPMENT OF CLIMATE SMART AGRICULTURE TECHNICAL INFORMATION PRODUCTS AND SCALING TOOLS



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A. Introduction

The Southern African region is vulnerable to climate change and it has experienced unusual weather events in the recent past, including floods, intense rainfall, high temperatures and droughts. Climate Change has affected food systems in Southern Africa at the production level as well as throughout the post-harvest phase of the commodity value chains. The Centre for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA) has prioritised climate change because of its impact on agricultural production and productivity globally. Measures need to be taken to improve the resilience and stability of agricultural production system under climate change on agriculture are devastating and result in complete loss of crop yields, livestock, fish and other farm products. If left unattended to, climate change has the capacity and potential to destabilise the livelihoods of millions of people who depend on agriculture in Southern Africa.

In 2008, the European Union established the Global Climate Change Alliance Plus (GCCA+) programme to assist the world's most vulnerable countries to address climate change and reduce its impacts on various sectors, including agriculture. In Southern Africa, the SADC Intra-ACP Global Climate Change Alliance Plus (GCCA+) programme seeks to strengthen the capacity of SADC Member States (MS) to mitigate and adapt to the effects of climate change, in support of the objectives of the Regional Indicative Strategic Development Plan (RISDP), Africa Agenda 2063, Sustainable Development Goals (SDGs), and other initiatives.

CCARDESA is among the four regional organisations selected to implement the SADC Intra-ACP GCCA+ programme whose objective is to strengthen the capacity of SADC MS to undertake regional and national adaptation and mitigation actions in response to the challenges caused by the effects of global climate change and climate variability. The SADC Intra-ACP GCCA+ programme is being implemented in Botswana, Malawi, Namibia, Zambia and Zimbabwe by a consortium of four organisations, namely: CCARDESA, SADC Centre for Renewable Energy and Energy Efficiency (SACREEE), Southern African Regional Universities Association (SARUA) and the Global Water Partnership - Southern Africa (GWP SA). At country level, the four organisations have established strong partnerships with the National Agricultural Research and Extension Systems, and local communities.

The specific focus and contribution of CCARDESA in this project will go towards building the capacity of SADC countries to integrate climate change aspects into agricultural programmes and investments through the promotion of climate smart agriculture (CSA). Demonstration sites have been established in Botswana, Malawi, Namibia, Zambia and Zimbabwe on 4-hectare pieces of land where farmers will be producing various vegetables. These sites use the Water-Energy-Food (WEF) Nexus approach to conduct the agricultural activities.

The project will provide water through sinking of boreholes or drawing from existing water bodies, use renewable energy to take the water to the fields, and use CSA principles to produce nutritious horticultural crops. Communities are expected to benefit through acquisition of knowledge and skills for practising CSA, access to nutritious crops and generation of income through sales.

CCARDESA is also implementing a World Bank supported project called 'Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA)'which aims at managing and reducing climate risks for agriculture. CCARDESA intends to capacitate farmers and value chain actors on the use of CSA for reducing risks to farming approaches and food systems.

CCARDESA wishes to compile the major CSA materials that are of utmost relevance to make them available to the stakeholders. These materials also have to be updated and analysed to indicate those with the highest potential to be scaled out and be used by farmers to improve their production systems. The most promising CSA technologies will be promoted throughout the Southern African region.

B. OBJECTIVE OF THE ASSIGNMENT

The objective of this assignment is to review and update the current information on CSA technologies, identify the most promising ones, update the inventory of CSA technologies as well as the knowledge products, and develop a CSA handbook.

C. SERVICE REQUIRED AND SCOPE OF WORK

CCARDESA is seeking the services of two highly experienced individuals to address a number of specific tasks and provide clear outputs for each. The consultants will conduct an inventory of the CSA literature and information that exists at the CCARDESA Secretariat, SADC Secretariat and elsewhere in order to accomplish the key tasks of this assignment. The consultants will use the materials gathered through desk study and using their own experience and skills, to compile the information into a handbook of CSA technologies for Southern Africa. They will also use an appropriate approach, to identify the most promising CSA technologies and propose ways of disseminating and out-scaling them.

Platforms constitute an important route through which stakeholders share information and experiences on topics of common interest. The consultants will conduct a survey to establish what platforms for promoting CSA exist at national and regional level. These will be described by the consultants, and they will provide evidence-based and inference opinion on how these can contribute to the out-scaling of CSA technologies in the region.

Therefore, the scope of work for the consultants will be:

- 1. Review, update and finalize existing inventory of CSA technologies in the SADC region;
- 2. Update and where necessary develop new CSA knowledge products;
- Identify the most promising CSA technologies and their dissemination tools in Southern Africa ;
- 4. Use the compiled information to develop a handbook on CSA technologies;
- 5. Review, update and enhance visuals of existing CSA technology briefs; and
- 6. Identify and analyse regional and national platforms that promote CSA in Southern Africa.
- 7. Develop regional approaches and tools to support effective adoption, implementation and scaling of identified CSA technologies in different value chains

D. Location of the Assignment

The assignment will be home-based since most of the materials can be obtained online. However, should there be need to travel, this will be facilitated. Towards the close of the assignment, CCARDESA may arrange a physical or virtual meeting to validate the outputs of the consultants with the key stakeholders.

E. DELIVERABLES

The deliverables of this assignment will be:

- 1. Inception report to present a refined scope, a detailed outline of the design and methodology of the assignment
- 2. An updated inventory of CSA technologies in the SADC region
- 3. Updated and new CSA knowledge products
- 4. Prioritised list of the most promising CSA technologies for Southern Africa
- 5. A handbook of CSA technologies in Southern Africa
- 6. Enhanced visuals of existing CSA technology briefs
- 7. A report on the regional and national platforms that promote CSA in Southern Africa
- 8. A stand alone report on strategic approaches and tools for adoption and scaling of CSA technologies

F. QUALIFICATIONS AND WORK EXPERIENCE

This assignment will be carried out by a team of two agricultural experts, one of whom will be the Team Leader. The overall responsibility for the successful completion of the assignment will be on the team leader. The minimum academic qualifications and work experience for the Team Leader shall be as follows:

- 1) Minimum of a Master's degree in Agricultural Sciences;
- 2) At least ten years' relevant working experience in the agricultural sector;
- **3)** Proven practical experience in development of manuals/handbooks or similar documents in the agricultural sector, especially on agronomic/crop production topics;
- **4)** Demonstrable practical experience working on CSA issues within the crop/agronomy area in Southern Africa;
- 5) Proven ability to work both independently and as part of a team;
- 6) Exceptionally strong writing skills, with traceable written works especially on agronomic and CSA topics
- 7) Good leadership skills and ability to deliver assignments on time

The second expert shall have the following qualifications and experience profile:

- **1)** Minimum of a Master's degree in Agricultural Sciences, or a closely (relevant) related field;
- 2) At least 8 years' general experience working in the agricultural sector, especially in the areas of crop agronomy area;
- 3) Proven experience with developing manuals and similar documents in the crop subsector
- **4)** Demonstrable experience working on CSA issues within the agricultural sector in Southern Africa;
- 5) Good interpersonal skills and ability to complete tasks on time;

F. DURATION

This assignment will be for a total period of 53 billable workdays spread within 75 calendar days, split between the Team Leader (30 days) and the second expert (23 days). The assignment will commence on the day the Team Leader signs the agreement.

G. REPORTING

The consultant will report to the CCARDESA Programmes and Grants Manager who will be responsible for daily technical and administrative management and backstopping of the assignment. During implementation of the tasks, the consultant will be required to constantly liaise with the supervising officer at CCARDESA Secretariat and submit short weekly progress updates indicating the progress towards achieving the project deliverables.