



TERMS OF REFERENCE FOR A CONSULTANCY TO MAP CLIMATE RELEVANT SATELLITE DATA SOURCES

1) BACKGROUND

The Centre for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA) is a SADC sub-regional organization created by Members States to coordinate regional cooperation in agricultural research and development. The current priorities that the organization intends to address are articulated in the CCARDESA long-term Strategy (2020-2029) and Medium-Term Operational Plan (2021-2025). These strategic documents have identified climate change as one of the major challenges that it needs to address by deploying the available science tools and strategic partnerships. The promotion of climate smart agriculture (CSA) in the SADC region has been identified as a necessary approach towards tackling the impact of climate change on this region's agricultural sector.

To address this challenge, CCARDESA is implementing the Comprehensive Africa Agriculture Development Programme EX Pillar 4 (CAADP-XP4) Programme on Agricultural Research and Innovation under the support of the EU's "Development Smart Innovation through Research in Agriculture" (DeSIRA) initiative. This programme is being implemented in partnership with other Ex-CAADP Pillar 4 Africa institutions comprising; African Forum for Agricultural Advisory Services (AFAAS), the Forum for Agricultural Research in Africa (FARA), the West and Central African Council for Agricultural Research and Development (CORAF) and the Association for Strengthening Agricultural Research in East and Central Africa (ASARECA). The CAADP-XP4 Project is supported by the European Union and financed through the International Fund for Agricultural Development (IFAD) for a period of four (4) years 2019 - 2023. Its implementation focus is in 7 SADC target countries (Botswana, Eswatini, Mozambique, Namibia, Tanzania, Zambia and Zimbabwe).

The CAADP-XP4 project supports a science-led and climate-relevant agricultural transformation in Africa and aims at strengthening the capacities of CCARDESA and its partners to deliver on their Agricultural Research for Development (AR4D) mandate. It is intended to collectively support African countries to implement relevant programmes of the Comprehensive Africa Agriculture Development Programme (CAADP) through: inclusive regional and international partnerships; production and exchange of climate relevant agricultural knowledge; effective communication, monitoring and evaluation; promotion of systemic and effective use of science, knowledge and innovation; and representation of the Sub Regional and National Organizations at Continental level. Furthermore, the CAADP-XP4 programme seeks to deliver key outputs that will contribute to an effective African agricultural research knowledge and innovation system, demand-driven public policies on agricultural research and extension services, and enhanced knowledge sharing and technology development for climate change adaptation and mitigation in agriculture and food systems.

Under the CAADP-XP4, CCARDESA intends to establish and operationalise multi-stakeholder partnerships for innovation that focus on climate change in agriculture and food systems. Furthermore, it intends to mobilise international expertise, facilitate exchange and collaboration with international organizations to strengthen capacities of the targeted organisations in the regional countries to realize the outputs of the CAADP-XP4 program. This will also entail supporting demand-driven innovation through South-South, North-South and North-South- cooperation.



Mobilisation of international expertise and exchanges and working collaboratively with international organizations to strengthen capacities of the targeted organisations to realize the outputs of the program is envisaged. Specifically to: (i) map out data sources and identify means of accessing data from various sources; (ii) In conjunction with EU partners, capacitate SADC regional partners on data access and analysis, including soliciting for specified services; (iii) support engagements between SADC and EU partners including exchange visits to centres of excellence and attachments for mentorship. CCARDESA is expected to bring together national, regional and European organisations to jointly plan and implement the above-mentioned activities and outputs of the CAADP-XP4 Programme.

2) PURPOSE OF THE ASSIGNMENT

To broker partnerships on climate relevant satellite data/ information provision from the European partners, CCARDESA wants to engage a consultant to map out possible climate relevant satellite data sources and providers to support climate smart agriculture interventions in the region.

3) SPECIFIC OBJECTIVES OF THE ASSIGNMENT

Specifically, the objectives of this assignment are to:

- i. Develop a suitable data collection tool to assess the existing satellite data sources and providers that can be used to support climate relevant interventions in the SADC region.
- ii. Collect and collate relevant data on the state of use of satellite data in individual SADC member states and at a regional level to support climate smart agriculture.
- iii. Generate comprehensive information on the state of individual member countries in terms of usage of satellite data technologies to support climate smart agriculture.
- iv. Synthesise, information on the current state of satellite data and providers, initiatives and related policies in Southern Africa based on the target study countries.
- v. Identify gaps/opportunities in relation to building capacity to utilise the satellite data to address the impact of climate change on the agricultural sector in the target countries and the region in particular opportunities between Africa and European countries.

4) SCOPE OF WORK

The Consultant will work closely with 2 technical staff from CCARDESA to facilitate the assessment at international, regional and selected partners at target countries' level especially those involved with European partners. In executing this assignment, the Consultant will undertake the following specific tasks:

- i. Develop an appropriate methodology for carrying out the assessment of satellite data sources, providers and partnerships looking at the past 5 years and at any future advanced project pipelines at regional level and within the SADC countries and beyond especially involving European partners. The detailed methodology will be included in the technical proposal;
- ii. Broadly, the assessment will focus on initiatives, projects, programmes, policies, working groups and networks in the individual target countries and the SADC region using satellite data to support climate smart agriculture.
- iii. Using the Assessment tool(s), to assess the existing satellite data partnership initiatives/ agreements, gaps and interventions needed to foster effectiveness to advance agricultural innovation in the region.
- iv. Document case studies on innovative use of satellite data and related partnerships in the



SADC region.

- v. Develop a knowledge product (policy brief) on satellite data initiatives and usage targeting relevant stakeholders.

5) METHODOLOGY

The Consultant is expected to propose and implement a practical methodology for undertaking the assignment. The assignment will explore partnerships within the SADC region and beyond. The proposed approach for carrying out the assessments should take into account issues unique to the SADC region and to include the minimum elements needed for the region to tap on the south-south and north-south partnerships including with relevant European organisations. The assignment will be homebased and is to be conducted virtually.

6) DURATION OF THE ASSIGNMENT:

The consultant is expected to conduct this work virtually for a period of 15 working days spread over a period of 2 months from September to October, 2021.

7) DELIVERABLES

The key deliverables are:

- i) A brief **inception report** two weeks after signing the agreement spelling out the proposed technical approach, time scale, resources and validation plan for the delivery of the final partnership strategy.
- ii) A **draft Mapping Report** (based on an agreed outline) 4 weeks after signing of the assignment contract. This shall also include:
 - a. Findings from the assessment; on the identified gaps/ opportunities based on the agreed tool(s);
 - b. Case studies on innovative use of satellite data for modelling and climate smart agriculture;
 - c. Recommendations for next steps, including recommendations on addressing gaps, improving partnership formulation, policy analysis and policy advocacy, and any necessary capacity strengthening;
- iii) A **final Mapping Report** 6 weeks after the signing of the assignment contract incorporating comments received from CCARDESA and its respective key stakeholders;
- iv) A **validation workshop report** for the mapping report;
- v) A **policy brief** based on the mapping report.

8) SUPPORT TO THE CONSULTANT

CCARDESA will support the Consultant by providing guidance on relevant contacts and stakeholders for this work in the region and beyond during the implementation of the assignment. Therefore, the Consultant will work very closely with the key contact persons at CCARDESA Secretariat in the delivery of this assignment. The wide range of support will include the following:

- Introduce the consultant to the regional contact persons in partner organisations;
- Liaise with partner contact persons to ensure that response to the data collection tool is concluded in a timely manner;
- Provide relevant CCARDESA information/literature materials including strategic documents that may be required by the consultant.

9) QUALIFICATIONS AND WORK EXPERIENCE OF THE CONSULTANT

The Consultant shall be required to have the following qualifications and experience;



- (a) Have at least a Master's degree in Agricultural Sciences, Economics, Development Studies or other agricultural related fields.
- (b) Experience on development of survey tools, data collection methodologies including online data collection techniques.
- (c) At least fifteen years' experience in the agricultural development sector; preferably familiar with Geographic Information Systems and related tools plus experience at regional and/ or at international level.
- (d) Familiarity with the global innovation systems, the SADC regional research and development landscape and experience with working European research institutions.
- (e) Good understanding of SADC regional research and development landscape in relation to use of satellite data and related policies.
- (f) Have demonstrable ability to write concise technical papers and synthesis reports.

10) REPORTING

The consultant will report to the CAADP-XP4 Coordinator who will be responsible for daily technical and administrative issues for the assignment.

11) APPLICATION

Interested consultants are required to submit their expression of interest (via e-mail) and a comprehensive curriculum vitae, detailing proof of similar experience, together with the names, e-mail addresses, and telephone numbers of three referees.

Applications should be submitted latest by **01st November, 2021** to:

The Executive Director

Attn: Procurement Officer

CCARDESA Secretariat

Private Bag 00357, Gaborone, Botswana

E-mail: procurement@ccardesa.org