

## **Terms of Reference for a Consultancy Firm to conduct An Impact assessment of Agricultural Technologies on productivity and farmers' welfare in APPSA Phase 1 Countries (Malawi, Mozambique and Zambia)**

### **1) INTRODUCTION**

The Centre for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA) is a subsidiary organisation of the Southern African Development Community (SADC). CCARDESA was established in 2011 and started its full operations in 2013. The organisation has a mandate of coordinating agricultural research and development and contributing to better food security and livelihoods in the region. Among the Research and Development (R&D) programmes being coordinated by CCARDESA is the World Bank funded Agricultural Productivity Programme for Southern Africa (APPSA).

APPSA started with three countries (Malawi, Mozambique and Zambia) in 2013 (Phase 1) and expanded to Angola and Lesotho in 2019 (Phase 2). Phase 1 was completed in January 2019 while Phase 2 is under implementation. The main thrust of the programme is to increase the availability of improved agricultural technologies in participating countries in the SADC region. The implementation of APPSA is based on partnerships and collaboration where each country under the programme establishes a Regional Centre of Leadership (RCoL) in its respective commodity area that distinguishes it as a leader in the region and beyond. So far, Zambia has established an RCoL in food legumes and legume-based farming systems, Malawi in maize and maize-based farming systems and Mozambique in rice and rice-based farming systems. In the current phase, Angola and Lesotho are establishing RCoLs in Cassava and Cassava-based farming systems and Horticulture and Horticulture-based farming systems, respectively. Under APPSA, CCARDESA plays a key role of facilitating collaborative work between countries and acting as a broker for knowledge management and exchange.

Several evaluations were conducted for APPSA Phase 1, including a baseline evaluation at the onset of the Project, two mid-term evaluations, and a final evaluation. However, the adoption of the disseminated technologies and their impact on productivity and farmers' welfare have not been assessed. Adoption is a process that happens over a considerable period. To measure impact, time is also a key factor in the assessment. In view of the above, CCARDESA has decided to commission an impact assessment in 2024/25 of the technologies promoted under APPSA Phase 1 in Malawi, Mozambique and Zambia. With Phase 1 having closed in January 2019, it

is envisaged that the project has made some significant productivity and welfare impacts by now.

## **2) JUSTIFICATION**

With the rapid increase in population in many developing countries, the demand for food is increasing while agricultural land is fragmented into smaller pieces because of the growing population and emergence of competing livelihood activities. Hence, increasing agricultural productivity remains crucial for meeting the growing demand for food. This is one of the fundamental reasons why APPSA was introduced in the region. Worth noting is that at the completion of APPSA Phase 1, the programme progressed to Phase 2, which involves Angola and Lesotho. Further to that, a similar model of promoting technology generation and dissemination has recently been introduced through another World Bank funded Food Systems Resilience Programme (FSRP), which is currently implemented in West Africa, Eastern and Southern Africa. In Southern Africa, FSRP is also coordinated by CCARDESA.

CCARDESA envisages that the impact assessment will help identify ways and means to enhance sustainability of its project supported initiatives. Therefore, the results will help to better inform the coordination of similar donor supported programmes. Through this assignment, CCARDESA will be able to share country experiences and approaches in developing and encouraging the adoption of appropriate technologies for particular farming systems and examine the efficacy of different policy approaches and instruments. The assessment will also provide evidence on the roles of different stakeholders/players as well as policy approaches in stimulating adoption of appropriate technology that can improve sustainability at the farm level.

## **3) OBJECTIVE OF THE ASSIGNMENT**

The overall objective of the assignment is to provide empirical evidence on the success and impact of APPSA Phase 1, with a particular focus on the adoption of generated and disseminated improved agricultural technologies, innovations and management practices (TIMPS) that were meant to improve productivity and farmers' welfare in the implementing countries.

The assessment results will be used to generate knowledge and learning that should inform CCARDESA's future similar work, which is mostly implemented with international development partners.

## **4) SCOPE OF WORK**

The general focus will be on assessing the awareness and adoption of improved technologies that were made available to farmers and other end users, and assessing the productivity and welfare impact of adopted technologies. The specific focus will be, but not limited, to the following:

- i. Adoption patterns of improved technologies, innovations and management practices

- ii. Affordability and accessibility of improved technologies by farmers and other end users
- iii. Evidence about the impact of improved technology adoption on poverty, food and nutrition security, changes in farmers' income and other welfare aspects.
- iv. Using value chain analysis, identify available opportunities, constraints and gaps, potential areas for improvement and interventions to enhance the adoption of improved agricultural technologies in the targeted countries.

## **5) EXPECTED OUTPUTS/DELIVERABLES**

The primary deliverables will include:

- a) Submission of inception report covering the overall impact assessment design with detailed description of the methodology and understanding of the terms of reference. The report should also include types of data and other evaluative information to be collected and the methods for collecting should be specified for each evaluation question or group of questions), detailed schedule for the tasks to be undertaken, activities to be implemented, deliverables, roles and responsibilities of the evaluation team.
- b) Submission of a draft Impact Assessment Report for review by stakeholders.
- c) Presentation of draft report for validation in a regional workshop to be organised by CCARDESA
- d) Submission of a final Impact Assessment Report that incorporates comments from stakeholders.
- e) Production of at least 2 policy briefs summarising key empirical findings and recommendations to be used for information sharing and advocacy with different stakeholders.

## **6) CONSULTANCY APPROACH**

The methodology will include a combination of qualitative and quantitative approaches for data collection and analysis. The assessment will be carried out through (i) desk review of key programme documents, (ii) structured interviews with key informants (groups or individuals), and (iii) a farmer survey in the three countries (Malawi, Mozambique and Zambia). The evaluation will be guided by the following ethical considerations: openness, broad participation of key stakeholders, integrity and honesty of the process, reliability and independence to ensure valid and trustworthy findings and conclusions.

At the minimum, it is expected that the evaluation would be undertaken using a combination of a survey of (i) lead farmers; (ii) follower farmers (iii) local input markets/agrodealers/seed growers, etc., and (iv) local extension / advisory programs in the countries where APPSA Phase 1 was implemented.

## **7) DURATION OF THE ASSIGNMENT**

The firm is expected to conduct this assignment within 40 working days spread over 5 months.

## **8) QUALIFICATIONS AND WORK EXPERIENCE OF THE CONSULTANT**

### **8.1 Work experience of the firm**

- 8.1.1 The core business of the firm must be research
- 8.1.2 The Firm must have at least 15 years of experience and expertise in conducting similar assignments.
- 8.1.3 The firm must have at least 5 years of experience in conducting similar assignments at the regional level
- 8.1.4 The firm must have a solid management structure with clear reporting formats.

The consulting team should have experience and/or be qualified in the areas as specified in 8.2 below.

### **8.2 Qualifications and experience of key staff**

#### **8.2.1 Team Leader – Agricultural/Resource/Development Economist**

The Team Leader will be required to have the following qualifications and experience:

- (i) At least a PhD in Agricultural/Resource Economics, Development Economics or in a related field
- (ii) At least 10 years of post-graduate experience in conducting programme/project impact evaluation.
- (iii) Proven ability and experience in project management and leading consultancy teams
- (iv) Proven evidence of conducting studies on adoption and scaling of improved agricultural technologies/ innovations
- (v) Proven evidence of conducting technology impact assessments on productivity and farmers' welfare using different acceptable indicators
- (vi) Proven and demonstrated ability in designing and conducting impact assessments of donor funded agricultural development programmes using World Bank advocated approaches such as randomised assignment, instrumental variables, regression discontinuity design, difference-in-differences or matching.
- (vii) Demonstrable ability and experience in working with advanced Econometric models and use of statistical packages.
- (viii) Strong understanding of and experience in the use of value chain analysis in agricultural development and policy studies
- (ix) Past related experience in agricultural systems, and seed regulatory systems in sub-Saharan Africa

- (x) Proven ability in producing quality technical evaluation reports for donor funded agricultural development projects.
- (xi) Have a good traceable publication record in reputable peer-reviewed and accredited publications.
- (xii) Experience in working with Regional Organisations is highly desirable.
- (xiii) Knowledge of and involvement in programmes supported by regional and international organizations such as the World Bank Group, EU, and AfDB is also desirable.

### **8.2.2 Agricultural Scientist/Agricultural Extensionist**

- (i) At least a Master's degree in Agricultural Sciences, including agronomy, plant breeding, extension or in a related field. A PhD would be an added advantage.
- (ii) Have at least 12 years of post-graduate experience in agricultural research, including experience in the seed sector or extension systems, preferably in the Southern African region.
- (iii) Technical knowledge of and recent experience with result-based management evaluation methodologies and project management.
- (iv) At least 10 years' experience in evaluating donor supported agricultural research and development projects.
- (v) Proven ability in producing technical evaluation reports for donor funded agricultural development projects.
- (vi) Have a traceable publication record in reputable peer-reviewed and accredited publications.
- (vii) Experience in working with Regional Organisations is highly desirable.
- (viii) Knowledge of and involvement in programmes supported by regional and international organizations such as the World Bank Group, EU, and AfDB is also desirable.

## **9) MANAGEMENT AND ACCOUNTABILITY OF THE ASSIGNMENT**

The Consultant will report to the APPSA Regional Coordinator who will be responsible for daily technical and administrative issues for the assignment. The Consultant's personnel will, on reasonable notice, participate in meetings and discussions as required by CCARDESA. All meetings, discussions, presentations, and deliverables shall be in English language.

## **10) OBLIGATIONS OF THE CLIENT**

The Client shall also be responsible for the provision of all necessary resources to facilitate the work, including international travel, subsistence allowances, accommodation and any other resources as may be required.

## **11) OBLIGATIONS OF THE CONSULTANT**

The Consultant is expected to undertake activities that will ensure outputs are consistent with the professional and legal requirements of the assignment and ensure that deliverables are submitted in a timely manner.

## **12) PROPRIETY RIGHTS OF CLIENT IN REPORTS AND RECORDS**

All data and information obtained during this exercise and reports generated thereof by the Consultant, shall belong to the Client. No use shall be made of such materials without prior written authorization from the Client.

At the end of the contract, the Consultant shall relinquish all data, information, manuals, and reports (including the database, codes, and related documentation) to the Client and shall make no use of such in any other assignment without prior written authority from the Client.