



Mitigating the impact of COVID-19 on food and nutrition security using Climate Smart Technologies in SADC Countries

JOINT MONITORING AND EVALUATION REPORT

MOZAMBIQUE

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1. Background

CCARDESA, with technical support from Bembeni Group is implementing a project on “Mitigating the impact of COVID-19 on food and nutrition security using Climate Smart Technologies in SADC Countries.” The project, funded by the European Union through SADC Secretariat, is in response to the COVID-19 pandemic that caused a humanitarian crisis, negatively impacting the food and nutrition status of millions of households worldwide. The pandemic has disrupted food systems, including production and marketing due to, lockdowns imposed by countries. The escalating threat on livelihoods, food, and nutrition security due to increasing cases, lockdowns, and health-related restrictions calls for urgent interventions to minimise the impact to the most affected communities. Addressing the crisis requires interventions that mitigate the immediate impacts as well as reshaping the food systems to support healthy diets and finally make food production and consumption sustainable. The crisis called for the need to re-align the strategies for producing, processing, and marketing agricultural products in the context of COVID-19.

The aim of the project is to mitigate the impact of COVID-19 on the food and nutrition security of farming households using climate-smart agricultural (CSA) technologies. The **overall objective** is to strengthen the capacity of SADC Member States (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 **Specific objective** is to improve the availability and access to high value nutritious agricultural produce in food insecure communities impacted by COVID-19 using Climate Smart Agriculture (CSA) technologies in Eswatini, Mozambique, Zambia and Zimbabwe. The project is an extension to the CCARDESA activities on GCCA+ programme output of promoting the adoption of improved CSA practices. The project is being implemented in Eswatini, Mozambique, Zambia and Zimbabwe. The rest of the SADC countries are expected to benefit as spill-over countries.

This report covers joint M&E activities and the baseline data collection mission for updating the results framework. The mission was undertaken in two parts; the first part covered Zimbabwe (19 – 22 September 2021), and Zambia (23 – 25 September 2021); and the second part for Mozambique (25-27 October 2021). This report covers activities that were conducted in Mozambique where the focus was on visiting the Baca Baca Community where some smallholder irrigation project is thriving.

2. Visit to the Project Site

The mission visited the project site in the Baca Baca Community accompanied by the Project Manager and his Assistant. The mission explained the link between the Covid-19 Food security project and the Global Climate Change Adaptation Plus program (GCCA+), including the role of CCARDESA’s CSA project in the consortium. The following issues were discussed during the meeting:

- The project lies in a drought-prone area characterized by risky dryland cultivation and low yields and subsequent food insecurity
- The existing project is cushioning the community against perennial droughts which affect the area. Irrigation is allowing cropping throughout the year with a cropping intensity of 300-400% achieved in most cases
- The area under irrigation is currently very small (2ha) but there is potential to expand to 81 ha.
- There is a very high demand for organic products and hence the project has been upscaling organic farming using the greenhouse available at the scheme.

2.1 Background of activities at the Site

The site is a 2-ha surface irrigation project drawing water from a nearby perennial river using a diesel pump. The project which started in February 2021 benefits 15 farming households (with an average of 6 people per household) who practice collective farming in the scheme. Ten out of 15 farmers are women and 5 are men. The farming households, have individual plots outside the scheme.

2.1.1 Crops grown at the scheme

A variety of high-value crops are grown at the scheme, and these include beans, green maize, beetroot, lettuce, cucumber, spinach, onion, potatoes, pumpkin, tomatoes, and cabbage among others. Cropping is done four times a year (400% cropping) ensuring appropriate rotations to mitigate crop diseases.



Insert 1: Green maize and onion are among the major crops.

2.1.2 Input acquisition

A start up package was provided by the project during the first season and the farmers are now able to source their own inputs from mainly from Boarne town which is about 20km from the scheme and also from Maputo 9 about 150 km from the scheme). Proceeds from sales are used to finance the acquisition of inputs.

2.1.3 Operation and Maintenance of the scheme

The operation and maintenance costs which include diesel, repair of pump, and irrigation infrastructure are financed through proceeds from sales. The farmers encounter no challenges in meeting these running costs.

2.1.4 Organic Farming

Organic production which is demand-driven is practiced at the scheme using the greenhouse that was provided by the project. Organic products are in high demand very restaurants and supermarkets in towns surrounding the scheme. Through this initiative, farmers have managed to enter contract farming to produce yellow maize with one of the companies in the town of Boarne. The company provided farmers with seed and training on organic farming. Organic farming has become a cash cow for the project, generating between 1500-2000MT per month to sustain the scheme operations.



Insert 2: Organic farming in the greenhouse

2.1.5 Marketing

The town of Boarne which is about 10km from the scheme mainly provides a market for the produce. Trucks come to fetch crops from the scheme and hence there is no need for farmers to hire transport to market. Restaurants and supermarkets also offer markets for organic products. Buyers also come from Maputo some 150 km from the scheme.



Insert 3: Green maize read for market

2.1.6 Infrastructure and the scheme

The infrastructure at the scheme includes the diesel pump, main conveyance to the field and the dugout canals in the field. Farmers open furrows to facilitate infield irrigation. The scheme is not fenced and there are no sheds within the scheme. The road from the scheme is in poor state and is inaccessible to transport during rain season.

2.1.7 Institutional support

Farmers receive advice regularly from Government Extension Staff and the Project Coordinator who resides by scheme. A Government tractor is available for hire to facilitate tillage operations. The price is highly subsidised.

Training is production stage based every season. All farmers receive hands on training through demonstrations. University of Lesotho also provides training occasionally and they also learn from the project especially the aspects of organic agriculture.

2.1.8 Potential for scheme expansion

There is potential to irrigate 81 ha drawing water from the existing main river and the tributary which is currently used to irrigate the 2 ha. A night storage dam also exists near the scheme. There is need for feasibility study to ascertain the exact expansion potential.

2.1.9 Challenges facing the scheme

The irrigation scheme faces the following challenges:

- Farmers currently use hands on the surface part of the scheme, and this is labour intensive.
- Organic agriculture is still complicated for farmers as management of pests and diseases is still a challenge.
- The feeder road to the scheme is in a poor state. It is slippery during the rainy season.

2.2 Meeting with the Baca-Baca Community

The mission convened a meeting with the 15 Members of the project to discuss the benefits, challenges, and how to address them (the challenges) in order to make the project more viable.



Insert 4: Farmers listening attentively to the visitors



Insert 5: happy moments after the meeting

2.2.1 Organization of the Group

The 15-member group is led by a committee which is composed of 5 people (4 women and 1 man). The committee consists of the following: Chairperson and Vice, Secretary, Treasurer, and Committee Member responsible for production. The committee meets every two weeks to discuss matters affecting the scheme.

2.2.2 Benefits of the project

According to the farmers, the benefits from the project are many and varied. Some are quantifiable and others are not. Some of the benefits indicated by the farmers include the following:

- Income from sales which allows famers to pay school fees for their children and buy groceries from the shops.
- Farmers have acquired experience in the production of crops which they were not cropping before.
- Diversification o crops has facilitated consumption of nutritious foods (change of eating habits).
- The project provides products used to cook soup for children at schools. This is through an initiative supported by an organization called Makonbo which provides nutritious food to school children. The organization buys horticultural produce to facilitate their undertakings.

- The project allows production of crops all year round which was not possible under rainfed conditions.
- Production of crops such as green maize which were not possible under dryland.



Insert 5: Meeting enjoying maize cobs from the project

2.2.3 Vision of the Group

The vision of the farmers is as follows:

- Expansion of the project by at least 2 ha to increase the income base.
- Integration of egg, chicken, and fish to diversify diet and income. There is a good market for poultry and fish that farmers can exploit.
- Adequate storage facilities are needed if poultry and fish are to be produced.
- Having exchange visits to other countries to learn
- Opening of bank account
- Formalization of the cooperative. The group is not registered as a cooperative but us working towards that.
- Use of drip irrigation for efficiency and labour saving

3. Conclusion and Way Forward

The beneficiaries and their households have already started deriving benefits from the project. They are now harvesting and selling the produce from the fast-growing vegetable crops (Cabbages, green maize, onion, and tomatoes). Farmers are now able to pay school fees for

their children and there is diversification of diet which is important in Covid 19 and HIV and AIDS environments.

The gains from the current initiatives could be enhanced if additional support on drip irrigation, poultry, and fish production could be provided. Expansion of greenhouses to enhance organic farming could be important given the high demand for such products from supermarkets and restaurants. There is need to increase the area under irrigation to benefit more farmers and to facilitate the generation of higher incomes for the existing beneficiaries.