

MITIGATING THE IMPACT OF COVID-19 ON FOOD AND NUTRITION SECURITY USING CLIMATE-SMART TECHNOLOGIES

FINAL EVALUATION REPORT FOR ZAMBIA



APRIL 2022

Contents

1. Introduction and Background	1
1.1 Introduction	1
1.2 Background	1
1.3 Project Objectives	2
1.4 Project outputs and activities	2
1.5 Project implementation arrangements	2
2. Overview of the Project Final Evaluation.....	3
2.1 Evaluation Team.....	3
2.2 Evaluation Methodology.....	3
2.3 Evaluation Questions	4
3. Findings and Conclusions.....	5
3.1 Assess whether the project is still relevant and has addressed the needs of the community and been consistent with the regional and government policy objectives to address food and nutrition security in the face of Covid 19 and Climate Change.	5
3.2 To what extent has the project contributed to build capacity of the region and the country to undertake adaptation and mitigation actions in response to the challenges caused by the effects of global climate change and climate variability?	6
3.3 To what extent has the project contributed to build capacity of national institutions (local authorities, government departments, etc) to undertake adaptation and mitigation actions in response to the challenges caused by the effects of global climate change and climate variability?7	
3.4 Assess the appropriateness and quality of inputs provided by the project (financial resources, technical support). Were the inputs adequate and reasonable in relation to outputs and targets?	8
3.5 Examine the execution and management of the Project and assess levels of efficiency. Assess the level of coherence, complementarity and co-operation among all stakeholders involved in the Project.....	8
3.6 To what extent have the various activities of the project transformed the available resources into the expected and intended results, in terms of quality, quantity and timelines? Were the intended outputs achieved?	8
3.6 To what extent did the project contribute to objectively verifiable indicators in the logframe	12
3.7 To what extent have the objectives (intended outcomes) been achieved? More specifically, what are the major factors influencing achievement or non-achievement of project objectives ...	13
3.8 How has the SADC Secretariat, CCARDESA and Partners monitored the implementation of the project? Are the monitoring mechanisms adequate and efficient? Assess if their assignments, functions and their reporting is in coherence with the objectives of the project.	14

3.9	Assess the way in which gender, youth, disability and environmental issues were mainstreamed	15
3.10	To what extent can the achievements of the project be considered sustainable? Identify the factors that may influence sustainability in the short, medium and long-term.....	15
3.11	What lessons can be drawn from the implementation of the project to inform the design and establishment of future capacity building programmes.....	15
3.12	What has been the impact of the project in the community	15
4.	Overall Evaluation	16
4.1	Relevance (Problem and needs Analysis)	16
4.2	Effectiveness (Achievement of outcomes)	16
4.3	Efficiency (Soundness and Value for Money)	17
4.4	Impact	17
4.5	Cross-cutting issues.....	17
4.6	Sustainability.....	18

LIST OF ACRONYMS

CCARDESA	Centre for the Coordination of Agricultural Research and Development for Southern Africa
CSA	Climate Smart Agriculture
CSP	Zambia Country Strategic Plan
DC	District Commissioner
EU	European Union
IWD	International Women's Day
SADC	Southern African Development Community
SEPA	Save Environment and People Agency

1. Introduction and Background

1.1 Introduction

This Report is the principal output of the Final Evaluation of the Mitigating the impact of COVID-19 on food and nutrition security using Climate Smart Technologies (CSA) in SADC Countries, a Project undertaken in March/April 2022. The project is being implemented in Eswatini, Mozambique, Zambia and Zimbabwe. This report is particularly for Zambia.

1.2 Background

In response to the humanitarian crisis caused by the Covid-19 pandemic and its associated restrictions, CCARDESA facilitated the implementation of 18-months project entitled, “Mitigating the impact of COVID-19 on food and nutrition security using Climate-Smart Technologies.” The project was funded to the tune of \$180,000 by the European Union through the SADC secretariat. Four national partners in Eswatini, Mozambique, Zambia, and Zimbabwe implemented the project.

The COVID-19 pandemic negatively impacted the food and nutrition status of millions of households worldwide through disrupting 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 called for urgent interventions to minimize the impact to the most affected communities. Addressing the crisis required 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. This called for re-aligning production, processing and marketing strategies for agricultural products in the context of COVID-19.

The societal disruptions and economic shocks arising from COVID-19 control and mitigation measures were noted to be severe in the Southern Africa region due to other confounding factors, including the high level of food and nutrition insecurity, poor market access, inadequate extension services, and diseases such as HIV/AIDS. Before the COVID-19 pandemic, it was forecasted that 43 million people from 13 SADC Member States would be food insecure as a result of climatic shocks, macroeconomic limitations and social factors.

It is against this background that the SADC Secretariat, in collaboration with CCARDESA, embarked on the project aimed at mitigating against the impact of COVID-19 on food and nutritional security of farming households using climate-smart agricultural (CSA) technologies. This project is being implemented as an extension to the CCARDESA activities on GCCA+ program output of promoting the adoption of improved CSA practices. The GCCA+ sought to replicate and up-scale the adaptive demonstration projects implemented in the region.

In Zambia, the project is being implemented in Mufumbwe District of North-western Zambia. It is engaged in smart agriculture to promote high value crops, that would increase the incomes of the people to mitigate the impact of Covid 19 using simple irrigation system. The project was taken to Mufumbwe on the grounds that it has good soils and reliable water resources.

This report therefore reviews progress and achievements made by Zambia in the implementation of the project. It also articulates level of achievement of objectives and outputs, lessons learnt and recommendations for setting up similar projects in the future.

1.3 Project Objectives

The **overall objective** of the project was 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** was to improve the availability and access to high-value nutritious agricultural produce in food insecure communities impacted by COVID-19 using Climate Smart Agriculture (SCA) technologies in Eswatini, Mozambique, Zambia, and Zimbabwe.

1.4 Project outputs and activities

The project was expected to benefit smallholder farming communities in Eswatini, Mozambique, Zambia, and Zimbabwe through the following three outputs:

- Climate-smart irrigation facilities established
- Access to fast-growing, high-value, and nutritious vegetables; and associated inputs amongst the beneficiary communities.
- Postharvest handling and market access facilitated amongst the farming beneficiary communities

The activities that were envisaged for Mufumbwe under each output are given in Table 1.

Table 1: Outputs and related activities for Mufumbwe, Zambia

#	Outputs	Related activities
1	Climate-smart irrigation facilities established	Site identification through local partners and mobilization of target communities;
		Design appropriate infrastructure (hydroponics, drip irrigation, surface irrigation, greenhouse facilities, etc) depending on the needs of the communities per site.
		Procurement and installation of production facilities
2	Access to fast-growing, high-value, and nutritious vegetables; and associated inputs amongst the beneficiary communities.	Procure and distribute production inputs (e.g. vegetable seedlings and/or spawns) to targeted communities
		Train beneficiaries in propagation and production of horticultural crops
		Establish vegetable gardens and mushroom production fields
		Provide agronomic support for production of horticultural crops
3	Post harvest handling, distribution and market access facilitated amongst the farming beneficiary communities improved.	Identify partners to train beneficiary communities in agro-processing of horticulture produce
		Facilitate market access for farmers to sell surplus produce
		Facilitate, through local partners, installation of vegetable storage facilities using low-cost and locally available materials

1.5 Project implementation arrangements

There are four categories of key partners participating in the implementation of the project. Firstly, the SADC secretariat provides policy backstopping and channel funding in liaison with the EU. Secondly, CCARDESA facilitates regional implementation, technical backstopping,

and national liaison, while Bemban Group provides technical backstopping and advisory services. Lastly, the national partners are responsible for implementing the project at the Country level, in liaison with CCARDESA and other regional bodies.

For Zambia, implementation is spearheaded by Save Environment and People Agency (SEPA) in collaboration with Ministry of agriculture, Zambia in Mufumbwe District of North-western Zambia. SEPA has been working on climate resilient adaptation throughout it exists project such gardening using simple irrigation system, laying of small live stoke throughout north-western Zambia.

2. Overview of the Project Final Evaluation

The Final Evaluation of the '*Mitigating the impact of COVID-19 on food and nutrition security using Climate-Smart Technologies*' addresses the aims, design, relevance, efficiency, effectiveness and impact and sustainability of the activities undertaken in comparison with the provisions of the Project Document and Financing Agreement and make appropriate recommendations, including suggestions on similar projects in the future.

The general objective of the Final Evaluation is to assess the project performance since its inception and the progress which the project has made towards achieving the intended objectives and expected results as set out in the plan of action.

The **Specific objectives** are:

- To assess the performance of the project, paying special attention to relevance, efficiency and effectiveness and to the potential impact against its objectives;
- To assess the delivery of the project against its **log frame** and potential achievement of the impact at project end; and
- To identify key lessons and propose practical **recommendations** for project sustainability and design and implementation of similar projects in the future.

2.1 Evaluation Team

Dagmore Tawonezvi (Monitoring and Evaluation Officer for CCARDESA) in collaboration with Enos Onyuka (Climate Change Specialist from the Bemban Group) executed the final evaluation.

2.2 Evaluation Methodology

The evaluation was done through Desk review of key documents and reports as well as field visit and interviews with SEPA, local authorities and farmers. The documents reviewed included:

- Contract for Grant Emergency Project for Covid 19
- Mitigating the impact of COVID-19 on food and nutrition security using Climate Smart Technologies in SADC Countries, Project Proposal
- Midterm Project Implementation Progress Report, August 2020
- SEPA Bi-Annual Project/Programme Management Report, May 2022

2.3 Evaluation Questions

A set of thirteen evaluation questions (EQs) covering the seven (7) evaluation criteria and issues developed to guide the evaluation.

Table 2: Evaluation questions

EQ no	Evaluation Question	Targeted respondents	Evaluation Criteria	Data collection method
1	To what extent has the “Mitigating the impact of COVID-19 on food and nutrition security using Climate-Smart Technologies.” project addressed the needs of the community and been consistent with the regional and government policy objectives to address food and nutrition security in the face of Covid 19 and Climate Change. Is the project still relevant?	<ul style="list-style-type: none"> Local authorities Community leaders Extension staff Farmers through Group Discussion 	Relevance	Document analysis, interviews
2	<p>To what extent has the project contributed to build capacity of the country to undertake adaptation and mitigation actions in response to the challenges caused by the effects of global climate change and climate variability.</p> <p>To what extent has the project contributed to build capacity of national institutions (local authorities, government departments, etc) to undertake adaptation and mitigation actions in response to the challenges caused by the effects of global climate change and climate variability.</p>	<ul style="list-style-type: none"> Local authorities Community leaders Extension staff Farmers through Group Discussion 	Relevance Effectiveness	Document analysis, key informant interviews
3	<p>What has been the appropriateness and quality of inputs provided by the project (financial resources, technical support). Were the inputs adequate and reasonable in relation to outputs and targets?</p> <p>Examine the execution and management of the Project and assess levels of efficiency. Assess the level of coherence, complementarity and co-operation among all stakeholders involved in the Project</p>	<ul style="list-style-type: none"> Local authorities Community leaders Extension staff Farmers through Group Discussion 	Efficiency	Document analysis, key informant interviews
4	To what extent have the various activities of the project transformed the available resources into the expected and intended results, in terms of quality, quantity and timelines? Were the intended outputs achieved?	<ul style="list-style-type: none"> Community leaders Extension staff Farmers through Group Discussion 	Efficiency	Document analysis, key informant interviews
5	To what extent did the project contribute to objectively verifiable indicators in the logframe	<ul style="list-style-type: none"> Extension staff Farmers 	Effectiveness	Document analysis key informant interviews
6	To what extent have the objectives (intended outcomes) been achieved? More specifically, what are the major factors influencing achievement or non-achievement of project objectives	<ul style="list-style-type: none"> Community leaders Extension staff Farmers through Group Discussion 	Effectiveness	Document analysis, interviews
7	How has the SADC Secretariat, CCARDESA and Partners monitored the implementation of the project? Are the monitoring mechanisms adequate and efficient? Assess if their assignments, functions and their reporting is in coherence with the objectives of the project.	<ul style="list-style-type: none"> SADC Secretariat, CCARDESA and Partners 	Effectiveness	Document analysis, key informant interviews
8	What challenges have been experienced in the implementation of the project and what strategies have been deployed to solve these challenges? Pay particular attention to administrative and management issues	<ul style="list-style-type: none"> Community leaders Extension staff 	Effectiveness	Document analysis, key informant interviews

		<ul style="list-style-type: none"> Farmers through Group Discussion SADC Secretariat, CCARDESA and Partners 		
9	Assess the way in which gender, youth, disability and environmental issues were mainstreamed	<ul style="list-style-type: none"> Community leaders Extension staff Farmers through Group Discussion 	Effectiveness/ Inclusion of vulnerable groups	
10	What strategies have been employed to make the project visible? Assess the relevance and effectiveness of communication and visibility strategies	<ul style="list-style-type: none"> CCARDESA Partners 	Visibility	Document analysis, key informant interviews
11	To what extent can the achievements of the project be considered sustainable? Identify the factors that may influence sustainability in the short, medium and long-term	<ul style="list-style-type: none"> Community leaders Extension staff Farmers through Group Discussion Partners 	Sustainability	Document analysis, key informant interviews
12	What lessons can be drawn from the implementation of the project to inform the design and establishment of future capacity building programmes. <ul style="list-style-type: none"> Design Institutional set-up Implementation arrangements Engagement of stakeholders Coordination with other programmes/projects Cross cutting Issues 	<ul style="list-style-type: none"> Community leaders Extension staff Farmers through Group Discussion Partners 	Impact	Document analysis key informant interviews
13	What has been the impact of the project in the community	<ul style="list-style-type: none"> Community leaders Extension staff Farmers through Group Discussion Partners 	Effectiveness/Impact	Document analysis key informant interviews

Table 3: Overview of EQs in terms of coverage of Evaluation Criteria

Criteria	EQ1	EQ2	EQ3	EQ4	EQ5	EQ6	EQ7	EQ8	EQ9	EQ10	EQ11	EQ12	EQ13
Relevance	x		x										
Effectiveness					x	x	x	x					x
Efficiency		x		x									
Impact												x	x
Sustainability											x		
EU Visibility										x			
Cross cutting issues									x				

3. Findings and Conclusions

3.1 Assess whether the project is still relevant and has addressed the needs of the community and been consistent with the regional and government policy objectives to address food and nutrition security in the face of Covid 19 and Climate Change.

The following observations and conclusions were made:

- i. The project is aligned to the Crisis response revision of Zambia country strategic plan (2019–2024) which highlights the following:
 - Food availability in Zambia is looking positive for most food crops, with overall maize production at 3.4 million mt against domestic consumption requirements of 2.3 million mt. This represents a 69 percent increase from the previous crop season. Rice and sorghum production also increased by 17.1 percent and 199 percent respectively. 4 Observing the global impact of the pandemic, however, people’s ability to access nutritious food may be severely hampered by the pandemic.
 - The revision to the Zambia country strategic plan (CSP) 2019–2024 makes changes to three existing strategic outcomes. Under strategic outcome 1, cash-based transfers (CBTs) for urban food insecure populations will be scaled up. Under strategic outcomes 3 and 4, additional early recovery elements to mitigate climatic and other shocks and build resilience, and market monitoring activities will be included.
 - Continuing efforts from the drought response in 2019/20, the Government of Zambia, with support from the World Food Programme, will enhance early recovery assistance in targeted districts to support interventions that have potential to contribute to smallholder recovery under strategic outcome 3.
- ii. The project is also consistent with the thrust of the Government of Zambia of creating an enabling environment for businesses and encouraging individuals/ organizations to be productive. These words were articulated in the letter written by the District Commissioner (DC) for Mufumbwe to the Chairperson of SEPA appreciating the participation of the project in the commemoration of the International Women’s Day (IWD) and celebrations of Youth Day held on 8th March 2022. The project was commended for great work in producing various agricultural items and contributing towards improved livelihoods of the members as well as the general public.
- iii. The project aligns with the CCARDESA Strategic Plan which frontloads the need to increase the resilience of smallholder farmers to climate change and reduce the risks in their production systems through a cross-sectoral approach. The thrust is to ensure that the value chain actors are capacitated in building resilience to climate change and sustainably manage natural resources as well as transboundary pests and diseases.

The strategic plan is also geared towards promoting the development and use of appropriate agricultural technologies and innovations for women, youth and vulnerable groups. Mufungwe project in particular is promoting innovation for 30 community including 15 women, 9 youths and 2 disabled people.

To promote commercialisation of smallholder agriculture through increasing productivity, value addition, and marketing with emphasis on commodity chain development. Concomitant with this, Mufungwe envisages to promote drying of vegetables, processing of soyabeans and groundnuts to make oil among others initiatives.

3.2 To what extent has the project contributed to build capacity of the region and the country to undertake adaptation and mitigation actions in response to the challenges caused by the effects of global climate change and climate variability?

The project has positively contributed to capacity building of the SADC and CCARDESA Secretariats with respect to human capital, physical and financial resources. The mandate of

the SADC Secretariat in strategic planning; coordination and harmonisation of policies and strategies; management of special programmes and projects; monitoring and evaluation; resource mobilisation; and research in the region is premised on the existence of a certain level of capacity both at its Secretariat and at national levels. Similarly, CCARDESA is expected to have adequate capacity to deliver on coordination of agricultural research and development in the region.

The project on “Mitigating the impact of COVID-19 on food and nutrition security using Climate-Smart Technologies.” has managed to provide the two institutions with financial resources to the tune of \$180,000 from the European Union thereby strengthening their capacities to facilitate implementation of their mandates particularly climate change related interventions.

Successful delivery of the Strategic Plan requires the SADC and CCARDESA Secretariat to strengthen their human resource capacities. The strategic plans for both institutions articulate the need to strengthen partnerships, first between themselves and then with bilateral and multilateral development partners, private sector organizations, appropriate UN agencies, the CGIAR institutions, commodity networks, agri-business associations, regional NGOs, regional and continental farmers’ organizations and continental and Sub-regional Research Organizations and national institutions and NGOs to augment the limited human resources at their disposal. Three key personnel from CCARDESA, 2 SADC Secretariat Experts and 2 personnel from Bemani Group have been actively involved in the implementation of the project supporting each other technically where need be.

Strengthening of strategic partnerships with organisations within the mandate countries of SADC and CCARDESA provides a favourable platform for promoting joint delivery with national agricultural institutions, the private sector, farmer organisations, commodity networks, NGOs and any other organisations within the agricultural sectors of SADC countries. The impact of SADC and CCARDESA will be visible at national level, where the organisations will be strengthening the capacities of national institutions to deliver services to the final target groups: farmers, input suppliers, marketing agents, processors, and other actors in the targeted agricultural value chains. The partnerships are crucial for dialogue, strategic planning, establishment of priority needs and the actual implementation of projects and programmes for SADC and CCARDESA.

Concomitant with the above provisions of SADC and CCARDESA Secretariats strategic plans, the project has managed to foster partnerships between SADC Secretariat, CCARDESA, Ministry of Agriculture, Zambia, SEPA, District Commissioner’s Office, and Local District Council. These partnerships have enabled continuous monitoring of Mufumbwe project by SEPA for effectiveness, efficiency and sustainability. SEPA in particular has been spearheading the implementation of the project in terms of planning, mobilization of resources, procurement of materials and services, implementation and general supervision of the project. The Ministry of Agriculture has been providing extension and training support. One Extension Officer was assigned to the project and provided training and technical support. Farmers are free to visit the Ministry to get additional advice.

3.3 To what extent has the project contributed to build capacity of national institutions (local authorities, government departments, etc) to undertake adaptation and mitigation actions in response to the challenges caused by the effects of global climate change and climate variability?

Locally, the project has strengthened the capacity of SEPA to implement climate-smart irrigation projects. The project is the first of its kind in the region and SEPA endeavours to plan

and implement similar projects in the district in line with the demand and political support given by the local authorities and government. Tapping on the experience gained through implementation of the project, SEPA is planning to do the following:

- Mobilize resources to expand the project from the current 2ha to 16 ha. The expansion will involve design of the irrigation project, drilling of additional boreholes and installation of solar systems. Water availability has already been confirmed by the hydrologists which were contracted by the project to identify suitable water sites.
- Upgrading the current feeder road to the project which is in poor state.
- Work with Oxfam to support on value addition.
- Convene a workshop in Lusaka on Women in Agriculture that will also involve women from Mufungwe as part of capacity building
- Provide storage facilities and shed for the project
- Capacitate the community on drying of vegetables and groundnuts as part of value addition

One Extension Officer from the Ministry of Agriculture has been involved in the implementation of the project and this experience has been perceived as important for the implementation of similar projects.

3.4 Assess the appropriateness and quality of inputs provided by the project (financial resources, technical support). Were the inputs adequate and reasonable in relation to outputs and targets?

CCARDESA to provide information

3.5 Examine the execution and management of the Project and assess levels of efficiency. Assess the level of coherence, complementarity and co-operation among all stakeholders involved in the Project

The SADC Secretariat provided overall policy guidance whilst CCARDESA coordinated the technical and logistical functions for the project. Bemban Group provided technical backstopping and advisory services. SEPA was the national institution spearheading implementation on the ground. The following observations were made in terms of efficiency and effectiveness of the arrangements:

- CCARDESA and Bemban Group visits were limited to 3 for the duration of the due to challenges posed by COVID 19.
- Some delays were experienced in providing financial resources to the Bemban Group (funds coming from CCARDESA) to facilitate ground visits to Zambia. SEPA expressed the same challenges

3.6 To what extent have the various activities of the project transformed the available resources into the expected and intended results, in terms of quality, quantity and timelines? Were the intended outputs achieved?

1. Climate-smart irrigation facilities established

A 4ha drip irrigation system was planned and designed as shown in Figure 1. The system was however, installed on a 2ha plot due to solar pumping unit constraints. One of the solar panels was extensively damaged by the tank, which fell on it. Water was also sighted as limiting as the current borehole yield cannot meet the demand. The irrigation is functional and is permitting cultivation of crops throughout the year. According to the farmers, the project is allowing them to achieve a cropping intensity of over 300%. SEPA is already in the process of engaging other partners to drill a second borehole to facilitate the extension of the irrigation to over 4 ha.

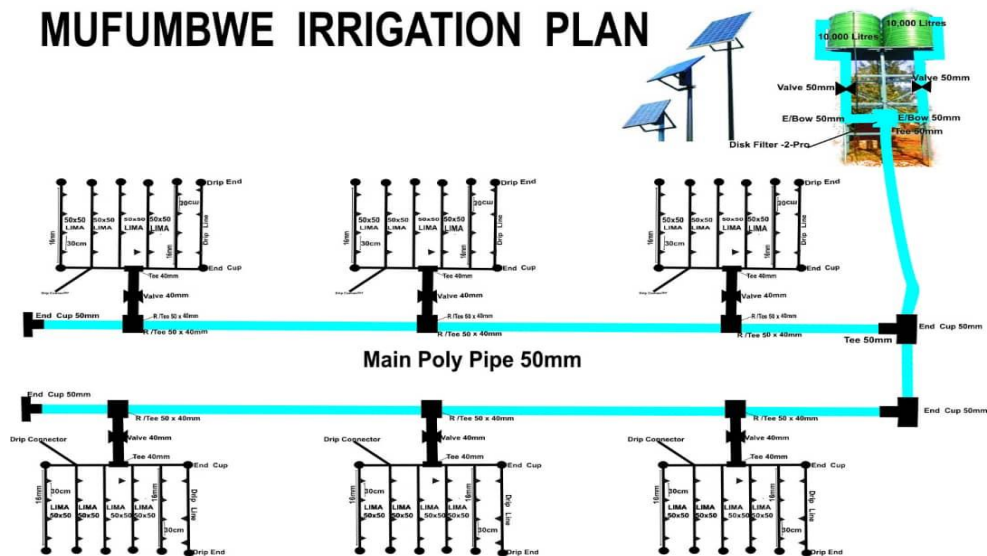


Figure 1: Mufumbwe Irrigation Plan

Figure 2: Solar system erected to facilitate irrigation water supplies



Figure 3: The tanks supplying the drip system



Figure 4: The drip lines at Mufumbwe irrigation project



2. Access to fast-growing, high-value, and nutritious vegetables; and associated inputs amongst the beneficiary communities.

The irrigation project has facilitated the cultivation of high value and nutritious horticultural crops such as green vegetables, onions, egg plant, tomatoes and okra

Figure 5: Fruit trees planted at Mufumbwe irrigation project



Figure 6: Soya beans being grown at Mufumbwe irrigation project



The project is also growing cucumber, soyabeans, groundnuts, green maize and fruit trees among others. The produce for the first season was all consumed to enhance the immune systems of the beneficiaries in the wake of Covid 19 pandemic. According to farmers, there were no deaths from Covid 19 in their community and they attribute this to good eating habits facilitated by the project.

Whilst the kick start inputs were supplied by the project, the second season witnessed the selling of crops to raise cash for inputs and to meet running costs for the irrigation project (see Table 2 for details). The project managed to employ a security guard who is paid from the proceeds. The farmers indicated that they are now able to meet all the running costs.

Table 1: SEPA Mufumbwe crop production information, yields and sales (2021 season 1)

Crops (species)	Crops (species)	Quantities (ha)	Total sales (ZK)
1	Tomatoes	0.25	6000
2	Rape	1.25	2000
3	Okra	1.25	2200
4	Egg plant	1.25	1000
	Total	3	11,200

3. Postharvest handling and market access facilitated amongst the farming beneficiary communities

No postharvest handling facilities were facilitated by the project. This was attributed to the delays in the implementation of the project. The delays were due to:

- It took time for the beneficiaries to identify and get appropriate land from the local authorities. Several sites were scouted but were either not suitable or could not be released by community members. The intervention of the Chief facilitated the supply of 16ha after several efforts.
- The first attempt to drill a borehole was a failure as some 70 metres were dug to no avail. Water was only found at the second site following the engagement of expert hydrologists.

SEPA is in the process of engaging partners (Oxfam) to facilitate the erection of shades and other postharvest handling infrastructure given that the project is coming to an end.

With regard to marketing, the demand for produce from the project has been outstripping supply and hence buyers have been coming straight to the project site. This means there are no marketing challenge as at now.

3.6 To what extent did the project contribute to objectively verifiable indicators in the logframe

- (i). The Log-frame is a critical programming and monitoring tool which summarises the key elements of the project plan, notably:
 - The project's hierarchy of objectives (i.e. project description and/or intervention logic) and
 - The indicators with associated baseline values and targets.

Annex 1 provides some description on achievements on various levels of the logframe as envisaged in the project document and financing agreement.

3.7 To what extent have the objectives (intended outcomes) been achieved? More specifically, what are the major factors influencing achievement or non-achievement of project objectives

The specific objective was to improve the availability and access to high-value nutritious agricultural produce in food insecure communities impacted by COVID-19 using Climate Smart Agriculture (SCA) technologies in Mufumbwe, Zambia. From the assessment, the outcome has been achieved and the project is perceived to become more successful with envisaged project expansion and hands on agricultural training of famers.

Figure 7: Some of the crops being grown at Mufumbwe



In terms of expected outputs, the following have been achieved:

- A 2ha solar pumped irrigation project has been established. This, however, falls short of the 4ha envisaged at planning due to inadequate financial resources to drill boreholes.
- A variety of highly nutritious horticultural crops are being grown at the project as envisaged in the plan
- Postharvest and handling facilities have not been provided as envisaged in the project.

The following factors have influenced the achievement of the specific objective and first 2 outputs:

- The highly motivated community provided labour for the establishment of the irrigation system. They did the bush clearing and stamping thereby fast-tracking the establishment of the irrigation system.
- The support from the Chief in the provision of highly fertile land facilitated the establishment of the project.
- Provision of start-up seed packs enabled farmers to cultivate during the first season. This enabled them to sell and save for future seed requirements.
- The availability of water on site facilitated the establishment of a viable irrigation project.
- Existence of a dedicated committee which spearheads the implementation of the project.
- Technical support from the Ministry of Agriculture

The following still need to be done to improve the attainment of project objectives:

- Erection of sheds and postharvest handling facilitates for the crops
- Capacity building on food processing and value addition to improve farmers incomes and availability of food throughout the year.
- Expansion of irrigation facilities
- Erection of fencing to protect the infrastructure
- Hands-on training of famers on agricultural production

3.8 How has the SADC Secretariat, CCARDESA and Partners monitored the implementation of the project? Are the monitoring mechanisms adequate and efficient? Assess if their assignments, functions and their reporting is in coherence with the objectives of the project.

Monitoring has been the responsibility of SADC Secretariat, CCARDESA, Bemban Group and SEPA. SEPA was supposed to periodically monitor the implementation of the project since it was the local partner. However, some key challenges were observed during the evaluation as follows:

- SEPA is located in Zambezia, which is over 300km from the project and the distance require adequate financial resources to facilitate movements to and from the project site. The resources were perceived to be inadequate and hence the monitoring was compromised.
- SEPA was involved in an accident during a monitoring mission to the project and this affected their operations since the vehicle they were supposed to use for monitoring was written off.
- Government Extension Staff in the District were overwhelmed and therefore could not provide monitoring support.

3.9 Assess the way in which gender, youth, disability and environmental issues were mainstreamed

The project has facilitated the inclusion of disadvantaged groups as follows:

- Out of 30 members of the group, 15 are women, 9 are youths and 2 have disabilities
- The project is chaired by a women
- The Irrigation Committee has 7 people of which 5 are women.

3.10 To what extent can the achievements of the project be considered sustainable? Identify the factors that may influence sustainability in the short, medium and long-term

According to the beneficiaries, the project is geared to stand on its own after the donors have left. The positive factors for sustainability include the following

- Availability of water resources at the project. Ground water potential exists and what is needed is to drill additional boreholes to facilitate expansion of the project. SEPA promised to engage partners to expand the project
- Availability of pipes. The project is leaving behind pipes that can facilitate expansion of the scheme to 4 ha.
- Existence of motivated beneficiaries and management structures. The beneficiaries are highly motivated, and the committee provides necessary guidance and leadership for sustainability.
- Hands on training on agriculture. Trained members can train other community members.
- People are united. The beneficiaries are highly united, and they work as a team providing labour, financial resources for the running of the project. For instance, contributions from beneficiaries pay for the watch money at the scheme. A Guard room for the watch man has also been erected by the community.
- Dedicated support from the local authorities especially the chief and the Ministry of Agriculture

3.11 What lessons can be drawn from the implementation of the project to inform the design and establishment of future capacity building programmes.

- Involvement of community in the identification and planning of the project is important for sustainability
- Support should be sought from the local institutions
- Capacity building should be hands-on for sustainability
- Start-up packs are important for sustainability

3.12 What has been the impact of the project in the community

- Water was made available to the community. According to the community, drinking water was inadequate and there were incidences of water borne diseases before the project. The community is now accessing drinking from the project and water borne diseases are no longer being reported.
- The beneficiaries can now feed their families with nutritious foods

- This is the first project in Mufungwe where people can join together as a group.
- Employment creation. Guard employed and short-term labour provide by the community.
- The project is supplying food to the surrounding mines
- Parliamentary Development Fund promised support
- The project is permitting cropping throughout the year

4. Overall Evaluation

(i). Following the analysis of findings derived from desk-research, field-mission interviews and meetings, and based on reference to the Financing Agreement, Log-frame, and various project reports, the Overall Assessment of the Mufumbwe project was done based on the application of 6 main evaluation criteria notably:

- Relevance
- Effectiveness
- Efficiency
- Impact
- Sustainability
- Cross cutting issues

(ii). The following evaluation ratings applicable were used:

Table 15: Ratings for Overall Performance

Rate	Description
1	Highly Satisfactory (i.e. fully according to plan or better)
2	Satisfactory (i.e. on balance according to plan, positive aspects outweighing negative aspects)
3	Less Than Satisfactory (i.e. not sufficiently according to plan, taking account of the evolving context; a few positive aspects, but outweighed by negative aspects)
4	Highly Unsatisfactory (i.e. seriously deficient, very few or no positive aspects)

4.1 Relevance (Problem and needs Analysis)

Rating: Highly Satisfactory (i.e. fully according to plan or better)

- Highly relevant to the Government of Zambia of thrust of creating an enabling environment for businesses and encouraging individuals/ organizations to be productive.
- Aligns with the CCRDESA Strategic Plan

4.2 Effectiveness (Achievement of outcomes)

Rating: Satisfactory (i.e. on balance according to plan, positive aspects outweighing negative aspects)

- The specific objective of improving the availability and access to high-value nutritious agricultural produce in food insecure communities impacted by COVID-19 using Climate Smart Agriculture (SCA) technologies in Mufumbwe, Zambia was achieved.

- A 2ha solar pumped irrigation project has been established. This, however, falls short of the 4ha envisaged at planning due to inadequate financial resources to drill boreholes.
- A variety of highly nutritious horticultural crops are being grown at the project as envisaged in the plan
- Postharvest and handling facilities have not been provided as envisaged in the project.

4.3 Efficiency (Soundness and Value for Money)

Information needed from CCARDESA

4.4 Impact

Rating: Satisfactory (i.e. on balance according to plan, positive aspects outweighing negative aspects)

The project had the following impact:

- Water was made available to the community. According to the community, drinking water was inadequate and there were incidences of water borne diseases before the project. The community is now accessing drinking from the project and water borne diseases are no longer being reported.
- The beneficiaries can now feed their families with nutritious foods
- This is the first project in Mufungwe where people can join together as a group.
- Employment creation. Guard employed and short-term labour provide by the community.
- The project is supplying food to the surrounding mines
- Parliamentary Development Fund promised support
- The project is permitting cropping throughout the year

The impact can be enhanced by:

- Expanding the project as envisaged in the plan
- Capacity building of beneficiaries on postharvest handling and food processing
- Hands-on training of farmers on agricultural production

4.5 Cross-cutting issues

Rating: Highly Satisfactory (i.e. fully according to plan or better)

- The project is involving women, youth and disabled people

4.6 Sustainability

Rating: Satisfactory (i.e. on balance according to plan, positive aspects outweighing negative aspects)

The positive factors for sustainability include the following

- Availability of water resources at the project. Ground water potential exists and what is needed is to drill additional boreholes to facilitate expansion of the project. SEPA promised to engage partners to expand the project
- Availability of pipes. The project is leaving behind pipes that can facilitate expansion of the scheme to 4 ha.
- Existence of motivated beneficiaries and management structures. The beneficiaries are highly motivated, and the committee provides necessary guidance and leadership for sustainability.
- Hands on training on agriculture. Trained members can train other community members.
- People are united. The beneficiaries are highly united, and they work as a team providing labour, financial resources for the running of the project. For instance, contributions from beneficiaries pay for the watch money at the scheme. A Guard room for the watch man has also been erected by the community.
- Dedicated support from the local authorities especially the chief and the Ministry of Agriculture

Sustainability can be enhanced through the following:

- Expanding the project as envisaged in the plan
- Capacity building of beneficiaries on postharvest handling and food processing
- Hands-on training of farmers on agricultural production
- Capacity building of beneficiaries on record keeping, budgeting and financial management

5. Recommendations and Exist Strategy

Considering that the project is still perceived to be appropriate and relevant to the community and Government of Zambia and the SADC Region, and that the project has attained some Satisfactory accomplishments of the results, it is important to consider interventions that can enhance the project's sustainability. The actions which are perceived as building blocks for the attainment of this recommendation are to:

- Provide hands-on training on agricultural production. The activity to be undertaken before the project closes.
- Capacitate farmers on budgeting, record keeping and financial management. This may be facilitated by SEPA through various partners.
- Expand the project to 4ha or more.
- Capacitate farmers on agro-processing and postharvest handling of crops
- Provide sheds and postharvest handling infrastructure

Annex 1: Status of achievement of indicators

Level	Description	Indicator	Target - Baseline Value & Year	Achievements	Status of achievement & Traffic Light ● Achieved ● Partially achieved ● Not achieved	Remarks
Specific objective	To improve the availability and access to high value nutritious agriculture produce in food insecure communities impacted by COVID-19 using Climate Smart Agriculture (SCA) technologies in Eswatini, Mozambique, Zambia and Zimbabwe	Number of communities impacted by COVID-19 with access to high value nutritious agriculture produced (vegetables, mushroom spawns and associated processed products) using Climate Smart Agriculture (SCA) technologies in Eswatini, Mozambique, Zambia and Zimbabwe		Achieved. Community has access to high value crops such as green vegetables, onions, pumpkins, soyabeans, tomatoes which are consumed and sold locally. 30 farmers benefiting from the project		
Output 1	Climate-smart irrigation facilities established	Number of Climate-smart irrigation facilities installed	Baseline: 0 in 2010 Target: 1 in 2020	2ha of climate-smart irrigation established as opposed to the planned 4ha due to water constraints.		2 more hectares to be established with support from partners (to be facilitated by SEPA)
Activities	1.1 Site identification through local partners and mobilization of target communities;			16ha identified and provided by local Chief. Community mobilized and is highly active		
	1.2 Design appropriate infrastructure (hydroponics, drip irrigation, surface irrigation, greenhouse facilities, etc) depending on the needs of the communities per site;			Design completed in line with community needs		

	1.3 Procurement and installation of production facilities;					
Output 2	Access to fast-growing and high-value vegetable seeds, mushroom spawns and associated inputs amongst the farming communities in Eswatini, Mozambique, Zimbabwe and Zambia improved	Number of farming communities accessing fast-growing high-value seedlings for horticultural crops, spawns and associated inputs amongst COVID-19 impacted communities		Start-up pack provided by the project. Farmers now able to buy their own seeds. Horticultural crops being produced		
Activities	2.1 Procure and distribute production inputs (e.g. vegetable seedlings and/or spawns) to targeted communities;			Start-up pack provided by the project. Farmers now able to buy their own seeds. Horticultural crops being produced		
	2.2 Train beneficiaries in propagation and production of horticultural crops;			Beneficiaries trained by Government Extension Officer on crop production. Farmers feel the training was not adequate. They need hands on training and demonstrations on site		Project to facilitate training before closure
	2.3 Establish vegetable gardens and mushroom production fields			Vegetable gardens established		
	2.4 Provide agronomic support for production of horticultural crops			Support inadequate. Extension support only received once.		Government Extension Staff are overwhelmed and as such cannot provide adequate support. Hands-on training needed for sustainability
Output 3	Post harvest handling, distribution and market access facilitated amongst the farming beneficiary communities improved.			None provided		SEPA in the process of engaging partners to facilitate provision of postharvest handling facilities

Activities:	3.1 Identify partners to train beneficiary communities in agro-processing of horticulture produce			Partially achieved. Government Extension staff provided theoretical training.		Hands-on training and demonstrations needed. Project to provide training before closure
	3.2 Facilitate market access for farmers to sell surplus produce			Market readily available. Buyers come to the field. Access road is however very poor		
	3.3 Facilitate, through local partners, installation of vegetable storage facilities using low-cost and locally available materials			None provided		This will not be able to be facilitated before project closure. SEPA to engaged partners for this