







## FINAL PROJECT REPORT

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

September 2022

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#### LIST OF ACRONYMS

CCARDESA - Centre for Coordination of Agricultural Research and Development for Southern Africa

COVID-19 - Corona Virus Disease 2019

CSA - Climate Smart Agriculture

EU - European Union

GaTF - Grow A Tree Foundation

GCCA+ - Global Climate Change Alliance Plus Programme

IRS - Indicator Reference Sheet

ITT - Indicator Tracking Tool

LF – Logical Framework

M&E – Monitoring and Evaluation

OVIs - Objectively Verifiable Indicators

PMCO - Philani Maswati Charity Organization

RAP – Regional Agricultural Policy

SADC - South African Development Community

SDAE - District Economic Activities Service

SEPA - Save Environment and People Agency

## **Project Summary**

Project Title	Mitigating the impact of COVID-19 on food and nutrition security using Climate Smart Technologies				
Project Location(s)	Eswatini, Mozambique, Zambia and Zimbabwe				
Name of applicant	Centre for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA)				
Postal address:	Private Bag 00357				
Telephone number:	+2673914997				
Contact person	The Executive Director, Dr C.S. Dlamini				
Contact person's email	cdlamini@ccardesa.org				
Address:	Plot 4701, Station Exit Road				
Website of the lead applicant:	www.ccardesa.org				
The total duration	18 months				
Project Budget	\$ USD 180 000				
Objectives of the project	Overall objective: 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.  Specific objective: 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.				
Target group(s)	Organized farming communities affected by COVID-19 Eswatini, Mozambique, Zambia and Zimbabwe.				
Final beneficiaries	Vulnerable community members, including women, youths and the physically challenged who are affected by the impacts of COVID-19 in Eswatini, Mozambique, Zambia and Zimbabwe.				
Outputs	Output 1.1: Climate-smart irrigation facilities established in Eswatini, Mozambique, Zambia and Zimbabwe  Output 1.2: Access to fast-growing, high-value and nutritious vegetables; and associated inputs amongst the beneficiary communities in Eswatini, Mozambique, Zambia and Zimbabwe improved.  Output 1.3 Post harvest handling and market access facilitated amongst the farming beneficiary communities in Eswatini, Mozambique, Zambia and Zimbabwe.				

#### 1. Introduction

The outbreak of the COVID-19 pandemic posed a threat to livelihoods and food security of many people in Southern Africa. Mobility of people was restricted, and so was the movement of goods and services associated with trade and income generation. At the time of the outbreak, the SADC region had well over 40 million food insecure people. The pandemic, made countries take specific measures that were good for the containment and control of the disease but they had huge impacts on the agricultural sector. The measures increased the vulnerability of the people as well as the number of people requiring humanitarian assistance since the restrictions on movement inadvertently closed both the agricultural markets for the small-scale farmers and the off-farm income generating opportunities.

In order to limit the effects of the pandemic on food security, the EU supported a regional project on 'mitigating the impact of COVID-19 on food and nutrition security using Climate Smart Agricultural Technologies in SADC Countries.' The dangers posed by the pandemic to food security justified the establishment of this project as an instrument for limiting the impacts. This was a short duration project - 18 months – commissioned in March/April 2020. It was closed in May 20022. The project was implemented in Eswatini, Mozambique, Zambia and Zimbabwe. The choice of the countries was informed by the severity of the COVID-19 and the likely potential impact on the food systems of the different countries in the region. The project was therefore meant to reduce the impacts of the pandemic on food security.

The disruptions caused by the COVID-19 pandemic called for urgent interventions to minimise the impacts, especially among the vulnerable 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. Actions needed to be taken early to adequately halt the potential impacts on the already velnerable populations.

The of the project aim was to mitigate against the impact of COVID-19 on food and nutrition security of farming households using Climate Smart Agriculture (CSA) technologies. The project was implemented as an extension to the CCARDESA activities on GCCA+ programme's output of promoting the adoption of improved CSA practices. The European Union through the SADC secretariat funded this US\$ 180,000 project.

Four national partners in Eswatini, Mozambique, Zambia and Zimbabwe implemented the project. These were: (1) Philani Maswati Charity Organization (PMCO) in Eswatini; (2) Grow A Tree Foundation (GaTF) in Zimbabwe; (3) Save Environment and People Agency (SEPA) in Zambia; and (4) Baca-Baca Cooperative community groups in Mozambique.

### 2. Project Objectives

The overall project objective driven from the SADC GCCA+ 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 CSA technologies in Eswatini, Mozambique, Zambia and Zimbabwe.

## 3. Regional context and Project Relevance

The project is part of the GCCA+ being implemented by the SADC secretariat with EU funding. The project responds to one of the main GCCA+ objectives and had a practical consideration of the potential impact of the COVID-19 pandemic and high HIV/AIDs prevalence on food insecurity, and climate change. However, the project could neither plan for, nor anticipate the occurrence of natural disasters. During implementation, two countries involved in this project (Eswatini and Mozambique) were hit by a strong cyclone that had an effect on the implementation of activities. The project is consistent with the thrust of SADC member states, more so the four beneficiary countries. These countries, just like the rest of the SADC countries, strive to create favourable conditions for businesses (large and small) to thrive.

SADC Regional Agricultural Policy (RAP), along with the Regional Indicative Strategic Development Plan (RISDP) and other strategic documents provide policy and strategic guidance on the development path of SADC Member States. While the RAP serves as a catalyst for agricultural investment, the RISDP augments the implementation of a series of short and long-term measures aimed at "strengthening sectoral cooperation between SADC MS through the development of coherent regional policies and programmes related to crop development, protection, storage, processing, utilization and trade".

The CCARDESA Strategic Plan was developed as a guiding document for implementation of specific actions that contribute to the achievement of objectives and targets outlined both in the RISD and RAP. It emphasizes on actions for increasing the resilience of smallholder farmers to climate change and reduce the risks in their production systems. In addition, the CCARDESA Strategic Plan has significant actions for supporting capacity building of value chain actors and strengthening the resilience of food systems to climate change. It also promotes the development and use of appropriate agricultural technologies and innovations for women, youth and vulnerable groups.

The project's specific objective of improving the availability and access to high-value nutritious agricultural produce in food insecure communities impacted by COVID-19 using CSA technologies in Eswatini, Mozambique, Zambia and Zimbabwe, fully aligns to the existing policies and strategies of SADC and the Member States. The project is

therefore highly relevant to the countries, beneficiary communities and value chain actors.

### 4 Institutional Arrangement

### 4.1 Overview of project institutional arrangement and responsibilities

The Institutional arrangement of this project involved five different levels. At the international level the EU provided resources and gave advisory services as well. At the regional level, there were three organizations: SADC, CCARDESA and Bembani Group. SADC Secretariat provided technical and policy leadership and acted as the fiduciary organization for the project. CCARDESA was the technical facilitator and liaison organization with the national partners. Bembani Group had the responsibility of providing technical backstopping and advisory services to the implementation of the project. The national partners (Philani Maswati, ADS- Orquídeas de Maputo, GaTF and SEPA) were the facilitators of project activities at community level. Finally, the community stakeholders (farmers) were responsible for the actual implementation of activities and production (Figure 1).

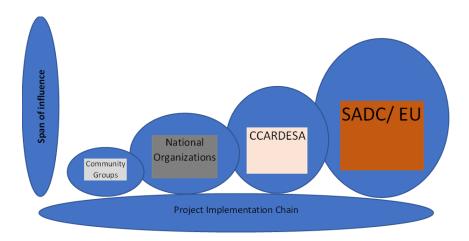


Figure 1: Project institutional arrangement

#### 4.2 National Implementing Partners

The following four national partners were involved in the implementation of this project:

 In Eswatini, the Philani Maswati Centre Organization (PMCO in collaboration with Ministriy of Agriculture, at Dvokolwako in the Manzini Region took the lead. The organization promotes CSA interventions as it seeks to improve household incomes among the rural communities. The project site is where the elderely people are housed and taken care of.

- Baca-Baca Cooperative is an agricultural cooperative of the Baca-Baca Community, in Namaacha District, Mozambique. The volunteer group supports local families in the prevention and mitigation of disaster risks, including socio-economic impact of floods and drought, HIV-AIDS among others. Most of the members are low-income earners, unemployed and surviving on less than US\$ 1 per day. The District Infrastructure Planning Service (SDPI), the District Economic Activities Service (SDAE) of the Namaacha District Administration and ADS- Orquídeas de Maputo, the Mozambican Association with its headquarters in Maputo, sensible for integrating women and men in social development oversaw the project.
- The Grow A Tree Foundation (GaTF) in Zimbabwe, a registered Non-governmental organization facilitated the project. The aim is to mitigate and address the causes and effects of climate change through CSA interventions and promote sustainable agroforestry programmes in industrial, commercial farming among rural communities. The organization established a model climate smart village in Rushinga district.
- In Zambia, Save Environment and People Agency (SEPA) spearheaded the project implementation 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 livestock throughout North-Western Zambia.

#### 5. Logical Framework

The Logical Framework (LF) is a tool that accompanies the project design and it facilitates conceptualization, implementation and evaluation of outputs. It logically arranges the design of the project in hierarchy, starting with the objective and going down the basic unit of activity. In this project, the logframe that was originally developed at the design stage was later revised by Bembani Group (GCCA+ TA) and included an M&E plan, Indicator Tracking Tool (ITT) and Indicator Reference Sheet (IRS). The revised Logical framework is presented in Appendix 1.

## 6. Project outputs and activities

The project was designed to benefit the smallholder farmers whose resource base is very low and are highly affected by any slight shock within the farming environment. These farmers and other value chain actors have very low income, estimated at less than USD1 per day. Since the COVID-19 pandemic had the potential to completely decimate the livelihoods of such groups, the actions and intended outputs leaned towards providing resilience during and after the pandemic. Specifically, the project set out to establish irrigation facilities in the four countries, assist the communities to produce and consume vegetables, train the farmers and facilitate market access.

Table 1.1 provides a summary of the planned outputs and the intended outputs of the project.

Table 1. Outputs and activities of the project

#	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	Procure and distribute production inputs (e.g. vegetable seedlings and/or spawns) to targeted communities			
	nutritious vegetables; and associated inputs amongst the	Train beneficiaries in propagation and production of horticultural crops			
	beneficiary communities.	Establish vegetable gardens and mushroom production fields			
		Provide agronomic support for production of horticultural crops			
3	Post-harvest handling, distribution and market	Identify partners to train beneficiary communities in agro-processing of horticulture produce			
	access facilitated amongst the farming beneficiary	Facilitate market access for farmers to sell surplus produce			
communities improved.		Facilitate, through local partners, installation of vegetable storage facilities using low-cost and locally available materials			

## 6.1 Project Output Status

All the activities and efforts of the project were directed towards achieving three outputs, namely:

- 1. Climate-smart irrigation facilities established;
- 2. Access to fast growing, high-value, and nutritious vegetables; and associated inputs amongst the beneficiary communities improved; and
- 3. Post-harvest handling, distribution and market access facilitated amongst the farming beneficiary communities improved.

The sections that follow, provide details of the progress made in achieving these three outputs at the time of closing the project.

#### 6.1.1 Establishment of climate smart irrigation facilities

Following the successful identification of partners and specific sites in the four countries, the project proceeded with the establishment of irrigation facilities at each of the sites in Mozambique, Eswatini, Zambia and Zimbabwe. Boreholes were sunk in Eswatini, Zambia and Zimbabwe and they were all equipped with solar powered submersible pumps to deliver the water to overhead storage tanks. From the storage tanks the water was delivered to the field through drip irrigation systems. The use of solar power and drip irrigation system are climate smart approaches. Solar is renewable energy and does not contribute to the emission of carbon into the atmosphere. On the other hand, drip irrigation is a climate smart practice because of its efficiency in the supply of water to the crops.





Figure 2. Irrigation system in Zimbabwe (left) and Zambia (right), using water from the borehole.

In Mozambique, the water source was a perennial river and therefore the project only provided a mechanism for pumping the water to the field. In addition to the water pumping, a greenhouse was constructed at the site to manage the production environment (see figure 3).

The project has opened up more than 20 Hectares of land for production. However not all this land is under production. Overall there are functional irrigation systems in the four countries. In some of the countries such as Zambia and Zimbabwe, the water may not be enough for the entire targeted area of production but there is satisfactory irrigation available. Of utmost relevance is that the irrigation systems established under this project have opened an opportunity for production of crops during the dry season of the year. In addition, the irrigation allows the farmers to provide supplementary water to rain-fed crops during the dry spells. The project has allowed the farmers to grow multiple crops within the year and also increase the range of species.



Figure 3: Construction of a greenhouse at the project site in Mozambique.

6.1.2 Providing fast growing, high-value, and nutritious vegetables; and associated inputs amongst the beneficiary communities

The project established horticultural fields in all the four countries. A wide range of vegetable crops were grown in the four countries, which included butternut, maize, cucumbers, onion, cabbage, tomato, rape, green pepper and some fruit trees. Mushrooms were also produced, particularly in Eswatini.

In total, the project put more than 5 hectares of land under vegetable production using climate smart agricultural approaches (Table 2) such as mulching, organic fertilization, use of green houses, use of smart water pumping mechanisms etc.

Table 2: Some vegetables and quantities sown under the project

CROP	QUANTITY SOWN
Cabbage.	6000
Tomato	6000
Onion	5000
Green Pepper	3000
Papaya	2100
Citrus tree	400

In Zimbabwe, a model climate-smart village was established in the Rushinga district where climate-smart technologies were introduced and promoted. The smart technologies included solar-powered irrigation systems, production of bio-gas, installation of aquaponics systems and fish ponds, use of energy efficient-cookstoves, installation of beehives and machinery for honey processing, a solar-powered hatchery for the production of road-runner chickens, solar-powered dehydrator to process dried fruits and vegetables and establishment of a fruit trees orchard.

In addition, world-class value chain systems of non-timber forest products (baobab fruit, marula, and honey processing center) were established at the model village. The

model climate-smart village served as a national learning center and practical example of climate-smart interventions for enhanced resilience and adaptation.

As part of the initiative to minimize dependence on trees for firewood, the partner facilitated the installation of 5,000 efficient cookstoves not only for the direct project beneficiaries but also to the surrounding villages.



Figure 4. Production in Zambia and Zimbabwe

In Mozambique, the project distributed seeds to farmers in the following quantities: Onion 400g, Cucumber 400g, Maize 20 Kg, Cabbage 300g, and Tomato 20g. This seed was meant to be a starter pack for the farmers to use at the beginning and later continue to produce using the income that would be generated.

#### 6.1.3 Training of beneficiaries

The project provided training to the beneficiaries in on different aspects of production and general management. The training included financial literacy, sustainability pest management, water management, climate change, climate smart practices, production of horticultural crops, pest and disease control, agro-processing and market access. Overall, more than 220 households underwent training.

#### 6.1.4 Facilitation of post-harvest handling, distribution and market access facilitated

The different crops produced by the project in all the countries have easy access to market from the context of demand. Clearly, the demand for the vegetable crops is very high both at local level and in urban areas. In many cases, the demand is so high that buyers physically go to the fields and purchase the vegetables on site. This is a positive model and frees the farmers from the headaches of transporting the produce to the markets. Although there are currently no challenges of demand, the projects were quite innovative by looking for better markets that could give them better deals. The projects worked on improving the market linkages and access to more options. In Zimbabwe, for example, a community company was registered to ease the selling

and distribution of the produce. However, local markets still remained a significant form of selling the products (Figure 5).



Figure 5: Roadside tomato sale

## 7. Overall Project Achievement

The extent to which a project has achieved its objectives provides a reliable measure of success. This was a short-duration project of 18 months and had the objective of improving the availability and access to high value nutritious agriculture produce in food insecure communities impacted by COVID-19 using CSA technologies in Eswatini, Mozambique, Zambia and Zimbabwe. At the time of closing, the project had an overall score of 70.3 percent success rate as measured by the number of direct beneficiaries reached against the target (Appendix 2).

The target was to reach 650 households as direct beneficiaries or approximately 2,870 family members. At the time of closing the project, the number of households reached was 457, giving an approximation of 2,580 family members. Although this was not 100%, it was significant and adequate to consider the overall achievement as very successful. The summary provided in Appendix 2 shows that the establishment of the irrigation facilities was very successful, and so was the establishment of vegetable production gardens and the distribution of inputs. The irrigation projects have facilitated the cultivation of high value and nutritious horticultural crops such as green vegetables, onions, eggplant, tomatoes and okra among others. It was only in the area of provision of storage structures and postharvest handling where the progress was minimal. However, the project has had very good and identifiable impacts on the communities where it was implemented.

#### 8. Partnerships and sustainability

This project was implemented in areas that, as expected, had other stakeholders working either directly within the agricultural sector or in other sectors. These stakeholders are important for synergies, complementarity and continuity of the activities and benefits to the community. The project's performance attracted other

support to the communities and stimulated interest from different stakeholders. This resulted in the widening of the benefits to the communities. In Zimbabwe, the project outputs made two local banks to support financial training of the beneficiaries and additional infrastructure development of fencing 2.5 hectares of land. The Banks also supported the procurement of additional 1000 fruit trees. The Forestry Commission supported training on sustainable forestry management while the C-Quest capital provided 5000 efficient cookstoves as part of their contribution towards reduction of deforestation.

The successful production of mushrooms and vegetables under the project in Eswatini resulted in interest for partnership from other stakeholders to export the products to neighbouring South Africa. The local partner in Zambia, SEPA successfully established links with other institutions and accessed funding for new projects. The work of the GCCA+ project in Zambia also attracted interest from the AU and resulted in the invitation of the CEO to share the experience of SEPA during a meeting organized by the AU. The local media houses also closely followed up the developments under the project and published a number of articles as well as audio and radio programmes.

## 9. Impact and Sustainability

The project has had very clear positive impact on the communities where it was implemented. Production significantly improved and it changed from seasonal to throughout the year. New linkages at production and marketing levels were forged, production was diversified and nutrition of different vegetables and fruits improved. Sales revenue accruing from structured markets can encourage further youth and women involvement hence a blended social-economic.

The sustainability of project activities and benefits is determined by several factors, key of which is the degree to which the project is locally owned. This project maintained a high level of local ownership at the lowest level within the communities. Both the farmers and the local partners therefore fully owned the project and were satisfied with the benefits thereof. The observed enthusiasm of the farmers and the attraction of stakeholders who sought partnerships strongly suggests that there is a very high chance of the activities being sustained and growing over the years. SEPA in Zambia and GaTF in Zimbabwe have already accessed new funding as a result of the outputs of the GCCA+ funding. Such tangible gains clearly show that the project was successful and has triggered new phases within the countries.

There are already practical signs of self-propelled production in these communities. After providing the inputs for the first year of production, the communities took it upon themselves to support the purchase of the inputs for the second year using the income generated from the sale of the crops grown. This also demonstrates that these communities do not have a dependency syndrome. They considered the support received in the first year as a once-off support to assist them take off. Farmers are

now able to meet all the running costs using their own income generated from the vegetable sells.

### 10. Gender and youth

The design of this project has a strong component of inclusiveness, especially for the women and youth. In all the four countries, the participation of the women was significant, probably because of the strong role the women play in food production and preparation. Other than providing water for irrigation, the boreholes improved access to drinking water and reduced the distance travelled by women and girls to fetch the water. This reduced the pressure on the women, and it freed a bit of time for them to attend to other issues.

The youth tend to have special interest for their short-term and long-term needs. In the short term, the youth were able to provide labour to the project and benefitted from the income. In the long-term, some of the youth directly participated in the production of vegetables while others got involved in the marketing of the produce.

#### 11. Lessons Learnt

The project on Mitigating the impact of COVID-19 on food and nutrition security using Climate Smart Agricultural Technologies led to reduced impacts of COVID-19 was a response to an emergency pandemic that developed very fast. There were no past experiences within the countries or region upon which to base the planning process or from which to draw lessons. The planning period was short and the project had short implementation period as well. Its evaluation and success rating therefore has to take into account the fact that the project was developed and implemented under rather peculiar conditions.

Overall the project has been quite successful and contributed to the nutrition of people in the project area as well as their income generation. The project has clearly left reasonable footprint upon which other projects are being implemented in some countries. New partnerships have been forged and the implementing partners in the countries are able to leverage new resources from different organisations.

There were many lessons learnt in the process, key among which are the following:

- The choice of partners is very critical for the success of the project. In the case
  of this project, there was limited time to do a thorough due diligence on the
  partners chosen to critically analyse their strengths and weaknesses. Such
  analysis is important for deciding on how to deal with a specific partner in way
  that leads to maximum outputs.
- 2. The reporting from the partners in the countries was extremely variable among the different countries. Some never submitted a single report, others submitted

- reports that had very limited information while others wrote and submitted satisfactory reports.
- 3. Throughout the four countries, the enthusiasm of farmers was well demonstrated and showed that they are extremely committed to any initiative that would help them improve their food security and income. There was also evidence of self-determination. This made it easy for the community to quickly be weaned from direct project support.
- 4. This project has demonstrated that when there is community ownership and the project and tangible outputs that are appreciated by farmers and stakeholders, linkages and complementarity opportunities tend to follow. Sustainability also becomes an automatic occurrence because the farmers and actors involved see good value for their efforts.
- 5. It is very important to iteratively remind the community and local actors to embrace the practical actions of inclusiveness to address the imbalances that occur in the areas of gender equity, youth participation and the involvement of people living with speiial conditions.

Appendix 1: Status of achievement of indicators

Level	Description	Indicator	Baseline Target -	Achievements	Status of achievement & Traffic Light OAchieved 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 CSA technologies in Eswatini, Mozambique, Zambia and Zimbabwe	Number of communities impacted by COVID-19 with access to high value nutritious agriculture produce (vegetables, mushroom spawns and associated processed products using CSA technologies in the selected MS	Baseline: 0  Target: 4 groups 650HH direct beneficiaries approximately 2,870 family members	Achieved. 4 Communities have accessed high value crops consumed and sold locally.  457 farming HH with approximately 2,580 family members benefiting from the project		Target of 4 communities achieved. However, the targeted number of households not achieved (70.3 percent accomplishment)
Output 1	Climate-smart irrigation facilities established	Number of Climate-smart irrigation facilities installed	Baseline: 0 (2020) Target: 4 (2022)	4 CSA irrigation facilities Achieved: 7ha of available: 29ha.		Low water-table; poor procurement process
Activities	1.1 Site identification through local partners	Number community groups  Number of sites identified	4 sites; 6 groups; 950HH direct beneficiaries	Achieved. 4 sites and 6 groups identified. with 457HH direct beneficiaries		Although the targeted sites and groups were achieved, the number of households did not meet the expected number (457HH against 950HH). This represents 48.1 percent HHs reached
	1.2 Design appropriate infrastructure	Number designed	4 drip irrigation	Design completed in line with community needs		

	1.3 Procurement and installation of production facilities	Number facilities	4 mushroom, 5 green and 1 cow house 1 milking pan	1 mushroom house 3 greenhouses 1 cow house and 1 milking pan	25 percent mushroom houses and 60 percent greenhouses
Output 2	Access to fast-growing and high- value vegetable seeds, mushroom spawns and associated inputs amongst the farming communities	Number of farming communities accessing fast-growing high-value seedlings for horticultural crops, spawns and associated inputs	6 communities	6 communities benefited. Start-up pack provided. Famers buying own seeds and even a generator	Although 6 communities benefited, the number of households fell below the expected (457HH out of 950HH target)
Activities	2.1 Procure and distribute production inputs (e.g. vegetable seedlings and/or spawns) to targeted communities	Number of seedlings and /or spawns bought and distributed	Target: 5,000 fruit tree and 20,000 vegetables	2650 fruit trees (53%) and 12,000 vegetable seedlings (60%). Start-up pack provided by the project.	
	2.2 Train beneficiaries in propagation and production of horticultural crops;	Number trainings conducted and trainees attending	Target: 40 trainings	22 trainings (55%)	More hands-on trainings required
	2.3 Establish vegetable gardens and mushroom production fields	Number of ha under vegetables and mushroom	Target: 7.0 ha	7.0 ha	More land available (22ha) and this can be utilized if funds are resourced
	2.4 Provide agronomic support for production of horticultural crops	Number of staff supported	Target: 4	4	Government extension Staff overwhelmed
Output 3	Post-harvest handling, distribution and market access facilitated amongst the farming beneficiary communities improved.	Number of post-harvest handling, distribution and markets organized	Target: 4	0. The overall delays in the development of irrigation infrastructure affected all the other activities especially post-harvest handling.	More efforts to be in this area. Partners needed to support the output
Activities:	3.1 Identify partners to train beneficiary communities in agroprocessing of horticulture produce	Number of agro-processing partner identified	Target: 4	4 identified but only 2 supported training of communities.	More partners needed to offer hands-on training and demonstrations.

3.2 Facilitate market access for farmers to sell surplus produce	Number of market access facilitated	Target: 16	8 market linkages (50%)	Local markets absorbing all the produce
3.3 Facilitate, through local partners, installation of vegetable storage facilities using low-cost and locally available materials	Number of installed vegetable storage facilities	Target: 4	0. The overall delays in the development of irrigation infrastructure affected all the other activities especially the installation of storage facilities.	Partners need to be engaged to support the action.