Annex 5

Narrative Interim Report

The report must describe in detail how the project has progressed and the results achieved so far, and must describe how the project funds have been used for the planned activities. The total length should not exceed 15 pages.

BMZ Project number:	***6815***
Project country:	***South Africa***
Project title:	***Community-Based Adaptation to Climate Change (CBCCA) to build resilience***
Organisation:	***Mahlathini Development Foundation (MDF)***
Project duration:	***01.10.2022 bis 31.08.2025***

1. General Information

The CbCCA project is based on working with Climate resilient Agriculture (CRA) learning groups of smallholder participants. These groups are set up a at village level across three provinces: KZN, EC and Limpopo. They work on an annual cyclical planning and review process for implementation of CRA practices (Field cropping, homestead food production and livestock management) – which are supported through training, mentoring and implementation support. The intention is to support both existing learning groups in the three provinces to deepen their implementation and to initiate new learning groups.

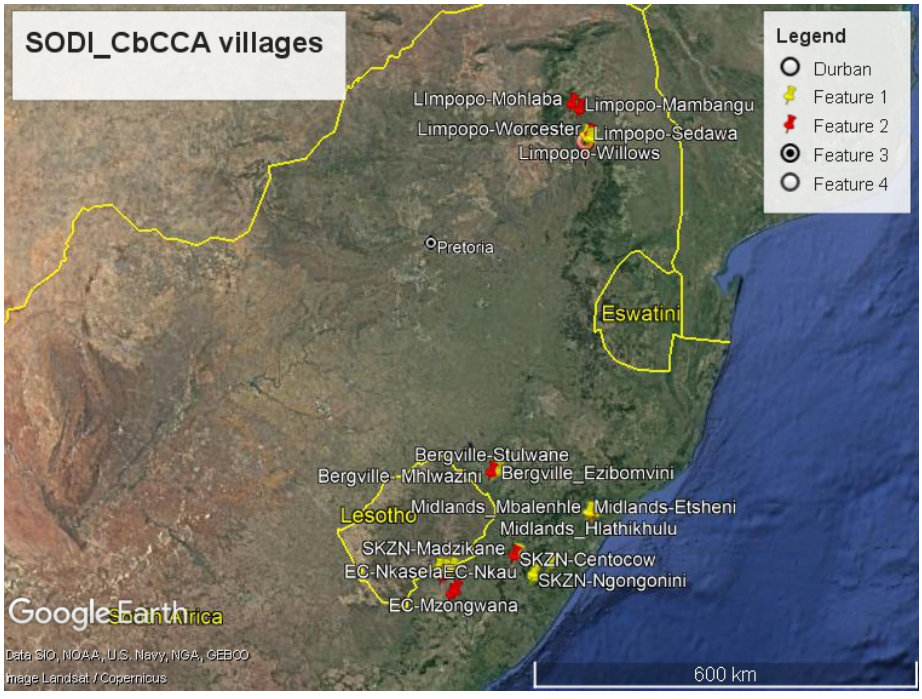

Figure 1: Map of SODI-CbCCA villages across EC, KZn and Limpopo

CRA learning group members also undertake a range of other associated activities according to their need, meaning that not all groups undertake the same activities:

- Setting up and running village savings and loan associations (VSLAs), with membership from the CRA learning groups and beyond, for savings and small loans for consumption smoothing and productive activities
- Enterprise development and local marketing committees and groups, mostly to run the joint monthly produce markets in nearby towns, but also includes egg and broiler production and sales, livestock auctions and more formal market contracts
- Water access and management through water committees linked to local governance structures, for planning and implementing integrated water management activities and
- Livestock committees, for development of conservation agreements for rangeland management and local livestock auctions

The diagram below indicates the interactions with these local or micro level groups at the meso- level through clusters and platforms with multiple stakeholders and at the meso- and macro level through more formalized organizational forums and networks.

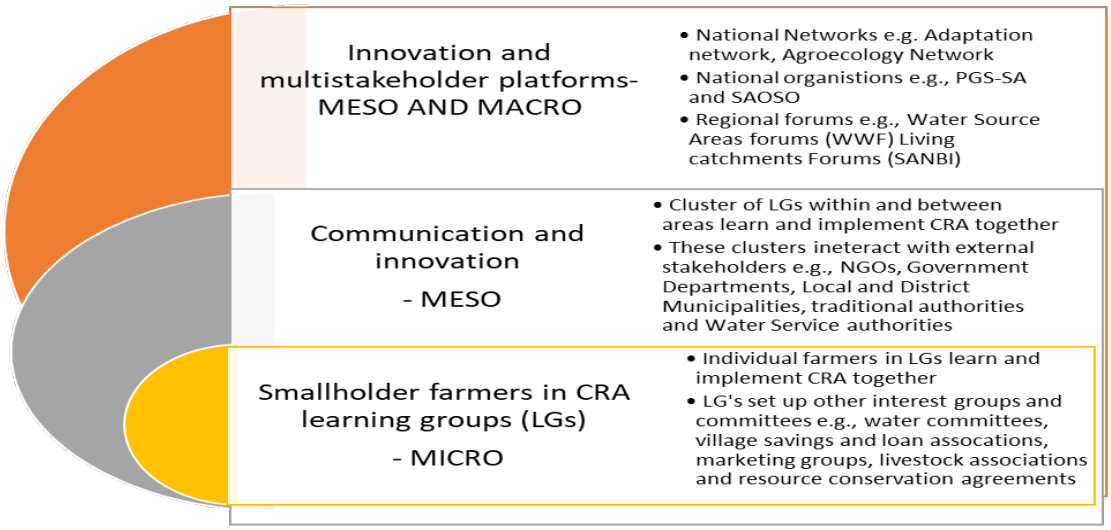

Figure 2: The micro-, meso- and macro-level interactions for the CbCCA programme and the Communities of Practice (COPs).

Quarterly project reports outline the trainings undertaken, field-based activities undertaken with the CRA learning groups and their progress related to economic empowerment (VSLAs, marketing etc.). information on activities related to the innovation and multistakeholder platforms is also to be included in summary form.

Integrated water and natural resources management activities are more discreet in nature and will be reported on as progress is made. This also applies to the development of evidence-based indicators and the monitoring and evaluation handbook development

1.1. Project Description / Project Objectives

The COVID-19 pandemic, global economic downturns and internal political and economic instability have exacerbated the already significant negative impact of climate change on smallholder farmer communities in South Africa. Unemployment is very high (60-80%), with very low incomes primarily through social grants (around r2000/month per household of 4-5 members). Smallholders need to find ways to provide for a sustainable livelihood for themselves through farming and resource use in their villages. The climate resilient agriculture practices have bene piloted and have been shown to significantly improve both livelihoods and social agency and now needs to be deepened and expanded.

The project objectives and outputs are summarized in the small table below.

Overall objective (impact)	**Communities have improved their livelihoods and their capacity to adapt to climate change and have strengthened their resilience climate change risks and shocks**	
Project outputs/objectives	O1	*Capacity is developed for creation of and strengthening institutional frameworks and mechanisms for including proven multi-benefit approaches that promote collective action and coherent Community based Climate Change Adaptation (CbCCA) implementation.*
	O2	*The farmer level decision support system for implementation of CRA is upscaled in eastern SA.*
	O3	*Appropriate frameworks for monitoring and evaluation of environmental benefits and agro-ecosystem resilience are developed at multiple scales*
	O4	*Improvement of water and natural resources management and governance through community ownership*

1.2. Source of Information

Each activity set within the project has a focused monitoring and evaluation process, to encompass the range of environmental, agricultural, economic and social indicators used for reporting. Monitoring forms include for example the CCA base lines, Crop and garden monitoring, poultry production monitoring and fodder supplementation monitoring. Databases are collated for the monthly VSLA (village savings and loan associations) records and monthly market stall sales and incomes. Seasonal reviews for each learning group consists of focus group discussions and individual interviews. Resilience snapshots and participatory impact assessments provide more summative evaluative content.

In addition, the provincial field team leaders (Betty Maimela and Mazwi Dlamini) provide monthly reports on training and implementation undertaken with the CRA learning groups. Photographs are included in these summaries and attendance registers are available. All interns are expected to provide monthly field work reports (for SODI – Sphumelelo Mbhele) and reports for events, workshops and meetings are submitted.

Erna Kruger uses these reports and databases to compile the SODI quarterly reports for the organization. Financial reports re compiled jointly by Erna Kruger and Sarika Ramsewak.

2. Project Status

Overall Objective (Impact): Communities are empowered to adapt to climate change and their resilience is strengthened.

Project Objective (Outcome):	**Indicator**		
	Base value (quantitative & qualitative) *Equivalent to proposal*	Target value (Quantitative & qualitative) *Equivalent to proposal*	Achievements (quantitative & qualitative)
Smallholder families in 3 provinces in South Africa apply climate-adapted agricultural practices and diversify their income opportunities in order to stabilize food security in the long term.	As part of an MDF pilot project, 345 smallholder farmers have gained initial experience with local agricultural practices for climate change adaptation. There is currently no coherent regional or local system for climate-adapted agriculture by smallholder farmers.	2,625 beneficiaries of smallholder farming families and 75 stakeholders in 3 provinces are organized in Communities of Practice (CoP) and implement at least 3 practices for climate-adapted agriculture according to developed standards.	239 participants (956 beneficiaries)

	So far, 9 community-based village savings and loan associations have been established by MDF	18 villages are organized by the project in their own village savings groups	8 VSLAs

Project Goals (Output)	**Indicators**		
	Base value (quantitative & qualitative) *Equivalent to proposal*	Target value (Quantitative & qualitative) *Equivalent to proposal*	Achievements (quantitative & qualitative)
1. Communities of Practice (CoP) are established at different levels and practices for climate-resilient agriculture are applied sustainably.	1.1 Learning groups (18) at local village level have gained initial experience with approaches to sustainable and climate-resilient agriculture. 1.2 Currently, smallholders are supported by 2 government organisations (ROs) and 2 non-governmental organisations (NGOs)	1.1 CoP at local and regional level are implemented and operational: - 27 CoP / Learning groups for climate-resilient agriculture are established at village level for community-based climate change adaptation (CbCCA) - 3 regional CoP with representatives from the local CoP are established in clusters as innovation platforms for exchange, planning and development - 3 regional multi-stakeholder platforms (ROs and NGOs) for strategy development, policy interactions, coherent planning and awareness raising are established 1.2 In the project regions, 6 ROs and 6 NGOs support smallholder farmers through learning and financing opportunities. From planning to implementation, they are involved in community-based adaptation to climate change activities.	-17 +2 (new). Mahhehle(SKZN) and Sophia (Limpopo) 2 - uThukela Water Source Forum - Adaptation network 1 -INR_Bergville: restoration work team of 9 youth
2. A decision support tool that takes into account climate-resilient agricultural practices will be further developed and applied by smallholder farmers.	2.1 There are no specific criteria for the local assessment of climate-resilient production systems. 2.2 So far, there are no standardized and target group-oriented approaches for climate-resilient agriculture for the project regions.	2.1 Indicators for monitoring and evaluating the impact of specific agricultural practices for adaptation to climate change have been identified together with smallholder farmers. 2.2. A handbook has been developed and made available as a standard framework for use as "open source" for users at various levels (in digital and printed form).	2.1 Not yet started/applicable/measured. 2.2 *Not yet started*

	2.3 120 smallholder farmers have developed an understanding of how to use a decision support tool for climate-resilient farming practices	2.3 A total of 300 smallholder farmers independently use the decision support tool for climate-resilient agricultural practices to implement community-based adaptation to climate change. *525 participants in CRA learning groups (~345 from existing CRA groups and 180 from new groups over the project period)*	2.3 A total of 70 smallholder farmers (Mahhehle – SKZN and Sophaya -Limpopo) independently use the decision support tool for climate-resilient agricultural practices to implement community-based adaptation to climate change. *These 70 participants are from new CRA learning groups*
3. Community-based water management will be institutionalised and sustainably improved.	3.1 At municipal level, there are insufficiently functioning structures for sustainable water management. 3.2 Communities have only limited access to water	3.1. Six communities have been institutionalized and have a sustainable structure (e.g. Committee on Water Management) 3.2 Three community-based approaches to sustainable water management have been developed.	

The table below provides a further summary of the project statues, outlining the CRA learning groups involved and broad activities within each group

CbCCA	**2116ZA311**		**October-December 2022**								
Province	**Area**	**CRA LGs**	**No of paticipants**	**CA**	**Gardens**	**Poultry**	**Cattle**	**VSLAs (no of**	**Market groups**	**Water committees**	**Livestock Associations**
KZN	SKZN	Ngongonini	23	18				1			
		Centocow	23	6					1		
		Mariathal	18								
		Mahhehle	32	17							
	Midlands	Gobizembe	18	84							
		Mayizekanye	22						1		
		Ozwathini	35					2	1		
	Bergville	Stulwane	28	114							
		Ezibomvini	24								
		Vimbukhalo	32								
		Eqeleni	18								
		Emadakaneni	12								
Limpopo	Mametja	Sedawa	34					1			
		Worcester	37								
		Willows	29					1			
		Santeng	36					1			
		Turkey	51					2			
		Sophaya	31								
Eastern Cape	Matatiele	Ned	36		14						
		Nchodu	21		14						
		Nkau	18		11						
		Rashule	21								
		Mzongwana	18		12						
TOTALS			**617**	**239**	**51**	**0**	**0**	**8**	**3**		

NOTE: Funding support through WWF has been secured for the Bergville villages for Conservation Agriculture and water access implementation.

2.1. Explanations in the event of deviations from planning

No deviations at present. The First tranche was received on the 5th of December 2022.Implmentaiton is reported from October to December, meaning that most of the funding is co-funding for this period.

2.2. Status of implementation

The table below is taken from the project agreement. A column has been included on the right in Table 1 below, outlining the quantities and activities involved for greater clarity.

Table 1: SODI high level work plan and budgeting per activity

SODI Work plan and Budgeting													
Measures & Activities	***2022***	***2023***				***2024***				***2025***			***Activitties and quantities***
1. Implementation of Communities of Practice (CoP)													
Introductory workshops for learning groups (LG) at village level in 3 provinces	*x*			*x*	*x*		*x*						*9X 1day intro meetings*
LG operation; Roles, responsibilities, visions and planning: Workshops for 9 LGs in 3 provinces.		*x*	*x*			*x*		*x*					*9x1 day visioning and action plans*
Training on capacity development for climate-resilient production systems			*x*	*x*		*x*	*x*	*x*	*x*				*3x1day training in CRA for 9 groups (R17 500/month)*
Cyclical implementation of the LG at village level: implementation and mentoring for climate-adapted agriculture for 27 learning groups at village level; development of local marketing initiatives (3) and local food security initiatives (creation of value chains, seed banks, etc.); Community-based management measures for natural resources		*x*	*x*	*x*	*x*	*x*	*x*	*x*	*x*	*x*			*27 Learning groups in total - 9 per province (3 new). (67 days@R200/day, thus 10days/ LF/month x 6-7LFs (R13 551/month)*
Entrepreneurial support for food security: village savings and loan associations as well as local marketing support and development		*x*	*x*	*x*	*x*	*x*	*x*	*x*	*x*	*x*	*x*		*Printing of savings books (Zulu, Pedi), 24 days@R200/day, thus 4days/LF/monthx6 LFs and/or paying for marketing costs (R7 968/month)*
Cyclical implementation of innovation platforms and multi-stakeholder networks; Implementation and capacity building for innovation (3) and multi-stakeholder platforms (3); Meetings and exchange visits				*x*				*x*			*x*	*x*	*1-2 events/year: farmers day, x visit, Multi stakeholder meeting, (R8 400/event)*
2. Development of an M&E toolbox and a manual													
Development of M&E tools and indicators			*x*		*x*		*x*		*x*				*Materials for M&E, Software for e surveys (R19 460/year)*
Development of the Handbook on Community-Based Adaptation to Climate Change										*x*	*x*	*x*	
Regular M&E of MDF together with smallholders		*x*		*x*		*x*		*x*		*x*	*x*	*x*	
Seasonal evaluation by learning groups at village level				*x*		*x*		*x*		*x*	*x*	*x*	*36 Resilience snapshots per year (min)*
Participatory assessments improved climate resilience for a selection of village-level learning groups				*x*		*x*		*x*		*x*	*x*	*x*	*3 PIA's per year (Min)*
3. Sustainable water management													
Establishment and implementation of institutional structures such as water management committees		*x*	*x*	*x*	*x*	*x*	*x*	*x*	*x*	*x*	*x*		
Development of three concepts for sustainable access to water				*x*				*x*		*x*	*x*	*x*	
Investment		***2022***	***2023***	***2024***									

Amount per person				
Tunnels	***R5 463,00***	***5***	***35***	***30***
Poultry	***R2 021,00***	***10***	***45***	***45***
Seed (CA, veg) and poultry feed	***R1 815,00***	***10***	***45***	***45***

To further outline the activites, annual tragets and actuals have been outlined in Table 2. This table will be updated quartely.

Table 2: Targets and actulas for project activities

	Target	Actual	Target	Actual	Target	Actual	Target	Actual
	2022	2022	2023	2023	2024	2024	2025	2025
No CCA Intro w/s	2	2	5		2			
No CCA Planning w/s	2	2	5		2			
Training days (demos)	6	10	12		12			
No of LGs	18	23	23		27		27	
No of participants - monitoring			108		108		108	
Platforms (3 Ips, 3 Multi stakeholders)	2	2	6		6		6	
No CCA prioritization planning sessions	2		8		8		18	
No CCA review sessions	2	12	8		8		18	
No CCA re-planning sessions	2	12	8		8		18	
VSLAs (360 participants, 18 VSLAS)			18		18		18	
Water access scenarios (min 2)			1		1		1	
Livestock agreements (Min 3)			1		1		1	
Local facilitator days (6-9), total 114 days each			38		38		38	
Tunnels	5		35		30			
Poultry	10		45		45			
Seed (CA, veg), poultry feed	10		45		45			

This information is further outlined according to the measures and activities, with dates and descriptions of activities provided in Table 3. Again, this table is to be updated quarterly.

Table 3: Description of measures and activites with dates and areas outlined: Oct-Dec 2022

Activity No	description	Date	Activity
1.2.1.	Establishing learning groups at village level	2022/11/25, 12/09 2022/11/15, 11/29	Limpopo: Sopaya SKZN: Mahhehle
1.2.2.	Training and mentoring for climate resilient agriculture	2022/12/02 2022/10/26 2022/10/08-14 2022/11/23,24,29	Midlands: Ozwathini contouring workshop SKZN: Mahhehle – tower gardens EC-Matatiele: Drip irrigation workshops in 5 villages SKZN: CA demonstration workshops in 3 villages
1.2.3.	Cyclical implementation through mentoring for capacity development for LG at local level	2022/08/16,17,18,19,30 2022/10/16 2022/11/21-24	CCA review and planning workshops -Bergville: CA review and planning (5) -Midlands: CA review and planning (3) -Limpopo: CCA review and planning (4)
1.2.4.	Income diversification and economic empowerment of local farmers (LG at local level)	2022/10/02,11/03, 12/04 2022/10/08, 11/07 2022/11/05,06,07	Market days: monthly farmers markets -Midlands: Bamshela (Ozwathini) -SKZN: Creighton (Contocow) -Bergville: Bergville town Market exploration workshops -Midlands: Mayizekanye, Gobizembe
1.2.5.	Implementation and capacity development for innovation (3) and multi-stakeholder platforms (3)	2022/11/18 2022/11/10 2022/12/01	-SKZN: Centocow P&D control cross visit and learning workshop -uThukela water source forum: Visioning and action planning – Bergville -Adaptation Network AGM
1.2.6.	Indicator development for evidence-based indicators, M&E and handbook development		
1.2.7.	Implementation of sustainable water management		
1.2.10.	Organisational & capacity development	2022/11/17 2022/12/05	-MDF AGM and organisational capacity development workshop -Mentoring and planning with new finance officer to implement SODI financial reporting system

Below short narrative summaries are provided for some of the activities undertaken.

1.2.1 CCA introduction and prioritization sessions

Mahhehle – SKZN, Sophia- Limpopo

SKZN- Mahhehle village

The CCA introduction workshop was held for this new group on 22nd of November, with 32 participants in attendance. The workshop methodology and process are appended to this report (Appendix 1). Below, a brief summary is provided.

Climate change impacts were summarized as:

- Climate change continues to adversely affect farmers and their livelihoods. The increasing rainfall variability makes it hard to plan accordingly as planting times change, which provides a lot of uncertainty in the availability of food.
- Furthermore, when rain eventually comes, it is short lived and intense with a lot of erosion which washes away topsoil and also peoples' homes.
- Much decreased availability of water, with less water in rivers, too little storage for the long, dry periods and drier soils. Access to water at household level is no secure.
- Reduced availability of grazing for livestock, especially in winter, where livestock invasion in fields and homesteads has increased a lot.
- The severity of stalk borer, CMR beetles, aphids and other pests seem to have increased over the years

This process was followed by a seasonality analysis of both rainfall and temperature to clearly visualize the changes with the participants and put the 'scientific' and weather information into that perspective.

Figure 3: Clockwise from top-left: Temparture and rainfall seasonality diagrams, A sub-group reporting back on their diagrams and one of the sub-groups working on their diagrams.

There was clear alignment in these groups regarding the later onset of rain, greater variability, more droughts and floods and overall increase in temperature in both winter and summer.

The day progressed into a session where the basket of CCA practices was introduced. These were introduced as proposed responses to challenges participants are facing, they are practices that will be implemented for the purposes of learning new ways of doing things for the positive changes we want to see. The practices broadly prioritized the following CCA practices:

- Micro tunnels, tower gardens, diversion ditches, furrows and ridges, rainwater harvesting, keyhole beds, Conservation Agriculture (CA), check dams, natural pest and disease control and fruit production

In the short-term CA is the most urgent and a date was set for introduction to and demonstration of practices within CA for the 15 participants interested in this practice (29th November).

Limpopo- Sekororo-Sophaya village

The CCA workshop was finally held on the 8th of December, after the initial introduction into the community, which was undertaken by Betty Maimela and the Local facilitator for the turkey village Mr Isaac Malatji. Initial presentations were made to the traditional authority and the municipal councillor for the area. After an initial false start due to internal politics within the TA and council, a successful meeting with 31 participants (including 12 youths was held).

For this group the analysis of past, present and future farming practices revealed some interesting trends and also a very solid understanding from participants regarding the impact of climate change on their farming

Past	Present	Future
They used to plant crops like millet, sorghum and maize and fill more than 100 x 80kg bags	Now they plant maize only and they can only fill 3 x 50 kg bags	If the weather doesn't 'normalize again, they will not be able to continue farming
Then they used donkeys and cows for traction and they used to help each other with farming tools	Today they hire tractors for farming, and they pay for hiring people who will put seeds in the soil.	With the decrease in yield, they will stop farming in big fields, some have already stopped because of lack of finances
Farming was done in big fields, because there was a good rain	They are still farming in big fields and backyards gardens	In future they will rent out their fields to farmers who want to continue to farm and focus on backyard gardens.
They used to have good yield and had fewer pest problem	They are facing a decrease in yield and have pests and disease problems in both their gardens and fields	They will start buying pesticides and they are expensive.
Cultivation of traditional crops was common: sweet potatoes, Bambara nuts, cowpeas, millet, sorghum, pumpkins, melons, and Maraka	They still attempt to cultivate traditional crops, but crop failures are leading to a loss of seed stock	They are not sure they will still have their indigenous seeds to continue cultivating

The seaosnailty diagrams clearly indicated the significantly increased temperatures and reduced rain in this region.

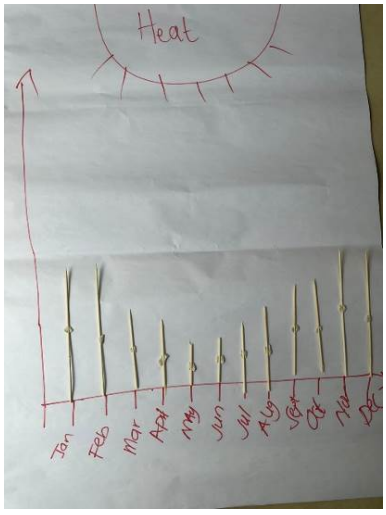

Figure 4: Right: Seaonsaility diagram for temperature in Sophaya. This indicates increased themperatures for every month of the year, with summer temperatures being significantly higher htan in the past.

In the matrix analysis for prioritization of climate resilient practices to implement, participants focused on techniques that improve soil and water conservation and do not require high levels of external inputs and finances. The table below indicates rainwater harvesting, use of grey water, banana basins, mixed cropping, crop rotation, mulching, liquid manures, compost and eco-circles as the favoured practices to learn about and implement.'

Table 4: Prioritization of CRA practices for implemntation in Sophaya.

	Cost	Ongoing effort	Material accessibility	Hard labor	Total
Drip irrigation	2	3	2	3	10
Diversion ditches	3	2	3	2	10
Greywater	3	3	3	3	12
Rainwater harvesting	3	3	3	3	12
Ridges and furrows	3	1	3	1	8
Stone bunds	3	3	3	1	10
Keyhole	1	2	1	1	5
Banana basins	3	3	3	3	12
Crop rotation	3	3	3	3	12
Mixed cropping	3	3	3	3	12
Mulching	3	3	3	3	12
Conservation Agriculture	3	2	3	2	10
Liquid manure	3	3	3	3	12
Trench beds	3	1	2	1	7
Legumes	3	3	2	3	11
Compost	3	3	3	3	12
Eco-circle	3	3	3	3	12

Note: The scale used is 1 of high or bad through to 3 for low or good.

The prioritization exercise then leads into a seasonal and annual planning and implementation cycle, with training workshops and demonstrations to introduce practices not known to participants.

1.2.1 CCA Review and planning sessions

Seasonal CCA review and planning sessions have been undertaken in Bergville (5 villages, 110 participants), the Midlands (3 villages, 57 participants), SKZN (4 villages, 58 participants) and Limpopo -Mametja-Sekororo (4 villages, 72 participants).

Below is a summary of the information discussed for the 5 CRA learning groups in Bergville as an example.

KwaZulu- Natal

Bergville

Focus group sessions for review and planning were held with 5 CRA learning groups (110 participants): Stulwane, Ezibomvini, Eqeleni, Vimbukhalo and Emadakaneni/ Emahlathini. The guide for running the focus group sessions is presented in Annexure 2 below. This provides semi-structured questions for discussions within the groups. The sections include general CA implementation, experimentation, marketing options and farmer centres and planning for the coming season. Below summaries are provided for all five groups combined under these headings.

Conservation Agriculture- General implementation

Most of the farmers are still very pleased with the CA practise. They testified that this kind of farming has increased their yields and the quality of the produce. They have recognized that CA reduces soil erosion and improves the quality of their soil as they are protected from the sun and other elements. The farmers find CA less tiring and easier than the normal cropping practices.

For the 2021/22 planting season smallholders involved in CA experimentation and implementation did not receive any inputs support, for their planting season. In past years, input for the CA trials have been provided

initially at cost and later at subsidised rates. This lack of support came at a time when inputs costs suddenly almost doubled and certain inputs became very difficult to access, after the KZN social unrest. Farmers all managed to plant their CA plots, although most "skimped" on herbicides and pesticides

CRA learning groups were very appreciative of assistance arranged through MDF for use of the Okahlamba LM tractors to pull the two-row no till planters and assist farmers in planting both the CA trials and their control plots. The drivers however have little experience in managing no till planters and caused a lot of damage to the planters by driving across the fields too fast. In Stulwane the farmers have come together to pay a annual fee of R100 each for use of the planters as a maintenance fund. This has worked very well, despite a few of the farmers reneging on the contributions.

The heavy rainfall towards the end of the season – between January and April 2022 had devastating consequences in the communities, through washing away of roads, and homes. Some participants' fields also had a lot of run off damage – although the CA fields performed well in comparison to their normal fields and those that were ploughed washed away almost completely.

Most of the farmers practicing CA for more than 4 years managed to realize good yields for maize from their CA plots despite the heavy rainfall. Bean harvests were almost completely decimated.

Livestock invasions in the unfenced fields was a big problem in almost all the villages as the agreements to send cattle to the mountains in summer to allow for cropping have not been adhered to by livestock owners- given the fast deterioration of veld condition. The latter is due to overgrazing and four years of heat and below average rainfall, then followed by exceptionally high rainfall.

Participants felt that the one maize variety PAN53, an old generic hybrid, coped the best with these new wet challenging conditions, as the maize cobs mature closed and as a result suffered a lot less form water damage and rotting. Pan53 however takes a long time to mature and is thus more susceptible to diseases, of which there was a high incidence in this season. Participants felt that the short season maize (PAN156A) has a number of distinct benefits, in that it can be planted later and matures fast, despite the cobs being smaller than for the generic hybrids. They like the idea of planting different types of maize that can accommodate a range of different conditions, as it is impossible to know exactly what will happen in a season.

There was also the recognition that soils are slowly acidifying again after lime application 3-4 years ago and participants asked for assistance in procurement of lime – mostly transport as they offered to pay for the lime itself.

Farmers also undertook to discuss their issues with the livestock committees in their villages and to impress upon the livestock farmers that cropping is also an important activity in the area and needs to be respected.

They further suggested that those who are not yet members of village savings and loan associations should join, as these groups assist a lot in having finances available for planting.

Some farmers stressed that the two row planters that are shared in the groups need to be looked after properly. If a farmer doesn't clean out the fertilizer after use, corrosion occurs and then the planter doesn't work properly when the next participant wants to use it. They then need to spend time on cleaning and maintaining the planter before using it. Mr Omega Kubone, the KZNDARD extension officer joined in four of these planning sessions (Stulwane, Vimbukhalo, Eqeleni and Ezibomvini as these groups are also setting up cooperatives under the auspices of the Department to be able to benefit from support being offered.

Markets and farmer centres

The farmer centre in Ezibomvini is still very popular and well used but has not been tried out effectively in the other villages. The local marketing stalls set up first at the pension pay out points and later in Bergville town itself has worked very well. Farmers make a little income every time they join these markets and can sell their

field crops there as well. Mostly they are planting for food security, and only selling surplus if they have. They also sell informally to neighbours.

Planning for coming season

In all the villages farmers undertook to pay towards their inputs and pay a subsidised price for the CA trial inputs. They requested access to the short season maize and also suggested that PAN53 may be a better option in really wet seasons, when compared to the other varieties they have planted. Plans we put in place for payments and also for access to the Okahlamba tractors, as these have been made available again for a two-week period in mid-November. Farmers undertook to work closely with the tractor drivers to ensure they do it properly this season.

Figure 5: Above: A CA reivew session in Vimbukhalo. Mr Malinga is prsenting the formal results of the CA experimentation to the group as a part of the focus group discussion.

Limpopo- Mametja-Sekororo

CCA review nad planning meetings were held for 4 exisiting CRA groups in Limpopo, who had worked with Mahlathini in the Resilient Waters programme that ended in August 2021:

- Willows: 36 participants 14 November 2022
- Santeng: 16 participants 15 November 2022
- Sedawa: 16 participants 23 November 2022
- Turkey: 15 participants 30 November 2022

The intnetion of these workshops were to review implmentation and activites in Mahlathini's absence, introduce the new SODi project and plan activities for hte ocming quarter.

In Willows the participants continued to impment their CRA practices individaully, but did not want to meet as a gorup without the support of Mahlathini. Thier local faiclittor Mr Moses Mogofe ramiend active and provided uspprot ot individual members. The VSLA (village savings nad laon assocaiton) continued to ufnction and meet monthly. Marketing was undertaken only as farm gate sales.A similar trend was seen for hte other three viallges as well. It was very heartening to see however how committed the local facilitators for these gorups remained.

There have been some challenges for the learning gorup members during Mahlathini's absence:

- The continued struggles with access to water and dwindling water supply in the villages have reduced participants' ability to ocntinue farming.
- Mostly the participants oculd not ocntinue meeting in thier learning gorups in Mahlathini's absence. This owuld have been a disred outcome, as it owuld indicate htat participants have developed enough

social agency to plan and learn together witohut Mahlathini's presence. Participants admitted that htey are not coherent enough in thier gorups for htis to happen without Mhahlathini's presence.

- Participants have been struggling with aquisition of the right seeds- easy access to seed through garden shops, Shoprite checkers and the like have reduced dramatically since with the down turn in the eocnomiy and the increased climate variability country wide, specifically amzie and vegetable seed have been hard to come by
- The deparment of Agirculture extension staff have been absent now for almost three years – and hte few services they did provide, in supplying tractors for ploughing, some fencing and seed are now no longer there.

Of the CRA practices implmented to date the following are seen to be the most helpful: tunnels, drip irrigation, trenchbeds, liquid manures, mixed cropping and underground water storage tanks. For the latter only three were implemented as a pilot across two villages. They make a huge difference, but are technically complicated ot implement and unfrotunately quite costly. The following CRA practices were seen as a priority to focus on in the coming cycle:

1. Soil and water conservation
2. Mango production, sales and value adding
3. Seed saving banks
4. Five finger principles review
5. Soil fertility practices
6. Livestock management and grazing management, farmers want to start working towards securing feed for their livestock in their gardens and fields.
7. VSLA trainings
8. Cropping calendars

1.2.2 CCA training: learning and demonstrations

EC_Matatiele

Tunnel construction and drip irrigation practical workshops October 2022

Micro tunnels as a CRA practise are introduced for microclimate control – reducing evapotranspiration, smooth out temperature differences and colling down the environment and reducing pest attacks. In implementation these tunnels are combined with 4 5x1metre deep trench beds, 3 inside the tunnel and one outside for comparative purposes. Despite the hard labour of putting in these trench beds, prior to being able to receive a tunnel, participants have been very enthusiastic about them. As a practise this has been the single most significant intervention with the greatest impact on productivity for farmers.

Tunnels were procured under the auspices of a Human Crisis Relief Fund, but not all could be finalised in the 5 months allocated for the project implementation. Thus 15 tunnels and the bucket drip kits that go with the tunnels were constructed in four village: Ned, Nchodu, Nkau and Mzongwana in October 2022. For the drip irrigation a training and demonstration workshop is held at one homestead in each village and then the learning group members continue the process from there, similar to the process used for erecting the micro tunnels themselves.

Figure 6*:* Farmers from Ned working together constructing a tunnel at Manaledi Seliso's household. The group learns how to construct these tunnels together and then assist each other to do so




Sphumelelo Mbhele, an intern from UKZN ran the drip irrigation workshops and demonstrated to farmers to lay out the lines and insert the string drippers in the lines. The bucket drip kits are designed to be able to use grey water and have a sand and stone filter inside the bucket. These 'filters' need to be replaced from time to time and the drip irrigation pipes also need to be 'flushed' by opening the end clamps and allowing the flow of water to wash amount any accumulated silt and debris.

Figure 7*:* Above left: Monaledi is punching the holes in the dripper lines and threading the string drippers through under the watchful eye of Sphumelelo Mbhele and Above Right: Showing the group how to lay out the three dripper lines per bucket.


These learning and demonstration workshops continued in the other three villages, also with the assistance of the local facilitator in the area, Phumla Nyembezi.

Figure 8: Right: The Nchodu learning group, with Phumla in blue overalls celebrating the construction of a tunnel and Above Far Right: group members putting in the string drippers for their drip irrigaiton system.


In addition, farmers were provided the small packets of vegetable seed to plant in their trench beds in their tunnels. These included: onion, leek, Swiss chard, Chinese cabbage, parsley, cauliflower, peas, green beans,

mustard spinach and peas. The idea is to include seed of new varieties and crops for the farmers to try out. Here a workshop on preparing and planting a seed bed was also included, as was demonstration of the use of mulching.

Figure 9: Right: Farmers planting seed iwth Betty and mulching the seed bed after planting.

The completion of these tunnels and drip kits means that now 59 tunnels with drip irrigation have been installed in Matatiele, as shown in the table below

Table 5: mcirotunel and drip kit recipeints in Matatiele between June and October 2022

Mechachaneng	Ned	Mzongwana	Rhashule	Nkau	Nchodu
Paulus Potlo	John Thefani	Makhosana Zondi	Nomandla Zulu	Malebona Bobore	Maphafodi Jonas
	Motsamai Letebele	Moselatja Tlali	Noncedo Zulu	Makamohelo Motsapi	Manthabang Ramabele
	Maneo Thatho	Veronica Sefoloko	Busisiwe Zitha	Nomzivukile Gungane	Nokhululekile Mamani
	Caiphus Machoba	Nthabiseng Mahlaela	Duduzile Nkunkhu	Maatang Mkolometse	Mathapelo Mogothu
	Sfiso Shozi	Beauty Maphasa	Moleboneng Rajoale	Oupa Nqothe	Phumla Nyembezi
	Nothobelani Booi	Elizabeth Sefoloko	Ntombivuyo Skhulumi	Sonele Phekula	Manthabiseng Brown
	Andiswa Malunga	Angelina Lucwele	Nothozanile Popiyane	Matumelo Tamane	Maphumulo Oliphant
	Tshepang Kutoane	Petronella Ngwenya		Mamonyane Ntsamai	Nokhululekile Memane
	Nkosiyazi Simanga	Duma Mamazeka		Martha Mbongwe	Nteboweng Lesefa
	Manese Seleso	Nonzazo Ndaba		Nongcobo Majikijela	Mathabo Sephilane
	M Mqhakwe	Evlyn Ntlai		Siyabonga Sondela	Matefo Letula
	Thabang Mokoena	Sibusiso Lecwele			Mndimeni Qungani
	Moeketsi Kheswa				Nomanesi Botomane
	Khathazile Sikay				Nokophiwa Mabhongwana
1	14	12	7	11	14

In conclusion, there are still around 10 farmers in Ned, who have completed their trench beds and are waiting for the next round of tunnel construction. Those farmers who have implemented the tunnels are very impressed at the productivity in these structures and report being able to both put food non the table and sell crops to a value of R300-R500 for each planting in their small tunnels. They appreciate the drip kits and being able to use greywater. They feel that this practise has provided for a significant improvement in their small gardens and are willing and enthusiastic to continue to learn new practices. The farmers also said that the learning groups have been a great way to bring them together and help them to work together as community.

SKZN

In Mahhehle, a new learning group is being initiated. It was decided to start with demonstrating and introducing tower gardens, before embarking on the climate change workshop process.

Tower gardens were explained as vertical gardens that are a mix of soil, kraal manure and wood ash. Kraal manure is added to add both organic matter and nutrients into the soil that seedlings will absorb to give food. The wood ash then helps to repel insects and also deal with contaminants and soap in the grey water. Grey water is water that has been used for washing, bathing and other uses. Given struggles for water, using our available water as much as we can go a long way in reducing the amount of water, we use thus time spent collecting water. This means that throughout the years tower gardens have the potential to provide healthy fresh vegetables for households. Tower gardens are a good practice to implement as they are not expensive, have the potential to give food all year round, use grey water thus reducing pressure on fresh water, age and disability friendly. The workshop was undertaken on the 26th of October for 10 participants. Materials were provided for a further 10 tower gardens to be constructed. Participants contributed towards the procurement of seedlings to plant in the towers.

Figure 10: Mazwi Dlamini demonstrating hte ocnstruction of tower gardens for the new mahhehle lerning gorup in SZKN.

Conservation Agriculture as a practice was also introduced to the group and a learning and demonstration workshop was held to outline the three important principles of CA; namely minimum tillage, soil cover and crop diversity. Mr Dlamini also demonstrated the different hand planters that can be used and the layout of plots to be able to do close spacing and also intercropping. Cover crops were introduced.

Figure 11: Right: The learning and dmeosntraiton workshop in Mahhehle on 29th November 2022 intrdouced the MBLI planters nad also the haraka wheel planter shown in the picture.

Each of 17 participants who wanted ot try htis out were provided with small quantiaties of seed nad fertilizer. They would plant a control plot alongside their ‚trial' using thier own inputs to compare their normal planting practices with the use of CA.

1.2.3 CCA cyclical implementation

Conservation Agriculture

During the summer season (November to May) most of the CRA learning groups in KZN (SKZN, Midlands and Bergville) are involved in their dryland field cropping. Conservation Agriculture (CA) is the main focus. The existing CRA learning groups have been implementing CA for a minimum of 3-4 years. Each season the farmers

decide which experiments they would focus on and which questions they would answer based on their experience of the previous season.

The 2021-22 planting season started with late onset of the summer rainfall (which is now typical), with rains only starting In November, rather than September, as in the past. It was followed by heavy rainfall later in the season and a number of hailstorms. Flooding, erosion in the fields and water logging were common problems for farmers as were increased pest attacks and high levels of fungal mold in their grain crops. To accommodate for these recent problems farmers decided on different varieties of maize which could cope better, on ensuring that they plant on contour and undertake close spacing to reduce runoff, to use a burn down herbicide rather than the systemic herbicide used in the past and to focus more on grains and cover crops than legumes such as sugar beans, which fared really badly in the wet weather.

For the existing learning groups in SKZN and Midlands, after the CA review and planning meetings, the farmers make decisions around which 'experiments' within CA they would try out. This includes for example where to do the block or strip crop planting, which varieties of maize to consider (including open pollinated, green mealies, short season and white or yellow maize), their intercropping practice, cover crops, weed management and planter types. The collect monies for joint procurement of inputs and prepare and plant the CA plots together as groups.

Figure 12: Right: The planting demsontraiton held at Mr Nondumiso Gangada's hoemstead, in Centocow to undertake strip plating in CA, using two differnet varieties of mazie (PAN6479 and Colorado) to accomdoate for weather variability in the region. Here a two row planter is used to plant the intercropped strip in the field. Weeds here have been sprayed with gramoxone, a burn down herbidice, rather than the more dangerous systemci herbicides used in the past.

Two new variants of experimentation included this season are:

- Fencing of a plot (500m^2) to ensure that no stover is grazed and to compare this plot with the rest of the farmer's CA implementation where most of the stove ris typically grazed in the field during winter. The intention is to compare soil health and fertility improvements as well as runoff across these plots over a number of years.

- Remedial CA plots (1000m^2). This experiment is for farmers who have tried CA for a number of years (3-4), but who have not realized very positive benefits due to ongoing problems with their soil, which include acidity, compaction, low soil fertility and fungal imbalances. To remedy this, the field is to be limed and the lime ploughed in for greatest effect and then contours would be marked and water conservation structures built (mostly contour ditches, prior to planting the whole field to a mixture of 5 cover crops (sunflower, Sun Hemp, Sorghum, turnips and cowpeas). The intention is then to compare the productivity of this field after this remediation to their other plots under CA and conventional tillage.

For the remedial plot a learning workshop on marking contours was held in the Ozwathini (Midlands) at Mrs Xulu's homestead. She subsequently also dug the water conservation ditch as the top of her field before ploughing in the lime.

Figure 13: Right: Mr Mhlongo from Ozwathini has fenced his 500m ^{2} stover retention plot in preapration for his CA expeirment and Far-right: Mrs Xulu has applied lime and dug her top cut off drain in preapration of ploughing her rembedial experimentation plot

1.2.4 Economic empowerment and income diversification

Limpopo

The four existing CRA learning Groups (willows, Santeng, Turkey and Sedawa), discussed their marketing processes in the absence of support from Mahlathini. Marketing discussions held in each of the groups revealed the following:

- All farmers are selling individually fomr their homesteads or at local tuck shops in thier viallges. The SASSA payout points have been withdrawn from the viallges following the COVID-19 pandemci and the local unrest, removing a very luctrative market option for farmers.
- Transport to amarkets in bigger local towns has been very limiting in temrs of avaiailbiltiy and cost. The level of coordination required between farmers was difficult for htem to manage by themselves.
- Those farmers iwth access ot water for irrigaiton all planted tomatoes nad noins, which meant that competition betwene htem was very high, with little to no coordnation of efforts and marketing. Individaul farmers have arragnements with hawkers to buy their produce.
- In Santeng, extreme water scarcity has limited famring, as households now have ot buy whatever water they use in teir homesteads.
- In Turkey viallge the farmers have arrangements ot sell at hte clinic and day care centres in the village. One farmer has also opened a local shop where she sells her own and other farmers' produce.

Most participants commented that they would like to renew the process of accessing external markets and diversify their cropping accordingly. They do not feel that htey can do this without the assistance of Mahlathini. Those farmers certified organic through PGS-SA have not taken specific advantage of this certificaiton for selling nad have sold their crops in the same way as other learning group members.

With respect to the VSLAs (Villsge Savings and Loan Associations) that were intiatied in the area and for which an arragnement had been made with a sister NGO – AWARD, to continue to support the groups. The groups were all initaited aorund June 2020. Savings groups are implemented to help farmers to save money to; (i) resolve their immediate financial challenges (consumption smoothing); (ii) buy farming inputs and equipment and to (iii) operate profitable business enterprises. When all the above objectives are met, they in turn contribute towards the achievement of the programme goal, which is CRA. The following situation has been outlined:

- Willows: The Ipopeng VSLA only went through one saving cycle nad then collapsed due to trust issues. They would apprecaite more training to re0initatie this process

- Santeng: The Rekakgona VSLA here has now finalized it's third annual share out and has been operating well without any support. The group now has 19 members.
- Sedawa: There were three VSLAs here, namely Dikete Dikete, Ikukeng and Kopano ke maatla. The latter is the only group that has survived nad ocntinued.
- Turkey: The Refentse and Tswelapele VSLAs in this viallge are still active, despite some difficulties.

Clearly, further focused support for these groups is a priority. The Rekakgona group in Santeng, despite operating well had forgotten how to calculate the 190% interest on the loans and for share outs. This situation was rectified with an intensive training session and review of the records for their latest annual share out which was done on the 5th of December 2022. The table below outlines the shares, interest and pay out for each member. The members did realize that some individuals were taking loans that were far too large for them to pay back and have now reinstated the rule that members can not take loans that are larger than the savings they have accumulated. For those who still had outstanding loan payments, this amount was subtracted from their annual share out payment, as shown in the table below.

Table 6: Record of annual share out for the Rekakgona VSLA in Santeng: 5 December 2022

Rekakgona Savings group					
Total number of Savings Group shares = R537 (No shares were sold to pay back debts)					
Total number of Group Fund = R63 668					
Value of Share= R100(Value of share no longer affected by interest accumulated, rule changed by group)					
Book No.	**Initials**	**Surname**	**Total Shares**	**Total interest made**	**Share Pay-Out**
1	M.J	Lehlwane	41	R1 730,00	**R 5 830**
2	L.M	Malepe	24	R500,00	**R 30**
3	F.M	Kgohlwane	45	R671,00	**R 5 171**
4	N.L	Mafologele	42	R2 598,00	**R 6 798**
5	M.G	Shai	53	R975,00	**R 6 275**
6	V.B	Sithole	28	R1 524,00	**R 4 324**
7	F.N	Mašeqo	10	R40,00	**R 340**
8	K	Shai	53	R1 160,00	**R 6 460**
9	F.J	Phokane	40	R1 040,00	**R 5 040**
10	E	kgohlwane	46	R860,00	**R 5 460**
11	S	Shai	30	R1 290,00	**R 4 290**
12	E	juvian	17	R30,00	**R 1 730**
13	A	Shai	54	R520,00	**R 5 920**
14	T	Shai	18	R150,00	**R 1 950**
15	M	Shai	36	R450,00	**R 4 050**
TOTAL			**537**	R13 538,00	**R 63 668**

The two VSLAs in turkey are now half way into their third savings cycle. Their challenges have revolved around the fact that most of the elderly members are illiterate and can not fill in their savings books by themselves. This has meant that only one overall record has been kept and some months were not completed at all. Betty has worked with the groups to rectify this situation and has printed new sets of savings books so that each member has their own record. Below are excerpts from MDF record keeping system for these groups.

NAME OF GROUP:	Tswelapele									REF NO. OF THE GROUP:		MDF SG/0006

CLOSING BALANCES

		#REF!										
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	TOTAL
(A) TOTAL SHARES BOUGHT TODAY	75	68	65	71	57	74							410
(B) TOTAL VALUE OF SHARES BOUGHT TODAY	R 7 500	R 6 800	R 6 500	R 7 100	R 5 700	R 7 400	R -	R -	R -	R -	R -	R -	R 41 000,00
(C) TOTAL LOANS REPAID TODAY	0	R 3 100	R 6 290	R 5 168	R 7 080	R 6 350							R 27 988,00
(D) TOTAL LOANS ISSUED TODAY	R 4 000	R 8 600	R 2 100	R 19 100	R 12 000	R 12 400				R -	R -	R -	R 58 200,00
(E) MONEY IN THE BOX	R 3 500	R 4 815	R 15 505	R 8 673	R 9 536	R 10 886							R 52 915

NAME OF GROUP:	Refentse									REF NO. OF THE GROUP:		MDF SG/0005

CLOSING BALANCES

		#REF!										
	jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	TOTAL
(A) TOTAL SHARES BOUGHT TODAY	43	55	46	52	34	41	0	0	0	0	0	0	271
(B) TOTAL VALUE OF SHARES BOUGHT TODAY	R 4 300	R 5 500	R 4 600	R 5 200	R 3 400	R 4 100	R -	R -	R -	R -	R -	R -	R 27 100,00
(C) TOTAL LOANS REPAID TODAY	0	R 2 860	R 6 040	R 7 188	R 9 059	R 4 994							R 30 141,00
(D) TOTAL LOANS ISSUED TODAY	R 2 600	R 6 200	R 8 600	R 8 700	R 7 900	R 10 000							R 44 000,00
(E) MONEY IN THE BOX	R 100	R 60	R 20	R 98	R 2 557	R -							R 2 835

Figure 14: Above Left: the Rekgagaon VSLA doing their annual share out and Above Right: the Tswelapele

KZN

In two areas, Ozwathini and SKZN (Centocow), monthly farmers marketing stalls have been undertaken. These stalls are set up in the nearest local town, during the pension payout days for these areas. Learning group members work together to provide and collect produce, sell and share out incomes for each individual farmer. The stalls are well branded and provided with tables and gazebos, which generally attracts a lot more attention than farmers just setting up on the pavement, as they have done in the past.

Figure 15: Members of the Ozwathini learning group at hteir monthly market stall in Bamshela. 3 November 2022. This group is well establisehd and has been running thier mrket stall independtly, making thier own arrangements for transport etc for almost a year. Malhathini still supports in helping with advertising, packaging, pricing and coordination.

Figure 16: Right: The very first monthly makret stall for hte Centocow learning gorup in SKZn in the town of Creighton.

The average incomes from these staills are mostly between R1 600-R2 800 per day, shared between 2-8 farmers.

1.2.5 Innovation platforms and multi stakeholder engagement

Locality based cross visits

In SKZN a cross visit between the Mariathal and Centocow learning groups was undertaken on the 18th of November. The theme for the visit was methods of natural pest and disease control as well as value adding and processing through the production of vegetable juices.

Cross visits are a useful tool in fostering learning among farmers not from the same area. Farmers learn new ideas on how they could improve their activities through people at the same level as them, making it a lot easier to interact. A pest and disease cross-visit workshop was conducted in Southern KwaZulu – Natal covering two areas; Centocow and Mariathal; under the Harry Gwala District Municipality. The workshop was held at Mr Adrian Williams' farm in Centocow showing the various production activities.

Figure 17: Mr Williams explaining his process for vegetalbe juice production and paprovinding participants with samples for tasting.

The workshop framework was as follows:

- Introduction of farmers and where they come from
- Purpose of the workshop
- Mr Adrian Williams' introduction to the farms' production activities
- Discussion of pests and diseases and the various natural pest and disease controls
- Walkabout
    - Pig production
    - Tunnel garden
    - Broiler chickens
- Eyomdali Vegetable juice process and tasting, lotions and perfumes
- Discussion on Centocow savings group and market day

Mr Williams shared his background in farming and how things have changed since he moved to Centocow. He explained how he moved to a smaller and manageable farm with the aim that there will be a Centocow Mission market that he would be able to supply. Things did not go as he planned in terms of supply and demand and would have vegetables going to waste. He then had an idea to use his produce that is when he joined Izenzozomdali co-op and started Eyomdali Enterprise of cold-pressed vegetable juices. Making vegetable juices was a way of both avoiding waste as well as adding value to his vegetables. He demonstrated how he makes and sells these juices.

The discussion on pests and diseases was a combination of a presentation (power point slides) and discussion among participants how they deal with insects and disease problems. Maintaining the natural environment as much as possible will keep animals including pests, food chains and functions in place to avoid pest and disease infestation and outbreaks. When asked what farmers use to deal with pests, most farmers use 'blue death' to kill insect pests but indirectly end up eliminating good insects as well resulting in disruptions in the system. Insects such as bees responsible for pollination as well as predators that feed on insect pests such as wasps and insects that help to decompose organic matter are also killed and this reduces life in the garden. A discussion on d plant diversity and timing of planting was also held as these are important considerations, as is fertility and weed management Garden sanitation is also important and all these aspects need to be managed first before thinking of making pest and disease control brews and mixes. Then a few brews were discussed: including use of blackjack seeds, chilli, garlic and green bar soap. These are all practices Mr Williams uses as he is running and organic farm.

Figure 18: Cross visit to Mr William's farm. Here participants are looking at his tunnel and discussing issues of natural pest control measures.

One of the participants asked what can be done about snails as they cause quite a lot of damage on crops. A beer trap was explained where farmers can plant a cut yoghurt container with some beer to attract them; they will fall into the container and can be fed to traditional chickens. Other physical control measures of pests would be toilet rolls placed into the soil over small plants. Wrapping sticky tape around plant stems could also trap crawling insects.

Participants were also introduced ot his piggery and broiler units and had many questions.

Multistakeholder forums

Mahlathini is involved in a number of regional, provincial and national forums, networks and processes. Activities are summarized in the table below.

Table 7: Summary of multistakeholder engagement: October- December 2022

Activity	Description	Dates
uThukela Development Agency	Fresh produce marketing, 1st week of every month	Oct-Dec 2022
SAPPI	Meeting with Vimbukhalo community representatives	13th October 2022
ESS research - WRC	UKZN research in ecosystem services mapping supported by MDF: water walks, focus group discussions, planning, eco-champs, spring protection work in Stulwane, thematic and mapping workshops in Ezibomvini and Stulwane	23rd September 2022 14th October 2022
WWF Water source forum	Stakeholder meetings, online and in person at OLM board room Bergville	29th September 2022 10th November 2022
SANBI- Living Catchment Programme	Social facilitation capacity building workshop – Western Cape; M Malinga Olifants' water indaba: M Malinga, N Mbokazi, H Hlongwane, B Maimela and E Kruger	3rd-5th October 2022 30th Oct-2nd Nov 2022
UKZN and Adaptation Network	Ukulinga Howard Davis memorial symposium: Presentation on CbCCA in Bergville: E Kruger T Mathebula, N Sibiya	12th October 2022
Adaptation Network	Policy input and AGM Ongoing input and involvement in the Capacity development working group: to implement the new Civil Society Organisation Skills Enhancement and Excellence Development (CSO SEED) project, funded by the Flanders government. Some of these activities include youth-led participatory videos on adaptation initiatives and some thematic field visits and exchanges between AN CSO member projects.	13th October 2022 1st December 2022

PGS-SA	Quarterly meeting: Discuss mapping of PGS organisations, finalisation of certificate and use of seals and logos. Finalisation of smallholder farm assessment form	17th November 2022
Agroecology network	Online meeting and policy involvement for reviewing of the National department of Agriculture's climate change adaptation master plan (CCAMP). Letter to the minister compiled and endorsed. Led by Mr Stephen Greenberg, arranged by the African Centre for Biodiversity	18th November 2022
Okhahlamba LM	Agriculture and Land summit: MDF presentation and marketing stall: All Bergville staff, farmers representatives and eco champs	30th November 2022
Afromontane research Centre	Maloti-Drakensberg Climate Change Workshop	12-14 December 2022

Assessment of progress

The project is on track and no major deviations in the project planning and implementation is envisaged.

Other comments

Date: 12 December 2022

Appendix 1: CCA workshop outline

Community level climate change adaptation exploration workshop outline					
DAY 1					
Time	**Activity**	**Process**	**Notes**	**Materials**	**Who**
09:00	**INTRODUCTION**				
09:00-09:45	Community and team introductions	**In pairs**, take 5 minutes to talk to each other. Then introduce each other to the group. Choose a person you do not know well (both team and community). Include name and surname, farming activities (garden, field, livestock, natural resources), income from farming.	Depending on the size of the group, this can take a long time. If time is short, then just do a quick round of introductions.	**Attendance register** – with columns for farming enterprises (so that each participant can tick what they do) – in English and Zulu/Pedi. **Name tags,** stickers, kokis.	**Materials and logistics:** **Facilitation:** **Recording:**
	Purpose of the day	Introduction of the organisation/s and purpose of this workshop – link to already ongoing activities if possible and introduce visitors and other stakeholders involved.	Talk about CC necessitating adaptation from us – we may need to change how we do things and what we do – this w/s is to help us explore options for such changes.	Flip-stand, newsprint, kokis, data projector, screen, extension cables, plugs & double adaptors. Black refuse bags and masking tape (for blacking out windows), camera, and one person to undertake to **take photos** throughout the day. Extra batteries for camera and sim card.	**Materials and logistics:** **Facilitation:** **Recording:**
09:50	**PRESENT SITUATION**				
09:50-10:30	Present livelihoods and farming situation – discuss impacts related to CC	Use a series of impact pictures from the local situation. Include the 5 categories (and describe them to the group) – water management (increased efficiency and access), soil management (erosion control, fertility, health), crops, livestock and natural resources.	Impact pictures – either PowerPoint or printed on A4 to facilitate dialogue (or both). Record community comments).	**PowerPoint presentation pictures**	**PPoint** : **Facilitation**:
10:30	**PAST, PRESENT, FUTURE**				
10:30-11:30	Discuss farming activities as they have changed, what they are now and what may happen in the future if the present trends	**Small groups** (5-10 people): facilitated discussion on farming activities (include the 5 categories) – prompt for all five and keep conversation focussed OR facilitate a shorter plenary discussion on	Important to note and record any discussions around changes and adaptations – things people are already doing to accommodate for changes, and	Small groups: each needs a **facilitator and recorder**.	**Facilitation**: **Recording**:

	continue	how things are changing (if time is short).	where they are not sure what to do.		
11:30-12:00	TEA	Fruit (apples, oranges, biscuits, juice and water, paper cups (lots) and plates. Generous helpings – and lots of fruit juice if it is hot. Find someone to take charge of food and refreshments, while the rest of the workshop continues.			
12:00	**CLIMATE CHANGE PREDICTIONS**				
12:00-12:50	Summary of predictions for the locality – from scientific data [15min]	Present to group using flipchart or PowerPoint. Keep it simple with brief, bold statements that will be remembered. Include concepts of certainty and CC scenarios – unmitigated, neutral and mitigated.			**Facilitation:** **Recording:**
	Weather vs. climate [10min]	**Role play**: phone conversation - weekend visit for weather, relocating to an area for seasonality/climate.	Check in with participants – how do they understand the difference from the role play?		**Facilitation:**
	Seasonality diagrams [25min]	Small groups (5-10 people): facilitated discussion on temperatures for each month of the year – in a normal year and then discuss how this is changing and going to change. Start with the hottest month and then the coldest month as reference points.	Do temperature first or if the group is small and works quickly, then include rainfall on the same chart.	Easy to use kebab sticks bought from supermarket for this. Small groups – each needs a **facilitator and recorder.**	**Facilitation**: **Recording**:
13:00	**REALITY/IMPACT MAPS**				
13:00-14:00	Impact of CC mind map	**Small groups** (5-10 people): facilitated discussion – **mind map** of livelihood and farming impacts (using the 5 categories), using hotter (drier) as the starting point – **linkages** between cards on the mind map – make arrows (include more cards if need be and discuss (e.g. hotter soils lead to poor germination, leads to	Prompt for social, economic, environmental impacts as well if these do not come up in the group.	Small groups – each needs a **facilitator and recorder.**	**Facilitation**: **Recording**:

		poor yields, leads to hunger).			
14:00-14:30	Possible adaptive measures	**Possible solutions**: things that people know, have changed, have tried and/or are trying, to deal with the changes. Use different coloured cards to attach these solutions to the mind map. If participants are struggling, then rephrase the negative impact statements into positive outcomes and ask what actions are possible.	Also make a separate list on newsprint of names of people trying things plus the innovation they are trying (this is to facilitate HH visits on day 2).	The cards need to be written in local language with smaller translations in English written in on the cards as well (to avoid the need for alter translations).	**Facilitation**: **Recording**:
14:30-2:45	**CLOSURE**	**Report backs** – of possible solutions Planning **for day 2** – choose 3-4 participants for household visits and ask for a small group of other interested individuals to join. Decide on venue and time (12 noon) for continuing with practices.	Households within walking distance best. Otherwise drive these 3-4 participants around and meet for focus group thereafter.	Rapporteurs need to be chosen from the group to summarise the solutions in the report backs [5min/group].	**Facilitation**: **Recording**:
	LUNCH Local catering groups to provide meals – ~R45 per head (e.g. rice and stew with one veg, or something similar)				
DAY 2					
9:00	**HOUSEHOLD VISITS**				

9:00-12:00		Look at local adaptations and innovations. Assess the household situations. Start to elucidate criteria people use to make choices and decisions.	Use questionnaire and fill in through semi-structured interview and observations.	Questionnaires to contain the following info: • Head of household (male/female) • No. of adults • No. of children (dependency ratio) • Income sources • Level of income • Scale of operation; 0.10-1 ha, 1-2(5) ha, > 2 (5) ha • Farming activities; Aspirations – gardens, fields, livestock, trees • Market access • Other activities • Resources • Water access • Infrastructure • Knowledge and skills • Literacy rate • Social organisation	**Facilitation**: **Recording**:
		Team meets in evening **(before day 2)** to discuss mind maps and lists of solutions and choose a range of practices (5-10) from the database to present. Also, summarise criteria that came from the household visit discussions.			
	TEA	Packed tea-to-go to share with household members			
12:00	**PRACTICES**				
12:00-13:00	New ideas/ practices/ innovations	Recap and summary of day 1. Introduce a selection of new practices – PowerPoint and A4s (chosen the night before by facilitation team to match the general sense of what participants need ideas for or what they are trying – to improve upon those). Provide descriptions and get questions and comments.	Select the 5-10 practices beforehand and make sure there are 3-4 copies of the A4s for the small groups and or a PowerPoint presentation – **record comments from participants.**	Sets of practices (A 4s), attendance registers	**Materials and logistics:** **Facilitation:** **Recording:**
13:00-13:20	Criteria for selection of practices	In plenary present criteria, discuss with group and add more (prompt for criteria to relate to five categories (e.g. saving and using water well, increasing access to water, improving organic matter, increasing soil health, increasing natural resources, etc), along with criteria like	Choose 5-7/8 criteria maximum. Some criteria can be condensed from two into one.	Flipchart, newsprint, kokis	**Facilitation**: **Recording**:

		cost, labour, time, etc.			
13:20 - 14:00	Prioritisation of practices	**Small groups:** Choose a selection of practices from their own suggestions and new ideas presented (5-10) and assess them using the criteria chosen in a matrix.	Let the group decide for each square using a scale of 0-2 where 0 = "bad or 'little", 1= "OK to medium" and 2 = "a lot to good".	Newsprint, kokis. Small group facilitator and recorder.	**Facilitation**: **Recording**:
14:00	**WAY FORWARD**				
14:00-14:30	Each individual choses their practices. Set up sessions in January to refine choices and start on demonstrations and training in implementation of practices and farmer experimentation. Choose "volunteers" for the four proposed tunnels for joint/group experimentation per site.		Learning sessions	Put together a list for each small group for each individual to record their name, surname, telephone/cell number and practices.	**Facilitation**: **Recording**:
	LUNCH Local catering groups to provide meals – e. g. rice and stew with one veg, or something similar				

CLIMATE CHANGE PREDICTIONS:			
Hotter	1-4 degrees Celsius	For every month of the year	HIGH probability/certainty
Less rain	Similar amount of rain but over a shorter period (fewer rainy days per season)	This will lead to an overall drying effect in the environment	MEDIUM certainty
	Greater intensity of rainfall		
	More rain in spring and/or more rain in summer	Storms	LOW certainty
Longer term	Greater frequency of droughts under scenarios 1 and 2		Scenario 1 – business as usual. Scenario 2 – stabilise emissions. Scenario 3 – reduce emissions
	Greater frequency of extreme rainfall events under scenarios 1 and 2		

Community-level climate change adaptation: Prioritisation and planning workshop outline					
DAY 2					
Time	**Activity**	**Process**	**Notes**	**Materials**	**Who**
09:00	**Introduction**				
09:00-10:00	Community and team introductions	In pairs, take five minutes to talk to each other. Each person names one practice they know or are doing that is good for CCA – a CRA practice. OR, one they would most like to try out.	Practices to be summarised on a flip-chart.	**Attendance register** – with column for CRA practices – in English and Zulu/Pedi. **Name tags,** stickers, kokis	**Preparation:** **Facilitation:** **Recording:**

	SAEON weather predictions	Presentation and group discussion on the SAEON weather prediction maps that are produced quarterly to ascertain usefulness to farmers as a decision-making tool.	Copies of the temperature and rainfall maps produced for each small group.		**Preparation:** **Facilitation:** **Recording:**
	Purpose of the day	Introduction of the organisation/s and purpose of this workshop – review understanding of CC, impacts and adaptive measures. Introduction to CRA principles.	Summarise from report of 1st workshop – use the 5 categories – summarise measures under each. Use two PP slides attached.	Flip stand, newsprint, kokis, camera. One person undertakes to take **photos** throughout the day. Extra batteries for camera and sim card.	**Preparation:** **Facilitation:** **Recording:**
10:00	**Prioritisation of practices**				
10:00- 11:00	Review practices mentioned in detail – both community level and presented from one-pagers	Divide into small groups – for prioritisation matrix. Use five categories (natural resources, soil, water, crop, livestock). Supply with cards where all prioritised practises are written. They prioritise these in a list under each category, based on what to try first, second, etc – make sure the criteria used for these choices are recorded. Return to plenary, present and get overall choices summarised for all small groups.	See community-level prioritisation of practices in excel worksheet.	Flipchart paper, kokis, cards with all prioritised practices written out, prestick.	**Preparation:** **Facilitation:** **Recording:**
11:00-11:30	**TEA**	Fruit (apples, oranges, biscuits, juice and water, paper cups (lots) and plates. Generous helpings, and lots of fruit juice if it is hot. Find someone to take charge of food and refreshments, while the rest of the workshop continues.			**Preparation:**
11:30	**Demonstrations and learning**				
11:30-12:30	Learning and practical demonstration session on a selection of practices – start with gardening practices (appropriate for present season)	Presentation to group – discussions, etc, then practical demonstrations in an appropriate garden – preferably a household garden. Choose 1-4 practices, e.g. trench bed, mulching, liquid manure, intercropping.	Facilitators to come prepared with handouts and learning materials. Also, materials for doing the practical demonstrations such as mulch, manure, seed, seedlings, tools, and other, e.g. shade netting, poles, gravel and ash for tower gardens – depends on practices and must be planned for.		**Preparation:** **Facilitation:** **Recording:**
14:30	**Individual experimentation**				

14:30-15:00	Individual choice of practices for household experimentation	After the demonstrations – make a list for individuals to choose experiments to try out. Headings are practices. Each participant writes their name under the practices they will try – it can be one, a few, or all.	Facilitators to discuss how an experiment works – i.e. the farmer compares the new idea to their usual practice. For example, if they do a trench bed, they must make a bed next to it the same size, in the usual way, and plant both in the same way on the same day. This way they will be able to see the differences in growth and yield from the practice. They need to monitor how it is going and be able to report back to this group what has happened.	**Preparation:** **Facilitation:** **Recording:**
	Input on farmer-level experimentation	Group-based input to discuss aspects of experimentation – choosing an experiment, what to monitor, observe and measure.	Copies are made of the farmer-level experimentation form and individual farmers work together in small groups to outline their experiments.	**Preparation:** **Facilitation:** **Recording:**
15:00	**LUNCH** Local catering groups to provide meals – ~R45 per head (rice and stew with one veg, or something similar)			**Preparation:**