



Deliverable

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# Water Research Commission

Project Number: C2022/2023-00746

Project Title: Dissemination and scaling of a decision support framework for CCA for smallholder farmers in South Africa

Deliverable No.5: Local food systems and marketing strategies contextualized - Guidelines for implementation

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Submitted to:  
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## 1. INTRODUCTION

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This section provides a brief summary of the project vision, outcomes and operational details.

AIMS	
No	Aim
1.	Create and strengthen integrated institutional frameworks and mechanisms for scaling up proven multi-benefit approaches that promote collective action and coherent policies.
2.	Scaling up integrated approaches and practices in CbCCA.
3.	Monitoring and assessment of environmental benefits and agro-ecosystem resilience.
4.	Improvement of water resource management and governance, including community ownership and bottom-up approaches.

### OUTCOME

Vertical and horizontal integration of this community- based climate change adaptation (CbCCA) model and process leads to improved water and environmental resources management, improved rural livelihoods and improved climate resilience for smallholder farmers in communal tenure areas of South Africa.

### EXPECTED IMPACTS

1. Scaling out and scaling up of the CRA frameworks and implementation strategies lead to greater resilience and food security for smallholder farmers in their locality.
2. Incorporation of the smallholder decision support framework and CRA implementation into a range of programmatic and institutional processes
3. Improved awareness and implementation of appropriate agricultural and water management practices and CbCCA in a range of bioclimatic and institutional settings
4. Contribution of a robust CC resilience impact measurement tool for local, regional and national monitoring processes.
5. Concrete examples and models for ownership and management of local group-based water access and infrastructure.

### 5. Chronology of activities

1. Desktop review of CbCCA policy and implementation presently undertaken in South Africa
2. Set up CoPs:
  - a. Village based learning groups: A minimum of 1-3 LGs per province will be brought on board.
  - b. Innovation platforms: 3 LG clusters, one for each province consisting of a minimum of 9- 36 LGs will be identified to engage coherently in this research and dissemination process.
  - c. Multistakeholder platforms: Engage existing multistakeholder platforms such as the uMzimvubu catchment partnership, SANBI- Living Catchments Programme, the Adaptation Network, etc.

3. Develop roles and implementation parameters for each CoP
  - a. Village based learning groups: CCA learning and review cycles, farmer level experimentation, CRA practices refinement, local food systems development, water and resource conservation access and management and participation and sharing in and across villages.
  - b. Innovation Platforms (IP): Clusters of LGs learn and share together with local and regional stakeholders for knowledge mediation and co-creation and engagement of Government Departments and officials (1-2 sessions annually for each IP)
  - c. Multistakeholder platforms: Development of CbCCA frameworks, implementation processes (including for example linkages to IDPS and disaster risk reduction planning and implementation at DM and LM level), reporting frameworks for the NDC to the CCA strategy, consideration of models for measurement of resilience and impact (1- 2 sessions annually for each multi stakeholder platform)
4. Cyclical implementation for all three CoP levels (information provision and sharing, analysis, action, and review) within the following thematic focus areas: Climate resilient agriculture practices, smallholder microfinance options, local food systems and marketing and community owned water and resources access and conservation management plans and processes. Each of these thematic areas is to be led by one of the senior researchers and a small sub-team.
5. Monitoring and evaluation: Consisting of the following broad actions:
  - a. Focus on 3-4 main quantitative indicators e.g. water productivity, production yields, soil organic carbon and soil health
  - b. Indicator development for resilience and impact and
  - c. Exploration of further useful models to develop an overarching framework.
6. Production of synthesis reports, handbooks and process manuals emanating from steps 1-4 with the primary aim of dissemination of information.
7. And refinement of the CbCCA decision support platform, incorporating updated data sets and further information form this research and dissemination process.

<b>DELIVERABLES</b>				
<b>N o.</b>	<b>Deliverable Title</b>	<b>Description</b>	<b>Target Date</b>	<b>Amount</b>
1	Desk top review for CbCCA in South Africa	Desk top review of South African policy, implementation frameworks and stakeholder platforms for CCA.	01/Aug/2022	R100 000,00
2	Report: Monitoring framework, ratified by multiple stakeholders	Exploration of appropriate monitoring tools to suite the contextual needs for evidence-based planning and implementation.	02/Dec/2022	R100 000,00
3	Handbook on scenarios and options for successful smallholder financial	Summarize VSLA interventions in SA, Govt and Non-Govt and design best bet implementation process for smallholder microfinance options.	28/Feb/2022	R100 000,00

	services within the South Africa			
4	Development of CoPs and multi stakeholder platforms	Design development parameters, roles and implementation frameworks for CoPs at all levels, CRA learning groups, Innovation and multi stakeholder platforms; within the CbCCA framework.	04/Aug/2023	R133 000,00
5	Report: Local food systems and marketing strategies contextualized - Guidelines for implementation	Guidelines and case studies for building resilience in local food systems and local marketing strategies towards sustainable local food systems (local value chain)	08/Dec/2023	R133 000,00
6	Case studies: encouraging community ownership of water and natural resources access and management	Case studies (x3) towards providing an evidence base for encouraging community ownership of natural resource management through bottom-up approaches and institutional recognition of these processes.	28/Feb/2024	R134 000,00
7	Case studies: CbCCA implementation case studies in 3 different agroecological zones in SA	CbCCA implementation case studies in 3 different agroecological zones within South Africa	12/Aug/2024	R133 000,00
8	Refined CbCCA decision support framework with updated databases and CRA practices	Refined CbCCA DSS database and methodology with inclusion of further viable and appropriate CRA practices	13/Dec/2024	R133 000,00
9	Manual for implementation of successful multistakeholder platforms in CbCCA	Methodology and process manual for successful multi stakeholder platform development in CbCCA	28/Feb/2025	R134 000,00
10	Final Report	Final report: Summary of all findings, guidelines and case studies, learning and recommendations	18/Aug/2025 (Feb 2026)	R400 000,00

Deliverable 5 focusses on development of a set of broad guidelines for promoting local food systems and marketing and resilience thereof, linked to descriptive examples and cases from practice. In addition, work has continued within the three levels of Communities of practice (CoP) and progress is reported upon in this report.

## 2. PROCESS PLANNING AND PROGRESS TO DATE

The intention is threefold, as describe below and shown in the diagram:

- Expand introduction and implementation of the CbCCA DSS framework within the areas of operation of MDF with a number of different communities. Work with existing communities as the basis of the case studies in specific thematic areas.
- Introduce and implement the CbCCA DSS framework with a range of other role-players expanding into new areas, including different agroecological zones and
- Work at multistakeholder level to introduce the methodology as an option for adaptation planning and action, both within civil society and also including Government stakeholders. This is the first step towards institutionalization of the process and will involve mainly working within existing multistakeholder platforms and networks as the starting point.

- Further exploration of the categories of stakeholders and the roles and relationships between stakeholders is important for the present research brief.

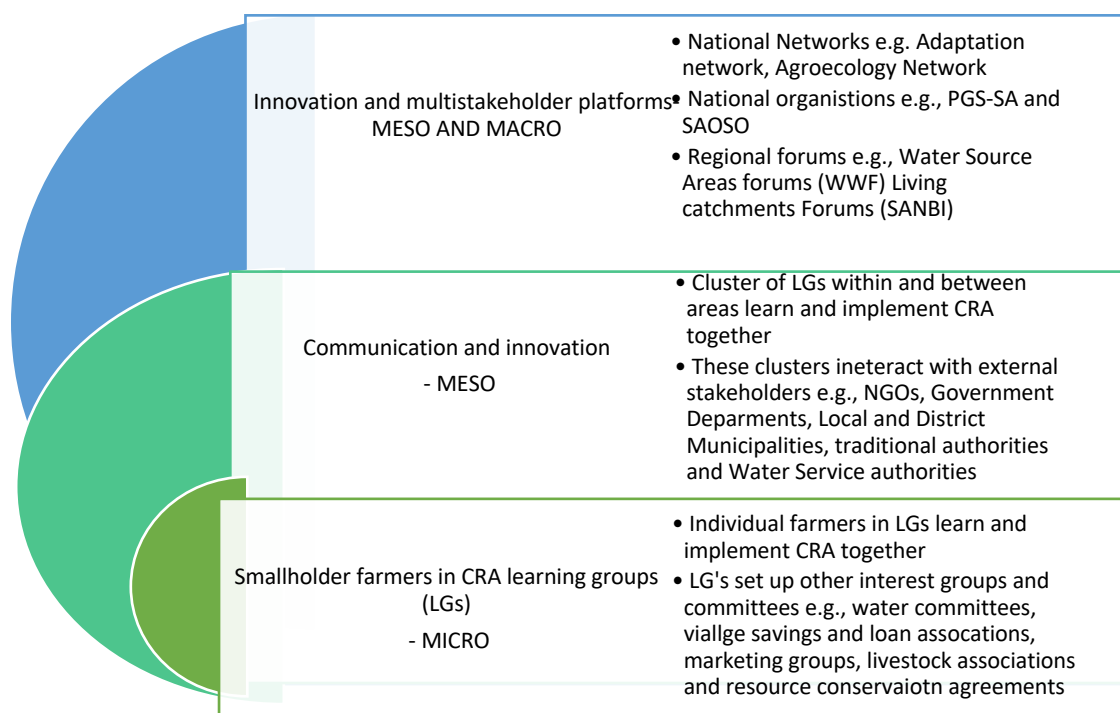


Figure 1: Conceptualization of stakeholder platforms at multiple levels to support CbCCA

### Smallholder farmers in climate resilient agriculture learning groups

This process has been initiated by continuing and strengthening specific CRA learning groups, which have been supported by MDF in the past and who have done well in implementation and building of social agency. These groups will provide the focus for further exploration of food systems, water stewardship and governance and engagement with local and district municipalities.

CRA learning group summary:

Province	Area	Villages	No of participants
KZN	Bergville	Ezibomvini, Stulwane, Vimbukahlo, Eqeleni, Emadakaneni	130
	Midlands	Ozwathini, Gobizembe, Mayizekanye, Ndlaveleni	110
	SKZN	Mahhehle, Mariathal, Centocow, Plainhill, Ngongonini	90
Limpopo	Sekororo-Lestitele	Sedawa, Turkey, Mulati, Santeng, Worcester, Sophaya	75
EC	Matatiele	Ned, Nchodu, Nkau, Rashule, Mzongwana	90
	5	25	495

Table 1: Micro-level CoP engagement: February to December 2023

Note: Collaborative strategies in bold undertaken during this reporting period

Description	Date	Activity
Establishing learning groups at village level	2022/11/25, 12/09 2022/11/15, 11/29, 2023/02/07 2023/02/09	Limpopo: Sophaya  SKZN: Mahhehle -CCA workshop x 2 days, Bergville: Eqeleni

	2023/01/18 2023/03/27 2023/06/15, 07/07	EC: Ned, Nkai Limpopo: Madeira KZN Midlands: Ndlaveleni, Montobello, Noodsberg, Inkuleleko primary school
Training and mentoring for climate resilient agriculture	2022/12/02 2022/10/26 2022/10/08-14 2022/11/23,24,29 2022/02/10 2022/02/27, 03/28 2022/03/08, 03/17, 03/28 2022/03/15 2023/03/07,08 2023/03/29,30 2023/03/24,27,30 2023/04/, 2023/05, 2023/06  2023/04/21,25, 05/26, 06/08  2023/04/19,20 2023/06/22 <b>2023/08/07,08,10</b>  <b>2023/09/19</b> <b>2023/10/16-19</b>  <b>2023/11/13-17</b>	Midlands: Ozwathini contouring workshop SKZN: Mahhehle – tower gardens EC-Matatiele: Drip irrigation workshops in 5 villages SKZN: CA demonstration workshops in 3 villages SKZN: Plainhill Drip irrigation training Limpopo: Sofaya trench beds SKZN: Mahhehle tower gardens, poultry production, trench beds  SKZN: Mariathal gardens and experimentation Bgv: Madakaneni, Mahlathini – gardening training EC: Ned, Nchodu poultry production EC: Nec, Nchodu, Mzongwana- Pest and disease control Limpopo and KZN: trench bed training with assembling of tunnels for 45 households across 8 villages, including distribution of seedlings, mixed cropping and mulching learning inputs and drip irrigation Limpopo: Willows, Sedawa, Mametja Sophaya. Bergville-Matwetha, Emadakaneni – Natural Pest and Disease control Bergville, SKZN: Poultry production: eMadakaeneni, Mjwetha, Mariathal, Mahhehle, Centocow EC: Ned, Nkai, Rashule, Nchodu- Soil and water conservation <b>Matatiele: Multipurpose chicken production and cage construction (Ned(13), Rashule(22), Nchodu(23))</b> <b>Matatiele: Nchodu -Value Adding training (32)</b> <b>Limpopo: Boschvelder feeding and management training x 5 villages (50 participants)</b> <b>Limpopo (30): CA demonstrations and farmer level experimentation: intercropping cover crops</b>
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  2023/01/24-30 ONGOING  <b>2023/10/03-06</b>  <b>2023/11/05-15</b>	CCA review and planning workshops -Bergville: CA review and planning (5) -Midlands: CA review and planning (3) -Limpopo: CCA review and planning (4) <b>CCA prioritization of practices</b> -Matatiele: 5 villages (Ned, Nchodu, Rahsule, Nkai, Mzongwana) -All areas: garden monitoring, poultry support, tunnel and drip kit installations, VSLAs monthly meetings <b>KZN-Bergville Boschvelder chicken delivery and maintenance mentoring for 45 participants</b> <b>KZN: Bergville_CA farmer experimentation planting for 124 participants, incl cover crops</b>
Income diversification and economic empowerment of local farmers (LG at local level)	2022/10/02,11/03, 12/04, 2023/02/02,03/02, 03/03, 04/03, 05/02, 06/02, 07/04, <b>08/05, 09/03, 10/05, 2023/09/29</b>  2022/10/08, 11/07, 12/02, 2023/01/27, 02/07, 07/04, <b>08/05, 09/05</b>  2022/11/05,06,07 2023/01/27 2023/01/26 2022/12/13 2023/02/14  2023/02/14  <b>Jan-December 2023</b>  2023/03/15,16	<b>Market days: monthly farmers markets</b> -Midlands: Bamshela (Ozwathini)  -SKZN: Creighton (Centocow)  <b>-Ubuhlebezwe LED Ixopo flea market</b>  - Bergville: Bergville town  <b>Market exploration workshops</b> -Midlands: Mayizekanye, Gobizembe -EC_Ned-Nchodu market day in Matatiele -SKZN: Mariathal PGS follow-up w/s Limpopo SKZN: Mahhehle  <b>VSLA introduction</b> -SKZN: Mahhehle VSLA meetings and share outs -Bergville: 9 -SKZN: Ngongonini (2), Centocow (4) -Midlands: Ozwathini (6) Limpopo: (7) Youth tala table value adding training. <b>-Livelihoods survey- all areas</b>

	July-Sept 2023	
Implementation and capacity development for innovation (3) and multi-stakeholder platforms (3)	2022/11/18 2022/11/10 2022/12/01 2023/02/23  2023/02/28 2023/03/08,09 2023/03/89,29,  May-July 2023  2023/03/30, 06/02 2023/04/26  2023/05/09 2023/07/10-15 <b>2023/08/18</b>  <b>2023/08/29</b>  <b>2023/08/30</b>  <b>2023/09/04</b>  <b>2023/09/08</b>  <b>2023/09/13</b> <b>2023/09/22-24</b> <b>2023/08/23, and 09/27</b>	-SKZN: Centocow P&D control cross visit and learning workshop -uThukela water source forum: Visioning and action planning – Bergville -Adaptation Network AGM -Regenerative Agric farmers’ day in Bergville incl Asset research, uThukela Water Source Forum, uThukela Development Agency -Adaptation Network: CCA financing dialogue -SANBI_gender mainstreaming dialogue -WRC-ESS: Bglv Ezibomvini, Stulwane – resource management mapping and planning Bergillve:Stulwae weekly community resource management workdays -Okahlamba LED forum -Farmers X visit between Bulwer (supported by the INRO and Bergville around CRA, fodder and restoration) -PGS-SA: market training input: Online training Session 5 -Giyani Local Scale Climate resilience Project: Introduction of CCA model and local water governance options. <b>-World Vision: CCA workshops for women cooperatives and LED project (60 participants)</b> <b>-Giyani Climate resilience project: Input into WRC reference group meeting</b> <b>-KZN DARD_ Okahlamba Agricultural Show: display and talk</b> <b>ACDI: Dialogue on community adaptation and resilience (Stellenbosch)</b> <b>Food systems article for newsletter</b> <b>WWF-Business Network meeting (SAPPI Durban)- presentation</b> <b>Joint Bergville learning group local marketing review session</b> <b>Gcumisa_multistakeholder innovation meeting – with the INR, ~60 participants (value adding, stokvels and local marketing</b> <b>Food systems dialogue: online event</b> <b>Uthukela water source forum: Core team meeting and Multistakeholder field visit around community resource conservation in Stulwane (Bglv)</b>
Indicator development for evidence-based indicators, M&E and handbook development	2023/01/30- 02/03  2023/02/02 2023/01/18  2023/01/18 2023/02/20 March-May 2023 June 2023 <b>2023/10/16-20, 11/13-16</b>	Limpopo: Focus Group discussions for VSLA and microfinance for the rural poor x 3 (Turkey, Worcester, Santeng)  Garden monitoring: -SKZN: Plainhill -EC: 5 villages CA monitoring -EC:5 villages -KZN: Bergville -30, Midlands 15, SKZN 15 -All areas: Poultry production list -All areas: Livelihoods survey for farmgate sales and asset accumulation <b>-M&amp;E resilience indicator development team meeting and process with k Kotschy</b>
Implementation of sustainable water management	2023/01/03-02/03  2023/03/07 2023/03/25, 06/15  2023/04/25, 06/01,02, 06/14. 2023/07/26-28, <b>09/14,10/09-14, 11/06-10</b>	KZN: Bergville: Stulwane – Conflict man and upgrading spring protection. EC: Nkau: Water walk and meetings for spring protection and reticulation. KZN: Bglv Stulwane_ Engineer visits (Alain Marechal) for scenario development and follow up planning meetings with community. Set up committee, work parties and start on quotes and budget outline  KZN: Bglv Vimbukhalo: Governance of communal borehole water supply <b>KZN: Bglv Stulwane_ Engineer visits (Alain Marechal) for scenario development and follow up planning meetings with community. Set up committee, work parties and start on quotes and budget outline. Work on scheme initiated.</b>
Organisational & capacity development	2022/11/17  2022/12/05 2023/02/13  2023/02/09, 02/16  2023/03/06 2023/03/13  2023/04/17 2023/05/26 2023/06/12	-MDF AGM and organisational capacity development workshop -Mentoring and planning with new finance officer to implement SODI financial reporting system - Internal short learning event for rainfall and runoff results, as well as soil fertility and Organic carbon - Mentoring in CCA workshop implementation. Temakholo from Midlands assisted Bergville team -Team session on gender mainstreaming - UKZN- Ecological mapping and use of resource planning – Bglv team -VSLAs review and discussion re group based rules, BLF updates - Nutrient analysis for livestock fodder options: facilitated by Brigid Letty from the INR -Small business development support planning and Livelihoods survey



### Communication and innovation

This aspect relates to platforms for sharing and learning with clusters of learning groups (LGs).

For this quarter the following innovation platforms have been supported:

- Mametja-Sekororo annual PGS assessments: 3 villages (16). Aug2023
- Marketing review and planning: 5 villages in Bergville (35). Sept2023
- KZN CA forum: Cedara KZN: Cover crops day (24 – Bergville, Midlands)
- Goat production training: Combined MDF-KZNDARD event for 6 villages (46)

Below are brief summaries of these events.

The Mametja-Sekororo PGS in Limpopo convened to re-elect their PGS committee (Participatory guarantee System under SAOSO- South African Organic Sector Organisation) and to start their annual farmer assessment and review process. The field assessment looks at the farmer's practices, including the use of organic inputs and methods, soil management, pest management, water conservation, and farming methods. During the assessment, the farmer must demonstrate that they are following organic standards and guidelines, so that the assessments can be used to make decisions around Organic endorsement and provision of Certificates and associated organic branding for produce. 16 farmers in Sedawa/Mametja and Turkey were assessed for organic certification this year.



Figure 2: Above left: The tala talble Netowrk meeting for re-election of the PGS committee and Above right: The committee nad volunteer farmers undertaking a PGS field assessment

In Bergville KZN, a marketing review and planning session was held on the 13th of Spetember 2023 as an innovation platform event, combining participants from the 6 active viallges (Ezibomvini, Eqeleni, Stulwane, Vimbukhalo, Ezinyonyane and Ematwetha, 34 participants). Here we analysed with the groups the summary of market sales from their initiation in 2021 to date, to look at trends and issues and also held group discussions around future plans.

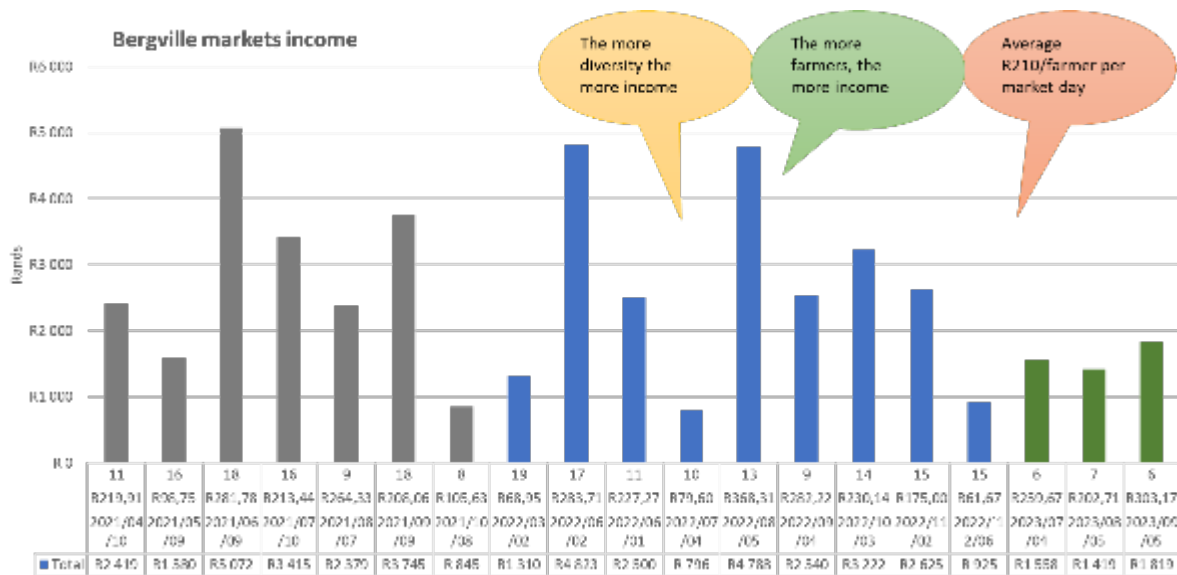


Figure 3: Analysis of market incomes and number of participants from 2021 to date for Bergville.

We discussed these trends in terms of produce quantity, quality and diversity and also the involvement of farmers and number of farmers selling. A number of issues were discussed in small groups and suggestions made for improvements. In addition each village undertook to set up a more formalized marketing committee to coordinate the production, availability, transport and sale of their crops for the markets. Below is a summarized list of proposed solutions:

- Farmers need to plan and communicate before the day of the market who brings what to avoid having no diversity.
- Agree on the same scales for produce that is to have the same price, use a rope or tape measure to scale, and have different prices for different ranges/sizes of produce.
- Having tower gardens, so that farmers will use grey water for irrigation, to partly address the water access issue.
- Have a market on a couple of consecutive days and consider having a market in Winterton as well during pension/grant payment days.
- Coordinate before and put on tags before getting to the market and choose one person to handle/keep the sales money to avoid shortages.
- farmers should support each other, promote unity, sell as one at the market and avoid promoting one's own produce only.
- Farmers should take produce and walk around town for produce to sell faster and improve sales to avoid having to reduce prices later in the day and produce staying too long in the heat.
- Produce must be clean and always packaged nicely, spinaches washed and tied nicely with strings, produce with dark spots and holes should not be taken to the market as such would create an unpleasant image to customers about the quality of the markets' produce and hygiene.
- Farmers must be punctual, and start the market early in the morning, to address the problem of starting late and going back home with produce as a result of having less time to sell.
- Farmers should buy or bring their own extra tables, to accommodate more produce.
- Display banners to attract customers.



Figure 4: Above Left and right: Small group discussions at village level to outline possible solutions to arising issues in the local marketing processes.

The Livestock production training for livestock associations in the Swayimane region of the Mdlans in KZN, was jointly planned and run by MDF and the KZNDARD and consisted of a session in August 23 on cattle production and one on 4th November 2023 for goat production. Both included a substantial section on fodder and fodder production as well as cover crops.



Figure 5: Left: Goat production training with MDF and KZNDARD for livestock association members in Ozwathini. Right: Title slide of Tema Mathebula's (MDF) presentation.

#### **Multistakeholder platforms**

To date the research team has participated in a range of multistakeholder platforms, networks and communities of practices (CoPs) towards developing a framework for awareness raising, dissemination and incorporation of the CbCCA-DSS methodology into local and regional planning processes and developing methodological coherence for a number of the themes to be explored in this brief.

In this present period of July-December 2023 the following stakeholder engagement activities have been undertaken:

- Northern Drakensberg catchment forum field visit, community cross visits and ESS mapping and

- Giyani Local Scale Climate resilience Project: Ref group input, field visits and development of guideline drafts (example alongside).

Conceptual discussion on a range of topics including vulnerability assessments, the role of agroecology in CCA, methods for monitoring and evaluation of multistakeholder processes, development of stakeholder platforms and inclusion of volumetric water benefit accounting as a tool for implementation of integrated water resources management have been ongoing.



The table below outlines actions and meetings to date.

Table 2: Planning and multi stakeholder interactions for the CCA-DSSII research process: December 2023

Organisation	Activity - Description	Dates
Asset Research-Maize Trust, SODI	Regenerative Agriculture farmers' open day in Bergville <b>Annual Maize Trust CA forum workshop, Bethlehem – MDF presentation</b>	23 <sup>rd</sup> Feb 2023 <b>10<sup>th</sup> October 2023</b>
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, local level planning and implementation. <b>Cross visit Ezibomvini to Stulwane to see resource management work</b> <b>Finalisation and handover of maps, updated community resource management plans for Ezibomvini and Stulwane</b> <b>Final report preparation and ref group meeting</b>	23 <sup>rd</sup> September 2022 14 <sup>th</sup> October 2022 13,29,30 March 2023 1-30 <sup>th</sup> May 2023 <b>29<sup>th</sup> September 2023</b>  <b>18<sup>th</sup> October 2023</b>  <b>22<sup>nd</sup> November 2023</b>
WWF Water source forum	uThukela catchment partnership: Stakeholder meetings, online and in person at OLM board room Bergville (new name: Northern Drakensberg Collaborative). Development of vision, membership profile, constitution and core team and full collaborative meetings <b>Core team meeting for visioning and constitution development</b> <b>Multistakeholder field day for community level resource conservation in Stulwane, Bergville</b>	29 <sup>th</sup> September 2022 10 <sup>th</sup> November 2022 11 <sup>th</sup> April 2023 23 <sup>rd</sup> May 2023 <b>23<sup>rd</sup> August 2023</b> <b>28<sup>th</sup> September 2023</b>
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 Video on local initiatives in catchment management	3 <sup>rd</sup> -5 <sup>th</sup> October 2022 30 <sup>th</sup> Oct-2 <sup>nd</sup> Nov 2022  24 <sup>th</sup> March 2023
SANBI	Climate change adaptation and gender mainstreaming dialogue – presentation and participation SANBI newsletter- runoff impacts of restoration and CA	8 <sup>th</sup> -9 <sup>th</sup> March 2023  4 <sup>th</sup> June 2023
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. Meetings with AN to discuss capacity building and outline CCA training for Socio technical Interface NGO in Hammanskraal <b>AN newsletter: Food systems article by Tema Mathebula</b> <b>An-AGM</b>	13 <sup>th</sup> October 2022 1 <sup>st</sup> December 2022 7 <sup>th</sup> , 8 <sup>th</sup> Feb 2023 15 <sup>th</sup> March 2023  11 <sup>th</sup> May 2023 15 <sup>th</sup> June 2023 <b>20<sup>th</sup> September 2023</b> <b>16<sup>th</sup> November 2023</b>
PGS-SA	Quarterly meeting: Discuss mapping of PGS organisations, finalisation of certificate and use of seals and logos. Finalisation of smallholder farm assessment form	17 <sup>th</sup> Nov 2022

	PGS-Certification working group Online market development training: Input into session 5	13 <sup>th</sup> Feb 2023 9 <sup>th</sup> May 2023
Okhahlamba LM	Agriculture and Land summit: MDF presentation and marketing stall: All Bergville staff, farmers representatives and eco champs Okhahlamba LED forum meetings OLM – support with transport for farmers’ markets and tractors for field preparation <b>Okhahlamba Agricultural show</b>	30 <sup>th</sup> November 2022  30 <sup>th</sup> March 2023, 7 <sup>th</sup> June 2023  Ongoing <b>29<sup>th</sup> August 2023</b>
Afromontane research Centre	Maloti-Drakensberg Climate Change Workshop Wageningen/UFS: Land futures course - Bgvl	12-14 December 2022 7-10 <sup>th</sup> March 2023
Water Research Commission/ AWARD	Giyani Local Scale Climate Resilience Project: Support for CCA and VSLAs <b>Water governance and infrastructure management community dialogue in Mayephu, Giyani – for development of guidelines and proof of concept</b> <b>WRC-Inaugural ref grp meeting for: Enterprise development and innovation for rural water schemes- GLSCRIP</b>	8-10 <sup>th</sup> May 2023 10 <sup>th</sup> -14 <sup>th</sup> July 2023 <b>30<sup>th</sup>-31<sup>st</sup> October 2023</b>  <b>3<sup>rd</sup> and 29<sup>th</sup> November 2023</b>
Umzimvubu Catchment Partnership and ERS– <i>Nicky McCleod, Sissie Mathela</i>	Webinar to review CRA and spring protection implementation and plan for future projects Planning for combined spring protection in Nkau and next deliverable	8 <sup>th</sup> Nov 2022  15 <sup>th</sup> June 2023
AWARD – Derick du Toit	Meeting in Hoedspruit to discuss AWARD’s contribution Youth induction programme– Tala Table network Planning for CRA learning group expansion, Mametja-Sekororo PGS continuation. <b>Group marketing review and farm level assessments</b>	2 <sup>nd</sup> November 2022 30 <sup>th</sup> January 2023 22 <sup>nd</sup> March 2023 8 <sup>th</sup> May 2023, <b>29<sup>th</sup> September 2023</b>
Karen Kotschy	Learning in M&E interest group meeting. Discussions re methodology for UCP and Tsitsa project multi stakeholder engagement evaluation Discussions and MoU development for M&E framework and indicator development and submission of report for WRC deliverable 4. <b>Development of Climate resilient indicators for CbCCA</b>	11 <sup>th</sup> November 2022 15 <sup>th</sup> May 2023 24 <sup>th</sup> May 2023  <b>16-20<sup>th</sup> October, 13<sup>th</sup>-16<sup>th</sup> November 2023</b>

## 2.1 STAKEHOLDER ENGAGEMENT IN THE COMMUNITY LEVEL RESOURCE CONSERVATION ACTIVITIES

This provides a case study of the community level resource conservation activities and research demonstrations undertaken under the auspices of the WRC and WWF across three different projects, in collaboration with UKZN, SAEON, the Institute of Natural Resources and the Wild Trust.

This has been undertaken at two levels, starting with a multistakeholder field visit on the 27<sup>th</sup> September 2023, and followed the next day by a community level cross visit between the Ezibomvini and Stulwane villages.

Through the SANBI-funded Living Catchments Project, a multi-stakeholder partnership was initiated in the upper uThukela Catchment in 2021. Building on this, WWF-SA has supported the strengthening and expansion of the partnership to include other stakeholders within the Northern Drakensberg Strategic Water Source Area (SWSA). This partnership is now known as the Northern Drakensberg Collaborative (NDC). Over the last two years, face-to-face and online meetings of partners have taken place and have allowed for sharing of experiences as well as discussions around the vision and functioning of the partnership. After the last workshop that took place at Alpine Heath in August 2023, the conveners felt that there would be value in arranging a field trip to Stulwane community outside Winterton, to allow for some learning and reflection around real-life cases of spring protection, community action, climate smart agriculture and environmental

rehabilitation. One of the intended outcomes of the fieldtrip was to take the partnership forward towards establishing themes of communities of practice that have more focused interactions.

A group of about 45 people met at the community hall in Emmaus on the 27th September 2023. The group comprised farmers supported by Mahlathini Development Foundation, staff from Ezemvelo, Maluti-Drakensberg Transfrontier programme, the Expanded Freshwater and Terrestrial Environmental Observation Network (EFTEON), Institute of Natural Resources (INR), Endangered Wildlife Trust (EWT), African Conservation trust (ACT), Agricultural Research Council (ARC), WILDTRUST, members of clearing and restoration teams working with WILDTRUST and INR, and a representative of the local No-till Club – who is a local commercial farmer. The event was hosted by Mahlathini, which is the main organisation working with the Stulwane community and a presentation was made by Temakholo Mathebula, a Project Officer with Mahlathini, to provide a context for the field visit. The participants then travelled through to Stulwane, where community members, supported by Mahlathini staff, explained their activities to visitors.

Mrs Nelisiwe Msele from the Stulwane/Coston Learning group and water committee explained the process that has been taken to protect springs and improve access to water for households, which is currently being expanded to include additional households. This process is led by the locally elected water committee and is community driven, managed and owned. Ms Lizzy Dlamini, a young eco-champ from the village, explained the nature of the restoration activities and how some of the interventions have been taken forward through community action that is undertaken on a voluntary basis. Back at the home of Mrs Msele, where lunch was served, there was opportunity for more discussion as well as a demonstration of some the agricultural technologies being promoted by Mahlathini, such as the two-row minimum tillage planter, the agroecological and water conservation practices and the micro-tunnels for intensive vegetable production.



*Figure 6: A stakeholder visit to the donga rehabilitation and re-grassing site in Costone, a visit to the spring based water supply system and a farmer explains the climate smart food security system.*

15 Members of the village-based learning group in Ezibomvini, visited Costone on the 28<sup>th</sup> of September to learn about the resource conservation activities this group has undertaken in their village. The Costone community showcased their litter clean-up campaign to keep their rivers and streams clean, showed the gully reclamation and erosion control work they have undertaken in their grazing area, the wattle clearing in their riverine systems and their work on digging ditches in preparation for their most recent local water scheme development. This entails reticulating water from two sources high up in the hills, to the two sections of their village, to benefit around 75 households. They explained that community workdays were undertaken every Thursday. Activities are organised through the climate resilient agriculture learning groups, the livestock association and the traditional authority in the village.

The initial push for these activities were undertaken during the winter season and participants benefited from having access to wood from the cleared wattle in the riverbeds. At the moment, most of these activities are on hold, to allow for the community's field cropping activities.

Some of the learnings shared by the Costone group is that it is good to start with only the few people who initially turn up for the joint working days and not to try and make sure everyone is there from the start. Other community members will see them working and will join the activities over time. This is how it worked in Costone. In addition, unity in the community is very important. When they started, they had different smaller groups doing different activities, as their plan was ambitious and there is a lot to do. So one group worked on waster clearing and another on stone packing. This caused a bit of unhappiness in terms of the division of labour. Thereafter, they worked at a more measured pace with everyone involved in one activity at a time, which worked much better.



*Figure 7: Ezibomvini cross-visit, with group discussing alien clearing at one of the riverine sites in Costone, gully reclamation at the stone packs above the dip tank and having a focus group discussion to talk through implementation strategies and plans.*

The Ezibomvini participants reported the following:

- There is little unity in Ezibomvini and when meetings are called to discuss the resource management issues very people come, which makes it hard to pass on messages and start the work.
- After the first meetings in March and June, Mr Nkabinde (Livestock association member) went to have a chat with the owners of the land where the wetland is, asked for permission and explained to them that there is a plan made to protect the wetland and replant indigenous vegetation and medicinal plants back to the wetland. The Sibiya family agreed and gave the community permission, as the wetland falls within their 'land allocation' and nominally belongs to them. He then went to another wetland at the top (above Phumelele Hlongwane's household), where there is an abundance of medicinal plants (Kalumuzi and Gobho). The idea is to take root stock from this wetland to replant in the degraded and over-harvested wetland lower down.
- A decision was made to advertise the community litter clean-up community campaign and the first working day at the ward council meeting on the 7<sup>th</sup> of October.
- The community had identified the access road as one of the key areas. They had planned to do some repairing for vehicles to be able to go into the area. Mr Hlongwane (community ward committee) started by speaking to who arranged for the Okahlamba Local Municipality to bring their road constructing machinery and some repairs were undertaken. For the community it was unexpected and very positive that these kinds of requests are actually heeded by the municipality.

- Phumelele Hlongwane (CRA learning group facilitator) commented that the cross visit has given them ideas of how to go about implementing their plans.

A suggestion during the discussions was to set up local resource management committees who could assist to provide some focus and organise the community level working days. The areas are large, and it would be good to have representation from the different sections to assist in communication. In addition, these committees would have to be diversified by having youth, women, and men, to encourage men and youth to take part as it is usually the women who take the lead and participate.

An immediate outcome of this cross-visit was that the Ezibomvini community went back to their area with renewed purpose and immediately started a litter clean-up campaign for their streams and water sources. They had the additional foresight and connection with the Okahlamba Local Municipality to arrange for this litter to be picked up by the municipal waste removal truck. This activity also assisted to raise awareness within the community as a whole to ensure that community members would refrain from discarding their solid waste and used disposable nappies in and around water sources in the future.

*Figure 8: Community litter clean up days in different sections of the village and removal of this waste by the Municipal waste removal truck*



## 2.2 TRAINING OF TRAINERS AND COMMUNITIES IN CCA AND LOCAL FOOD SYSTEMS

This activity is part of dissemination of the CbCCA decision support process in the broader community and has to date consisted in working with the Adaptation Network to train NGOs such as Sociotech Interfacing, as well as working within the WRC supported Giyani Local Scale Climate resilience project on these aspects.



*Figure 9: The Maobane, Hammanskraal community training in CCA (Sociotech) undertaken on 7<sup>th</sup>-8<sup>th</sup> August 2023, for 90 participants.*

In the present reporting period September-December 2023 training have been provided for World Vision for their Women's Economic Empowerment process in Sekororo Limpopo, where two CCA trainings were conducted for a total of 75 local women and the LIMA-Rural Development



Foundation's Social employment Fund process where 180 youth across 9 sites (Zululand, Southern KZN, Matatiele EC, Lichtenberg NW, and Sekororo, Musina and Blouberg in Limpopo) were trained as trainers for 1000 community members engaged in food security initiatives in these regions.

These training consisted of 2 days within each village – 1 day theoretical training in CCA and climate resilient agriculture and nutrition with practical demonstrations in value adding options (such as jams, sauces, achar and, sweet potato bites) and a second practical day of demonstrations of climate resilient agriculture practices (such as trench beds, tower gardens, eco-circles, keyhole beds, stone lines, liquid manures, natural pest and disease control and fruit production).

Below are a few indicative photographs.



Figure 10: LIMA-RDF Social Employment Found training of trainers in Matatiele – showing natural pest and disease control, tower gardens, and a trench bed with drip irrigation being demonstrated practically to trainees.

### 3. LOCAL FOOD SYSTEMS AND MARKETING

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By Temakholo Mathebula, Nqe Dlamini and Erna Kruger

In this section we provide contextualized case studies (both place- and issue- based) as well as recommendations for the transformation of local food systems, based on a framework for transformation of food systems developed from literature.

The case studies include:

- Local food system analysis for smallholder farmers in the Midlands region of KwaZulu- Natal (T. Mathebula)
- Livelihoods impacts of village savings and loan associations (N Dlamini) and
- Improved resilience for smallholder farmers in CbCCA (E Kruger)

#### 3.1 INTRODUCTION

Numerous studies suggest that the transformation of food systems is crucial in the enhancement of food security, livelihood creation, environmental sustainability and economic transformation. In these unprecedented times, a holistic approach is vital in driving systematic shifts in both global and local food systems (United Nations Environment Programme (UNEP), 2016). Daunting challenges such as soil degradation, loss of biodiversity, climatic shifts and food related diseases require deep structural reforms in food systems. As food systems are a major contributing factor in the creation of the existing challenges, they are instrumental in finding solutions. Food system reform requires

strategic solutions and strong collaboration between all the actors involved (Global Alliance for the Future of Food, 2021).

According to the Framework for Researching African Food Systems (May, 2021), food system transformation is vital in achieving Sustainable Development Goals (SDG's), especially SDG 2 which is to end hunger by enhancing food security through the promotion of sustainable agricultural practices.

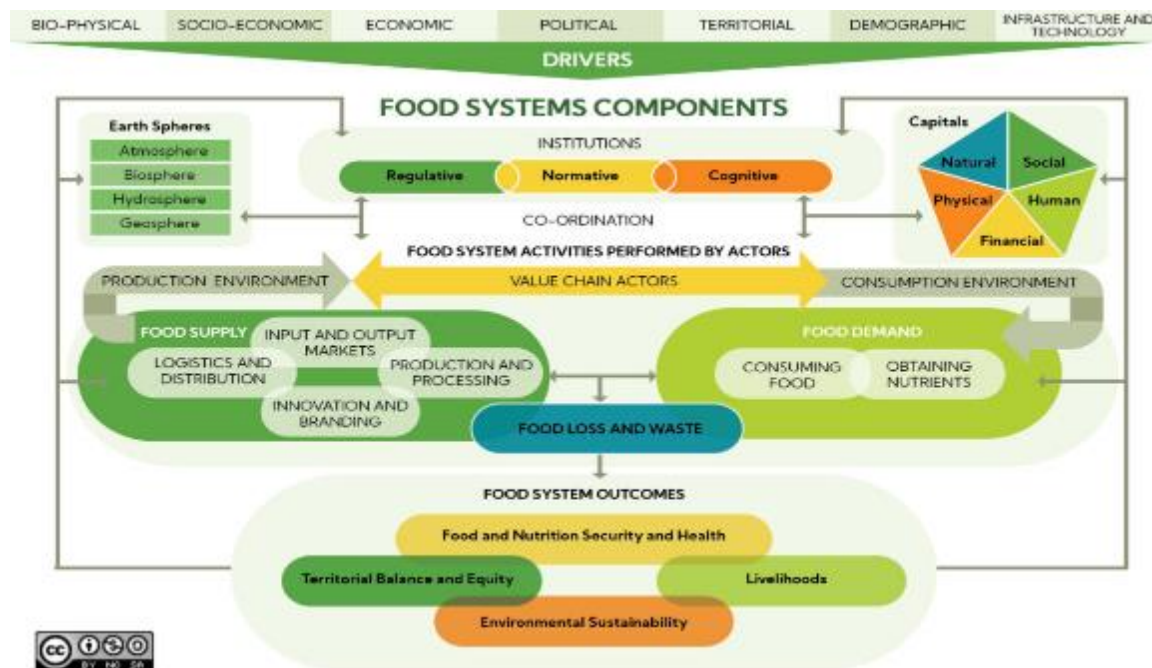


Figure 11: The Food systems framework outlined through FS Net Africa – Prof J. May, 2021.

In order to identify opportunities for transformation, frameworks for change provide a conceptual structure for challenging existing paradigms and birthing new ideas and solutions. Frameworks are tools to “understand, analyse and shift systems” and can be applied in multi-contextual ways (Nesheim, Oria, & Yih, 2015). Therefore, a food systems framework is an important tool in assessing and strengthening food systems as it provides an empirical structure for analysing the food system components and identifying gaps and points of intervention (FAO, European Union, CIRAD and DSI-NRF Centre of Excellence in Food Security (CoE-FS), 2022).

A desktop review of various journal articles, research papers and presentations on food systems has revealed that there are a number of food system frameworks for transformation. Most food system frameworks have three defining components; external drivers as tools for change, description of the various components of food systems and outcomes. The Global Alliance (GA) has introduced a “Principles Framework for Food System Transformation” which is composed of seven principles: renewability, resilience, health, equity, diversity, inclusion and interconnectedness. These principles are the final outcome of sustainable food systems which encompass a future of biodiversity, access to healthy food and resilience to shocks and stresses (Global Alliance for the Future of Food, 2021). The framework works by assessing food system alignment to the aforementioned principles using a set of predetermined criteria. The GA framework views the food system components in retrospect and helps to identify misalignment, thus providing guidelines for future decision making. Another framework is the “Sustainable Food Systems Transformative Framework” which is a three tiered framework of drivers, activities and outcomes. This framework provides a more detailed breakdown of the various food systems components and thus provides a wider scope of analysis of challenges

and opportunities for intervention. The framework helps to assess the processes and information pathways in food systems, identify gaps and find ways to improve food system governance. This is the main framework that will be adapted and used for this study. The third framework to be used in this study is the “Framework for Researching African Food Systems” adapted from the TRANSMANGO framework which provides a conceptual overview and the linkages in food systems. This framework is useful in identifying the different levels in which food systems operate and can transform. It is a much-detailed framework of the food system drivers and components and helps with an in depth analysis of processes, interactions and feedback loops (Brunori, et al., 2014).

In a recent food systems profile for south Africa (FAO, European Union, CIRAD and DSI-NRF Centre of Excellence in Food Security (CoE-FS), 2022), a number of levers to drive the transformation of the food system to one that can provide for improved livelihoods, environmental sustainability and a better territorial balance, have been outlined. In summary these levers are:

- **Reduce the relative cost of nutrient-dense food and modify the consumer environment.**
- Increase the range, scale, and coverage of child-centred food system interventions in the built environment.
- **Support the transition towards agroecological food systems.**
- Link land reform with place-based farmer support.
- Reform and enforce food system regulatory policies.
- **Adopt an integrated approach to building an inclusive food system.**
- **Improve inclusive stakeholder participation and enhance engagement and**
- **Adopt a two-pronged place-and issue-based approach to food system governance:**

The work and research undertaken by Mahlathini and our development partners have focused primarily on the five levers in bold in the above list. We have worked within the 7 principles outlined by the Global Alliance for the future of food (Global Alliance for the Future of Food, 2021), namely renewability, resilience, health, equity, diversity, inclusion and interconnectedness.

The approach has been to improve resilience of smallholder farmers’ livelihoods in the face of multiple shocks and stresses. A further focus on development of local food systems and local marketings strategies alongside microfinance products for the rural poor has been undertaken.

### **3.2 MDF CONTEXTUAL FRAMEWORK**

Mahlathini Development Foundation (MDF) has done extensive work in strengthening local food systems in KwaZulu-Natal, Eastern Cape and Limpopo. The organisation’s project focus has been to reduce vulnerability and increase resilience to external shocks such as climate change, economic decline, food insecurity and political instability which seem to be particularly detrimental to the poorest of the poor. Further complicating matters is the reality that smallholder farmers do not have access to formal credit, are excluded from the mainstream economy, struggle with high levels of unemployment, and are food insecure. The disproportionate distribution of power between men and women also continues to be a point of major concern, although the tide is slowly turning. There is therefore a necessity for interventions that will drastically reduce and possibly eradicate the aforementioned challenges. Our project activities have included the introduction of sustainable agricultural practices which encompass agro-ecology and regenerative agriculture principles, to help strengthen the farming systems of smallholder farmers, alongside local marketing and microfinance and microlending options. More recently an increased focus on soil and water conservation as well as resource conservation and management has also been included in the suite of interventions.

In efforts to better understand local food systems as well as their challenges and opportunities, the organisation has applied the food systems approach in which a framework was used to identify the primary external drivers, the interactions between the various components of the food system as well as the actors involved, the outcomes as well as the impacts. This food system framework is adapted from Sustainable Food Systems Transformative Network, The Global Alliance Network and the TRANSMANGO Network and presented below.

# MDF FOOD SYSTEMS FRAMEWORK

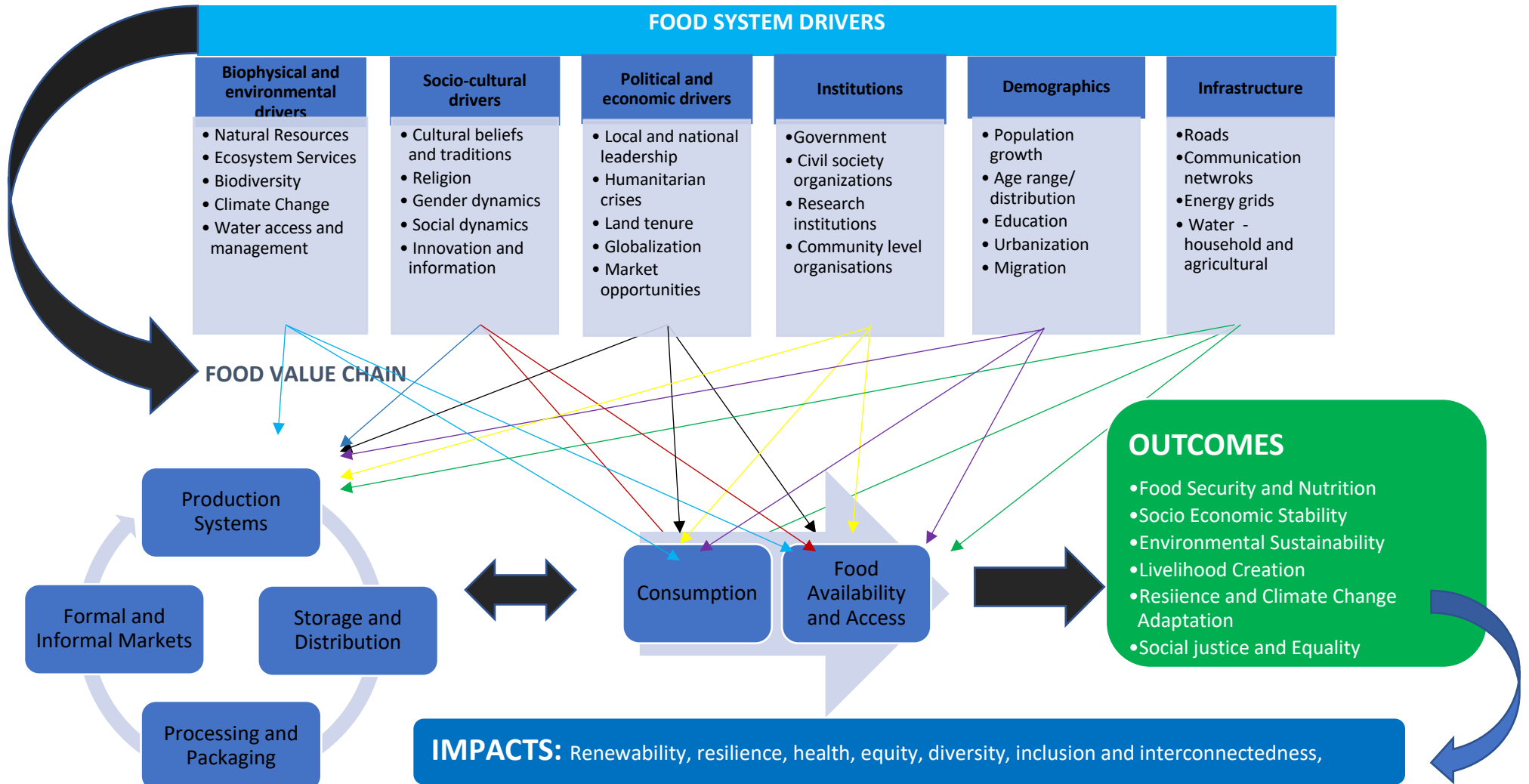


Figure 12: MDF Contextualised Food Systems Framework. (Adapted from the Sustainable Food Systems Network, TRANSMANGO D2.1 Framework and the Global Alliance Food Systems Framework)

The diagram below outlines the main food system stakeholders who have been involved in the food system analysis and transformation interventions led by MDF.

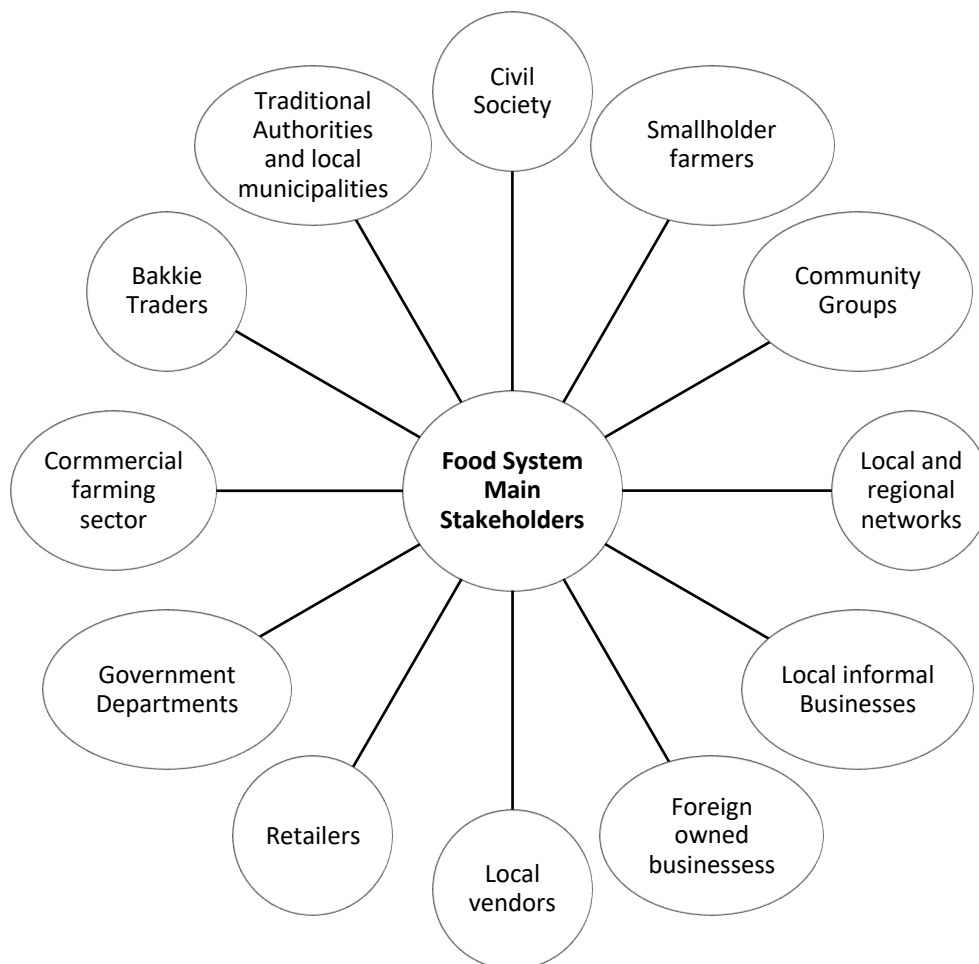


Figure 13: Main food system stakeholders

These stakeholders have been engaged through a range of platforms at local, regional and national level, on both conceptual and practical implementation levels.

The three case studies below explore different aspects of food systems for smallholder communities in South Africa.

### 3.3 CASE STUDY: RESILIENCE IN LOCAL FOOD SYSTEMS

By Erna Kruger

#### a. Introduction

A programme focusing on Climate Resilient Agriculture (CRA) in mixed smallholder farming systems, was undertaken in KwaZulu Natal and Matatiele (Eastern Cape) between 2020 and 2022. This initiative was supported by the WWF and the Nedbank Green Trust.

The two main outcomes of this project can be summarized as:

- Food and nutrition security at household level for poor, rural homesteads with enough farming income to sustainably maintain farming activities in the short term and
- Development of social agency for community led local economic development and social safety nets and improvement of the natural resource base.

These outcomes were achieved by working intensively with Climate Resilient Agriculture (CRA) learning groups in 18 villages across KwaZulu Natal (Bergville, Midlands and Southern KZN) and the Eastern Cape (Matatiele) for 378 participants. The main foci of the project were on improved, diversified and sustainable production in smallholder farming systems and development of local marketing initiatives and platforms, within a framework of climate change adaptation and improvement of social agency and local governance. Attention was given to multistakeholder engagement at different levels of the food system.

#### **b. Project summary**

In each CRA learning group participants undertook a climate change assessment, and prioritized adaptive measures and practices to be undertaken by each individual in the group. CRA practices included Conservation Agriculture (intercropping, crop rotation, inclusion of cover and fodder crops), livestock integration (poultry micro businesses, fodder production, winter fodder supplementation and calf rearing) and agroecological homestead vegetable production (micro tunnels, trench beds, rainwater harvesting, mulching, grey water management, composting, mixed cropping, crop diversification, liquid manures, natural pest and disease control and seed saving). Seasonal reviews and joint learning activities reinforced cyclical learning and adaptation.

The CRA learning groups also formed the basis for improvement of social agency and governance for joint discussion, analysis and collaborative action, primarily around marketing and water access, but also in resource conservation activities. Eight (8) of the groups formed formal marketing committees and structures for local marketing, 3 formed water committees and undertook community owned and managed water schemes in their villages, 5 set up farmers' associations for calf rearing and livestock management and 2 undertook resource conservation activities linked to youth employment in their villages. For the remaining groups, collaboration was strengthened in these areas, but not to the extent of initiating formal structures and initiatives.

Through expansion and intensification of production and productivity, participating smallholders increased both household food availability and incomes. The total value of production averaged around R3 060/ per household per month. This equates to a 68% increase in production and incomes as a result of the intervention. Around 80% of participants still produce for household consumption first and sale of surplus. This has meant that farmgate sales and local marketing stalls are the most appropriate marketing strategies, as these can provide flexibility for sale of various quantities and types of produce. Participants increased their crop diversity by roughly 10 crops per participant and each also included around 10 new CRA practices into their farming system.

Membership of the Village Savings and Loan Associations (VSLA) increased to 510 participants, including the initiation of 6 new VSLAs and one Bulk Loan Fund association. The overall annual value of these VSLAs was roughly R 1 117 420, with an individualised value of around R3 342 per annum. Participants used these savings and small loans for household consumption smoothing, buying of household items, education, production inputs and small businesses. These VSLAs provide a very strong element of financial sustainability to participants in a highly vulnerable environment.

#### **c. Monitoring and Evaluation**

A central concern for this intervention was develop coherent processes for monitoring and evaluating improvement in livelihoods and incomes as well as improved climate resilience for

participants. We wanted to be able to clearly show the impact of these interventions on participants' livelihoods and on their local food systems.

A methodology for assessing changes (positive or negative) for a suite of bespoke resilience indicators was used. This process was initially piloted in a WRC supported research process entitled "Climate change adaptation for smallholder farmer in South Africa: A decision support guide" (WRC report no: IT/841/1/20) (Kruger, 2021). An integral component of the methodology is the resilience snapshots- an in-depth individual analysis of changes in their food system related to climate resilience. These snapshots are designed to provide a time-based analysis of changes in resilience as well as a process to compare the resilience impact of interventions across different areas and agroecological zones.

The impact survey was conducted with around 40% of participants from each of the areas (Bergville, Midlands, SKZN and EC\_Matatiele), 66 in total, using the resilience snapshot methodology, process and questionnaire developed for this purpose. Indicators for these snapshots were carefully developed and pre-tested, to show changes and impact in a range of resilience related criteria. Below the summary tables for the 2 areas (KZN and EC) are presented, with short discussions.

#### KwaZulu Natal

In KZN participants were interviewed in the Bergville (n=21), Midlands (n=15) and SKZN (n=9) sites, proportionally according to the number of participants in each site. Each site is in a significantly different agroecological region and in terms of proximity to large urban centres, which are the two main factors for differences in production and productivity between these sites. Local production habits also play a part, as do attitudes towards change and new ideas. The table below summarizes the changes across the three sites.

Table 3 Climate resilience snapshots for 45 participants from KZN: November 2022

Resilience indicators	Average increase			Comment
	Bergville (n=21)	Midlands (n=15)	SKZN (n=9)	
Increase in size of farming activities (Cropping areas measured, no of fruit trees and no of livestock assessed)	Gardening: 93m <sup>2</sup> - 234m <sup>2</sup> (253%)	Gardening: 1 217m <sup>2</sup> - 1664m <sup>2</sup> (36%)	Gardening: 25m <sup>2</sup> - 100m <sup>2</sup> (400%)	Sizes of gardens have increased, substantially in Bergville and SKZN where many participants were not gardening before. In the Midlands most participants already have reasonably sized gardens
	Field cropping: 2 460m <sup>2</sup> -6 175m <sup>2</sup> (251%)	Field cropping: 5 163m <sup>2</sup> -6 270m <sup>2</sup> (21%)	Field cropping: 1 666m <sup>2</sup> -1 044m <sup>2</sup> (-62)	Dryland cropping has increased substantially since introduction of CA and includes fodder production and cover crops in Bergville. Field sizes range from 500-28 000m <sup>2</sup> . Field cropping has however decreased in SKZN, due to adverse weather conditions and economic pressures and have increased only slightly in the Midlands where fields are already well established and reasonably large
	Fruit and other trees: 1-2	Fruit and other trees: -	Fruit and other trees: -	Some farmers bought a few more fruit trees. Around 40% of households do not have any trees in their yards.
	Livestock: Cattle: 173-117 (-33%)	Livestock: >22 chickens/participant (46%)	Livestock: >5 layers/participant (5%)	More poultry kept (broilers and layers) for marketing. Most families' livestock have decreased substantially due to theft, the recent floods and household use.
Increased farming activities (Count of gardening, cropping, livestock integration)	2	2	2	A number of participants have re-initiated certain farming activities: gardening and/or field cropping activities as well as poultry production (broilers/eggs).
Increased season (continuity of farming activities throughout the year)	Yes	Yes	Yes	For field cropping - autumn and winter options and gardening throughout the year. This is a measure for improved continuity and production.



<b>Increased crop diversity (Count of number of crops and CRA practices for each farmer)</b>	Crops: 24 new crops ~ 7 per participant	Crops: 20 new crops ~ 9 per participant	Crops: 19 new crops ~ 6 per participant	<i>Number of new crops for the area, planted per farmer:</i> Crops include coriander, basil, fennel, rosemary, lettuce, red lettuce, mustard spinach, kale, carrots, beetroot, Chinese cabbage, spring onions, leeks, onions, cabbage, red cabbage, butternuts, sorghum, sunflower, Sun hemp, Lab-lab, Lespedeza, tall fescue, winter cover crops, turnips, beans and cowpeas.
	Practices: 24 new practices (Ave 11 per participant)	Practices: 21 new practices (Ave 10 per participant)	Practices: 15 new practices (Ave 8 per participant)	<i>Number of CRA practices implemented per farmer:</i> These include mulching, trench beds, liquid manure, raised beds, mixed cropping, inter-cropping, crop rotation, tunnels, drip kits, eco-circles, greywater use and management, Conservation Agriculture, cover crops, inclusion of legumes, pruning of fruit trees, picking up dropped fruit, pest and disease control, feeding livestock on crops and stover, cutting and baling, fodder supplementation, health and sanitation for poultry, brooding, JoJo tanks and RWH drums.
<b>Increased productivity (increased yield)</b>	Gardening > 73kg /season/per farmer	Gardening > 410 kg /season/per farmer	Gardening > 17 kg /season/per farmer	<i>Increase in Kgs of vegetables produced per season:</i> Based on increase in yields, mainly from tunnels and trench beds for gardening, for a range of vegetables and herbs.
	Field cropping: > 450kg /season/farmer	Field cropping: > 888 kg /season/farmer	Field cropping: > 181 kg /season/farmer	<i>Increase in Kgs of field crops produced per season:</i> Relates to switching to CA and increase in field size, for a range of field crops - mainly maize, beans and potatoes
	Livestock: >2/year/farmer	Livestock: >15 chickens/year/farmer	Livestock: >21 chickens/year/farmer	<i>Increase in number of livestock:</i> For Bergville the number relates to cattle, For Midlands both layers and broilers and for SKZN to layers.
<b>Increased water use efficiency</b>	6	7	5	<i>Access, RWH, water holding capacity and irrigation efficiency rated. Scale:0= same or worse than before; 1= somewhat better than before, 2= much better than before x 4 criteria (values of 0 to 8):</i> The ratings indicate good improvements in RWH, water holding and irrigation efficiency and some improvement in access.
<b>Increased income</b>	R741 /month/farmer Range: R240- R2 000	R3 641 /month/farmer Range: R800-R7 320	R1 021 /month/farmer Rang: R200- R1 500	<i>Increase in average monthly income (Rands):</i> This is primarily through local marketing and small businesses. A number of participants have lost employment and grant incomes and replaced these with farming. Around 10% of participants have not improved their incomes
<b>Increased household food provisioning</b>	Vegetables; 18kg/week	Vegetables; 27kg/week	Vegetables; 6kg/week	<i>Food produced (overall Kgs per week) and consumed in the household:</i> For both Bergville and the Midlands these figures indicate food secure participants, while for SKZN the self-produced food is roughly 30% of that required for a household
	Dryland crops (maize, legumes, sweet potatoes); 23kg/week	Dryland crops (maize, legumes, sweet potatoes);16 kg/week	Dryland crops (maize, legumes, sweet potatoes); 17 kg/week	
	Poultry:2-3/month	Poultry:2-3/month	Poultry:2kg eggs/month	
<b>Increased food security</b>	Average:3 food types/2x per week	Average: 5 food types/ 3x per week	Average: 3 food types/ 2x per week	<i>No of food types/ no of times/week:</i> This is a measure of improved dietary diversity and indicates both improved access and changes in food habits. This largest diversity is found for the more peri-urban communities in the Midlands
<b>Increased livelihood diversity options</b>	1	1	1	<i>Average increase in livelihood sources:</i> Social grants, remittances, farming incomes, small business income, employment. Increase in no of livelihoods options used. Primarily from farming and small business income
<b>Increased savings</b>	Average: R152/month/farmer	Average: R354/month/farmer	Average: R280/month/farmer	<i>Average increase in savings (Rands):</i> Savings used for food, household education and production. In Bergville the increase is within existing savings groups and for Midlands and SKZN new groups have been established
<b>Increased social agency (collaborative actions)</b>	3	3	1	<i>Average number of local organisations farmers belong to:</i> Participants generally belong to church groups and stokvels. New group collaborations include learning groups, farmers' associations, village savings and loan associations, marketing committees, farmer centres, work teams and local water committees
<b>Increased informed decision making</b>	2	2	2	<i>Average number of sources of information:</i> Own experience, local facilitators, other farmers/community members, facilitators, extension officers, radio, extension officers.

Positive mindsets	3	3	3	A qualitative rating of wellbeing for each participant: SCALE:0=less positive about the future; 1=the same; 2=more positive about the future; 3=much more positive. <b>More to much more positive about the future: Much improved household food security and food availability.</b>
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**In Bergville** participants doubled the sizes of their gardens and field cropping areas and increased poultry and fruit production. Livestock production decreased by around 33%, mainly due to substantially increased theft in the area, but also due to use for Lobola, ceremonies and household consumption. Twenty-four (24) crops have been introduced and are being grown in the area, as well as 24 CRA practices. Productivity has increased and farmers are producing on average 73kg more of vegetables per season and around 450kg of field crops more. Their food security has been improved and their incomes have increased by an average of R741/month, from farmgate and market stall sales. Savings have increased by R152/month per participant. Participants are now involved in at least 3 more social organisations including the learning groups, savings groups, farmers associations and water and marketing committees. They have improved their decision making, now working with local facilitators, DALRRD extension officers, and MDF staff. In summary their mindsets and outlook on their futures are much more positive, with much improved household food security and food availability.



Figure 14: Above clockwise from left: A mixed crop tunnel (Nelisiwe Msele), protected spring and poultry house for broilers, in Stulwane, Bergville.



Figure 15: CRA marketing group with the market stall in Bergville in early August 2022, showing a good range of the crops they are now selling.

**In the Midlands** participants have increased their gardens and fields by around 30%, as many were already active farmers. This area is close to large urban centres and has a forgiving climate that can accommodate both winter and summer crop production. Those keeping poultry have increased their flock sizes by around 22 birds per participant. A sizeable group of farmers became involved in calf rearing (around 30 members), where 1 week old calves are reared to yearlings before being sold locally. Twenty (20) crops have been introduced and are being grown in the area, as well as 21 CRA practices. Productivity has increased and farmers are producing on average 410kg more of vegetables per season and around 888kg of field crops more. Their food security has been improved and their incomes by an average of R3 641/month, from farmgate and market stall sales. Savings have increased by R354/month per participant. Participants are now involved in at least 3 more social organisations including the learning groups, savings groups, farmers associations, calf rearing groups and marketing committees. They have improved their decision making, now working with local facilitators, DALRRD extension officers, and MDF staff. In summary their mindsets and outlook on their futures are much more positive, with much improved household food security and food availability.

Here, in addition to the snapshots, an assessment of changes in practises and impact of these on their farming was undertaken with a number of the participant smallholders. The advantages of a transition to a more agroecological system are evident. Below a few examples are provided.

Table 4: Assessment of past and present farming practices for Bongiwe Shezi, Mayizekanye: November 2022

Bongiwe Shezi - Mayizekanye				
Past Issue	Past practice	Present practice	Impact	Lessons
Bare soil (no soil cover) resulting in soil erosion	Ploughing with a tractor	Planting cover crops, minimal tillage, mulching	Improved soil health and prevention of soil erosion keeping the topsoil	Bare soil can have high acidity and remaining soil lacks nutrients and she would be required to use fertiliser.
Pests	Use of chemical pesticides	Planting herbs and using nonharmful chemicals	Soil health improved	Nature based practices are cheaper and much healthier for people and the environment
Poor quality of crops	Application of fertiliser	Crop rotation, intercropping, weeding, minimal tillage	Soil health and fertility improved resulting in healthy plants	

Bongiwe also provided a self-assessment of her level of improvement for the five fingers principles of agroecological improvement in her farming. In the small table below, she has indicated which practices she has included under each of the conservation practices. She has not focused on natural resource management or indigenous plants. Bongiwe was able to assess her level of learning and implementation coherently and give an indication of the impact of these changes on her farming system.

Table 5: Bongiwe's assessment of implementation of the 5 conservation principles in her farming system.

Five fingers conservation practices				Detailed description of what is there - list practices
Water management		×		Storing water (RWH), soil cover to prevent soil erosion, channelling water into the field, run-off management
Control of soil movement		×		Minimal tillage, maintains soil cover, use of winter and summer cover crops, mulching, use of kraal manure
Soil health		×		Soil testing, soil fertility (manure and compost), cover cropping, reduced soil erosion
Improved crop management		×		Herbicide use, intercropping, mulching, ridging, spraying
Improved livestock management			×	Vaccination, grower mash for the broilers
Looking after indigenous plants	×			

Mr Philani Ngcobo from Ozwathini has experimented with a range of practices, including some new ideas introduced through UKZN and DALRRD. He rated each of his most successful CRA practices against a number of criteria that he considered important including for example, soil improvement, efficient water use, increased production, improved income and improved ability to adapt to variable weather conditions. He rated the impact of these practices as follows.

Table 6: Philani's assessment of the impact of introducing CRA practices on a number of different sustainability criteria.

Name of practice	Soil	Water	Productivity	Labour	Pest and disease control	Cost and maintenance	Livelihoods	Adaptation	Scale used: -1=worse than normal practice, 0=no change, 1=some positive change, 2=medium positive change, 3=high positive change
CA	3	3	3	3	2	3	3	3	
Mulching	3	3	3	3	3	2	3	3	
Tunnel	3	3	3	3	3	3	3	3	
Cover cropping	3	3	3	3	3	3	3	3	
Worm composting	3	2	3	3	3	3	3	3	
Aquaculture	0	-1	3	3	2	3	3	3	
Hydroponics	0	-1	3	3	-1	0	3	2	
Hay harvesting	2	3	3	2	0	3	3	3	

This exercise helped us to understand the impact of introducing specific CRA practices on the farmer's food system. All the practices had a very positive impact on his resilience (adaptation) as well as his livelihood.



Figure 16: Left: The local market stall set up at the Bamshela Taxi rank for the Midlands marketing group. Note the packaged, eggs, beans and potatoes, alongside cabbages, Chinese cabbage, carrots and spinach. This group manages their own market process, collection, set up and sales. Right: An example of an online and printed poster produced for the veggie combos sold through social media in Pietermaritzburg.



Figure 17: Above Left: Ntombizodwa Hlope's layers and calves being hand reared by Martina Xulu (Ozwathini May 2022)

**In Southern KZN**, improvement in productivity has been hampered by relative isolation of the villages, due to broken hilly topography of the area, lack of access to urban centres and high climate variability. Many participants have started gardening again, albeit on small patches between 25-100m<sup>2</sup>, their field cropping areas have contracted by 62%, due to repeated weather-related crop losses and deteriorating soils and increase in livestock has been limited to an increase in the number of layers (~5 per participant farmer). They have suffered losses in livestock numbers (cattle and goats) due to theft and flooding. Nineteen (19) crops have been introduced and are being grown in the area, as well as 15 CRA practices. These are lower than in the other two KZN sites and relates to a higher reticence to change in this area. Productivity has increased, and farmers are producing on average 17kg more of vegetables per season and around 181kg of field crops more. Again, this is lower than the other two sites and provides for a 30% increase in food security here, compared to around 90% in the other two regions in KZN. Incomes have increased by an average of R1 021/month, primarily from farmgate sales. It has not been possible to establish joint local marketing actions in this region. Savings have increased by R280/month per participant. Participants only have

the CRA learning groups as a new organisational structure in these villages. Despite these lower levels of success in this site, participants' mindsets and outlook on their futures are much more positive, with much improved household food security and food availability.



Figure 18: Above Left : Layers' unit for Mr Mandal Mkhize in Ngongonini and Above Right: Letta Ngubo's CA field with summer cover crops and maize in Spring Valley, SKZN (February 2022)

#### *Eastern Cape-Matatiele*

Villages in this region are sprawled along the escarpment leading up into Lesotho and weather conditions are quite extreme at the best of times. Winters are cold with severe frost and sometimes snow. Summers are cool to hot, and rainfall is unreliable, but often comes in the form of severe storms that include hail. In addition, soils in the region are poor with low levels of organic matter, high levels of sand and high levels of compaction. Severe imitations in access to water persist in the area and water for irrigation is virtually entirely lacking.

Although there are vast areas of abandoned fields, intervening in dryland cropping would need a very focused and intensive effort. Most smallholders in the area are a lot more focused on household food production including vegetables, fruit and small livestock and thus much of the focus for this project was there.



Figure 19: Above Left: A CA plot in Nkau, with reasonably typical patchy growth. Initial improvement through CA in the 1st season, was not enough to convince participants to continue. Above Right: The really hard and compacted soil, low in organic matter, proved difficult to dig out for trench beds in a number of the households.



Figure 20: Above Left and Right; Household gardens in Nkai, Matatiele, showing extensive production of kale and rape, with more intensive production of greens in a tunnel with drip kits and a tower garden. Participants appreciate the value of both practices to produce better quality crops under extreme weather conditions, especially frost in winter.

In the Eastern Cape, 21 participants across three villages (Nkai, Rashule and Nchodu) were interviewed using the resilience snapshot methodology to ascertain progress and changes. The results are summarized in the table below.

Table 7: Resilience snapshots for 21 participants from the Eastern Cape. November 2022

Resilience indicators	Increase for Matatiele(n=21) August 2022	Comment
Increase in size of farming activities (Cropping areas measured, no of fruit trees and no of livestock assessed)	Gardening: 363m <sup>2</sup> - 841m <sup>2</sup> (231%)	Sizes of garden have doubled on average, range from around 35-2000m <sup>2</sup>
	Field cropping: ~3000m <sup>2</sup>	Field cropping areas have not expanded
	Fruit and other trees:	No new fruit trees in implementation period
	Livestock: 272-298 (8%)	More poultry kept (broilers and layers) for marketing. Some however lost substantial number of birds due to ill health and cold.
Increased farming activities	Yes (1 on ave)	A number of participants have re-initiated gardening and/or field cropping activities as well as poultry production (broilers/eggs)
Increased season	Yes	For field cropping - autumn and winter options and gardening throughout the year.
Increased crop diversity	Crops: 31 new crops (ave 11 per participant)	New crops include: Brinjal, parsley, coriander, leeks, thyme, lettuce, beetroot, green pepper, chilies, basil, green beans, rape kale, rosemary, carrots, Chinese cabbage, mustard spinach, spring onions, tomatoes, rosemary, fennel, broccoli, turnips, mustard spinach, kale, Sun hemp, lucerne, fodder rye, peas, sunflower, cowpeas
	Practices: 24 new practices (ave 10 per participant)	Practices include; Mulching, trench beds, tower gardens liquid manure, raised beds, furrows and ridges, mixed cropping, inter-cropping, crop rotation, tunnels, drip kits, eco-circles, greywater use and management, Conservation Agriculture, cover crops, inclusion of legumes, pruning of fruit trees, picking up dropped fruit, pest and disease control, feeding livestock on crops and stover, health and sanitation for poultry, brooding, JoJo tanks, RWH drums
Increased productivity	Gardening;>116kg/season/per farmer	Based on increase in yields (mainly from tunnels and trench beds for gardening) - Overall Kgs of a range of vegetables and herbs produced in a season
	Field cropping: > - 218kg/season/farmer	CA for field cropping - Overall kgs of a range of field crops - mainly maize, beans, cowpeas
Increased water use efficiency	Average: 6	Access, RWH, water holding capacity and irrigation efficiency rated. Scale:0= same or worse than before; 1= somewhat better than before, 2= much better than before x 4 criteria (values of 0 to 8)
Increased income	Average: R1031/month/farmer Range: R80-R3440	Based on average monthly incomes, mostly through marketing of produce locally and through the organic marketing system
	Vegetables; 23kg/week	Food produced (overall Kgs per week) and consumed in the household

<b>Increased household food provisioning</b>	Dryland crops (maize, legumes, sweet potatoes); 10kg/week	
	Poultry:2-3/month	
<b>Increased food security</b>	Average:4 food types/3x per week	No of food types/ no of times/week
<b>Increased livelihood diversity options</b>	Average: 1	Social grants, remittances, farming incomes, small business income, employment. Increase in no of livelihoods options used. Primarily from farming and small business income
<b>Increased savings</b>	Average: R322/month/farmer	Average increase in savings (Rands) Savings used for food, household education and production
<b>Increased social agency (collaborative actions)</b>	3	Participants generally belong to church groups and stokvels. New group collaborations include Learning groups, farmers' associations, village savings and loan associations, marketing committees.
<b>Increased informed decision making</b>	3	Own experience, experimentation local facilitators, other farmers/community members, facilitators, radio.
<b>Positive mindsets</b>	2	SCALE:0=less positive about the future; 1=the same; 2=more positive about the future; 3=much more positive. More to much more positive about the future: Much improved household food security and food availability.

**In Matatiele** participants doubled the sizes of their gardens, while field cropping and fruit production has not changed much. Livestock production, mainly poultry (layers and broilers) increased marginally by 8%, which was a combination of substantial increases for a few participants but decreases for most participants who found it impossible to manage small flocks of 10-20 birds profitably, given the sharp rise in transport and feed costs. Thirty-one (31) crops have been introduced and are being grown in the area, as well as 24 CRA practices. In this area participants were enthusiastic about trying out crops new to the area and to them, more specifically in their vegetable gardens and have now included a number of crops for localized sales including for example mustard spinach, Chinese cabbage and leeks. Productivity has increased and farmers are producing on average 116kg more of vegetables per season, indicating the expansion of production for both consumption and sale. Field cropping has reduced by around 220kg per participant this season, indicating a very bad dryland cropping season in the area. Their food security has been improved and their incomes by an average of R1 031/month/ participant, primarily from farmgate sales. Savings have increased by R3222/month per participant. Participants are now involved in at least 3 more social organisations including the learning groups, savings groups, and marketing groups. They have improved their decision making, now working with local facilitators, and MDF staff. In summary their mindsets and outlook on their futures are more positive, with improved household food security and food availability.

#### **Case Study : Matankiso Rajoale from Rashule (Matatiele)**

Matankiso Rajoale is a 53-year-old smallholder farmer from Rhashule, who farms with her husband. They have 2 children, 1 foster child and 4 grandchildren. She started farming in 2005 with the intention of making an income to help her husband to take care of their family as he could only find temporary jobs. The challenge was water and not knowing how to farm. She was planting common vegetables in the area like cabbage, turnips and rape. She generally planted these vegetables in winter and potatoes in summer. She was struggling with water and low yields. She also started a small tuck shop.

She joined the CRA learning group in Rashule in 2020 and feels that she has benefited greatly:



- She has introduced new crops that do well and are popular in the area. Examples are Mustard spinach, carrots and green beans – Sales from these alone have come to around R1 000/month.
- Introduction of trenches, shallow trenches and eco-circles have assisted her in improving her soils and increasing water holding in her garden and beds.

*Figure 21: Matankiso Rajoale from Rashule in Matatiele, standing in a bed planted to mustard spinach. In the foreground is a bed of peas.*



- The tunnel provides for very intensive production of high yielding, high quality crops.
- She has learnt about the need to buy specific potato seed and different varieties that do well in different seasons and also in planting and managing them better. Yields have increased dramatically, and she also makes around R1 000 from sales of potatoes.
- On average she now makes around R2 000 from her garden every month.



*Figure 22: Above Left: Matankiso uses her tunnel primarily for seedling production and Above right: A view of her garden beds including cabbages, turnips, kale and rape.*

Matankiso also started having an interest in livestock for both business and integration with her crop farming, mostly to use kraal manure to add to the soil and making liquid manure to use for soil fertility and pest control. She started with 2 sheep and 2 cattle and now has 41 sheep and 15 cattle. She sells them locally, at between R1500 to R1800 per sheep. Cattle are sold at the auctions. At the latest auction she attended, she sold 4 cows for R28 000. Locally she sells a cow at R7 500. She uses the money to buy feed and medicine for her livestock and to assist with household needs or farming inputs. The challenges she has faced with livestock is getting medicine, and feed and theft in their village. She also started poultry farming in 2020, through the help of the learning group and sells eggs locally at R55 for a tray of 30 eggs. Originally, she was the only person selling eggs in the village

and had a buyer who took the eggs to town, so she was doing well. Now, she has a competitor and selling is going quite slowly. She feels that due to COVID people in the village have less money to spend on food. In addition, feed prices in Matatiele are much higher than the feed she bought, and which was transported by MDF all the way from Pietermaritzburg, almost R150/bag. If she has to transport her own feed, it costs an extra R200 per trip. It reduces her profit margin considerably.



Figure 23: Above Left: Matankiso's layers house and Above right: Her kraal for her sheep.

She is very grateful for the support from SaveAct and Mahlathini, as they have helped her improve her farming and livelihood considerably.

**In summary**, these resilience snapshots provide a deep understanding of the resilience impact of the intervention on productivity, diversity, livelihoods, social agency and individual perception. They provide a very clear picture of the benefits for smallholders to work in learning groups introduce new crops and CRA practices, engage in joint local marketing activities and in being involved in local village savings and loan associations. They also show the development of social agency of individuals and groups in the areas and their ability to effect improved local governance through initiation and implementation of different committees and focus areas such as livestock, marketing, and water access.

They also show the limits of what can be achieved through a locality focus – as some of the broader food system constraints such as lack of effective, efficient and diversified input supply systems can not be impacted on this level. Despite this, food security and livelihoods improvements have been significant for the participants in this programme.

The resilience snapshot methodology has worked well to highlight changes and improvements, but still needs a better conceptual framework within which to anchor the indicators, as well as a rigorous review of the indicators themselves to provide a more standardised set of indicators that are more broadly applicable.

#### **d. Local incomes and marketing**

This aspect of the programme was explored through a range of processes, including individual interviews and focus group discussions, both in village-based learning groups and in clusters of learning groups across areas.

A few general observations in terms of the marketing system for smallholders include:

- Farmers produce primarily for food and try to derive an income from sale of surplus (80% of participants)
- A small proportion of farmers produce specifically for sale (1-5%)
- The ability to expand their productive areas is limited and only a small proportion of farmers have this capacity (10-15%). Intensification and improved productivity in existing farming enterprises provides for an immediate significant improvement but limits the overall income potential of smallholder farming.

Available marketing avenues for smallholders include:

- Farmgate (within villages); this is the most common marketing avenue but has small local potential with low income ceilings.
- **Local market stalls (combined across villages); much larger range of products and income potential, with a focus on labelling, branding, pricing, value adding and processing.**
- Bakkie traders, stores in local towns (individuals and groups within villages); generally, commodity focused, and farmers are price takers – good for larger quantities but does not have a competitive advantage.
- Sale to local retailers and supermarkets (individuals); requires transport, intermittent, price takers, little stability, competitive – overall potential is low.

#### Local market stalls

This strategy of aggregating all produce across a selection of villages and selling monthly at a market stall based at a central point such as a grant pay point or taxi rank, has been the main intervention for this project. It has included working with participants on pricing, produce quality, labelling and branding of produce and the stall. It appears to be the most appropriate strategy at present, that can accommodate for small quantities of a range of products as well as inconsistency of supply. It also ensures that farmers can charge reasonable prices for their produce.

The table below provides a running total of sales from the market stalls between April 2021 and August 2022, for the two areas where these stalls have been successfully set up: Bergville and Ozwathini (Midlands).

Table 8: Sales records for local market stalls in Bergville and Ozwathini: April 2021-August 2022

Summary of market incomes for Market stalls: April 2021-August 2022					
Date	No farmers	Villages	Amount	Market	Produce
2021/04/10	11	2	R2 419,00	Emmaus	<b>VEGETABLES:</b> Broccoli, cauliflower, cabbage,
2021/05/09	16	3	R1 580,00	Emmaus	kale, Chinese cabbage, mustard spinach,
2021/06/09	18	4	R5 072,00	Emmaus, Stulwane	leeks, onions, lettuce, carrots, beetroot, green
2021/07/10	16	4	R3 415,00	Emmaus, Stulwane	peppers, chillies, brinjals, green maize, green
2021/08/07	9	3	R2 379,00	Emmaus	beans, tomatoes,
2021/09/09	18	4	R3 745,00	Emmaus	<b>HERBS:</b> coriander, parsley, fennel,
2021/10/08	8	4	R845,00	Bergville market	<b>FIELD CROPS:</b> Maize, dry beans, sweet
2021/06/04	16	4	R11 527,50	Bamshela - Ozwathini	potatoes, amadumbe, pumpkins, butternut
2021/08/04	8	4	R3 866,00	Bamshela - Ozwathini	<b>FRUIT:</b> Bananas, avocados, nartjies, lemons
2021/09/03,06,07	12	5	R5 448,00	Bamshela - Ozwathini	<b>MEAT:</b> Pork, broilers, chicken pieces, eggs
2021/10/05,06	12	5	R3 354,00	Bamshela - Ozwathini	<b>PROCESSED FOOD:</b> Bottled chillies, mealie
2021/11/03,04	9	4	R2 964,00	Bamshela - Ozwathini	bread vetkoek
2021/10/11	3	2	R19 800,00	Sale to shops in Bergville: Boxer and Saverite	<b>OTHER:</b> incema, seed potatoes, pinafores,
2022/03/02	19	4	R1 310,00	UEDA – Emmaus Hall	grass brooms , mats, beads, art work Combo packs - via social media in Pietermaritbrug: Potatoes, carrots, eggs, chillies, onions, cabbage (half and chopped),

2021/12/02,03	10	4	R2 964,00	Bamshela - Ozwathini	green beans, beetroot, avocado, brinjals, green peppers, chopped mixed veg. <b>Ave income per participant: R382 per market day (R100-R1,600)</b>
2021/12/03	10	4	R1 400,00	Ozwathini- social media	
2022/01/05,06	6	3	R2 610,00	Bamshela - Ozwathini	
2022/02/05,12,19	8	4	R3 010,00	Bamshela - Ozwathini	
2022/03/11	6	4	R1 216,00	Bamshela - Ozwathini	
2022/05/03,04	7	3	R2 565,00	Bamshela - Ozwathini	
2022/06/02,03,04	7	4	R4 782,00	Bamshela - Ozwathini	
2022/07/05	11	3	R2 500,00	Bergville town market stall	
2022/08/03	17	6	R4823,00	Bergville town market stall with FSG farmers	
2022/08/04,05,06	7	3	R4248,00	Bamshela-Ozwathini	
	11	4	<b>R96 626,50</b>	<b>INCOME: ~ R6 901 /month</b>	



Figure 24: :Images of the latest markets in Bergville and Ozwathini: August 2022. Note the range of products, including dry beans as well as unusual vegetables such as Chinese cabbage, kale and cauliflower.

For both marketing groups, the participants now manage the whole process of marketing independently, and MDF only supports on rare occasions when transport shortages are unavoidable. They also keep their own records and provide copies for MDF for reporting purposes. Farmers have learnt which produce has high demand at the market stall and can now estimate the quantities needed for each market reasonably accurately. They still sell out, however, but no longer have large quantities of unsold produce to take home again. They have also built a reputation among buyers, as they have been careful to be there regularly. They provide social support to each other and if individuals have family emergencies, others in the group will take their produce to the market and do the sales for them.

Preparation for market days entails quite a lot of planning and logistics as groups need to come together to list their produce availability and quantities, prepare produce and price tags, arrange transport, their market stall equipment and who will be selling on the day. They also manage the record keeping of sales and distribution of monies between farmers involved. For Ozwathini, as they have decided to sell for 3 consecutive days each month, they have arranged for storage space in Bamshela, close to where they have their stall. For this group a social media platform for sale of produce to a number of individual buyers in Pietermaritzburg has also been set up. This platform (WhatsApp and Facebook) is managed by the MDF facilitators, as is transport and delivery.

There are some challenges in the process:

- The number of farmers that participate in the market has decreased, compared to when they all started. This has a knock-on effect on the produce (volumes and varieties) available to sell.
- Some of the commodities that farmers produce, are the same i.e. cabbages, spinach, eggs. The impact is the creation of competition among them.
- Some farmers continue to prioritize buyer-seller relationships developed locally and as a result bring smaller volumes of produce to the market. This is a cautious decision made as the market is a “once-in-a-month-event”.
- Farmers are not familiar with using social media platforms, especially to advertise and sell their produce. Despite them taking ownership of the market in terms of planning, coordinating and execution, they are still largely dependent on MDF staff to support with online advertising.

The highlights of these market stalls include:

- Farmers are managing to plan their production to coincide with the once monthly marketing process and have managed to have a range of high-quality crops available.
- Sales have been picking up again, after the unrest a year ago and is now becoming a “real income” for them
- Farmers have added meat (pork and chicken) and processed (bottled chilies, mealie bread) products to the market which attracts more costumers.
- Every farmer that participates in the market makes some money.

In conclusion, around a year after the initiation of the markets, they show a level of consistency that is sustainable, despite irregularities in sales, volumes, varieties and availability of commodities. Farmers continue to learn from the process how to adapt to changes as and when it they arise.

### **3.4 CASE STUDY: STRENGTHENING LOCAL FOOD SYSTEMS IN THE MIDLANDS OF KWAZULU NATAL**

*Written by Temakholo Mathebula*

#### **a. Understanding Local Food Systems: Ozwathini**

##### *Introduction*

Ozwathini is a rural communal tenure community situated in the Midlands of KwaZulu Natal under the Leadership of Inkosi NZ Mthuli. The area falls under two municipalities: uMshwathi (under uMgungundlovu District) and Indwedwe, (under iLembe District). It is characterized by small farming communities in which various commodities are grown including maize, beans, potatoes, amadumbe (taro), sweet potatoes, sugar cane and vegetables. Farming activities also include livestock in the form of cattle, goats, pigs, poultry, and rabbits. The age groups range between 40 and 80 years old. The majority of the organised farming groups are comprised of women.

##### *Environmental Factors*

The area is sub-tropical with high rainfall and misty conditions in summer and some frost in winter, and it is a sourveld area. Ozwathini is also characterised by deep well drained soils with high fertility. Agriculture is primarily rainfed. Most of the households have running water, which is mainly used for household needs and on occasion, watering of vegetable crops. The area has been severely impacted by climate change which has led to a perpetual decline in maize yields and income over the years. Heavy rainfalls, soil degradation and pest outbreaks have also caused crop damage especially on beans and vegetables which also adversely affected income. The farmers grow food for

the informal market, namely their neighbours, bakkie traders and for a short period, school feeding schemes.

### *Institutional Arrangements*

Smallholder farmers are organised in both formal and informal groups. There is a farmers’ association which is a formal structure, where representatives from each village meet with the local Agricultural Advisor once a month to discuss progress of existing activities and plan for upcoming ones. In addition, informal climate resilient agriculture (CRA) learning groups, under the auspices of Mahlathini Development Foundation have been set up in 9 of the villages in the area. These have given rise to the marketing group, savings groups as well as the calf rearing group. Farmers in Ozwathini receive support both from government and civil society organizations. The diagram below outlines the methodological understanding of the inter relationships of these groups.

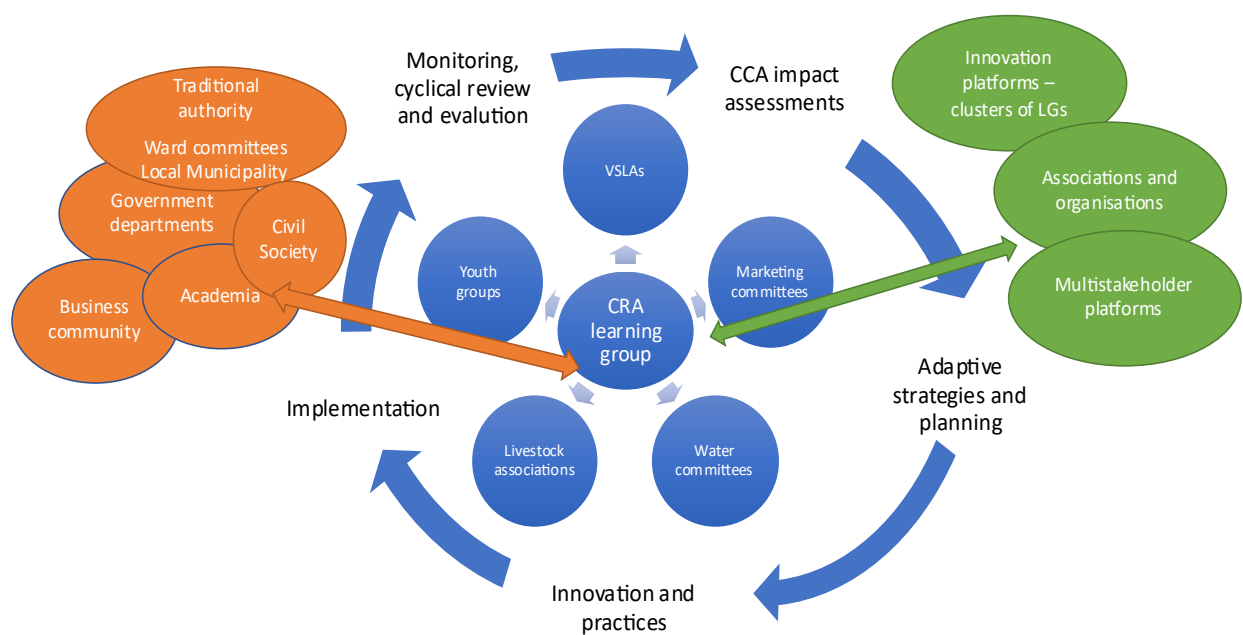


Figure 25: The model for relationship building and development of social agency around the climate resilient agriculture learning groups (MDF, 2022)

**Mahlathini Development Foundation (MDF)** started working in the area in 2018 and set up a conservation agriculture (CA) learning group, which has since grown to include climate resilient agriculture, micro finance, livestock, and marketing.

**The Department of Agriculture and Rural Development (DARD):** They have a formal structure called the Mathulini farmers’ association which was set up by the local extension officer. Research institutions which have done work in the area include the University of KwaZulu-Natal and the Durban University of Technology.

**uMgibe Farming Organics**, a private company which seeks to collaborate with smallholder farmers in supplying large retailers with organically certified produce.

The **uMshwathi Local Municipality** is currently running a program of building market stalls in the small towns of Wartburg, Dalton and Bhamshela and issuing licenses to farmers so they can sell their produce at these hubs.

## Local Infrastructure

It is noteworthy that Ozwathini is one of the developing communities and is strategically placed between two major cities, mainly Durban and Pietermaritzburg. There is one main tar road going to Tongaat which passes through the communities. Most of the villages apart from Appelsboch still have gravel roads. Appelsboch has a government hospital which also services Swayimane and surrounding communities. Also situated in Appelsbosch is the Coastal FET college. The existence of the hospital and college has opened a platform for vendors to set up selling stalls in the area. The area also has an art gallery, hardware store, clothing store, supermarkets and a tavern which have all attracted economic activity to the area. The local town in Ozwathini is called Bhamshela, which is closer to the communities situated in Indwedwe. Boxer Supermarket is the main supermarket in the town. There are several foreign owned shops and scores of local street vendors across the town.

### *Livelihood Activities*

Farming is practised primarily for income generation and for household consumption. Aside from farming, the communities also depend on government grants and remittances to support their families. Some have small informal businesses such as spaza shops and others are retired. Within these farming groups are members who also work in ward committees and play a substantial role in addressing social issues pertaining to health and food security.

Farming plays a pivotal part in household food security in the area. Farmers employ various farming activities to support their food security needs. In recent years they have incorporated improved farming practices such as intercropping, crop rotation and minimum soil disturbance to slow down erosion and improve yields, in their farming systems. They also apply organic farming practices in their gardens to help minimize reliance on external inputs and have increased crop diversity in their food gardens to include herbs and new unfamiliar vegetable types. In terms of livestock, as mentioned above, the farmers farm mainly cattle, goats, and poultry. The cattle are communally grazed; however the hand raised calves are provided with artificial milk and later are fed maize stover and cover crops such as sunflower, sorghum, millet, black oats, fodder rye and fodder radish amongst others. In terms of poultry, they have layers and broilers as well as Boschvelders which is a multipurpose breed. Poultry provides a source of protein in the form of meat and eggs and is also a very useful source of income. Some of the farmers sell inputs such as seeds, seedlings, and herbicides to supplement their household income. Pigs are slaughtered and sold locally; some farmers have brought pork to sell at the market which often sells out.

### *Market Access*

Market access remains a serious constraint for smallholder farmers in the area. One of the glaring realities of the rural farming sector is the exclusion of smallholder farmers from competitive markets. This is largely due to inconsistent yields, poor quality produce, lack of access to relevant knowledge, poor technology development and inherent risks stemming from a broken past of segregation and economic exclusion. These challenges are further complicated by the ever-increasing threat of climate change. In efforts to alleviate some of the effects of climate change on rural livelihoods, there are several interventions introduced by MDF which include conservation agriculture, climate resilient agriculture, micro-finance management, logistical support, learning platforms and multistakeholder engagement.

Through the assistance of Mahlathini Development Foundation (MDF), farmers from the learning groups set up a monthly market in Bhamshela which has been in operation for more than 2 years. The market lasts two to three days each month depending on produce availability and level of

demand. Mahlathini also supports two savings groups in the area which meet monthly. These groups serve as 'money banks' and as a source of small credit for business purposes.

## **b. Understanding Local Food Systems: Swayimane**

### *Introduction*

Swayimane is situated in the heart of uMshwathi Local Municipality, under the leadership of iNkosi Gcumisa. It is made up of many small farming communities, and like Ozwathini, farming activities include field cropping and livestock production and there are community networks such as savings groups. Communities working with Mahlathini include Mayizekanye, Gobizembe and Ndlvaveleni. MDF has also started meetings and consultations with uMbhava community. The majority of the farmers working with MDF are women, between the ages of 35 and 85 years old.

### *Environmental Factors*

The communities farm on communal land using plots in and around their homesteads as well as separate plots in the wider community, which are either family owned or leased from their owners. Similar to Ozwathini, Swayimane is also a subtropical area with high rainfall, and periodic dry spells. As with most smallholder farmers on the periphery of the agricultural food chain, climate change has dealt a severe blow to the lesser organised and poorly resourced farmers. The climatic conditions in the Midlands are characterised by localized flooding, heavy hailstorms, temperature fluctuations and exacerbated pest and disease outbreaks. Field cropping is rainfed due to lack of water and water infrastructure. Although most of the soils are deep and well drained with reasonable fertility, years of mechanical ploughing and chemical application have resulted in reduced fertility and poor soil structure in some homesteads. Due to illegal burning of pastures, as well as an incoherent program for removing alien invasive plants, most of the local veld has become severely degraded. There has been heavy encroachment of lantana, bug weed, peanut butter acacia as well as wattle in some parts of Swayimane which have adversely affected local water resources and in some cases have led to livestock mortalities.

### *Local Livelihoods*

Unemployment levels are extremely high in Swayimane, especially amongst the youth. Further to that, the area also has a high percentage of "the missing middle", which are people who do not qualify to receive a social grant or pension, but are also unemployed. Farming is the primary source of food and income. The area has a large number of sugar cane farmers who supply the local mill. Others grow SC701 maize and sell to local traders. Other common commodities in the area include beans, sweet potatoes, avocados, amadumbe (taro) and vegetables. There are also a variety of fruit trees, namely peaches, mango, bananas, and guavas. The communities survive on pension and child grants, small business activities and seasonal employment in neighbouring commercial farms. The farmers also keep livestock in the form of cattle, goats, and poultry.

### *Local Infrastructure*

After many years in construction, Mayizekanye finally has a +5 km tar road which ends just as the community begins. The area is highly underdeveloped in terms of infrastructure, and although most households have running water, the taps often run dry for extended periods. Mayizekanye has a local clinic which also accommodates Gobizembe and Emambediwni communities. There is one informal grocery store in the area and a few spaza shops throughout the community. In neighbouring Gobizembe, there are also a few spaza shops in the community. The roads are poor and very slippery under wet conditions. Although, like Mayizekanye, there are taps in the homesteads, most are not working. Some community members have addressed this by installing



JoJo tanks. A municipal water delivery vehicle also supplies the homesteads with water at least once a week. Wartburg is the primary local town where the main supermarket is Spar. Farmers purchase most of the household food items at Spar when they collect their pension and social grant payouts. There are some vendors on the main road and by the taxi rank, but the town is generally busy only on pension days.

#### *Institutional Arrangements*

*Mahlathini Development Foundation* started working in Swayimane in 2018, with Mayizekanye being the oldest community followed by Gobizembe. CA learning groups were established which were involved in the planting of CA trials of maize, legumes, and cover crops. The Ndlaveleni learning group and Gobizembe youth groups were established in 2023. Also, with MDF, the community has been involved in climate resilient agriculture, and have diversified their farming systems to include a variety of vegetables and herbs which are essential for food security and nutrition. They have also expanded their farming systems to incorporate livestock in the form of poultry.

The *Institute of Natural Resources (INR)* is also involved with Swayimane communities under the Elifans project which seeks to support food security initiatives that are focused on women. One of the primary aims of the project is to identify local innovations and support them in partnership with other organisations working in the areas. The INR is also involved in the rehabilitation of springs in Swayimane and is looking into getting involved in the clearing of alien invasive species, which threaten the water sources in the area and have encroached on local pastures, drastically reducing their quality.

The *University of KwaZulu-Natal* is currently running 6 projects in Swayimane under the Umngeni Resilience Programme (URP) and the Water Research Commission. Although the URP program has come to an end, the research continues. Some of the focus areas have included a study on climate resilient built infrastructure early warning systems including one for lightning, linked to a communication process and weather stations in the area, exploration of commercial production of cannabis and the use of drone technology to assist smallholder farmers in coping with both biotic and abiotic factors which affect their farming systems. The WRC project aims to develop a database for underutilized crops such as amadumbe, sweet potatoes and Bambara nuts.

*Msinsi Farming* works in protected areas and is involved in the removal of alien invasive species within these protected areas. They also visit schools and have information sessions on environmental conservation and mainly work individually but have recently been involved in proposal writing with the INR.

*SA Canegrowers* association is a commodity organisation which works with small scale growers and land reform beneficiaries around the Illovo mill. Their primary services are compilation of business plans, commodity enterprise research and diversification. It is estimated that small scale growers supply less than 5 % of the sugar cane in the sugar industry. Seed cane growers seek to increase the percentage by giving farmers access to disease free seed cane. They also help farmers with vegetable projects as well as with collecting top and sub soil samples.

*Jagbaan* is a local agricultural input supplier and they have given a few presentations in the community on the various products and services they offer. Their main object was to make farmers aware of what products are available locally, especially when it comes to animal feed and medicinal products.

**c. MDF interventions to strengthen local food systems in the Midlands.**

*Conservation Agriculture (CA)*

Conservation agriculture (CA) is an alternative approach to conventional farming which promotes better use of natural resources to improve sustainability and resilience to climate change. The primary principles of CA include minimum soil disturbance, permanent soil cover and crop diversification. Since farmers still had some level of success with the conventional approach to farming, the introduction of CA was initially met with resistance. Nevertheless, as time went on and farmers saw the benefits of not disturbing the soil, their attitude towards CA began to change. The potential for CA to improve yields compared to conventional farming, however, remains under question by the farmers. Benefits in soil fertility, soil health, reduced erosion and improved water management have been noted. Planting under CA also played a significant role in reducing input costs, due to the reduced use of synthetic fertilisers and the elimination of ploughing which removed tractor hire costs.

In the last three years, rainfall has been exceptionally high which led to crop damage due to black rot, especially among legumes. The alternating high temperatures and high rainfall also led to increased levels of stalk borer infestation which led farmers to purchase even stronger and more expensive chemicals to control it. Further to that, farmers in the Midlands plant maize to sell to local bakkie traders, but due to declining yields, the rising price of inputs, and the ever-present competition with commercial farmers, even this market is under threat. This has caused some to either downscale maize production or cease growing maize altogether and focus on other alternatives.

Another significant principle of CA is ensuring that the soil is always covered and incorporating a diversity of crop types either through intercropping, relay cropping or crop rotation. Various cover crops which included legumes, brassicas, grasses, and cereals were introduced. These varieties came in mixtures which could be planted in summer and winter to protect and improve soil fertility. Incorporating cover crops worked well for farmers who kept livestock, as they were able to cut and carry in winter. Some farmers reported that their livestock refused to eat any of the cover crops and thus they stopped growing them. There is still a need for more workshop on the uses and benefits of cover crops in the Midlands.

The greatest benefit of CA in Midlands was that farmers became conscientized to the fact that it is possible to grow field crops and market them without damaging the soil structure and over applying synthetic fertilisers. The reduction in input costs has always been reported as one of the major advantages of CA, especially in this economy. Over the years, some farmers were willing to expand their CA plots and others requested to do so, which meant they recognised the role CA played in helping them deal with the effects of climate change.



Figure 26: Examples of CA cropping for smallholder farmers in the Midlands showing beans (L), summer cover crops (M) and maize and bean intercropping (R), undertaken by farmers in the CRA learning groups.

### Climate Resilient Agriculture

In efforts to mitigate the effects climate change, MDF has collaboratively explored various options which farmers can implement. This was done through a series of climate change workshops which served to create awareness on how climate change affects food production as well as quality of life, and what scientists foresee in the future should the situation not change. Farmers shared their indigenous practices for protecting their crops and livestock, which included filling bottles with ocean water to drive away hailstorms, banging lids to divert heavy winds, attempts at covering their crops to protect them, leaving crying babies next to ponds to appease the rain queen and where necessary, changing planting times. In Mayizekanye, a custom of making sacrifices to nomkhubulwane has been revived and is performed once a year. Farmers from the area are not allowed to touch soil on Tuesdays as this is the day they performed the ritual. All the above point to the socio-cultural beliefs that drive farmer behaviours. Since some of the traditional practices became obsolete, farmers believe this is the reason for the adverse climatic conditions and yield declines. Others believe that nature is retaliating against a morally degraded society which has angered the gods and the powers that be.

Practices presented by MDF covered five main categories, which are water conservation, soil health, soil fertility, livestock management and crop management. Within these themes came the specific practices which provided practical and feasible solutions for the local contexts.

Figure 27: Example of a micro tunnel for a smallholder farmer in Mayizekanye, Swayimane.



Micro-tunnels were installed throughout Midlands to help reduce the impacts of heavy rains and violent winds which damaged crops. The tunnels were erected over deep trenches which were filled with organic matter and constructed into raised beds where a variety of crops were planted. Some of these crops were new to farmers,

such as mustard spinach, Chinese cabbage, leeks and herbs. To address the water shortage issue, bucket drip kits were also installed in the tunnels, which are drip irrigation systems that channel water including grey water to plants over a period. To date more than 40 tunnels have been constructed in the Midlands.

The tower garden is another example of a system designed to be cost effective and save on water and fertiliser. These gardens are easy to manage and can plant close to 100 seedlings, depending on size. They also have low weed outbreaks. Tower gardens are irrigated using grey water, which meant that farmers could save on water by reusing their wastewater to irrigate their plants.



Figure 28: Above left: An example of tower gardens in a homestead plot in Swaiymane and a small cage of 4-week-old Boschvelder chickens, newly introduced at household level.

Livestock integration entailed, amongst other activities, the introduction of Boschvelder chickens, a multipurpose breed which is hardy and a very good source of both meat and eggs. These birds were supplied together with cages to protect the chicks from being eaten by predators. Training on poultry production was provided to capacitate farmers who did not own livestock, to integrate them into their farming systems. The training was so well received that in 2023 alone, more than 3000-day old broiler chicks have been purchased by Midlands farmers, and farmers place orders almost on a weekly basis. Broilers are highly popular because of their quick turnover and because they provide a source of meat to the households in tough economic times. Fewer farmers have ordered layers, as they are more expensive.

#### *Local marketing initiatives*

Potential marketing options were explored intensively over a period for 2-3 years, through workshops, meetings and semi-structured interviews with individuals and stakeholders, to develop a process of intervention to assess the best options in marketing for these smallholders.

Most of the sales for smallholder farmers occur under the following circumstances:

- Food first, income from surplus (80% of participants)
- Expansion of existing cropping areas and types and number of crops grown (10-15%)
- Production specifically for sale (1-5%).

The following marketing avenues have been explored with the learning groups in the area:

- Farmgate (within villages); small local potential with low-income ceilings
- **Local market stalls (combined across villages); much larger range of products and income potential, also now focus on labelling, branding, pricing, value adding and processing.**
- Bakkie traders, stores in local towns (individuals and groups within villages); generally, commodity focused, and farmers are price takers – good for larger quantities but no competitive advantage.
- Sale to local retailers and supermarkets (individuals); requires transport, intermittent, price takers, little stability, competitive – overall potential low.

The local market stalls have provided the best option for marketing and show a large potential for expansion, both in number and size. Farmgate sales have been the most common for field crops, poultry (eggs and broilers) and livestock. The following table provides a summary of average incomes for each of these ‘commodities’ across two seasons of implementation.

Table 9: Average incomes for commodities supported in the CRA learning groups: per participant.

Commodity	Average monthly income per participant	Annual income potential
Broilers	R1 024,50	R12 294,00
Layers (eggs)	R641,00	R7 692,00
Field crops:		
Maize	R209,41	R3 713,00
Beans	R237,50	R2 850,00
Vegetables	R247,00	R2 964,00
	Average monthly value of food per participant	
All commodities: This is an estimate only (further corroborated in resilience snapshots)*	R700,00	R8 400,00
Commodity for a selection of participants only	Average monthly income per participant	Annual income potential
Green Maize	R1 300,00	R15 600,00 (up to R24 000)
Stall fed calves	R750,00	R9 000,00 (up to R50 000)
<b>Total value of production (incl. all commodities but excl. the selection)</b>	<b>R3 059,41</b>	<b>R36 712,92</b>

*\*NOTE 1: Rand value for food was calculated from the individual interview, which elucidated detailed information of the produce consumed at a household level in Kgs for vegetables, field crops and poultry. A Rand value of R5.00 was ascribed to each kg of produce as an estimate.*

*NOTE 2: From the resilience snapshots undertaken the value of R3 060 resonates well with actual incomes outlined by participants, which were between R750 and R3650 on average across the sites.*

Values for the table have been averaged across all participants who were monitored, and we assumed that a particular participant is involved in the production of all commodities supported in this process (poultry, dryland crops and vegetables). It thus provides a reasonable estimate of average potential incomes (profits – after subtraction of input cost) for participants in this livelihoods intensification and diversification process. This is a substantial livelihood improvement and is often more than participants receive from other sources, such as grants.

#### *Local market stalls*

This strategy of aggregating all produce across a selection of villages and selling monthly at a market stall based at a central point such as a grant pay point or taxi rank, has been the main intervention. It

has included working with participants on pricing, produce quality, labelling and branding of produce and the stall. It appears to be the most appropriate strategy at present, that can accommodate for small quantities of a range of products as well as inconsistency of supply. It also ensures that farmers can charge reasonable prices for their produce.

Farmers have learnt which produce has high demand at the market stall and can now estimate the quantities needed for each market reasonably accurately. They still sell out, however, but no longer have large quantities of unsold produce to take home again. They have also built a reputation among buyers, as they have been careful to be there regularly. They provide social support to each other and if individuals have family emergencies, others in the group will take their produce to the market and do the sales for them.



Figure 29: Above left: Participants busy setting up their monthly market stall. Note packaging for potatoes, beans, eggs and vegetables being sold. Above right: An example of the monthly posters and price lists used to advertise this market, both locally and through social media.

Preparation for market days entails quite a lot of planning and logistics as groups need to come together to list their produce availability and quantities, prepare produce and price tags, arrange transport, their market stall equipment and who will be selling on the day. They also manage the record keeping of sales and distribution of monies between farmers involved. For Ozwathini, as they have decided to sell for 3 consecutive days each month, they have arranged for storage space in Bhamshela, close to where they have their stall. For this group a social media platform for sale of produce to a number of individual buyers in Pietermaritzburg has also been set up. This platform (WhatsApp and Facebook) is managed by the MDF facilitators, as is transport and delivery.

1.

## 2. Cross Visits, Multistakeholder Platforms, Learning Workshops

Since the inception of the project, MDF has opened up platforms for farmers to learn and share knowledge. In 2022 there was a cross visit from Midlands to Bergville, where farmers witnessed how people from other areas use available resources to improve their livelihoods. During the cross visits, the farmers visited some of the CA trials in Bergville and got to see their tunnels and poultry production. Multi stakeholder platforms include farmers days by MDF and other stakeholders. One such platform was the livestock open day held in Swayimane and Ozwathini in August which focused on livestock rearing and the integration of cover crops to save on feed expenses. Learning workshops include a wide range of learning sessions and discussions on various topics such as soil fertility, pest and disease control, mixed cropping, and savings amongst others. All these platforms

open farmers up to the bigger picture and strengthen existing local networks while opening opportunities for the formation of new ones.

### *Conclusion*

The strengthening of local food systems is imperative if the SDGs as envisioned by the UN are to be achieved. MDF has been involved in multiple initiatives that seek to empower and capacitate local farmers to improve the productivity of their farming systems and find effective ways to turn their farming activities into income generating enterprises. All of this while seeking ways to effectively reduce the impacts of climate change and improve the resilience of smallholder farming systems. Experience has shown that one dimensional interventions do not last long and if interventions are going to have a lasting impact, they must be multifaceted or at least flexible enough to allow for expansion and incorporation of new innovations and technologies into the system. Mahlathini's approach to rural wealth creation encompasses the identification of interventions at various points of the food value chain, from production up to marketing. This approach has allowed for significant improvements in productivity, local food access and local incomes. It has also provided for options for diversification and implementation of climate resilient agriculture practices, improving the adaptive capacity of participating smallholders. In addition, it also allows for external stakeholders to walk the production journey with farmers and better understand their challenges, needs and desired outcomes. It also builds relationships between local farmers and external stakeholders as it allows space for vulnerability, learning, reflection, and formulation of new ideas.

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### **3.5 CASE STUDY: VILLAGE SAVING AND LOAN ASSOCIATIONS (VSLAs) AND LIVELIHOODS**

*Written by Nqe Dlamini*

#### **a. Introduction**

Globally, subsistence and smallholder farmers and in particular, women contribute in diverse ways to agricultural production and food security. Despite this role of agriculture, subsistent and smallholder farmers face enormous challenges with regards to access to production capital and especially production credit. In striving to enhance smallholder farmers' access to production capital, several non-governmental organisations are integrating and institutionalising the use community-based and informal financial services institutions. Through the support by these rural development agencies, many of these farmers participate in Farmer Learning Groups (FLGs) and Village Savings and Loans Associations (VSLAs). VSLAs are essential in bringing some financial services to populations where access is scarce. Mahlathini Development Foundation (MDF) carried out an investigation to find out the usefulness and contribution of VSLAs to entrepreneurial support and average capital injection into farming business enterprises and related enterprises. Data was collected from 65 members of FLGs in KwaZulu-Natal and Limpopo provinces. This report dissects the extent members of the Farmer Learning Groups (FLGs) use Village Savings and Loans Associations (VSLA) to improve household livelihoods – in terms of acquiring assets and operating income generating activities.

#### **b. Problem Statement**

Informal financial institutions such as VSLAs are known for their ability to resolve scarcity of cash in underdeveloped communities. These institutions help their members to manage cash-flow in ways that mitigate the consequences of poverty. This is because these informal financial institutions are able to mobilise huge savings and loan funds that are circulated in the economy. However, there is problem facing researchers and rural development practitioners. The main problem is that despite substantial savings that are circulated by VSLAs in local economies, the extent members use their drawings for productive purposes remains blurred.

#### **c. The Aim of the Study**

The study explored the usefulness and contribution of VSLAs to entrepreneurial support and average capital injection into farming and related enterprises. The study employed the Sustainable Livelihoods Framework (Scoones, 1993; Chambers & Conway, 2002), to understand types of income generating activities (IGAs) that are mostly operated by members of FLGs, and the extent members of the FLGs use their VSLAs to finance their production activities. The study also investigated the difference incomes and expenses between members and non-members of VSLAs.



#### **d. How do VSLAs work?**

Members or users of a VSLA make regular contributions to self-capitalise, that is, to build a group fund. Users do this by committing on making regular deposits of varying amounts to build the group fund. The most dominant practice in South Africa is that VSLAs meet at least once a month to conduct their business. The group fund is then used to provide microloans to internal borrowers at an agreed interest rate. At the end of a savings cycle, which is usually a year; a VSLA would dissolve and distribute its group fund proportionally to the deposits of individual members. This means that all the money in the group fund, which includes savings, interest and fines is paid out to the members proportionally to their savings at the end of the savings cycle.

#### **e. Literature Review**

##### *The Concept of Sustainable Livelihoods*

The concept of Sustainable Livelihoods (SL) stems from the advisory panel of the World Commission on Environment and Development (WCED, 1987). Since then, the Sustainable Livelihood Approach (SLA) has been widely used to guide development policy, research and execution and performance monitoring of development projects.

The widely accepted assertion is that, “a livelihood comprises, the capabilities, assets (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shock, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term” (Chambers & Conway, 1992, p. 6).

In most basic terms, Chambers and Conway (1992) assert that, “a livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term” (p. 7).

This assertion makes SLA an analytical framework that can be used in almost all phases of a development project. The significance of the SLA is its ability to move beyond the analysis of income and taking into consideration all signs and symptoms of poverty, social exclusion and vulnerability (Krantz, 2001). The SLA puts people at the centre of their development and it recognises that poor people are the best to know their own problems and to develop solutions that help them to resolve challenges they face (*ibid*). The SLA has been used as analytical framework for the study for at least three main objectives.

- Firstly, SLA has been used by many international organisations such as United Kingdom’s Department for International Development (DFID), OXFAM, CARE and many others for planning their development programmes (Carney et al., 1999).
- Secondly, SLA has been used as a set of guiding principles and as an analytical framework to guide development programmes (Allison & Horemans, 2006).
- Lastly, SLA has also been used to assess the extent development activities fit into the livelihoods of the poor for the purposes of helping development organisations to improve their monitoring, evaluation, reflection and learning frameworks and programmes (Kollmair, 2000).

These three elements of the SLA have been brought together and framed as an analysis tool that is used to understand the complexity of poverty and development. This analysis tool is referred to as the Sustainable Livelihood Framework (SLF). The SLF recognises at least three types of capital that are most relevant for the study. These are financial capital, social capital and human capital (DFID, 2001). In the context of SLF, social capital includes all the social resources at ones disposal to use to implement livelihood objectives. In the instance of a FLGs and VSLAs, the use of networks, relationships, membership and connectedness tend to increase levels of trust that are essential for working together (*ibid*) and strengthen human capital. For the VSLA to operate optimally, it requires knowledge, talent and skills that are provided by healthy and enabled bodies. VSLA is described as a key financial resource together with other regular inflows of money for multiple sources of income.

Livelihood strategies and livelihood outcomes are most important components of the SLF. A livelihood strategy is a combination of choices and activities that people undertake to achieve the planned and desired outcomes (Kollmair & Gamper, 2002). A livelihood outcome is essentially the achievement of a livelihood strategy such as food security, more income streams, more money, access to services, etc. – where a combination of livelihood outcomes reduce vulnerability.

This study used the SLF as the main lens to explore types of IGAs that are mostly operated by members of FLGs, and the extent members of the FLGs use their drawings received from the VSLAs to finance their production activities.

#### *Understanding the Pro-poor Microfinance*

The purpose of this section is to describe the relationship between microfinance programming and VSLAs. In under-serviced populations and settlements, decentralised and member-owned informal financial institutions are often the most responsive financial services providers. The analysis of microfinance is drawn mainly from the observations Rutherford (2000), Dichter (2006), Ditcher and Happer (2007) and Bateman (2010). The study gives credit to the experience of the Grameen Bank. The significance of the Grameen Bank is that it was able to attract ideas, approaches and models for planning and delivery of microfinance interventions around the world. The experiences and lessons learnt from the 1950 and in particular the unpalatable consequences of microcredit programmes saw the emergence of microfinance as a concept that embraces the provision of a basket of financial services to the poor and vulnerable populations.

Stuart Rutherford worked with poor people in the slums of Dhaka for over 20 years. He documented their experiences with regards to their sources of incomes, their relationship with money and what their expenses. He conducted his research in selected settlements in South Africa, Bangladesh and India by collecting household financial transactions on fortnightly basis for nearly a decade. He subsequently published an essay in 2000 entitled 'The Poor and their Money'. Rutherford argues that poor people need greater than their usual sums of money from multiple income streams in order to meet life-cycle events; to guard themselves against risk and to seize income generating opportunities (Rutherford, 2000). Ditcher and Happer (2007) align with the observation made by Rutherford (2000) by emphasizing that drawings made from VSLAs and other community-based informal financial schemes are largely used for consumption purposes and purchasing of household assets.

Dichter (2006) raises a concern of the “paradox of microcredit”. He argues that microcredit provide little capital for poor people to operate profitable enterprises. A similar concern is extended by Bateman (2010) who maintains that microfinance programmes that are designed to lift poor and vulnerable populations out of poverty actually reinforce poverty they are set to eliminate. Further to this, Bateman and Chang (2012) argue that microfinance model traps poor into poverty because community-based informal financial institutions fail to provide enough investment capital for low-income earners to succeed in a saturated informal economy.

The battle between promoters and critiques of microfinance programmes is an obvious one. In this instance, promoters are convinced that microfinance programmes help to fight poverty while the critiques on the other side argue that there is evidence that suggests microfinance programmes are reproducing poverty. The debates in within the microfinance sector do not concern this study. However, the impact of VSLA programmes and self-capitalised community-based informal institutions is acknowledge. This is because self-capitalised informal financial institutions continue to provide financial services to millions of low-income earners outside the mainstream financial institutions.

In conclusion, VSLAs cannot escape disputes taking place within the microfinance sector in general. Opportunities for harnessing collective strength of VSLAs, their knowledge construction and practice may be under-imagined, undermined or unexplored. Such critique presents the need for further research in this sector – and in this instance, to explore the extent VSLAs contribute into broad-based economic development objectives within the food system and agricultural value chains.

#### *Poverty and VSLAs*

Many underserved populations in South Africa and in particular rural communities are characterized by theatres of socio-economic hardships and poverty resulting from hundreds of years of oppression and marginalisation. Lack of access to usable financial services appears to be the most frustrating feature besetting life improving efforts mainly in underserved rural settlements. This section brings forth the argument that institutions of power exhibit financial practice that systematically marginalise and exclude low-income earners to access to financial instruments that will allow them to live better.

Today, the importance of VSLAs is that they provide essential financial services mostly to low-income earners that are either not served or inconvenienced by formal financial institutions. Scarcity of cash, and/or poor circulation of cash is the main feature of rural settlements. Scarcity of cash is a direct consequence of sustained financial and marginalisation by the institutions of power, mainly the state and financial institutions.

“Men and women say they need credit, not only to improve their livelihoods and for emergencies but also sometimes for daily expenditure during difficult times. When networks of relatives and friends are not sufficient, poor people say that, to survive, they frequently turn to moneylenders, shopkeepers and pawnbrokers.” (Chambers et al. 2000, p. 56)

The above quotation expresses the frustrations of poor people and what they use financial services for. The significance of VSLAs is that they provide alternative and convenience platforms for low-income earners to save and build pools of capital fund that they use to provide micro-loans and lump sum pay-outs at the end of saving cycles. In this way low-income earners participating in VSLAs are able to resolve some of their financial challenges that are constantly reproduced by scarcity of

cash. Basically, VSLAs improve capabilities of the poor to build assets that help them to survive misfortunes as expressed by Chambers and Conway (1992) in their SLF.

A livelihood is described as: "...comprising people, their capabilities and their means of living, including food, income and assets. Tangible assets are resources and stores, and intangible assets are claims and access.... A livelihood is socially sustainable which can cope with and recover from stress and shocks and provide for future generations." (Chambers & Conway, 1992, p. 1)

The significance of above definition of livelihoods in this study is that it gives us a lens to see and to understand objectives, scope and priorities of human development as defined by people living in poverty. Most importantly, it provides us with cues that help us see and define VSLAs and financial education the way users perceive them – and not how the dominant hegemony sees them. I therefore argue that central to the priorities of VSLAs is vulnerability. VSLAs help users mitigate and/or prevent exposure to vulnerability. Dercon (2001) describes vulnerability as: "...determined by the options available to households and individuals to make a living, the risks they face and their ability to handle these risks." (Dercon, 2001, p. 27)

According to Dercon (2001), the exposure to vulnerability is expressed by the options available to individuals to take specific actions that mitigate consequences of risks they face. In the eyes of poor people, receiving financial services from their VSLAs reduces exposure to their vulnerability and presents the much-needed safety nets for surviving poverty.

People define and decide the course of their development. However, the financial services environment remains complex for many. Its complexity tends to constrain full access of users of VSLAs to financial services and wealth-building instruments (Mader, 2015). Basically, South African banks only offer limiting transactional accounts for member-owned informal financial institutions, and mainly the *stokvels*. These accounts are usually emptied at the end of savings cycle which is usually a year. The largest majority of VSLAs, savings group, savings clubs and *stokvels* operate in twelve months cycles, and always start at zero after depleting entire group fund. This practice tend to throw users of VSLAs into perpetual non-productive consumption. The depletion of pools of savings in annual cycles keeps low-income earners distracted from wealth-building financial instruments.

The theoretical approach of sustainable livelihoods cannot be complete without reflecting on the concept of community development. There are several contestations around the concept of community development and what it represents (Watt, 2016). The first approach do community development has attracted a lot of controversy mainly from the African intellectuals. According to Watt (2016), international community and national governments have developed instruments of community development that are mostly imposed on communities resulting in unimaginable violations of communities by public officials and their handlers. This is community development that is disempowering and marginalising (Swanepoel and De Beer, 2006) as it is designed to maintain the oppressive status quo. According to Hauser and Freire (2002) and Burke (2010), empowering community development is characterised by collective action and communities taking the lead, responsibility and full ownership development phases and actions. Makuwira (2006) notes that full participation of all stakeholders and communities underpins the theory of people-centred development (World Bank, 1996) through which community resources including human capacities are mobilised to deliver on socio-economic development objectives of their localities. It is in this way that local people are able to determine their own futures.

In conclusion, the main highlights noted from the supporters of community-based microfinance programmes such as Rutherford (2000), Allen (2007) in Ditcher and Happer (2007), Allen and Panetta (2010), Markel and Panetta (2014), Ngcobo (2018) and others all promote positive impact VSLAs have made with regards to consumption smoothing, betterment of dwellings, income generating initiatives, and generally, the ability to meet the demands of life-cycle events.

#### **f. Methodology**

The study was located within the interpretive paradigm. This is because the study sought a deeper understanding of how the members of FLGs experienced the use of financial services that are provided by their VSLAs for productive purposes. Purposive sampling was used to identify participants. The sample was made up of 65 members of FLGs.

According to Morse and McNamara (2013), the SLA accommodates data tools such as interviews, observation and participatory methods to assess vulnerability and impact of development initiatives. The study commenced with focus group discussions and was followed by semi-structured interviews as data generation methods. A focus group discussion is a qualitative data collection tool. It is a structured and facilitated in-depth discussion. It is usually led by an experienced moderator who is able to encourage participants to engage freely. It is typically carried out by a small group roughly between 6 – 10 people with similar backgrounds for the purpose of discussing a specific topic of interest and to provide useful insights on the topic.

Semi-structured interviews were used to supplement focus group discussions. Semi-structured interviews allowed the exploration of the experiences the perceptions of participants. Semi-structured interviews were chosen because they promote natural conversations (Duranti, 2011) and flexibility to use open-ended questions and to craft on the spot follow-up questions during the interview (Neergaard & Leitch, 2015). Thematic content analysis which is a descriptive analysis of data was used. The significance of thematic content analysis is that it ensures that the experiences and voices of the research participants remain at the centre of the findings.

#### **g. Findings**

The purpose of this section is to present findings of the study. The main objective of this study was to better understand the extent users of VSLAs use their drawings to support their productive activities including financing their enterprises. The SLF was used as a tool of analysis to help understand how a VSLA as a livelihood strategy interact with livelihood activities.

##### *Participants*

The study was conducted in Emmaus, Appelsbosch, Nokweja and Centocow in KwaZulu-Natal province, and Worcester, Turkey-2, Madeira and Sedawa in the Limpopo province.

Table 10: No of participants in the livelihoods survey, November 2023

Participants	KZN	Limpopo	Total	The largest majority of participants in the FLGs are adult women at 87.7% and men making about 12.3%. However, 21.5% of the FLGs members did not participate in the VSLA programme. About 27.7% or 18 participants are above 60 years old.
<b>Total Study Participants</b>	56	9	65	
<b>Women</b>	50	7	57	
<b>Men</b>	6	2	8	
<b>Total Non-VSLA Participants</b>	14		14	
<b>Women</b>	12		12	
<b>Men</b>	2		2	

Active participation of rural women in FLGs suggests that women are the key players in food production and food security. This finding aligns with the findings of IFAD (2019) that over 50% of the women across the globe are active food producers and just over 60% of rural women in Africa depend on agriculture to generate household incomes. Despite this role in food production, women face enormous challenges that continue to constrain their development. One of the challenges is access to financial services and in particular production credit. Data reveals that VSLAs are increasingly becoming the most preferred alternative with regards to saving and borrowing.

#### Main Sources of Household Incomes

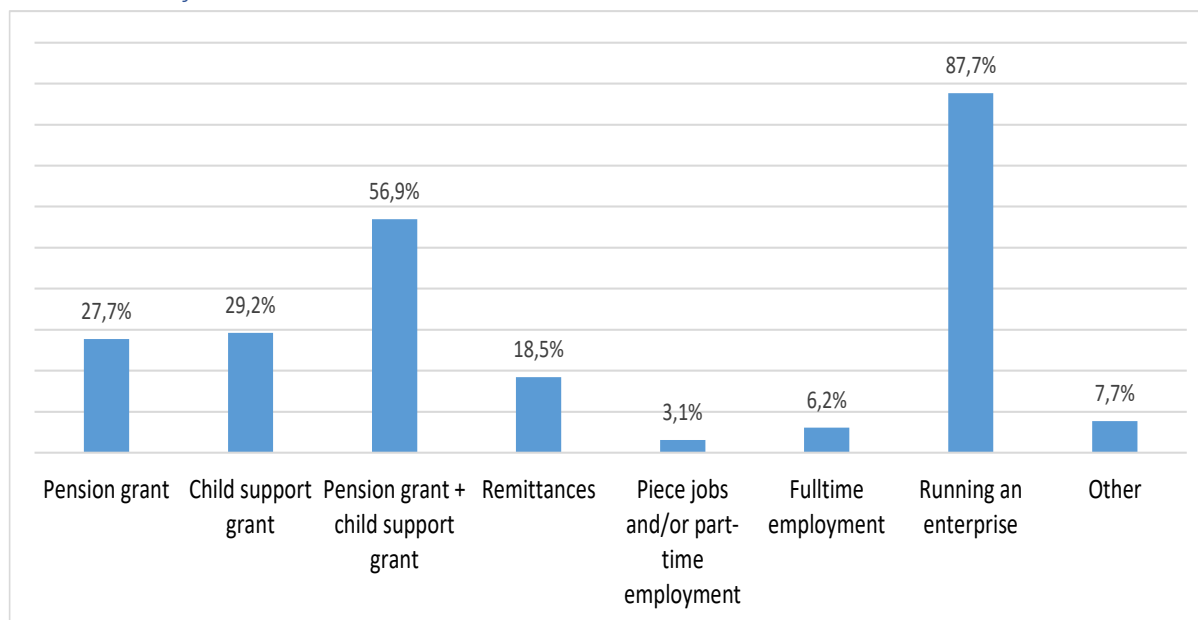


Figure 30: Main sources of household income, with number of participants engaged shown as a percentage.

Data reveals that about 88% of participants are involved in business enterprises. Data also suggests that about 57% receive state welfare grants, of which around 30% receive pension grants. The main income generation activities or village-based enterprises include:

- 60% of the participants use farming to generate their household incomes. In the main they produce vegetables, maize and other field crops, broilers and eggs.
- Just of 12% of the participants manufacture grass mats, beads, garments and scones and cakes.
- Lastly, about 22% of the participants are involved in general trading which includes re-selling of clothes, food vending and operating small retail shops known as tuck-shops in South Africa.

The highest number of respondents involved in diverse enterprises (87.7%) suggest the prevalence of the missing middle if one takes the >80% of people that are dependent on state welfare grants in South Africa.

#### Comparison of Average Incomes between VSLA and Non-VSLA Members

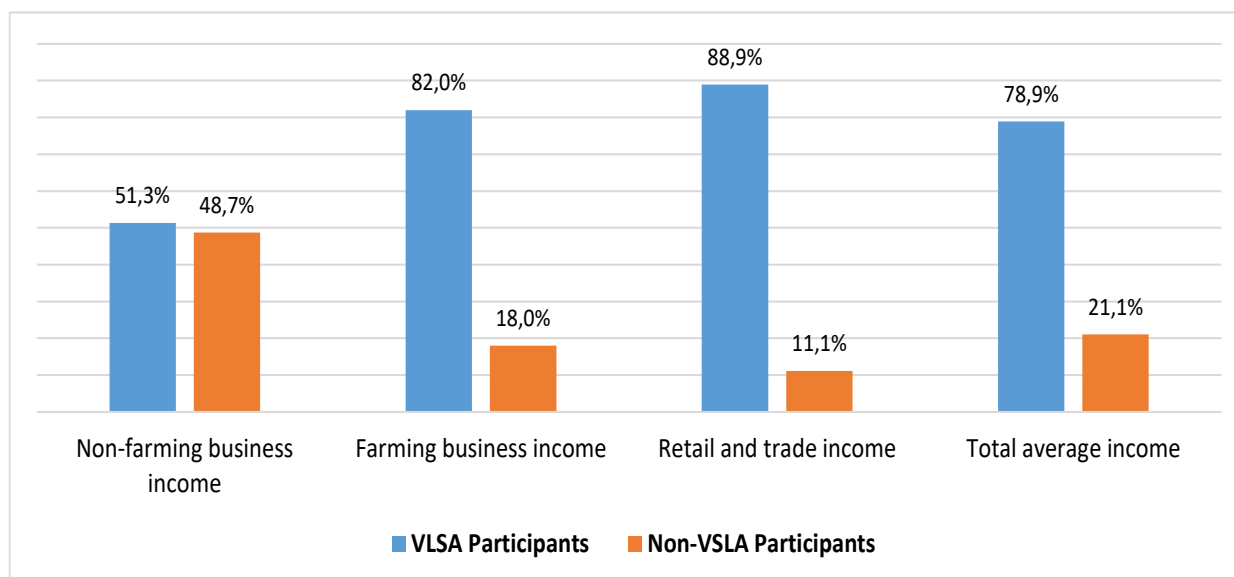


Figure 31: Comparison of incomes for participants in VSLAs and those who do not belong to these groups.

Data suggests that participants receive almost equal incomes mainly from the state welfare grants and remittances. This source of income is referred here as non-farming business income. However, the VSLA members tend to use the strength of the VSLAs to diversify and recycle their sources of income. This means that VSLA members use their state grants and other incomes to generate further income through farming, retail and trade, which non-VSLA members do not. Data suggests that VSLA members have higher average incomes.

Table 11: Average incomes for VSLA and non-VSLA members

Name of Respondent	Non-farming business income	Farming business income	Retail and trade income	Manufacturing and services income	Total average income
Annual average VSLA participants (n=16)	R20 658,00	R8 598,00	R3 000,00	R142,86	R32 398,86
Annual average non-VSLA participants (n=14)	R19 042,50	R34 242,50	R21 000,00	R6 825,00	R81 110,00

Note that actual incomes have been provided here averaged for 14 non-VSLA and 16 VSLA participants respectively. This has been done to illustrate the large differences in income generation and potential for the participants involved in the VSLAs compared to those who are not.

Significantly farming incomes for VSLA participants are 64% higher, retail and trade income is 77,8% higher and the total average incomes is 57,8% higher for VSLA members, as shown in the small table below.

Table 12: Percentage difference of incomes for VSLA and non-VSLA participants.

Category	VSLA Members	Non-VSLA Members	Difference
• Farming business income	82,0%	18,0%	64,0%
• Retail and trade income	88,9%	11,1%	77,8%
• Total average income	78,9%	21,1%	57,8%

Some of this non-business income empowers the participants to pay their regular contributions to their respective VSLAs. Participation in VSLAs gives them access to short-term loans during a saving cycle and lump sum share-outs at the close of a saving cycle. Some portions of non-business income and VSLA drawings are used to finance business enterprises. On average, an enterprise operator receives a quarterly income of R8 561 which adds up to R34 244 annual income from a farming operation. In addition, some enterprise operators would generate about R1 750 non-farming activities such as trading, and about R1 706 from manufacturing and services, also on quarterly basis.

#### Average Productive Use of Incomes

Data suggests that participants spend their business incomes and VSLA drawings mainly in farming enterprises, house construction and/or renovations, traditional ceremonies and funeral insurance. House construction and traditional ceremonies are big ticket expenses that participants have to save for and cash-flow over a period of a year or so. This means that depending on the type and size of a traditional ceremony, participants may save for more than a year. Participants revealed that they use share-out lump sums for house construction and traditional ceremonies. Data also reflect that participants may combine loans and share-out lump sums for enterprise development and house renovation activities.

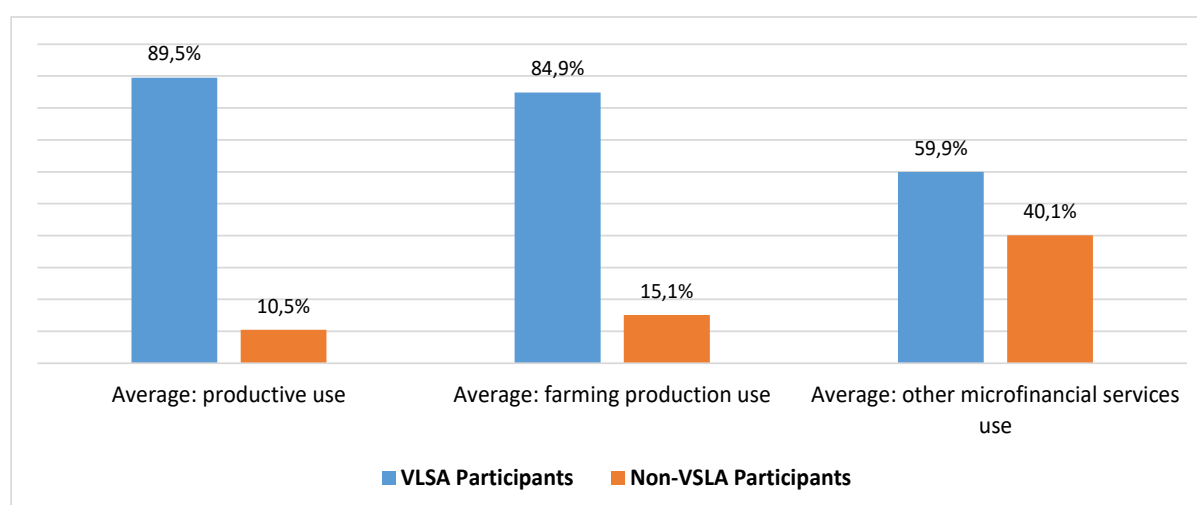


Figure 32: Productive use of incomes for VSLA and non-VSLA participants



Data shows that VSLA members exceed non-VSLA members in all three major categories as reflected in the table below.

*Table 13: Percentage difference in productive use of incomes for VSLA and non-VSLA participants*

<b>Category</b>	<b>VLSA Participants</b>	<b>Non-VSLA Participants</b>	<b>Difference</b>
• Average: non-productive use	93,7%	6,3%	87,4%
• Average: productive use	89,5%	10,5%	79,0%
• Average: farming production use	84,9%	15,1%	69,7%

Participants adopt multiple strategies to balance consumption smoothing and business enterprises. Some of the strategies include recycling of sources of incomes. Recycling of sources of incomes involves delayed gratification on the part of the participant. Participants may take short-term loans for trading activities that generate profits quicker than farming operations. Participants may also use their non-productive incomes to purchase maximum shares in their VSLAs so that they can take a larger loan for their enterprises and/or for substantial expense. These substantial expenses are mostly non-productive and may include furniture and appliances.

#### **h. Discussion**

The difficulty for the researchers to understand the effects of VSLAs in terms of what members use their drawings for is noted. It is even more difficult to measure productivity and incomes of smallholder farmers because of two main factors. Firstly, researchers have to understand and quantify the overall welfare effects of VSLAs. Generally, VSLA users spent the bulk of their drawings on consumption smoothing. Secondly, farmers struggle to track incomes from their agricultural activities. In most cases, smallholder farmers do not keep records of their yields and they do not sell but consume their produce. Tracking the financial value of consumption is undertaken in other monitoring processes but has not come through well in the present survey. However, the findings of this study does reveal the multifaceted benefits of VSLAs by exploring the extent to which participants use their drawings for productive purposes.

Assets and capabilities of the participants to diversify their sources of income were observed. Productive assets included broiler cages, egg layer cages, fenced gardens, cattle and goat kraals, plastic water tanks, protected and piped water springs, tunnels, tuck-shops and farming implements. Other non-productive resources that manifest improved quality of life and livelihoods included brick/block houses, furniture like sofas, television sets, satellite television connections, appliances like refrigerators and microwaves. The SLF describes the combined use of resources and productive assets as livelihood strategies that are employed to prevent or mitigate specific risks and to achieve the desired livelihood outcomes (Knutsson & Ostwald, 2006).

Years living in the same community, understanding of local market trends and years of farming experience had a positive significance with learning group members' participation in VSLAs. This is because VSLA members may have a few years to sort out consumption pressures that directly compete with the early stages of enterprise development. The implication is that extended participation in VSLAs have a positive impact on the participants with regards household welfare pressures. However, such conclusions need further interrogation. It is therefore recommended that future studies examine whether participants with a longer history of participation in VSLA are likely to invest more in their enterprises.

The short duration of loans remain a serious concern for learning group members operating business enterprises since loan terms constrain extended investments in enterprises. Generally, many NGOs promote annual saving cycles for a number of reasons. One of the reasons is that VSLAs build on practices of non-VSLA schemes in communities, such as stokvels which are established to guard against risks and meeting life-cycle events hence the need for multiple income streams (Rutherford, 2000). Financing farming operations with VSLA drawings (short-term loans and lump sum share-outs) is a very complicated affair because loans are usually serviced by incomes received from non-farming enterprises. In some cases, VSLA loans may not be aligned to production. As mentioned earlier, the loan fund may not be sufficient for all farmers to borrow in a given planting season. This provides an opportunity for NGOs to investigate options that would see VSLAs bulking loans and provision for extended loan repayment periods. This means NGOs investing time and resources to explain the benefits of bulking of loans, charging of affordable annual interest, and extending saving cycles to three years or more. It also means promoting diversification into trading activities in order to increase earnings and to enable borrowers to service VSLA loans while waiting for harvesting, eggs to be laid or broilers to be sold. However, diversification into trading activities may risk shifting farmers' concentration from production activities and consequently drop the farm yields.

#### **i. Conclusion**

In conclusion, the use of SLF for this study to understand the extent to which participants use drawings from their VSLAs to operate their businesses reinforced the claim that SLF can be used as a framework for facilitating planning of new development interventions (Morse & McNamara, 2013). The study was able to draw from the capabilities of farmers in terms of assets they accumulate as a results of improved access to financial services from their VSLAs. As a result participants were found to be able to improve their capabilities, accumulate capital and assets, and provide better livelihoods for their families (Chambers & Conway, 1992). The study has demonstrated that identification of resources and assets that learning group members accumulate during the course of their participation in their VSLAs gives a better understanding how incomes are recycled and used.

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### 3.6 RECOMMENDATIONS AND GUIDELINES

To intervene effectively in improvement and transformation of local food systems, it is important to use a comprehensive framework to analyse all drivers, activities and outcomes of the system. This allows assessment of the critical gaps and opportunities for intervention that are likely to provide the largest impact. It will also allow an assessment of the boundaries of the potential of the intervention.

As local food systems are an effect of the broader regional, national and global food systems, these drivers need to be well understood to act coherently at a local level.

A number of aspects of food systems can not be changed or transformed at a local level but can be mitigated. This also implies the need for involvement of a range of role players and stakeholders and for the importance of multifaceted interventions to provide for opportunities and strategies for effecting positive change in the food system.

When planning for a food systems intervention the following aspects need to be considered.

- Focus on poor and vulnerable people as they are the most likely to be negatively affected by the present food system.
- Use a systemic approach to food security including access, availability, affordability and nutrition, to ensure the broadest impact possible. As an example, just intervening in homestead gardens to improve vegetable production is unlikely to have a significant impact on household food security. Such actions need to be combined with interventions around improved nutrition, especially for young children, alternative income generation opportunities, improved supply chain options and microfinance options as examples.
- Work at multiple levels (local, regional and national) with a wide range of stakeholders
- Provide a focus on building of social agency at a local level to engage across different thematic areas and at multiple levels with a range of stakeholders.
- Use a multi-pronged approach that can provide synergy for different aspects of the system such as input supply, production, nutrition, income generation, microfinance, water management and natural resource management.
- Learning is central and works better in localised groups.
- Use climate change impacts and adaptive strategies as the central overarching theme. Given the disproportionate impact of climate change on the rural poor,

- Sustainable farming practices for improved resilience and productivity are crucial and need to be a central aspect of food system interventions.
- Improved systems for provision of agricultural inputs need to be considered- focus on local options, renewable resources and aggregation strategies.
- Resource management and conservation need to be included. Deterioration of the resource base has a significant and increasing negative impact on potential productivity of farming activities.
- Access to water for multi-purpose uses as well as water use efficiency are central and crucial components to improved productivity and livelihoods.
- Microfinance options for the rural poor need to be woven into potential interventions. Without these, no significant improvements in livelihoods conditions can be effected.
- And local marketing options that take into account the conditions under which smallholders operate need to be developed.

#### 4. WORK PLAN: JANUARY-FEBRUARY 2024

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The following broad activities are to be undertaken during this period:

- Continuation of implementation for the CRA learning groups across three provinces
- Ongoing involvement in CoPs: AN-capacity building and learning, PGS-SA, Northern Drakensberg collaborative
- Finalization of master’s student concept note and registration at UFS.
- Development of local water access case studies
- Development of climate resilience monitoring framework and indicator sets.

Table 14: Work plan –January-February 2024

Work plan Jan-Feb 2024	Team	Activities	Jan 24	Feb 24	Submission
6. Local water access case studies	MDF: Erna Kruger, Betty Maimela, Nqobile Mbokazi	COPs: Continue with village level CRA learning groups in KZN, EC and Limpopo engaged – develop case study framework and conduct interviews.			2024/02/28
	MDF: Erna Kruger INR: Brigid Letty	COPs: Northern Drakensberg Collaborative			
	MDF; Erna Kruger, Tema mathebula and Karen Kotschy	Develop monitoring framework and indicators – pilot M&E process in selected learning groups			

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