



**RESILIM-O:
Resilience in the Limpopo Basin
Program – Olifants**

**MILESTONE 4: Progress Report #3:
February-March 2017**

**under the
Lower Olifants catchment
Agricultural Support Initiative (AgriSI)**

Implemented by

mahlathini
development foundation

Cell: **(+27)82 873 2289**

www.mahlathini.org

Email: **info@mahlathini.org**

erna@mahlathiniorganics.co.za

Reg No: 930051028

Table of Contents

.....	3
Outline	4
1. Activity record for the period.....	5
2. Progress	6
Milestone 4: February-March 2017: Progress according to deliverables	6
3. Summary of baseline and implementation progress per village.....	10
4. Individual Experimentation	10
5. Summary of milestone implementation across villages.	12
6. Monthly team assessment	13
Indicators: Assessment March 2017:.....	13
Project Life Change Questions:	14
7. Work Plans for the coming two months.	15
Attachment 1: Detailed upcoming milestone (Milestone 5) activity plans (April-May 2017) .	16



Outline

In the inception meeting an implementation strategy that would bring all 6 communities on board at the same time and include some baseline and visioning discussions at community level as well as some theoretical inputs and practical training, was agreed to. This was done to accommodate for the fact that people are anxious to start agricultural activities now in the Spring and Summer season and for us as the facilitators to provide a commitment to the communities to action.

This meant that activities planned under later milestones (particularly Module 3 'Introduction to Innovations & Experimentation') were brought forward and added to originally planned activities (Module 1 'Setting the Scene' and Module 2 'Learning & Mentoring'); whilst accommodating 6 villages. Now towards the end of Milestone 4, a balance has been reached with implementation of all the modules.

Individual/household interviews and baseline assessments, to augment the baseline reports have now been conducted for a selection of participants across all 6 villages (33 in total to date).

Visioning, planning and development of indicators for the 5 fingers assessment framework (principles for good farming practices) has been undertaken for all 6 villages in a joint workshop. Individual and group sessions will be held to finalise and operationalise the framework in each of the villages in the coming months.

5 Learning groups have been established: Botshabelo, Sedawa, Finale & Oaks, Willows and Lepelle. Local facilitators have come to the fore in all five learning groups. The formalisation of the process has been finalised for all 5 groups and induction and training will continue under Milestone 5.

Learning in the groups has continued and focused on soil fertility management, including liquid manures with some input also on natural pest and disease control options. Mentoring and monitoring at household level has been conducted in 2 villages.

New ideas have been introduced through demonstration and implementation workshops:

- 1 Workshop for The Oaks, Finala, Lepelle, Botshabelo and Sedawa in construction of a 4mx6m shade cloth structure/tunnel, construction and packing of 3 1mx6m trench beds inside the tunnel and setting up of a drip irrigation system for the tunnel. (22 participants)
- Learning and innovation group workshops were held for Sedawa (27), Oaks and Finala (9). Learning content includes ,soil fertility options, manure, liquid manures, compost and shallow trenches. Mulching of CA plots and basin plantings was also included.

PARTICIPANTS THIS PERIOD

SEEDS OF LIGHT, Trygive Nxumalo

MAHLATHINI: Erna Kruger, Sylvester Selala, Chris Stimie

AWARD: Richard Hatfield, Bigboy Mkhabela,

CONTENTS

This report contains the following sections:

1. Activity record for the period
2. Progress
3. Summary of baseline and implementation progress per village
4. Individual experimentation
5. Summary of milestone implementation across villages
6. Monthly team review summary and assessment of indicators
7. Work plan for coming period

This report contains the following attachments:

1. Annexures:
 - a) Group session minutes: Learning and innovation workshop-Sedawa_20170206
 - b) Group session minutes: Learning and innovation workshop- the Oaks and Finala - 20170208
 - c) Group session minutes: Lepelle Water walk and fruit production case study _20170202
 - d) Homestead assessments_ Local and New innovations_20170310
 - e) Cluster activity record: Principles for good farming practices workshop_20170315-16
 - f) Cluster activity record: Demonstration workshop for construction of tunnel, trench beds and drip kit system_20170318,20
 - g) Monitoring_ Implementation of innovations_ Botshabelo and Sedawa_20170313-14
 - h) AWARD-AgSI_ Selection of Local facilitators_20170323

1. Activity record for the period

This is an additional section now being included in the progress reports to outline activities undertaken in the reporting period. This section gives an indication of activities undertaken to achieve the outcomes for this period, time spent and people involved.

DATE	DESCRIPTION OF ACTIVITY	WHO WAS INVOLVED
2016/02/01	Learning and mentoring: CCA criteria and models workshop: AWARD and MDF staff – 8hrs	Taryn Ancoise, Richard, BB, Seeds of Light and Erna, Sylvester
2016/02/02	Learning and mentoring: Water walk and homestead based assessments: Lepelle – 10hrs	Erna, Sylvester, Trygive, BB, Lepelle (7 homesteads)
2016/02/03	Learning and mentoring: Homestead based assessments: The Oaks, Finale – 6hrs	Erna, BB, Sylvester, The Oaks and fFnale (6 homesteads)
2016/02/04	Office; report writing, consolidation of photos and attendance registers, preparation for following week's workshops – buying of hay bales and collection of manure – 6hrs	Erna, Sylvester
2016/02/06	Innovations and experimentation: Sedawe: Soil fertility workshop – 7hrs	Sylvester, BB, Trygive

2016/02/07	Innovations and experimentation:Workshop continuation plus homestead assessments – 8 hrs	Sylvester, BB, intern
2016/02/08	Learning and mentoring: Homestead assessments in Willows – 5hrs Collection of bales and manure – 3hrs	Sylvester, BB
2016/02/09	Innovations and experimentation: The Oaks, Finale soil fertility learning workshop and homestead assessments- 8 hrs	Sylvester, Trygive BB, Intern
2016/02/10	Office admin; B2O report – 5hrs	Sylvester, BB, Richard
2017/03/13,14	Learning and mentoring, collaborative work: Homestead visits for mentoring and monitoring, start set up of tunnel workshop in Oaks; Botshabelo, Sedawe – Planning meeting	Sylvester, Christine and 12 participants, Erna
2017/03/15-16	Networking, Visioning and 5 fingers w/s for all 6 villages	Full AWARD team, Mahlathini, Ukuvuna, all 6 villages
2017/03/17	Networking and collaborative work: Preparation for workshop; Office; finalisation of deliverables review and changes, design of 5 fingers assessment forms, garden monitoring forms	Sylvester, Chris, Erna richard
2017/03/18	Networking and collaborative work: OAKS: Trench bed, tunnel construction and drip kit demonstration and implementation	(Oaks, Finale, Lepelle, Botshabelo, Sedawa Erna, Sylvester, Chris, Trygive
2017/03/19	Admin and planning	Erna, Sylvester, Chris
2017/03/20	Networking and collaborative work: OAKS: Trench bed, tunnel construction and drip kit demonstration and implementation ; continuation of construction of tunnel and drip kit	(Oaks, Finale, Lepelle, Botshabelo, Sedawa Erna, Sylvester, Chris, trygive
2017/03/22,23	Networking: LF election and induction, household monitoring visits Progress report writing	Sylvester, Trygive Oaks, Botshabelo, Willows, Erna

2. Progress

Milestone 4: February-March 2017: Progress according to deliverables

1. Setting the scene

This deliverable was originally to be concluded under milestone 3. A few activities have been continued under Milestone 4.

	Activities planned	Activities actual	Outputs	% completion to date (target / actual)	Verification	Submitted

Setting the scene	2 villages x 3 days ea	6 villages x 1 day ea	Local facilitators process	100% / 75% - LF's chosen for 4 of 6 villages	Attendance registers Group session minutes Cluster activity report	Yes
			Visioning and scenario development	100% /50% - Group session and cluster workshop of 3 days run by AWARD for development of vision and 5 fingers criteria for beast practice_ all villages		
			Baseline report	100% - 100% Individual homestead assessments for 33 participants across all villages completed	Homestead assessments, photo diaries	Yes In progress

- Local facilitator criteria developed and used in 4 of 6 villages to select local facilitators. -**Report attached: Learning and innovation workshop - Sedawa_20170206, Learning and innovation workshop – Botshabelo_20170322**
- Water walk and homestead assessments Lepelle - **Report attached.**
- A combined workshop for all villages to compile a broad vision for each area, principles for good farming practices and a 5 fingers monitoring assessment framework for each village_ **Report attached: Principles for good farming practices _20170315,16**

2. Introduction to innovations and experimentation

	Activities planned	Activities actual	Outputs	% completion	Verification	Submitted
Introduction to innovation and experimentation	4 villages x 2 days ea	5 villages x 2 days ea, 3 villages x 1 day ea	Understand current practices, introduce new ideas	100% / 110% (Tunnel, bucket drip kits)	Learning materials	Yes- EK
					Demonstrations	
			Individual farm experimental design, homestead food production monitoring	100% - ongoing process of individual household assessment and planning	Photographic records	
					Homestead assessment forms (Oaks (5), Lepelle (7), Finale (5), Sedawe (3), Botshabelo (4), Willows (9))	Yes- EK

- Demonstration of new ideas in the form of community based workshops for construction of a tunnel (Shade cloth structure – 4mx5m – called a tall crop

tunnel), bucket drip kits for greywater use and building of trench beds for planting of seed and seedlings for The Oaks, Finale, Lepelle, Botshabelo and Sedawa.

- Homestead based assessments for present implementation in gardening (including farmer work plans and individual experimentation) conducted for 33 participants across all 6 villages. ***Report attached_Homesated assessments - Local and new innovations _20170310***
- Initial assessments for potential for underground RWH storage structures at household level done for 1-2 households in Botshabelo.

3. Learning and mentoring

	Activities planned	Activities actual	Outputs	% completion to date (target / actual)	Verification	Submitted
Learning and mentoring	4 villages x 3 days ea	6 villages x 2 days ea	New practice training: Soil fertility	100%/ 50% Soil fertility: Conducted for 3 villages – The Oaks, Finale and Sedawa. Further training under milestone 5.	Training manual	Yes-
					attendance registers,	Yes- collected- Sylvester
					photos,	Yes collected- with EK
					farmer work plans,	Yes – See Homestead assessments report
					garden monitoring	Yes- See Homestead assessments report
			Local facilitators / champions training and mentoring	100% / 65%	PROGRESS REPORT	Yes-
			Farmer monitoring	50% / 45% - garden level monitoring of implementation and experimentation	See Homestead assessment forms and report	Yes-
			Clusters; self mentoring	100% - See Principles for good farming practices w/s report	Visioning and 5 fingers for all 6 villages	Yes

- Learning workshops were conducted in soil fertility management. This included the following topics:
 - Local understanding of soil fertility, use of kraal manure, current practises used to improve soil fertility.

- Introduction to soil fertility (local understanding of signs of nutrient deficiency on the crops, discussing signs of nutrient deficiency, nitrogen (N), Phosphorus (P), Potassium (K))
- Methods or ways to improve soil fertility (liquid manure, use of fertilizers)
- Use of mulch (hay and Lucerne in CA plots) and
- Natural pest control (e.g. aphids)
- Mentoring and monitoring was conducted through the homestead based assessments and also through a village based assessment of individual experimentation in Botshabelo and Sedawe, that included the newly elected local facilitators.

4. Collaborative activities

- Joint workshops on principles for good farming practices for all 6 villages and trench beds, tunnel and drip kit construction for 5 villages. See no's 2 and 3 above and the attached reports.

5. Networking

- Discussions with Ukuvuna re their implementation process and practices in Sekukune

3. Summary of baseline and implementation progress per village

This table provides an overview and summary of all activities undertaken on a village by village level. It is not always possible to keep the agendas in all the villages synchronised over time and so some of the activities will have been undertaken in some of the villages and not others. This summary allows the team to track where the process is in each village.

AWARD baseline and implementation per village: 2016-2017																			Mar-17																	
VILLAGE	Baseline				Learning and mentoring										Introduction to innovations and experimentation																					
	Current practices	Baseline w/s 2 (Cropping practices)	Visioning and scenarios	Champions/Local facilitators	New practice training													Farmer experiment ation	Individual farm experiment designs	Tunnel construction	Drip kit construction	RWH and erosion control assessments														
		CC mapping	Five Fingers	Vision and scenarios	Selection	Training	Contours	Diversion ditches, trench beds	greywater bucket filter	Keyhole beds	Tower gardens	Soil properties	Soil fertility (manure, compost liquid manure, fertilizers)	Planting seed and seedlings	CA																					
Sedawa	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓														
Botshabelo	✓	✓	✓	✓	✓		✓	✓	✓	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓														
Willows	✓	✓	✓	✓			✓	✓	✓	✓				✓	✓	✓			✓			✓														
Oaks	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓															
Finala	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓															
Lepelle	✓	✓	✓	✓			✓	✓	✓	✓		✓		✓	✓			✓	✓	✓	✓	✓														

4. Individual Experimentation

Here a summary is provided of the individual experimentation undertaken in each of the villages. This will be updated in all future reports.

INDIVIDUAL EXPERIMENTATION				Mar-17
Date	Village	Description of experiment	No of participants	Name of participants
Nov-16	Sedawa, Lepelle, Oaks, Finala, Willows, Botshabelo	Diversion ditches, contours (using line levels), trench beds, planting seeds and seedlings greywater filtration for irrigation,		See attendance registers
Dec-16	Sedawa, lepelle, Oaks, Finala, Willows	Conservation Agriculture plots : 10mx10m tramline intercropping of maize and sugar beans and maize and cowpeas. Planted in basins and rows.	50	See attendance registers
Feb-17	Sedawa, Oaks and Finala	Liquid manure, shallow trenches	27	See attendance registers
2017/01/31	The Oaks	Diversion ditches, trench beds, CA	4	Mr Makudu, Janet Lewelle, Florence Lewelle, Betty Ncgogo,
2017/01/31	Finala	Tower garden, CA, drip kits	27	Sarah Nyathi
2017/02/01	Sedawa	Tunnel: vs normal production experiments	1	Christina
2017/02/01	Lepelle	CA, diversion ditches, trench beds	4 (8)	George Sebatane, Jane Kobeni, Sias Sebuyane, Londi Tsilwane
2017/02/06	Sedawa	Basin planting: Control is the normal way 30cmx30cm basins 50cm apart, Trial is inclusion of manure nad lucerne hay in the basin prior to planting and mulching between basins	1	Mrs Matene
2017/02/06	Sedawa	Planting a selection of vegetable seeds: Butternut, onion, rosemary, coriander, chilli, green pepper, squash, lazy house wife (beans), Swiss chard, chinese cabbage, carrot, okra, parsley, spring onion, turnip (2 types (white and red), egg plant, tomatoes	19	See Learning and Innovations report -Sedawa
2017/02/28	Okas, Finala,Sedawa	Mulching CA plots	27	See attendance registers
2017/03/13-14	Botshabelo, Sedawa	Stone bunds (2), Diversion ditches (2), ridges and furrows (5), mulching (3) trench beds (5), CA (7), millet and sorghum (5), line levels (1), seedling beds (5), medicinal plants (1), banana basins (1)	9	See monitoring report; Maria Malepe, Miriam Malepe, Dibonanna Mokghoto, Flora Nthlamo, Meaisy Mokwena, Mosebu Nthlamo, Rebone Malepe, Ludia Malepe, Alex Mogopa.

5. Summary of milestone implementation across villages.

MAHLATHINI							
MILESTONE COMPLETION: target completion to date % (in black) vs actual (in red)							
Key activities / Milestones	MILESTONE 1	MILESTONE 2	MILESTONE 3	MILESTONE 4	MILESTONE 5	MILESTONE 6	MILESTONE 7
Inception report	100% / 100%						
Setting the scene <i>Comment:</i>		67% / 65% less coverage, more villages	100% / 80% visioning + final LFs outstanding	100% / 90% Some visioning + 2 LFs outstanding	100% / 100% LF selection and training complete. Additional visioning in Lepelle		
Learning and mentoring <i>Comment:</i>		10% / 15% 6 villages not 4	30% / 40% 6 villages Some garden mon + LF outstanding	50% / 65% 6 villages; continuation with learning schedule; LFs elected in 3 villages	70% / 85% 6 villages; continuation with learning schedule; soil fertility and P&d control. Mentoring and garden monitoring by LFs	90%	100%
Experimentation & intro to innovations <i>Comment:</i>		25% for all 6 villages	25% / 50% 6 villages not 4	50% / 75% 6 villages	75% / 85% For all 6 villages	90%	100%
Collaborative work <i>Comment:</i>				25% / 40% 6 villages: Introduction to drip kits and tunnels; 3 villages RWH and erosion control options	50% / 65% 6 villages; tunnels, drip kits, greywater management, RWH and erosion control options	75%	100%
Networking and cross visits <i>Comment:</i>				25% / 25% cluster based workshop in good farming practices	50% / 50% Open day: cross visit of all learning groups. World biodiversity day workshop	75%	100%

6. Monthly team assessment

Indicators: Assessment March 2017:

Indicator	Overall target	Actual_Nov 2016	Actual_March 2017
No of participants in learning groups	100	108	55 (Homestead assessments, five fingers w/s and tunnel w/s)
No of learning groups	5	5	5
No of local facilitators	5		5
Percentage of participants engaged in CC adaptation responses	1-2 (45%) 2-3 (25%) >3 (10-15%)	1-2 (10%)	1-2 (85%) 2-3 (10%) – for this time period OVERALL: 1-2 (50%) 2-3(15%)
No of participants experimenting with new innovations			
-local	15	5	5
-co-designed	45		50
No of participants showing increased knowledge	80		28 (att reg 5 fingers workshop), 22 att reg tunnel w/s)
Percentage of participants engaged in collaborative activities	45%	-	-(25%) – building of tunnel and drip kit
Percentage of participants with improved livelihoods			
-increased availability of food	40%	-	-
-increased income	5%	-	-
-increased diversity of activities and livelihoods options	5%	-	-
Qualitative assessments; -stakeholder engagement -Increased understanding and agency to act towards increased resilience - Adaptation and innovations into local context -Potential for increased resilience -Social engagement	Stories, case studies, photos, cluster activity records, group session minutes,		Stories: -Making of trench beds, building tunnel and drip kit Oaks, Finale, Lepelle, Botashabelo, Sedawe -Rainwater harvesting storage assessments for Botshabelo

			<ul style="list-style-type: none"> - Mulching of Conservation Agriculture plots, planting cover crops - Implementation of innovations
<p>Understanding: Examples of people showing an increased understanding of CCA adaptation</p>	<p>Future dated question; explicit vs implicit? What qualifies as CCA vs good practises?</p> <ul style="list-style-type: none"> - Expression of knowledge and learning in five fingers workshop (15-16 March) for 5 of the 6 villages was very impressive. Participants talked about soil and water conservation, keeping the soil cool with plant cover and mulching, mixed cropping strategies conservation agriculture and grey water management. 		
<p>Actions: Examples of people showing an increased agency towards increasing their resilience</p>	<ul style="list-style-type: none"> - Experience with diversion ditches and trench beds show individual's learning regarding the importance of water and soil conservation strategies. Planting in the tunnel in Sedawe has clearly shown the advantages of climate control options 		
<p>Examples of increased potential towards resilience</p>	<ul style="list-style-type: none"> - Tunnel trench beds, diversion ditches, conservation agriculture, grey water management and use,.... 		

Project Life Change Questions:

1. *Do we have examples or stories of how we or others are in the process of adaptive management related to CC? (adapt, reflect and respond to....) and examples of what this adaptive management is?*

2. *Do we have stories that show innovation or lack of innovation towards positive change? What insights have we gained into how innovation can lead to positive change?(INCREASED RESILIENCE)*

About 50% of participants have tried out some of the new innovations introduced and are able to clearly articulate the potential benefits of these practices.

3. *Do we have stories that show evidence of, or an interest in self organisation towards collective action? What insights have we gained into how self organisation can lead to collective action?*

Requests for meetings by the learning groups within their membership to discuss local issues have been made as has insistence on a transparent and community based process for election of local facilitators.

4. *Do we have stories to show that learning together is happening or that there is an interest in learning together? What insights have we gained about how to learn together?*

New individuals join the learning groups throughout the process. Learning groups have requested to have meetings among themselves to discuss some of their local issues. Learning groups have insisted on group meetings to ensure transparency and accountability within the group. Election of local facilitators (LFs) is seen as an important step for the groups who have all taken this process seriously and insisted on LFs being neutral politically but representative of the group members.

5. *Do we have stories of how we and or others are able to think systemically? What insights have we gained?*

Participants are starting to see the value of and links between the different innovations introduced- such as diversion ditches, trench beds, mulching, tunnel drip irrigation and grey water management. Some have used furrows and ditches as planting methods within their conservation agriculture trials, as well as mulching and planting in of a diverse range of crops, including drought tolerant crops such as millet and sorghum. Others have designed their diversion furrows to feed trench beds. A few have worked in the tunnel and used grey water and furrows as management practices within the tunnel. I.

6. *Do we have stories of how we and or others are able to be inclusive and democratic? What insights have we gained about how this can be achieved? (STAKEHOLDER ENGAGEMENT).*

.....

7. Work Plans for the coming two months.

(See the attached calendar April 2017)

1. Election and initial training of Local Facilitators for each site is to be continued. They will continue to join the garden assessment and monitoring process, to get used to the kinds of questions asked of people and gain an understanding of each individual in their learning group. The garden monitoring form (based on the 5 fingers assessments) is to be translated into seSotho for easy use by LFs and Sylvester and Trygve are to provide on the ground mentoring support.
2. Learning will include Soil fertility for the villages where this has as yet not been conducted (Botshabelo, Willows and Lepelle); looking at nutrients, fertilizers, uses and combinations of manure, improved kraal manure, compost and liquid manures. A demonstration of liquid manures will be done as well as how to construct a shallow trench. Mulching will be prioritised as an important activity for all farmers.
3. Learning will also include: Mixed cropping and natural pest and disease control; inter-cropping, multipurpose plants and home- made pest control brews.
4. Garden monitoring will be initiated to assess implementation of new ideas and a gardening and experimentation plan for each householder will be completed. This will be started in the villages where LF's are now present; Sedawe, Botshabelo and The Oaks.

Attachment 1: Detailed upcoming milestone (Milestone 5) activity plans (April-May 2017)

2017		April				
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
27	28	29	30	31	01	02
03	04 WRC initiation	05 WRC initiation	06 WRC initiation	07	08	09
10	11	12	13	14	15	16
17	18	19 AWARD; Tzaneen - procurement plants, seedlings AWARD; 1 vehicle	20 AWARD: Veg production training village 1 AWARD; 1 vehicle, refreshments for w/s	21 AWARD: Veg production training 2 AWARD; 1 vehicle, refreshments for w/s	22 AWARD: Office, planning, photos, reports	23
24 AWARD: team planning meeting	25 AWARD; LF training and cross visit AWARD; 2 vehicles, refreshments for w/s	26 AWARD: report writing consolidation	27 AWARD: Veg production training village 3 AWARD; 1 vehicle, refreshments for w/s	28 AWARD: Veg production training village 4 AWARD; 1 vehicle, refreshments for w/s	29	30
01	02	Notes:				

2017

May

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
01	02	03	04	05	06	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22 AWARD Training and monitoring	23 AWARD Training and monitoring	24 AWARD Training and monitoring	25 AWARD Training and monitoring	26 AWARD: Office and planning meeting	27	28
29 AWARD: Monthly assessment and planning	30 AWARD Training and monitoring	31 AWARD Training and monitoring	01 AWARD Training and monitoring	02 AWARD: Office and planning meeting	03	04
05	06	Notes:				