



Progress Report

Version: September 2022

Grant code	
Project Title	Isimangaliso EbA
Grantee	Wildlands Conservation Trust
Subgrantees	Mahlathini Development FOundation
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Blue Action Fund Contribution	<i>EUR 146 668</i>
Match Funding	<i>Not applicable</i>
Report Compiled By	Erna Kruger
Date of Submission	25 th June 2024

Regular reporting is essential for Blue Action Fund to monitor the progress of the projects it funds. Each project reports biannually through the workplan in conjunction with the funding advance request as well as the progress report. In addition, only on an annual basis the progress report should be accompanied by Annexes A - F. These progress reports are needed to:

- Monitor project progress
- Analyse the overall programme of Blue Action Fund
- Collect information/data to allow Blue Action to report to its own donors
- Communicate project's impacts and highlights to donors and other stakeholders
- Draw lessons learned and compile these for knowledge exchange on marine conservation and sustainable livelihoods
- Serve as the basis for a progress call between Blue Action and the grantee

¹ This should be a six-month period. With the exception of the information provided in the annexes (which are only submitted on an annual basis) all contents of the progress report should refer to accomplishments and developments of the last work period only, i.e. the last six months.

If you are submitting this progress report with the annexes constituting the annual report, please indicate the annual period dates in the annexes.

In case of an annual report, the narrative part corresponding to the first six months of the year is to be found in the progress report for that period.

1) Progress report summary

Below is a summary of activities to be undertaken by MDF (as per the FAR and workplan)

Activity 5.4.1	Intensive small-scale farmer training and support. Homestead. Provide intensive small-scale farmer training and support
<i>Deliverable 5.4.1.a</i>	<i>40-60 small-scale farmers trained and supported (MOV: training/attendance registers).</i>
<i>Deliverable 5.4.1.b</i>	<i>1 x 2.5-day CCA workshop and 5x training days per hub - Intensive regenerative agriculture training and mentorship workshops held at the homesteads and at the Community Resource Hubs at the beginning of each site intervention: 1 in year 2, 2 in year 3 and 1 in year 4. (MOV: workshop registers, photographic evidence, course outline). Twenty-five participants each.</i>
<i>Deliverable 5.4.1.c</i>	<i>15 farmers per site supported with intensive production and water management infrastructure and support. (MOV: photographic evidence)</i>
Activity 5.4.2	Train the trainer: WILDTRUST Hub staff will be incorporated into all initiation activities to ensure they are able to maintain the hub demonstration gardens, provide additional support to community members in between Mathathini staff visits, and provide basic practical demonstrations off CCA gardening to community members visiting the hubs.
<i>Deliverable 5.4.2.a</i>	<i>Four (4) hub teams trained and mentored to be future CCA mentors (MOV: training registers, course outline).</i>
<i>Deliverable 5.4.2.b</i>	<i>Four (4) climate-smart demonstration gardens established, one (1) at each hub site, maintained by Hub staff (MOV: photographic evidence).</i>
Activity 5.4.4	Climate-smart agriculture technique demonstrations. YES youth employed by WILDTRUST, that are trained as trainers by sub-grantee Mahlathini, train an additional 200+ community members in mini-demonstrations of climate-smart agriculture techniques during the project. 4 demonstration days per hub x 5 in total, 50 people at each demonstration
<i>Deliverable 5.4.4</i>	<i>Two hundred and fifty community members trained by YES team in climate-smart agriculture techniques (MOV: Attendance registers)</i>
Activity 5.4.5	Facilities to support climate-smart agriculture. Establish facilities to support climate-smart agriculture
<i>Deliverable 5.4.5</i>	<i>Five (5) communal boreholes established at 5 primary community areas for garden support and drinking, and seed tunnels and seedling provision support at each community Hub (MOV: photographic evidence).</i>



Project Subcomponents	Status ²	Implementation progress ³ (%)
Component 1: Coastal ecosystems, which are particularly relevant for climate change adaptation, are better protected and managed in a more sustainable way		
Sub-Component 1.3: Funding for measures to reduce pressure and land-based stressors on coastal and marine ecosystems (in and outside protected areas)		
Activity 5.4.1 Intensive small-scale farmer training and support.	Activity Started - ahead of schedule	9%
<ul style="list-style-type: none"> - Baseline surveys conducted and compiled – including vulnerability assessments and identification of households -2 x 2,5 CCA workshops with community members (Mabibi, Nkovukeni) -1 x Climate resilient agriculture training day at Nkovukeni and Mabibi Hubs, 1 training day in Mabibi (tower gardens) and 2 training days in Nkovukeni community (tower gardens, trench beds) -15 farmers in Nkovukeni supported with materials for tower gardens 	<ul style="list-style-type: none"> -2 x 2,5 CCA workshops with community members (kwaDapha, Sokhulu) - 1x climate resilient agriculture training day at hubs (Mabibi, kwaDapha, Sokhulu) - training days at kwaDapha and Sokhulu 	
Activity 5.4.2 Train the trainer.	Activity Started - progress on track	0%
-ToT workshop with YES youth at Nkovukeni Hub	<ul style="list-style-type: none"> -ToT workshops in CCA with Hub staff from 2 further hubs -Design of demonstration garden process for implementation 	
Activity 5.4.4 Climate-smart agriculture technique demonstrations.	Activity Not Yet Due	0%
	-1st day community and hub level training and demonstration for 2 hubs	
Activity 5.4.5 Facilities to support climate-smart agriculture.	Activity Not Yet Due	0%
	-Process for setting up seedling tunnels initiated at Nkovukeni hub	

² Activity Not Yet Due; Activity Started -ahead of schedule; Activity started – progress on track; Activity started but progress delayed; Activity start is delayed.

³ Implementation progress on a cumulative basis as of the date of the report.

2) Narrative report (Jan-June 2024)

2.1 Small scale farming training and support: Household and Hub

For each activity, please provide an update on progress during the past work period, including key accomplishments, impacts, highlights, any delays and issues encountered, key milestones reached, lessons learned, positive achievements, etc.

2.1.1 Main activities

BAF number	Date	Description	Persons	Time
5.4.1a and b	2024/01/22-26	Finance meeting in Dbn Meeting with full TC's for 4 villages: Enkovokeni, kwaDapha, Mabibi, Sokhulu	Erna Kruger Mazwi Dlamini	5 days 5 days
	2024/01/28	Finances, admin, narrative report Sokhulu	Erna Kruger	1 day
	2024/01/31	Invoicing, narrative report	Erna Kruger	1 day
	2024/02/02	Preparation of materials for CCA ToT	Mazwi Dlamini Tema Mathebula	1 day 2 days
	2024/02/05	Alignment of baseline survey form with requirements	Mazwi Dlamini	1 day
	2024/02/07	IMA, Wildtrust MDF meeting on agricultural interventions	Erna Kruger Mazwi Dlamini	1 day
	2024/02/20	Wildtrust, MDF, IMA mapping meeting	Erna Kruger Mazwi Dlamini	1 day
	2024/02/26-28	Preparation for household mapping and setting up financial reporting systems	Erna Kruger Mazwi Dlamini	2 days
	2024/02/29	Visit to Sociotech sites in Sokhulu in preparation for baselines	Mazwi Dlamini Nqobile Mbokazi Tema Mathebula	1 day
	2024/03/01-08	Household mapping and baseline surveys in Nkovukeni, Mabibi and kwaDapha	Mazwi Dlamini Nqobile Mbokazi Tema Mathebula Erna Kruger	8 days
	2024/03/14	Monthly BAF finances	Mazwi Dlamini Erna Kruger	1 day
	2024/03/28-30	Nkovukeni vulnerability assessment preparation. SAEON presentations sharing and pre for workshops, Baseline reports	Erna Kruger	3 days
	2024/04/01-05	Preparation of learning inputs and materials, planning for CCA workshops, Monthly BAF finances	Erna Kruger Mazwi Dlamini Tema Mathebula	5 days
	2024/04/08-12	Baseline surveys kwaDapha and Mabibi continued, CCA workshop day 1 Nkovukeni	Mazwi Dlamini Nqobile Mbokazi Tema Mathebula Erna Kruger	5 days
	2024/04/15-19	Capturing baselines	Mazwi Dlamini Nqobile Mbokazi Erna Kruger	5 days
	2024/04/23-26	Baseline reports continued	Erna Kruger	4 days
	2025/05/07-09	Collaboration with UKZN for joint baseline survey for Sokhulu	Erna Kruger	3 days
5.4.1a,b,c	2024/04/26,29-30 and 05/01-03	Preparation for training workshop 1 (materials and inputs for tower gardens), CCA workshop day 1 Mabibi, CCA workshop day 2 Nkovukeni.	Mazwi Dlamini Nqobile Mbokazi Tema Mathebula Erna Kruger	6 days
	2024/05/09, 16	BAF monthly finances and procurement	Erna Kruger Mazwi Dlamini	2 days
	2024/06/19-29	ToT for YES youth in Nkovukeni, 1 st demonstration day. Mabibib CCA workshop day 2, demonstrations and 1 st training day, CCA workshop day 1 and 2 kwaDapha	Mazwi Dlamini Nqobile Mbokazi Erna Kruger	11 days

2.1.2 Mapping and baseline surveys. Narrative reports:

Further, detailed information was gathered for 3 villages within the iSimangaliso WP to augment information from initial visits. Individual household interviews were conducted between March and April 2024: 19 in Nkovukeni (37% men and 63% women), 25 in kwaDapha (60% men and 40% women) and 22 in Mabibi (45% men and 55% women). Interviews were conducted jointly between MDF and Wildtrust hub staff.

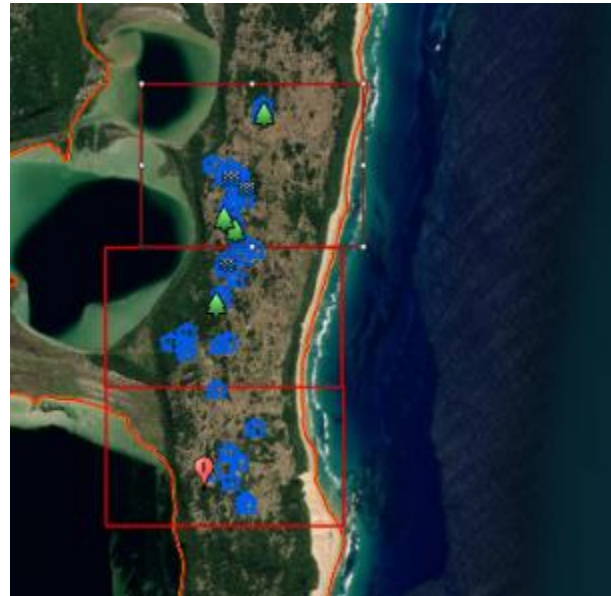


Figure 1: Example of a map providing initial household numbers for Nkovukeni, which was used and refined during the baseline survey process

The remaining households in each area was later interviewed by Wildtrust staff and information from these forms still needs to be included in the initial analysis undertaken.

For Sokhulu, 8 villages situated outside the southern border of the Isimangaliso WP a joint survey was designed and administered between UKZN and Mahlathini. Around 200 households were interviewed, and these forms are in the process of being coded for analysis.

Below are summaries of information presented in the baseline reports submitted to the Wildtrust.

Demographics

Detailed information was obtained from interviewees regarding adults and children living in the household, spending more than 4 nights per week at the homestead and eating meals there. The population of Nkovukeni is roughly 200 individuals living in 35 households. The population of Mabibi is roughly 610 individuals living in 111 households. The population of kwaDapha is roughly 240 individuals living in 45 households. The proportion of female headed households is significant for all three villages, but highest for Mabibi at 59%, average of Nkovukeni at 49% and lowest at kwaDapha at 32%.

The small table below compares proportions of age groups represented in each village with the statistical average for rural South Africa.

Table 1: Demographics for the 3 Hub villages in the iSimangaliso WP (April 2024)

Age group in years	StasSA %	Nkovukeni %	kwaDapha %	Mabibi %
0 -14	28,8	21	31	28
15-34	35,1	32	39	37
35-59	27,1	41	21	27
>60	9	6	9	8

For Nkovukeni the age groups are skewed towards active adults 35-59 years of age, with smaller proportions of very young people and pensioners, which is due mostly to the inaccessibility of the area (no road access), as well as lack of services (healthcare). In kwaDapha and Mabibi the demographics are skewed towards a larger proportion of youth 15-34 years of age, which is mostly an outcome of youth job creation processes in these

villages. In effect the families from these areas did not fully relocate when the Park was formed but have also kept their homesteads in the park going, with the people most able to benefit from the situation living there. The proportion of homesteads which do not have ties to homesteads outside of the park is very small, estimated at <10%.

Incomes and livelihoods

The per capita incomes for each household surveyed have been compiled in the table below, compared across three Hub villages.

Table 2: Per capita incomes for household members living inside the iSimangaliso WP, April 2024

Per capita income	Nkovukeni %	kwaDapha %	Mabibi %
<R1 558/month	95%	92%	68%
<R800/month	37%	40%	45%
R800-R1000/ month	21%	24%	18%
R1175-R2260/month	42%	36%	23%
R3100-R7300/month			14%
Female headed household average	R970	R1 192	R1 530
Male headed household average	R1 061	R931	R1 870

The percentage of individuals living below the national upper-bound poverty line is exceptionally high in Nkovukeni at 95% followed closely by kwaDapha at 92% and Mabibi at 68%. The latest figure for South Africa as a whole was 55%⁴ in 2014. The proportion of households who are considered destitute are indicated in red and constitutes around 40% of households in each village. In Mabibi, which is larger and also where more diverse livelihood activities are undertaken, and which has the most access to services around 15% of households realize a per capita income of >R3000/month. This is not the case for the two northern villages. Mabibi is the only village of the three where any individuals living in and attached to these households are employed, as shown in the table below.

Table 3: Source of incomes per village ranked in order of importance, April 2024.

Source of income in order of importance		
Nkovukeni	kwaDapha	Mabibi
Pensions	Small businesses-homestays, spazas	Employment
Contract Wildtrust	Contract Wildtrust	Contract Wildtrust
Contract iSimangaliso	Contract iSimangaliso	Contract iSimangaliso
Child grants	Fishing-contract	Fishing
Small businesses	Pensions	Small businesses
Fishing	Remittances	Remittances
Remittances	Child grants	Pensions
Selling reeds	Selling reeds	Reeds/craft
Local farm produce	Local farm produce	Local farm produce
Food aid.	Food aid	Child grants

The most significant income opportunities are linked to short term job-creation programmes run by both the Wildtrust and iSimangaliso, employment, small businesses and fishing. Incomes from coastal harvesting and fishing. Income generation from use of natural resources such as fishing (45%), fish kraals – Nkovukeni only, (35%) and coastal harvesting (65% for Nkovukeni and 32% for kwaDapha) is common in the villages. Only 18% of households do not engage in these activities. Incomes however are generally low and use is primarily for food. In addition, fishing is primarily an activity of the men in the village and coastal harvesting (mussels and red bait) is undertaken by women. Harvesting of reeds and grass and making of craft is undertaken by around 36% of the households. The few

⁴ World Bank. Poverty and equity brief. South Africa. April 2023

households involved in homestays, presently in kwaDapha, earn significantly higher incomes than most other potential income sources in these villages.

Food shortages are reasonably common in the community, with around 50% of households suffering from seasonal shortages for 2-4 months of the year and around 17% suffering from too little access to food on an ongoing basis, in Nkovukeni and kwaDapha but not Mabibi, where households are more food secure.

Agriculture

The summary table below indicates the percentage of households in each village involved in a range of agricultural activities.

Table 4: Percentage of households involved in a range of agricultural activities linked to the scale of each, April 2024.

Activity	Nkovukeni		kwaDapha		Mabibi	
	% of HH	Units	% of HH	Units	% of HH	Units
Household cropping (dryland)	35%	188m ²	32%	150m ²	27%	200m ²
Vegetable production (community garden)	59%	200m ²				
Vegetable production (household)					18%	200m ²
Lake edge gardening			12%	150m ²		
Fruit production	53%	1-4 trees	52%	1-4 trees	64%	1-4 trees
Poultry	24%	4 chickens	20%	6 chickens	41%	7 chickens
Goats	41%	10 goats	28%	7 goats	9%	4 goats
Livestock	16%	10 cattle	12%	6 cattle	9%	5 cattle

Around 60% of households across the three villages are involved in cropping activities, primarily dryland or wetland based. A much smaller percentage, roughly 15% undertake individual vegetable production activities. Cropping areas are extremely small throughout averaging around 350m² per household. Access to agricultural inputs, seed and seedlings is severely limited. Round 56% of households have a few fruit trees in their yards- but harvests are severely restricted by predation from birds and monkeys. Livestock production is also limited with households owning a few chickens (heavy predation), goats and cattle. Agriculture is predominantly undertaken on a subsistence level for household food production and local sales of small, sporadic surpluses.

Infrastructure

The table below summarizes access to different levels of infrastructure and services across the three Hub villages

Table 5: Access to infrastructure and services for 3 Hub villages in iSimangaliso WP, April 2024

Infrastructure type	Description	% HH		
		Nkovukeni	kwaDapha	Mabibi
Fencing	Self-constructed, makeshift	42%	32%	77%
Dwellings	Brick and cement	76%	76%	100%
	Reed	35%	56%	14%
Energy	Solar	42%	60%	0%
	Electricity	0%	0%	100%
	Gas	37%	8%	0%
	Candles	32%	32%	0%
	Firewood	100%	100%	77%

Sanitation	None	68%	51%	0%
	Pit latrines	22%	45%	100%
	Septic tanks	0%	4%	0%
Water	RWH-200l drums	100%	24%	55%
	RWH 2400l Jo-Jos	94%	64%	73%
	Communal borehole	68%	24%	100%
	Spring	5%	0%	0%
	Own borehole	0%	52%	0%
Access	Roads	0%	100%	100%
	Lake	100%		

Mabibi has the greatest access to services and infrastructures with 100% of households having access to electricity, water and sanitation, a situation which is almost reversed in Nkovukeni and kwaDapaha which rely heavily on solar, gas and candles for energy, have around 60% of households without any sanitation, and have to rely heavily on rainwater harvesting for household access to water. In Nkovukeni there are no individual boreholes, while around 52% of households in kwaDapaha have their own boreholes.



Figure 2: A view of the different types of households in Nkovukeni – above reed dwellings and below -well constructed houses with RWH and fenced yards.

Firewood harvested from the surrounding bush and forests is used extensively in all three villages, with a 30% reduction in use in Mabibi where households have access to electricity.

As mentioned before, there is no road access to Nkovukeni and people need to cross the lake on foot or by boat. Road access to Mabibi and kwaDapaha consist of deep sandy tracks, unsuitable to most vehicles without 4x4 capability.

This table is indicative of why community members in these villages are calling for services and infrastructure development. The combination of lack of services and infrastructure and curtailing of resource harvesting and use, without provision of long term and sustainable alternatives is leading to over-harvesting of resources and severe vulnerability of households, specifically in the more northern parts of the park.

Relationships with the iSimangaliso MPA are strained. A recurring comment from community members was that the rules imposed are restrictive and abusive and that control has been heavy handed in the past. Throughout a call for discussion with the iSimangaliso authorities and better information provision from them was heard. Community members on the one hand appreciate the protection of the natural environment, and on the other feel that nature is seen as more important than people and that they are unable to make a living given the restrictions on resource use. They appreciate the short -term job opportunities and food parcels as these have been crucial given the constraints on other land use options in the area. Requests for support have included more job-opportunities not just for youth, improvement in living conditions, electricity, toilets, improved road access, a bridge across the lake, RDP houses and a high school, shops and seeds for planting. Requests also included support for tourism activities and support for the women's cooperative to access a

tent and chairs for events. There were also a requests to lift the restrictions on agriculture to allow people to make a living from farming.

2.1.3 Recommendations for intervention from baselines

Below bullet point lists have been prepared from comments and requests from community members, linked to observations from the field team in the villages.

Nkovukeni

- Given the small group of young children between the ages of 0-6 years – demand for a creche may not be very high, but crucially should be combined with additional support for primary school children (sanitation, housing, energy, nutrition, health and education)
- Job opportunities for the age groups of 35-59 years need to be given priority as this is also the group most reliant on natural resources in the area to survive and the main breadwinners in these households.
- Provision of basic sanitation and WASH education and services should be a priority.
- Significant support with rainwater harvesting is crucial.
- Support for and development of options for solar energy would alleviate a lot of the present discomfort.
- An improved system for provision of fuel for pumping water and distribution of water to households should be given attention. Presently only those households who can afford fuel for pumping and who are reasonably close to the borehole have access.
- An improved system for delivery of gas can make a huge difference.
- Systems for provision of monkey and hippo proof fencing/cages for both food production and poultry husbandry could assist to provide improved yields and better livelihoods support.
- Systems for improved water management and grey water management can relieve some of water shortages at household level.
- Better land use management in the wetland community garden is important for improved production and protection of the wetland.
- Access to the community is an issue that needs innovative solutions, as presently neither a road nor a bridge across the lake are viable options. Construction of stabilised paths to allow carts could be one option.
- iSimangaliso to engage more constructively with the community in terms of information provision, outlining rules and regulations and appreciation for the livelihoods constraints of the community members.

kwaDapha

- Job opportunities for the age groups of 35-59 years need to be given priority as this is also the group most reliant on natural resources in the area to survive and the main breadwinners in these households.
- Provision of basic sanitation and WASH education and services should be a priority.
- Significant support with rainwater harvesting is crucial, especially for those households which do not already have JoJo tanks.
- Support for and development of options for solar energy would alleviate a lot of the present discomfort.
- An improved system for delivery of gas can make a huge difference.
- Systems for provision of monkey and hippo proof fencing/cages for both food production and poultry husbandry could assist to provide improved yields and better livelihoods support.
- Systems for improved water management and grey water management can relieve some of water shortages at household level.
- Taking the pressure off the fishing and coastal resources is a priority.

- iSimangaliso to engage more constructively with the community in terms of information provision, outlining rules and regulations and appreciation for the livelihoods' constraints of the community members.

Mabibi

- Job opportunities for the age groups of 35-59 years need to be given priority as this is also the group most reliant on natural resources in the area to survive and the main breadwinners in these households.
- Focus on improved agricultural practices for intensification of household food production is important.
- Diversification of agricultural activities to improve synergy between soil, water, plants and animals in this system, to improve production and productivity
- Significant support with rainwater harvesting is crucial, especially for those households which do not already have JoJo tanks.
- Systems for improved water management and grey water management can relieve some of water shortages at household level.
- Taking the pressure off the fishing and coastal resources is a priority.
- iSimangaliso to engage more constructively with the community in terms of information provision, outlining rules and regulations and appreciation for the livelihoods' constraints of the community members

2.1.4 Climate change adaptation workshops

These workshops are undertaken with community groups over a period of 2 to 2,5 days and includes an assessment of climate change impacts, Seasonality diagrams (temperature and rainfall) to visualize changes, discussion of scientific and community understanding of changes that are occurring, practices and activities in the villages in the past, present and future. This is followed by suggestions for adaptive strategies from the community augmented by discussions on potential adaptive practices in relation to water, soil crops, livestock and natural resources. From there community members prioritize practices that they would like to try out and the process moves into demonstrations and training related to the practices.

In Nkovukeni the 2-day process also included a process around a participatory vulnerability assessment.

Nkovukeni CCA workshops (10th and 30th of April 2024)

On day one 18 women participated and on the 2nd day 23 participants (18 women and 5 men) were in attendance.

Nkovukeni CCA workshop : Day 1

*Figure 3:
Participants for
the Nkovukeni
CCA focus group
discussion 10th
April 2024*



Workshop outline

- **Community and team introductions:** Introduction of the organisation/s and purpose of this workshop- link to already ongoing activities if possible and introduce visitors and other stakeholders involved. Climate change as a concept, people's concept of it. And overall impact, difference between weather and climate.
- **Past, present and future:** Whole group discussion on what people are presently doing... in all livelihoods (including farming, resources use, etc) - how does this compare with past and future
- **Presentation on scientific information re CC for the area:** SAEON Maputuland presentation for research conducted around lake Sibaya
- **Summary of impacts and possible solutions:** Plenary discussion summarising points raised and further additions regarding climate change impacts and possible adaptive strategies, (including what people in the area are already trying/doing).
- **Participatory poverty assessment:** Presentation of summary information for the Nkovokeni baseline surveys conducted. Plenary discussion around group-based wealth ranking for all households – to assist in targeting beneficiation from different aspects of the EbA programme

Community and team introductions

MDF outlined their role as support for climate resilient agriculture activities and working with new ideas and practices that can assist in intensifying production, with the aim also to reduce the pressure on the natural resources in the area. MDF is one of a number of partners and sub-projects, including also craft, tourism, small business development, and specific support to vulnerable women and children.

Community members introduced their daily activities and farming being undertaken in the village. According to the participants, everyone in the village is planting, mostly in the gardens next to the lake as there is no water at homestead level. Crops include sweet potatoes, potatoes, amadumbe (taro), cabbage, onions, spinach, green peppers, carrots, beetroot, lettuce and tomatoes. These communal gardens need to be fenced and the community can only afford to do this in a small area, meaning there is presently only one small garden being actively used. They would like to increase the size of this garden. Some households also keep livestock like goats, but they die easily, and people are unsure about whether it is a lack of grazing or other causes. Three households in the village own livestock. Women need permission from their husbands to sell livestock. Some households also keep traditional chickens, but they are heavily predated, so they cannot build up their flocks. Some of the women harvest incema (reeds) and sell these to people in neighbouring villages. They make grass mats, but there is no market for those. The men do fishing, both in the lakes and in the seas. There are many fish species, also including lobsters, freshwater prawns and abalone. Women mainly do harvesting of mussels and red bait and in some cases crabs – although they are a little afraid of the large ones.

Most households have fruit trees such as mangoes, guavas, oranges, lemons and avocados, but the monkeys now destroy their harvests almost entirely. People also harvest wild fruit. Some traditional medicine and bulbs are harvested from the veld and coastal forests, but availability of these has been decreasing in recent years.

Responses related to participants' knowledge regarding climate change included that it is caused by industry and smoke that builds up in the ozone layer. One participant talked about clouds building up in different places and bringing rain to this village, that is different from the past. One lady emphasised that everything has changed, rain doesn't come in July as in the past and one just has to work out when to plant and also society has changed, women have children even at the young age of 13yrs, not waiting until their early 20's as was the case in the past.

This was followed by a short discussion on the difference between weather and climate, although from participants' responses they are already aware of this distinction.

Below is a summary of the changes in climate that participants mentioned:

- It is so much hotter, even now in April it is still very hot-difficult to tell the difference between winter and summer.
- Rainfall at different times, unusual for it to be raining in April, as rain usually ends in February.
- Tides have changed, higher tides than before, even low tide is higher than in the past, so it is difficult to do the coastal harvesting and more difficult to cross the lake on foot.
- These days in the fishing areas, there are very few fish – even the fish kraals are being inundated...making them a lot less effective.
- Where the lake meets the sea, more salty water is being pushed up into the lakes, which is changing the number and types of fish in the lakes themselves.

Past, present and future-trends in land use and livelihoods

PAST

- Before iSimangaliso there were many more households in the area, the villages from kwaDapha stretching to Nkovokeni were continuous with households throughout. Even though there are now so few households left, there is still overuse of resources as people come in from outside.
- In the past when we planted next to the lake, we could deal with the hippos that were present, by making fires along the lake edge at night. Now that there are more people and more planting, more hippos are coming, and this strategy does not work anymore.
- Back in the days, when there was flooding along the lake edges and erosion of the sand, we would make small terraces using logs to catch the soil and create spaces for planting.
- Our diet was different; sorghum, maize, peanuts, juko beans, cowpeas (now eaten by monkeys). We used to make a meal with cowpeas, peanuts and chillies. Even made 'vetkoek' with these ingredients. We also grew cassava (indumbula), sweet potatoes, pumpkin, amabece (traditional gourds), and harvested indigenous fruit such as Natal Mahogany.
- It has become more and more difficult to grow maize- soil is now washing away.
- We also used to grind our own maize meal – didn't make puthu, which only came in as a practise later – used to grind it and make soup/gravy.
- We also used marula to make nuts.
- Also grew imfe (indigenous sweet reed)
- Most of the areas we grew on are now gone or have reverted to forest. Forest has also grown up in areas where it was not before.
- We also used to build smaller fish traps, not just the few remaining permanent fish kraals. There was a lot more fish and we used to be able to make a living trading fish caught. When more and more people started to try and catch fish for sale the fish populations declined.
- We used to use rituals and slaughtering of cattle for calling rain. Also, ceremonies at a big rock at Kosi Bay mouth. These days, such ceremonies are very uncommon.

PRESENT

- Diseases have increased a lot; HIV/AIDS, high blood pressure, diabetes, COVID, arthritis, cancer – all due to our diets changing- not eating healthy now.
- People are not planting, mainly because of the animals- people have been discouraged.
- The main problem is not climate change here- as there is still rain. We need some solutions for animals, so that people can go back to planting.
- There is more rain than in the past, which is good for collecting rainwater as there no boreholes or taps.
- At the homes the problem is monkeys and bush-pigs– there is also no water which is only down at the fields, and they would need to fetch water from down at the bottom to garden at household level.
- There are more people, which has attracted more wild animals. Also now, everyone is doing their own small plots separately instead of trying to work together in one large area, which was much easier in terms of management of wild animals. Also, as everything was in one place, the damage to the environment was smaller.

FUTURE

- We will remain here, and others will return.
- We need to be taught about what the solutions are for climate change and what we can do to continue to survive.
- As you have come here and interviewed us, now we are supposed to come up with a solution together, not chase us away from here.

Presentation on scientific information

This information was graciously provided by the SAEON team (Ms Sue van Rensburg) and is attached to this report. In summary, we talked to the scientific understanding of climate change and showed the cumulative impacts of extensive tree plantations, loss of wetlands and climate change on the system- drying of lakes (Lake Sibaya water level has dropped by 4,5m) and loss of wetlands (60% reduction in area) leading in some cases through inappropriate land use and burning – to long-term burning of peat fields in the region. The modelled projections are continued drying of the lakes (which are rainfed rather than being fed by rivers), if large scale reduction in the area under plantations and restoration of wetlands is not undertaken, despite potentially somewhat increased levels of rainfall. The participants were somewhat alarmed as to the reasons for the drying of the lakes and the potential for this to continue. They made a number of remarks about the plantations and that not that many people are involved there, but those that are would likely not agree to remove those trees. They mentioned that some people are aware of the dangers of burning in the wetlands and do not do that in Nkrovokeni. It is mostly the herders for the livestock owners that go about burning veld and other areas and the community has little control over this practise.

Possible solutions- adaptive strategies

The process started out as list of requests for assistance, but with some explanation of how MDF is planning to intervene – including trying out new ideas and supporting the more vulnerable households the following ideas were suggested:

- Awareness programmes, including those planting gum plantations to see if people have a change of heart and will remove some of those trees.
- Help us with fencing- for hippos and bush pigs.
- We need hand hoes.
- Are you saying you will come up with things to help us, or we must do it? MDF to work together to work on solutions...
- We are living at the top; water is at the bottom. We need ways to bring water closer to us- we know it is impossible, but getting water closer to people that will help.
- If there is water closer to our homes, then we wouldn't need to go down there. What are options – maybe another borehole, small dams, more Jo-Jos etc.
- In zone 1 there is a borehole that was damaged and is not in use. There is the present community borehole and there is a 3rd one on the other side- that one is still functional. If we fix the two existing boreholes and bring water closer to the households that would be a good solution for us. We do not need to start from scratch.
- Wild Oceans brought the water from the header tanks here to the hub. Maybe if we can find a way to get the water closer to the households from the hub, that could help as well.
- Possibly introduce new crops like for example broccoli, potatoes, beans, cucumber, okra, brinjal, macadamia nuts, udhali (pigeon pea) and red onions.
- We would like to try out layer hens for egg production.
- We have heard about grey water but are reluctant to use it...soap will kill the plants. MDF mentioned that there are ways in which you can work with this- for example clearing the water with ash – or using stones and sand filters, etc.

Participatory poverty assessment

MDF started this session by discussing the intention of the programme to support the vulnerable people in the community and the need to understand the poverty status of all

households in the village to ensure equitable benefit from the different aspects of the programme being provided.

The overwhelming response to this was that everyone in the village is poor and a question as to whether some people would not receive help. One older lady emphasised that people may be living in a house that looks nice but can have nothing inside and not have enough food to eat. Another lady mentioned that they once received seed for planting and in that case, everyone was provided with seed and that they would like that to happen again.

Despite recognising that some of the unhappiness in the recent selection of youth for short term jobs was due to a difference in understanding and criteria as employed through the project and used by the community and recognising the importance of having their opinions included in decision-making, the group did not feel comfortable ranking households into wealth categories. The group agreed unanimously that MDF should decide on who benefits and that they trust MDF to make the right decisions. They added that it would be too difficult for them to make these decisions as everyone wants to be able to benefit and that could cause tensions in the community.

A summary presentation was then provided on the results from the household survey and ratified by the participants:

- Around 90% of households in the village live below the national poverty line.
- The most vulnerable households are: Households where most to all adults are unemployed, women headed households, households with members living with disabilities, young single mothers, households with a large number of small children between the ages of 0-6yrs and households where no grants are received ('Missing middle' between ages of around 45yrs-60yrs who do not receive child grants or pensions).
- Households where more than one member has short term contracts through iSimangaliso and or WildTrust are better off than others in the short term, but it doesn't help much for longer term income stability.
- Basic access to services is extremely limited and includes, water, energy, sanitation and roads (community access)

This led to a lively discussion around gas and electricity. One lady gave an example of the costs associated with getting a gas bottle replacement – which included a taxi to Manguzi (~R100), a boat across the lake (~R700) and a porter to their home from the lake (R60), meaning a payment of R860 on top of the price of a gas bottle. People were very excited about an option to discuss alternatives, of working together, or getting a gas bottle outlet closer to their community or through the hub.

With solar energy the discussion was around the fact that the batteries that they purchased 'died' quite quickly and now they have no lighting at night – only charging straight from the panel during the day. If there were charging stations for batteries at the hub, that would assist a lot. The women were keen to discuss options for learning about solar energy, different charging options, rental of equipment and batteries and solar lights. They mentioned that they are aware that there is a lot of technology 'out there' that they do not know about but would be grateful to be introduced to.

[Nkovukeni CCA workshop: Day 2 \(30th April 23 participants\)](#)

This day was a combination of a presentation of climate change adaptation proposed activities and practices across the themes of soil, water, and crop management along with soil fertility and taking care of indigenous environment as well as a demonstration of one of the practices; tower gardens (greywater management). The demonstration was undertaken at a homestead close to the hub.

MDF field and hub staff collectively ferried inputs across the lake in the community boat and up the steep slope all the way to the hub; this included gravel, droppers, shade netting, seedlings, and refreshments.



Figure 4: MDF field and Wlldtrust hub staff ferrying inputs across the lake

Climate Resilient Agriculture practices

One of the key objectives of the workshops is to build capacity among individuals and the community of Nkovukeni to effectively respond to climate change challenges. Through the interactive sessions from these workshops, participants gain insights into various adaptation strategies such as ecosystem-based approaches, technological innovations, and community engagement initiatives.

The workshop opened with a short recap of workshop 1, which was an introduction to climate change and its impacts on nature, human life, and rural livelihoods. In the first workshop it was highlighted that the reality of climate change necessitates a shift in the way people interact with their environment and has increased the urgency to formulate solutions which will ensure long term sustainability and resilience.

As the purpose of this workshop was to present possible CRA practices, the group was asked to share the main factors they consider when preparing for their farming activities. This exercise was aimed at understanding their thought processes and ideologies that inform their farming practices. The responses focused primarily on procurement of inputs, water access and land preparation. When probed on the practices they use when farming, the group shared that planting is done mainly by hand and they use manure to boost fertility. In terms of water access, the group shared that this is a major challenge which is why they prefer planting closer to the lakes and wetlands.

Following the above discussion was the presentation of CRA practices where the core principles of sustainable farming were outlined which included: low use of external inputs, maximising diversity, improvement soil health and fertility, water conservation as well as collaboration. It was explained to the group that farming goes beyond just obtaining food and raw materials from the soil, but humans also have a responsibility to replenish the soil and water resources if farming activities are to be sustained over time. The team discussed that climate change effects cannot be mitigated using a one-dimensional approach but require a holistic approach to strengthen farming resilience. The five-finger model of soil and water conservation was introduced which includes:

- Water management
- Limiting soil movement
- Crop management
- Soil health and fertility
- Taking care of indigenous plants

The discussion around the five-finger model was followed by a detailed presentation of the CRA practices which were grouped within the five categories. Under water management, practices included the building of tower gardens, check dams, underground rainwater harvesting storage tanks, diversion ditches and grey water use amongst others. In terms of limiting soil movement, practices such as conservation agriculture, diversion ditches, stone lines, contours and terraces were discussed. Practices under soil fertility included use of manure, liquid manure, eco circles, trench beds and intercropping with leguminous crops amongst others. The demonstration of the tower garden was facilitated after this plenary session.

2.1.5 One day trainings in climate resilient agriculture practices

This process consisted of a group demonstration of the practise followed by another day of working together on building tower gardens for 2 of the 10 participants who were identified by the participant group to receive inputs for these tower gardens.

Tower Garden Demonstration

The tower garden demonstration was held at Mrs Mita Vumase’s homestead. It was explained that a tower garden is a vertical planting system which allows planting to be done in different areas, on the sides and on top. It consists of a stone/gravel ‘pillar’ at the centre which is where irrigation is done. The stones help to filter out unwanted particles and soap from the greywater and spreads the water throughout the ‘tower’ It is a low-cost system which allows a farmer to grow a range of leafy vegetables such as spinach, kale, Chinese cabbage, mustard spinach and lettuce on the sides. Root vegetables such as beetroot and onion are grown at the top, as well as green peppers and tomatoes.

Figure 5: Right; Toward garden constructed with inclusion of leaves and organic matter to augment infertile, sandy soils of the areas



Due to the sandy soils in the area, one of the tower gardens had a thick layer of organic matter at the bottom to help keep some of the water in the garden. In another household there was a lot of dry leaves from trees in the yard that were mixed with soil and put in layers alternating with soil.



Figure 6: Above: Pictures of the tower garden demonstration session at Mita Vumase’s homesteads

The following 10 participants undertook to try out the tower gardens:

1. Elizabeth Ngubane
2. Jabu Ngubane
3. Gloria Zwane
4. Gugu Mathenjwa
5. Mita Vumase
6. Slindile Buthelezi
7. Khanyisile Sibiya
8. Ntombikayise Mlambo
9. Velisiwe Mthembu
10. Violet Sibiya

At the end of the workshop each of the 10 participants received their input packs to build their tower gardens. These included seedlings, a bag of gravel, poles and shade net. On Wednesday, the 1st of May the MDF team returned to Nkovukeni to assist some of the participants who expressed interest in the tower garden. They were requested to collect all the required materials the day before. Two tower gardens were built, and the shade net bags were sewn and dropped off at the hub for the seven remaining participants. Hub stuff and the

Enkovukeni WhatsApp group was used to relay the message for volunteers to collect their sown nets.

Figure 7: Materials divided and provided to the 9 remaining volunteer participants



Figure 8: Left; Voilet Sibiya, and Right; Elizabeth Ngubane with their two tower gardens planted with seedlings.



Mabibi Climate change adaptation workshop (2nd May and 20th -22nd June 2024)

CCA workshop : Day 1 (33 participants)

This was the first set of trainings held in Mabibi after the three levels of community engagement meetings. The group that attended was made up of twenty women and thirteen men which included the local *induna*.

Siphamandla Masuku the hub supervisor, was key in setting up this day where he contacted local leadership and helped to spread the word with regards to the workshop details. He also commandeered hub staff to assist with preparing lunch for the audience as the workshop was a full working day.



Figure 9: A view of CCA workshop participants at Mabibi hub, 2nd May 2024.

Upon introductions and welcome, the agenda was set as follows:

1. Team and Community Introduction
2. Purpose of the day (workshop)
3. Past, Present and Future
4. Scientific Presentation on Climate Change for this area
5. Seasonality Diagrams

The workshop outline, follows the same steps as that undertaken at Nkuvukeni . A workshop outline is attached in Addendum 1 of this report. Due to a late start, other activities happening in the area, the programme was again shortened slightly to accommodate the participants.

Team and Community Introduction

MDF team introduced themselves to the community of Mabibi, with emphasis on their role; implementing Climate resilient agricultural practices and new ideas in the adaptation to climate change through intensifying production and reducing pressure on the natural resources on the environment, more so in the ecologically sensitive iSimangaliso Wetland Park.

According to the community of Mabibi, 90% of the villagers are involved in agricultural activities where they have gardens, and some have cropping fields which are larger in size compared to their garden sizes. Popular field crops in the area are cassava, sweet potato, and peanuts. According to participants there is no specific time to plant cassava; they just plant it whenever they think there has been enough rainfall at that time. Other crops cultivated include maize, cowpeas and amadumbe (taro) as well vegetables such as onions, spinach, tomatoes, carrots, beetroot, lettuces, and cabbages.

Some of the households have fruit trees such as avocados, naartjies, oranges, mangoes and some of the indigenous fruits such as *Inkuhlu* and *amahlala*. They also have livestock including goats, pigs, cattle, broilers, and traditional chickens.

Men in the villages do fishing in the ocean and in Lake Sibaya. However fishing is seasonal in this community, they do fishing in September in the lake, but during high tides they fish on the ocean in a more ongoing way. They get different varieties of fish such as bream, and catfish and octopus which is said to be used as bait on the hook.

As per the community, climate change is evident through increased unpredictability in weather patterns. Temperatures have definitely seen an increase; it is getting hotter although there haven't been considerable changes in rainfall patterns. There have been organizations in the area talking to villagers about climate change before this. Participants were able to differentiate between weather and climate; weather being daily conditions and climate being changes in weather patterns over years.

Past, Present and Future

Past

- In the past there were crops which villagers used to plant, and they would grow very well but now it is difficult for them to grow (sorghum is one of those crops).
- There were plants that used to grow in the wild and we would harvest it for household consumption.
- We used to have wild potatoes.
- We used to see mushrooms but now they have disappeared.
- We used to harvest Sedwane (small tomatoes in the wild)
- All these things above are no longer present in the area.

Present

- We have noticed that it is getting a lot hotter now.
- Winter is having a short span now and not as cold.
- There are still community members who believe in agriculture, they have gardens, and some have livestock.
- Vegetables can grow well in these areas and livestock have adapted just fine.
- Most men practice fishing in the Lake and the Ocean and there is already fish stock pressure in the lakes.
- Lake water levels are dropping rather faster than it rains.
- More plantations than before.

Future

- If this climate change carries on like this, we are going to have more frequent droughts.
- Our crops will die due to lack of rain.
- There will be hunger in the community.
- Water sources will dry up even more and faster.
- The cattle pasture will dry up and this will be a huge problem to our livestock as it will increase mortality rates.
- Fish population will continue to decline.
- There is going to be new and bigger outbreaks of diseases.

Exploration of climate change in this area

The adapted SAEON presentation was given in Mabibi as well, talking to changes such as reduction in lake water level, loss of wetlands and burning of peat, exacerbated by greatly increased area under plantations, mining operations and destruction of wetlands and flood

- Conduct CCA workshop and training of trainers for 3 hubs and youth - Mabibi and kwaDapha/Nkovukeni –and plan for implementation of a demonstration garden at 2-3 hubs (set up garden plans, budgets for inputs and materials, procurement and workplan activities for each hub and submit to WildTrust)
- Training in soil and water conservation for Hub staff and communities for 3 hub villages (include tower gardens, trench beds, micro-tunnels, mixed cropping, mulching, drip irrigation, composting, crop diversification and seedling production, field cropping (conservation agriculture) (Min of 3 training days per village)
- Initiate local mapping of water sources and assessment of present boreholes and provide this as background documentation to employ a technical expert to site potential community boreholes.
- Start on creation of beneficiary lists for JoJo tanks- as well as batch order and delivery arrangements for these.
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Addendum 1: CCA workshop outline

Community level climate change adaptation exploration workshop outline					
DAY 1					
Time	Activity	Process	Notes	Materials	Who
9:00am	INTRODUCTION				
9:00-9:45am	Community and team introductions	who is in the room -	Depending on the size of the group, this can take a long time. If time is short, then just do a quick round of intro's.	Attendance register - with columns for farming enterprises (so that each participant can tick what they do) - in English and Zulu Name tags ; stickers, kokis	Facilitation: Tema, Recording: Nqobile
	Purpose of the day	Introduction of the organisation/s and purpose of this workshop- link to already ongoing activities if possible and introduce visitors and other stakeholders involved. Climate change as a concept, people's concept of it. And overall impact, difference between weather and climate...	talk to CC necessitating adaptation from us - we may need to change how we do things and what we do to - This w/s is to help us explore options for such changes	Flip stand, newsprint, kokis, data projector, screen, extension chords, plugs - double adaptors. Black refuse bags and masking tape (for blacking out windows), camera- and one person to undertake to take photos throughout the day. Extra batteries for camera and sim card	Materials: Tema and Nqobile Facilitation: Tema Recording: Nqobile
9.50	PAST, PRESENT, FUTURE				
9.50-11.00am	Discuss farming activities as they have changed , what they are now and what may happen in the future if the present trends continue	Whole group discussion on what people are presently doing... in all livelihoods - how does this compare with past and future SMALL GROUPS (5-10people): facilitated discussion on farming activities (include the 5 categories) - prompt for all five and keep conversation focussed OR Facilitate a shorter plenary discussion on how things are changing (if time is pressing)	Important to note and record any discussions around changes and adaptations- so things people are already doing to accommodate for changes - also where they are not sure what to do	Small groups; each needs a facilitator and recorder	Facilitation: Tema Recording: Nqobile
11:00 - 11:50pm	Summary of predictions for the locality (from scientific basis)[15min]	Present to group - using flipchart or PowerPoint - Keep it simple with brief bold statements that can be remembered. Include concepts of certainty - and CC scenarios - unmitigated, neutral and mitigated			Facilitation: Erna Translation: Nqobile, Tema
12:00pm	TEA	Fruit (apples, oranges, biscuits, juice and water, paper cups (lots) and plates... Generous helpings - and lots of juice if it is hot. Find someone to be in charge of food and refreshments, while the rest of the workshop continues			Tema
	CLIMATE CHANGE patterns				
12.30pm	Seasonality diagrams [25min]	SMALL GROUPS (5-10people): facilitated discussion on temperatures for each month of the year- in a normal year and then discuss how this is changing and going to change. Start with the hottest month and then the coldest month as reference points	Do temperature first or if the group is small and works quickly include rainfall then on the same chart.	Easy to use kebab sticks bought from supermarket for this. Small groups; each needs a facilitator and recorder	Facilitation: Mazwi/Tema Recording: Nqobile
1:00pm	REALITY/IMPACT MAPS				

1:00-2:00pm		SMALL GROUPS (5-10people): facilitated discussion - MIND MAP of livelihood and farming impacts (using the 5 categories) using Hotter (drier) as the starting point - LINKAGES between cards on the mind map - make arrows (and include more cards if need be and discuss (e.g. hotter soils, lead to poor germination lead to poor yields lead to hunger)	Prompt for social, economic, environmental impacts as well if these don't come up in the group...	Small groups; each needs a facilitator and recorder	Facilitation: Mazwi Recording: Tema, Nqobile
2:00-2:30pm		POSSIBLE SOLUTIONS: things that people know, have changed, have tried and or are trying to deal with the changes. Use different coloured cards to attach these solutions to the mind map. If participants are struggling then rephrase the -ve impact statements into a +ve outcome and ask what actions are possible.	Also make a separate list on newsprint of names of people trying things plus the innovation they are trying (this is to facilitate h/h visits on day 2)	The cards need to be written in local language with smaller translations in English written in on the cards as well (to avoid the need for alter translations)	Facilitation: Tema Recording: Nqobile
2:30-2:45pm	CLOSURE	REPORT BACKS - of possible solutions PLANNING FOR DAY 2 - choose 3-4 participants for household visits and ask for a small group of other interested individuals to join. Decide on venue and time (12 noon) for continuing with practices	Households to be within walking distance hopefully. Otherwise drive these 3-4 participants around and meet for focus group thereafter	Rapporteurs need to be chosen from the group to summarise the solutions in the report backs [5min/group]	Facilitation: Tema Recording: Nqobile
LUNCH Local catering groups to provide meals - ~R45 per head (Rice and stew with one veg... or something similar-)					Tema
DAY 2					
9:00am VULNERABILITY ASSESSMENT					
9:00 am-9:30am	Recap and days program	RECAP: summarise Day 1, the information we got as what locals consider climate change and impact thereof. Link these changes to impacts with regards to livelihoods across the 5 categories and the fact that changes in the way we do things need to change to account for the certain hotter and drier conditions and what can be possibly done to reduce impact.		use flip charts and mind maps from Day 1 to recap	Facilitation: Mazwi Recording: Nqobile
09:30am-10am	Rich, better off, poor, very poor	Focus group discussions around vulnerability can to supplement baselines and also to discuss and look at vulnerability through the eyes of the community. How do we define rich, better off, poor, extremely poor in the village. Write descriptions on a flip chart and groups in the 4 categories	Participants need to explain and identify vulnerability in their own unique way	kokis, flip chrt	Facilitation: Mazwi Recording: Nqobile
10:00 am-11:00 am	Different groups, different eyes	Divide the group into smaller groups according to age and gender – spend a short while deciding with the group which sub-groups will work for them. Subgroup to identify all households, adding household heads (male, female, child headed ect) onto maps of the village. These household would then be placed on a wealth group through discussion	Explain that this is done because different groupings are focused somewhat differently – different things are important or difficult for women than men for example, for youth, for households without access to social grants	Kokis, flip chart, small cut paper, maps	Facilitation: All three, each with a group

11:00 am-11:30 am	Plenary	Subgroups convene and the charts are discussed together with the aim of coming up with one wealth ranking after which the final version is compared with what the household survey are saying	Supporting person to record all discussions	PowerPoint presentation of Nkovukeni vulnerability assessment	Facilitation: Mazwi Recording: Nqobile
11:00 am-12:00 pm	TEA	Fruit (apples, oranges, biscuits, juice and water, paper cups (lots) and plates... Generous helpings - and lots of juice if it is hot. Find someone to be in charge of food and refreshments, while the rest of the workshop continues			Tema
		Slide presentation up to income sources - whole group quick ranking of the sources			
12:00 pm-13:00 pm	Risk, hazard and vulnerability	After presenting the slide – what makes us vulnerable and discussing some of the aspects such as access to resources, seasonality of access and food availability, land entitlements, water etc, and also discussing how things are changing due to CC (so reduction in availability, increased hazards and the impact of these): a. In each small group participants name the most important risks, issues, problems, hazards b. These are then ranked in order of importance	Support persons are to record the discussions, with reasons given for the rankings	Flip chart, kokis	Facilitation: Tema All three with a group, depending on the number of small groups
13:00-13:30 pm		4. Potential solutions From the prioritized list of issues possible solutions are proposed for each. This activity ties into the adaptation strategies developed through the climate change analysis process and should provide some entry points for action.	Link this to practices for CC adaptation		Facilitation: Tema Recording: Nqobile
13:00 pm-2:00pm	WAY FORWARD				
	LUNCH Local catering groups to provide meals - ~R45 per head (Rice and stew with one veg... or something similar-)				Tema
	CLIMATE CHANGE PREDICTIONS:				
	Hotter	1-4 degrees Celcius	For every month of the year	HIGH probability/ Certainty	
	Less rain	Similar amount of rain but over a shorter period of time (fewer rainy days per season)	This will lead to an overall drying effect in the environment	MEDIUM certainty	
		greater intensity of rainfall			
		More rain in spring and or more rain in summer	Storms	LOW certainty	
	Longer term	Greater frequency of droughts under scenarios 1 and 2		Scenario 1 - Business as usual Scenario 2 - Stabilise emissions Scenario 3-Reduce emissions	
		Greater frequency of extreme rainfall events under scenarios 1 and 2			