

Sokhulu baseline: September 2024.

The seven villages in the Sokhulu community, including twenty households from each village, participated in the study by completing face to face surveys in May 2024. UKZN undertook the survey, using a questionnaire designed jointly between the UKZN and MDF teams. The data from the seven villages is presented collectively as the Sokhulu community area.

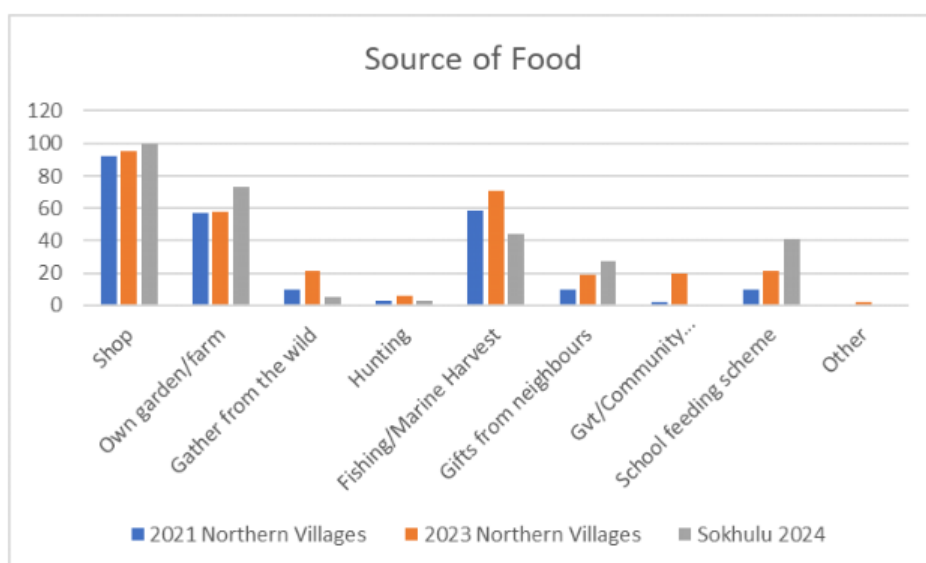
1.1 OVERVIEW

84% of households have lived in the area for more than 30 years with a very small percentage (9%) of people who lived there for less than 5 years. This indicates a stable community, despite the influx of people into the area for work in the mining and forestry operations in the area. Community members like living in the area for farming (51%), nature (28%), peace and ubuntu (26%), the safety and lack of crime (12%), for firewood (11%), and for the sports in the area (8%). The results show an emphasis on harvesting of natural resources for livelihoods in the northern region and an emphasis on farming in Sokhulu.

The main development challenges mentioned were bad roads and poor infrastructure (60%), lack of availability of water (43%), and inequality in the area in terms of distribution of benefits (22%). Poverty, the closure of the river mouth and the fencing of gardens were also raised as issues. Community members also raised the need for business opportunities and skills development, the provision of services, including water, electricity, schools and healthcare as well as an improved internet network, the removal of mining companies and a reduction in the planting of gumtrees, they require dip for livestock, need to reduce crime, and want the equal distribution of RDP houses. Waste collection and poor waste management was raised as a challenge in the area.

From the survey, households had an average income of less than R3000 - R4000 per month. Given that most households are larger than average (Ave 7,8), the per capita income is low. Based on money spent on food, most households in the region live below the food poverty line and the general poverty line.

However, households supplement their food baskets significantly from resources collected from the environment (land and sea). The picture alongside indicates the high reliance on shop bought food in



Sokhulu (100%), followed by food produced locally (~70%), marine harvesting ((43%) and school feeding schemes (40%).

76% of household members are aware of climate change, referring to extreme weather conditions (27%), fluctuation in weather patterns (24%), temperature and heat increases (6%), thunderstorms being much worse than before (5%), and flooding (5%). It is evident in Sokhulu that the main impacts of climate change are felt in relation to loss of farming potential, through land and fields damaged by floods, variable rainfall and droughts and the loss of trees, which is a valuable natural resource, through storms. Other points raised by communities are the reduction in shade due to loss of trees, loss of life in extreme weather events, roads are affected, livestock is damaged, and there is no longer enough grass for grazing.

The Sokhulu community is currently not acting proactively to manage climate change specifically (64%), as they lack knowledge about how to deal with climate change (8%). Some respondents said that they try to plant more trees and conserve nature (7%), they avoid building next to rivers (3%) and some have stopped farming on their fields (2%), as an adaptation to climate change. They did not identify deliberate actions being taken by households to increase agricultural resilience to climate change. Certain practices, including the use of manure as an organic fertiliser and the selection of crop species suited to local temperature and rainfall conditions, have been widely implemented. These are not new practices, and have been adopted to reduce input costs, crop mortality, and enhance yield per unit effort. Communities have therefore been responding to changing environmental conditions over time. However, given their awareness of climate change and its impacts, it is evident that knowledge development and tried and tested practices in response to climate change require attention in the Sokhulu area.

Community members believe it is important to protect the environment as it gives life (36%), for future generations and sustainability (20%), it provides food (18%), it provides shade (9%) and clean air (9%). Respondents stated that because Richards Bay Minerals cuts trees and pollutes the air, it is very important for them to protect nature to counter this impact.

Respondents reported the following ecosystem goods and services:

- fishing and harvesting of mussels (15%)
- wood for building houses and kraals (20%)
- grass for roofing and reeds for weaving (5%)
- trees for firewood (36%)
- food (vegetables and fruits) (13%)
- medicinal purposes and cleansing (26%)
- shade from trees (10%)

The environment supports livelihoods in Sokhulu with the environmental wage being valuable to between 20% and 36% of households in different ways, which is significant.

1.2 SOCIO-ECONOMIC ASPECTS

In the baselines survey undertaken, 20 households were interviewed in May 2024 in the following seven villages: eHlawini, eHlanzeni, kwaNtongonya, Ethukwini, eMalaleni, kwaManzanyama and kwaHolinyoka.

DEMOGRAPHICS

Male and female headed households are reasonably evenly balanced at 49% and 53% respectively. This is somewhat higher than the national average for 2022 of 45,7% female headed households in rural KZN. (StatsSA, 2022).

The average household size for the village is 7,8, compared to the national average of 3.4, with households ranging from between 3-25 individuals. The dependency ratio for these households is extremely high.

In terms of age, the population in Sokhulu is skewed significantly towards the age group of 0-18 years.

Age group in years	StasSA %	Sokhulu %
0 -18	28,8	45
19-34	35,1	30
35-59	27,1	20
>60	9	5

The large proportion of children under the age of 18 years in this area is likely a combination of the community being well settled in the region (little in or out migration) as well as access to services such as healthcare and schools (specifically high schools). This differs significantly from the northern villages inside the IWP, where the proportion of children under 18 years is much lower.

1.3 INCOMES AND LIVELIHOODS

Of the 140 households interviewed 138 households (95%) fall below the national poverty line (R1558/month/capita income). This is because the households have on average 7,8 members and are quite large. This number is skewed by a small percentage of very large households as reported by respondents. If this is taken into account, then around 66% of households fall below the poverty line. This is more reasonable when compared with other data, showing quite a high degree comparatively, of formal employment in the region as well as small businesses and self-employment.

Income range in Rands	No	Percentage	Cumulative percentage
0-1000	3	2,2	2,2
1001-2000	29	21,0	23,2
2001-3000	29	21,0	44,2
3001-4000	23	16,7	60,9
4001-5000	4	2,9	63,8
5001-6000	9	6,5	70,3
6001-7000	7	5,1	75,4
7001-8000	1	0,7	76,1
8001-9000	4	2,9	79,0
9001-10000	6	4,3	83,3
>10 000	23	16,7	100,0
Total	138	98,6	100,0

The following income categories were mentioned by the participants – own business and small businesses were considered different categories. Own business included ***farming, forestry*** taxis, transport and similar businesses while small businesses were more along the lines of

spazas, resale of clothes and meat and similar activities. A proportion of the community makes a reasonably substantial income from both farming and forestry (contracted to SAPPI).

Income categories	No of hh (n= 140)	No of individuals	% individuals
Formal employment	31	40	6%
Contract workers	56	56	9%
Own business	28	28	5%
Small business	30	32	5%
Social grants	132	313	94%
Unemployed	124	318	51%

The unemployment rate is very high in this area, indicating that around 88% of households have unemployed adults living there and 51% of working age adults are unemployed. Levels of unemployment are much higher than the national average of 32,9% (StatsSA, 2024).

Reliance on social grants (pensions and child grants) as an income source is very high, with 94% of households receiving grants. A number of households mentioned that they receive remittances from family members who do not live in the area.

Food shortages are common, with 93% of households mentioning that they experience a shortage of food. Shortages are experienced for some households during winter (40%), summer (67%) and throughout the year for 9% of households.

1.4 AGRICULTURE

Agriculture in the form of cropping and livestock husbandry is extensively practiced across Sokhulu, albeit at different scales. Around 71% of households undertake cropping in gardens (more intensive with some irrigation) and dryland fields which are largely in the flood plain. Access to fields in the roughly 400ha of cropping fields on the flood plain is open to all 7 villages, and access is generational, with a growing rental market as all land has been claimed over the years, but not all families use their allocations on an ongoing basis.

The table below summarises the extent of agricultural activities in Sokhulu

Table 1: Extent of agricultural activities across Sokhulu, May2024 (n=140)

Activity	% of HH	Units	Comments
Gardens	68% (31% male, 37% female)	100m ² -1000m ²	gardens are either quite small and at homestead level or further away in wetland areas or the flood plain
Fields (flood plain)	22% (9% male, 13% female)	1ha plots	Fields are in 1ha portions, where farmer mostly have between 1 and 3 fields.
Fruit production	19%	1-4 trees per household and ~20-100 at field level.	Trees include oranges, naartjies and bananas – grown at scale in the flood plain and trees such as avocados, mangoes and lemons planted more frequently at household level.
Poultry	35%	Ave 14 chickens	Poultry consists of traditional chickens which roam freely as well as small production units of broilers. Keeping of layers is not common.
Goats	25%	Ave 12 goats	Goats roam freely, some homesteads have kraals but not all
Livestock	25%	Ave 10 cattle (2-50)	Cattle roam freely. Herders are employed. There is conflict in the community from cattle invasion into fields and gardens.

Crops commonly grown in the area are shown in the table below in decreasing percentages. Interestingly participants who indicated 'none' as their crops, are those whose fields have been inundated due to the back flooding from the closure of the mouth some eight years ago. This gives an estimation of the lost fields as being around 23% of the total area. Sweet potatoes, amadumbe and cabbages are the most common crops grown. In the dryland fields (on the flood

CROP	Percentage of respondents
Sweet potatoes	50
cabbage	43
amadumbe	39
spinach	30
onion	27
lettuce	22
None	23
potatoes	19
maize	18
green pepper	14
carrot	14
beetroot	14
tomatoes	12
oranges	10
naartjies	8
sugar cane	8
banana	6

plain) the most common crops grown are sugar cane, sweet potatoes, amadumbe, beans,

maize and bananas. It is clear from the crop choices that farmers in the area have adapted to cropping in these wetland conditions with cyclical flooding and water logging. Crops such as

amadumbe and bananas are planted in the wetter areas of the fields and can withstand high levels of water logging.

Irrigated crops consist of the vegetables such as cabbages, spinach, onions, lettuce, carrots, beetroot and tomatoes.

Below are a few indicative pictures of farming in the floodplain



Figure 1: Above left: A typical dryland field in the flood plain planted to sugarcane and bordered with bananas and Above right: Smaller fenced garden in the lower lying areas, close to sources of water producing crops such as sweet potatoes, beans, cabbages and onions.

Add pics and examples

1.5 INFRASTRUCTURE

Uncontrolled development and haphazard management of small-scale gum plantations in the area and these in addition to climate change impacts have led to a drastic decrease in in the groundwater as well as wetland areas (around 36% reduction) in the last decade. These issues combined with the RBM mining and dunes, which has changed the water flow and management of the entire area has had the outcome of inundation of lower lying areas leaving some homesteads and fields under water, with a drying out of the higher lying areas with too little access to water and drying out of boreholes there.



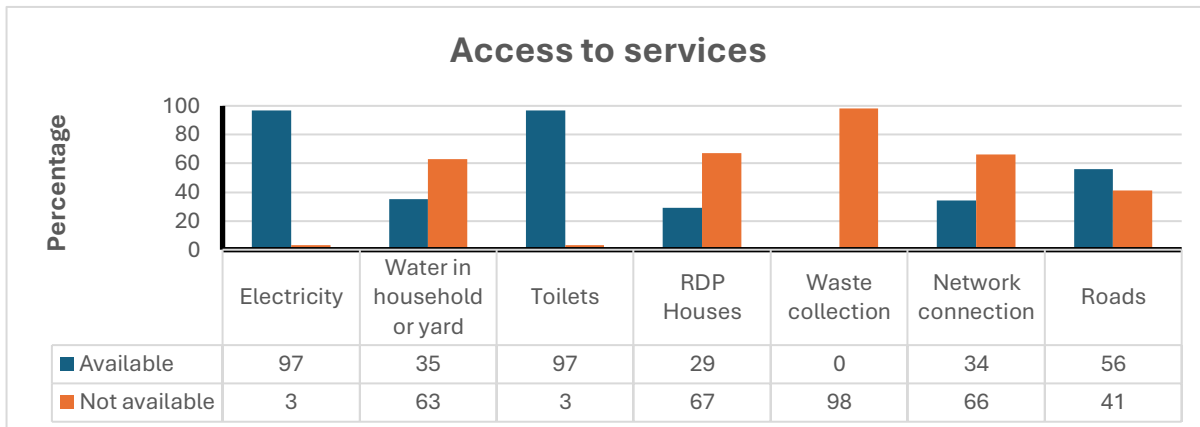
Figure 2: A typical view of the poorer homesteads in the area. People have come into the area from as far as Manguzi due to the work opportunities provided through the mines and the timber industry.



Figure 3: A view of a typical homestead in Sokhulu surrounded by a patchwork of gum plantations. In the foreground a small swamp has formed close to the homestead, a trend that has increased in recent years, thought to be due at least in part to the huge RBM dunes channelling water into this area both underground and as runoff from the dunes. The 'hill' in the background is a large, rehabilitated mining dune.

Given that the communities in Sokhulu have access to livelihoods options such as small scale forestry, field cropping and livestock, which has provided for a reasonable and in some cases substantial income for a proportion of the households and that these communities have ongoing development support (however badly managed) through RBM, the Umfolozi LM and the Department of Agriculture, the overall situation in terms of livelihoods and poverty here differs somewhat from villages inside the IMPA. Basic service provision through roads, electricity and sanitation is more evident in the area.

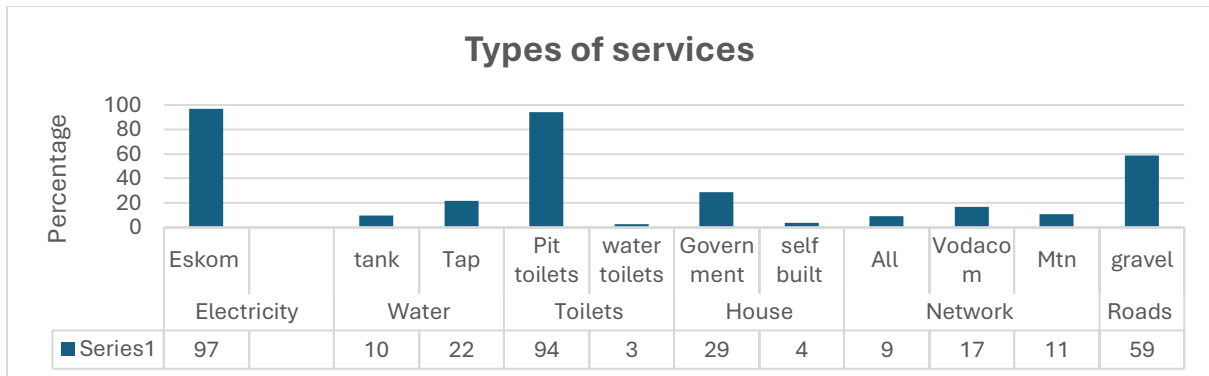
The graph below summarises infrastructural considerations in Sokhulu.



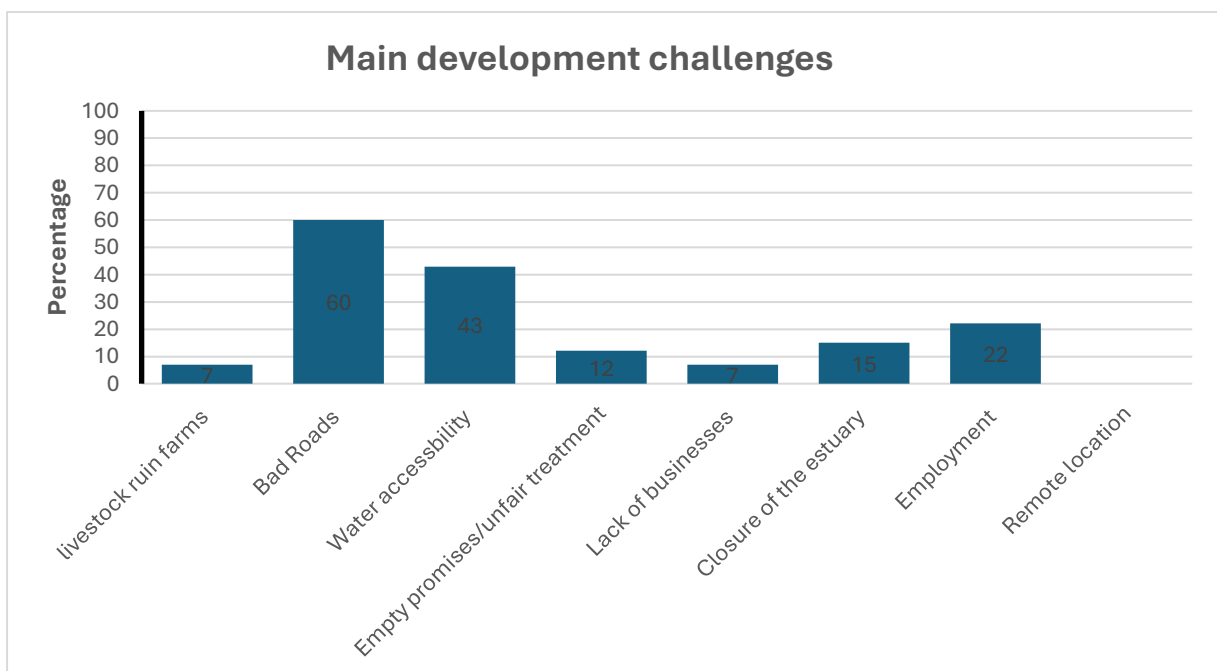
As shown in the types of services graph below the following further differentiation in service provision can be made:

- Although access to electricity it available to the whole of Sokhulu (97%), use is limited to around 84% of the community. Use of firewood for both cooking and light is equally common (88%) and community members also use gas (21%) and paraffin (7%) for appliances such as fridges and stoves. Firewood is cut locally from the numerous plantations surrounding the homesteads and natural bush and forests.
- Water access of 35% at household level relates to access to taps in household yards (22%) and 10% of households having JoJo tanks for rainwater harvesting. The 63% without access to water at household level are likely to have some access through communal standpipes or having to rely on water provision through Municipal water tankers. In community meetings held the issue of lack of access to water was raised as an immediate and important concern. It appears that some small borehole dependent water schemes reticulated to communal standpipes have run dry and that provision of water by the municipality in these cases has been very intermittent.
- Toilet access of 97% relates pit latrines, either supplied through the municipality, development projects or home built. Only 3% of households have access to waterborne sewage – the assumption here is that these household have their own septic tanks, as there is no sewage network or treatment in the region.
- With respect to housing, 29% of households have had support from government in the form of RDP houses. This signifies a large state intervention in housing support for the Sokhulu community as this percentage of support is considered substantial when compared to other rural communities both in the region and in rural areas of KZN more generally.
- There is no municipal solid water collection process in Sokhulu.
- Cell phone reception in the area is limited with only 34% of community members being bale to access networks such as Vodacom and MTN.
- With respect to roads, 59% of respondents mentioned that access is provided by gravel roads and the other 41% responded that there were no roads. Away from the long stretch of unpaved road providing access into Sokhulu (which is not in a good condition), the smaller tracks in and around villages have been made by locals for

access to surrounding bush and plantations as well as the floodplain. These tracks haven't been officially graded but are rough approximations of roads made through use. Due to the sandy nature of the region, these can quickly become impassable when used by heavy vehicles such as tractors with trailers and also when wet.



The access to services is also reflected in the development needs and priorities mentioned by respondents, as shown in the graph below.



Respondents focused on the need for reliable access to drinking water, job opportunities, roads, education and opening of the river mouth. A thread passing through all these requests is the need for equity in provision of services.

1.6 SOCIAL ORGANISATION

The proportion of respondents who belong to social groups/organisations is limited to 38%. Of these the following groups are active in these villages:

- 33% Burial societies
- 72% Stokvels
- 21% Church groups

5% Women's groups

Similar to other rural areas, the larger proportion of women belong to these groups and use these social organisations to provide economic and social safety nets for themselves and their families.

Both the Local Municipality and the Traditional Councils (TCs) are important in Sokhulu for access to services and development and conduct meetings in the community which are reportedly well attended. Development and farming committees are linked to the TCs. Despite strong participation and reliance on these institutions only around 43-56% of respondents felt that they could trust these institutions. A typical explanation from these community members revolves around the need of the community to be involved in decision-making, equity across villages and community members in terms of benefit from services and projects and the need for these leaders to provide feedback and information to community members.

1.7 NATURAL RESOURCE MANAGEMENT

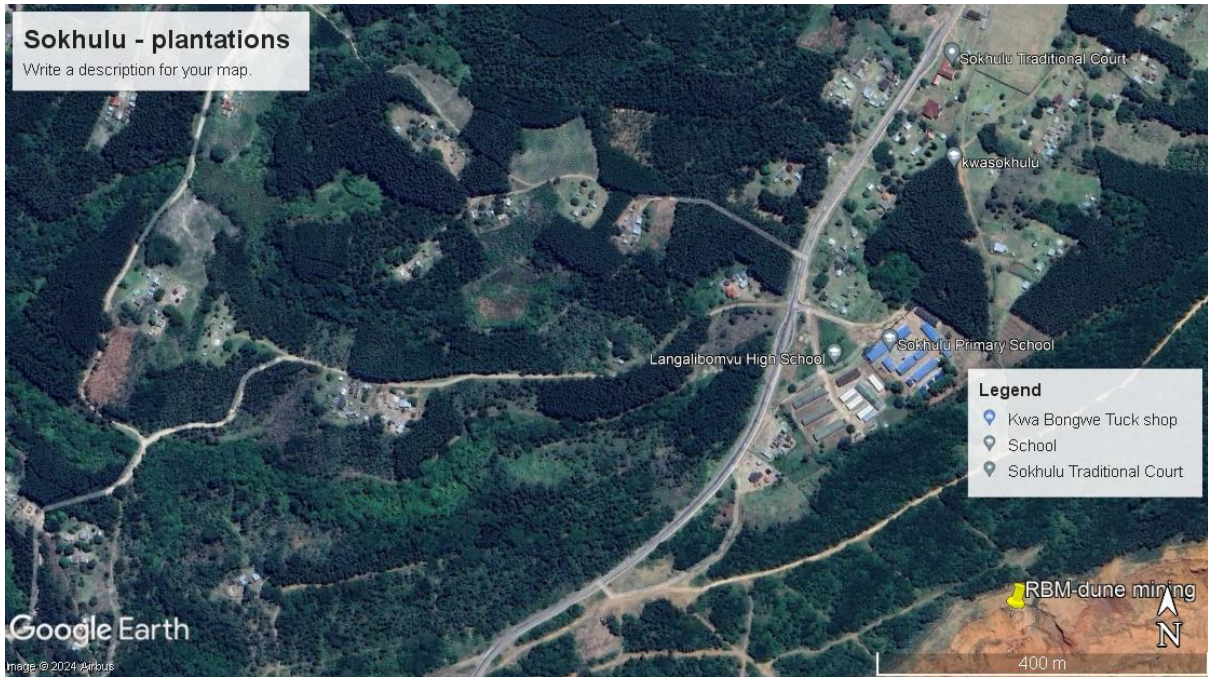
Human intervention has substantially impacted on the ecosystems of this flood plain, primarily through vast expanses of gum plantations (commercial forestry commenced here around 1933), sugar cane (started around 1959) and dune mining (RBM started these operations in 2004), the longer-term impacts of which are now becoming evident through both a substantial reduction in the groundwater and water quality issues in the area and the consequences of channelisation of the local rivers – the latter which has also impacted heavily on coastal and mangrove ecosystems and the loss of wetlands.

The Sokhulu traditional council area is based at the southern tip of the Isimangaliso Wetland Park, with only the previous eMapelani Reserve area incorporated into the reserve itself, a point that is seemingly not well understood by either the TC or the community members. This area is further north towards the coast with the confluence of the St Lucia estuary and the Umfolozi and Umsunduze rivers and is not populated, as people were removed from there when the Wetland Park was formed in the late 90s'. The Sokhulu villages/isigodi that abut on this area are Ehlanzeni and Ehluwini, where the Sokhulu Traditional Council office is housed.

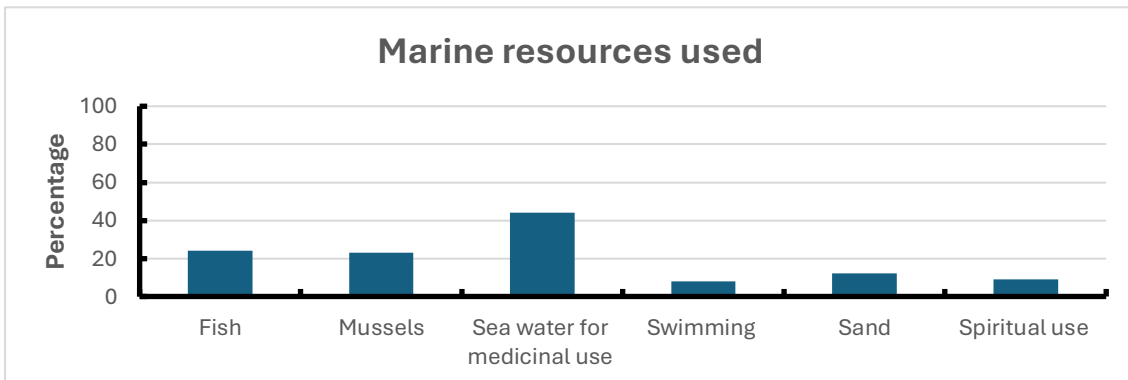
In the past, prior to the establishment of the IWPA, tourism activities created some income for the broader community. The eMapelani Reserve area is one of the 14 odd land claims that have been lodged against the park. At the same time, the Sokhulu community trust is benefiting from an annual payment from the reserve. Funds from this payment is meant to support the fenced communal crop lands (roughly ~200ha) on the floodplain, supporting with tractors for ploughing, input subsidies and transport of produce from the plain to collection points in the villages higher up. Presently this committee is under review for misuse of these funds.

Community members have an understanding of their impact on the environment, with close to 90% of respondents feeling that it is important to protect the environment. All community members use local resources for grazing of livestock, harvesting reeds and medicinal plants, harvesting wood (building and firewood) as well as marine resources (fishing and coastal harvesting), mainly for food. As mentioned agricultural production is common in the area.

The largest land use, which covers the vast majority of the area is gum plantations, as shown in the google earth snapshot of eHlanzeni and the tribal court below, as an example. There are small cleared areas around homesteads, but the vast majority of the land is covered by plantations, natural forest/bush patches and small localised bogs and wetlands.

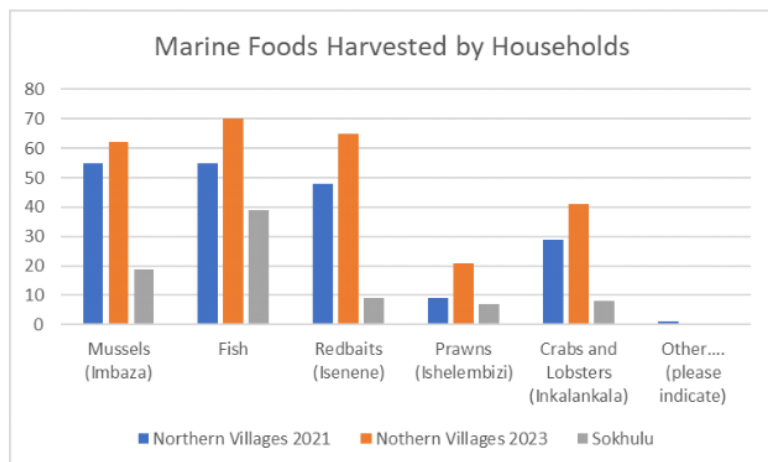


In terms of marine resources, around 30% of the community interact with the marine environment as shown in the small graph below. For this community recreational and spiritual uses were also mentioned.



In comparison to the northern villages in the IWPA, there is a much lower proportion of people in Sokhulu who make use of marine resources, as shown in the graph alongside.

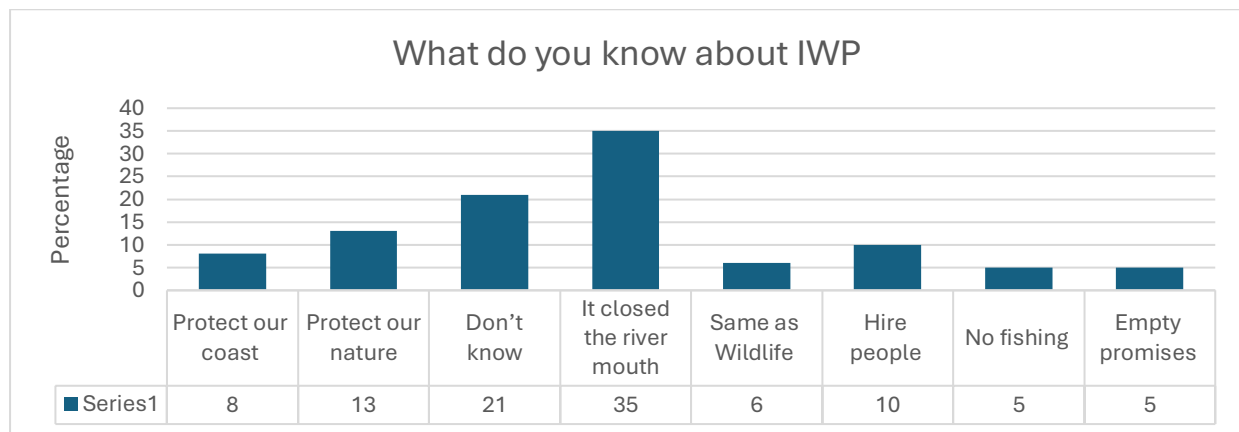
Roughly 45% of respondents felt that marine resources are managed sustainably, through a combination of local knowledge (knowing not to



catch the small fish), seasonal fishing (which allows fish stocks to replenish) as well as restrictions and laws through IWP and Ezemvelo. Community members are aware of the need for fishing and hunting permits, but only those involved understand which authority is responsible for what. They consider protection of this resource important for sustainability,

livelihoods and future generations. Mention was made of changes in the marine environment which included depletion of fish stock due to changes in climate and also due to there being too many fishers. They also mentioned that the mangroves have reduced a lot and what was left has died back in the last eight years due to the closure of the river mouth. This has reduced their function of managing water levels in the lower lying areas as well as reducing the marine resources such as crabs and certain fish.

In Sokhulu, the villages engage less with IWPA, with only 8% of households obtaining contract work through IWP management activities, 3% obtaining access to bursaries, 4% stating that they get support for their gardens, and 70% stating there are no benefits. The table below outlines what community members know about the IWPA.



There is a reasonably large number of community members who believe the IWPA closed the river mouth (35%). Others believe it was done by Richards Bay Minerals (RBM). In general, there is an inherent understanding of the cyclical nature of the wetland system and the impact of channelisation on the system. For most community members, but specifically the farmer on the floodplain this is understood as a positive intervention.

1.8 RECOMMENDATIONS

- Working with **village-based groups** of farmers to explore adaptive measures and climate resilient agriculture practices and to set up a process of experimentation with different options and ideas to improve the management of water and soil on the **floodplain as well as at the homesteads** or the smaller communal gardens.
- Taking some soil and water samples across the flood plain to ascertain the fertility and quality of the water (there is suspicion among community members of poisoning of the water through the RBM mining operations).
- Comparison of conditions on the floodplain in winter and summer, as well as further discussions with key informants about channels, patches of natural vegetation, flood control and scenarios for management. This will need input from agricultural engineers and hydrologists, as well as some form of mapping.
- Engagement with the community for awareness raising and information provision around the functioning of the system, the impacts of closure and opening/dredging of the river mouth and the impact of different land use practices, to better inform more sustainable landuse practices.
- Continuation of liaison between MDF and the Wildtrust restoration team to allow for village-based clearing of unwanted gum plantations and recovering these areas as productive land, through agroforestry systems.

- Farmers have asked for irrigation options, fencing and dredging of the Msunduzi mouth. They are open to trying out new ideas and crops, such as mulching, conservation agriculture, fodder crops and possibly rice, but warned that people on these plains have been doing the same thing for a long time and would be reluctant to change.
- IWPA 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.