



DSI-NRF
Centre of Excellence
in Food Security



TAFS Project

Transitions to Agroecological Food Systems

Agroecological initiatives in Matatiele and Umzimvubu, Eastern Cape

Final site report

July 2022

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¹ Thanks to all participants in Matatiele and Umzimvubu who shared their time and insights. The study would not be possible without your contributions. Thanks in particular to Environmental and Rural Solutions and Mzimasi Ndongeni for orientation and contacts in the field, Julian May and members of the project reference group for inputs, and to administrative staff at the Centre of Excellence in Food Security at the University of Western Cape, and the Southern Africa Food Lab and Department of Agrisciences at Stellenbosch University for financial and logistical assistance.

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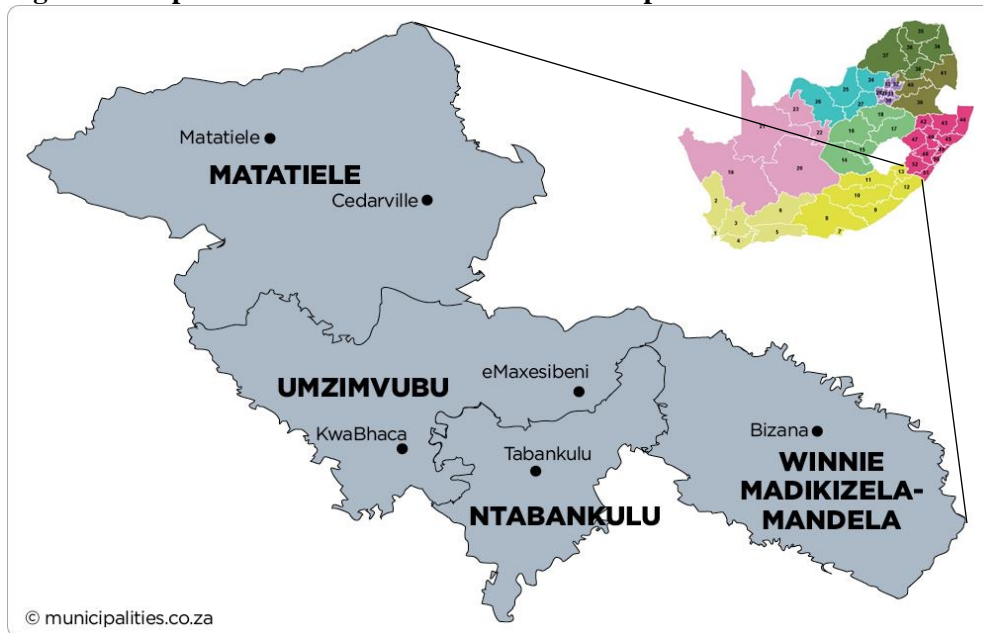
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Acronyms

ANDA	Alfred Nzo Development Agency
CA	Conservation Agriculture
CRA	Climate resilient agriculture
CSO	Civil society organisation
DALRRD	Department of Agriculture, Land Reform and Rural Development (national)
DC	Distribution centre
DFFE	Department of Forestry, Fisheries and Environment (national)
DM	District Municipality
DRDAR	Department of Rural Development and Agrarian Reform (Eastern Cape)
ECPTA	Eastern Cape Parks and Tourism Agency
EPWP	Expanded Public Works Programme
ERS	Environmental and Rural Solutions
FPM	Fresh produce market
GDP	Gross Domestic Product
IDP	Integrated Development Plan
INR	Institute for Natural Resources
KZN	KwaZulu-Natal
LED	Local Economic Development
LM	Local Municipality
LSM	Living Standards Measure
MDF	Mahlathini Development Foundation
MN	Meat Naturally
MoU	Memorandum of Understanding
NGO	Non-government organisation
NRM	Natural resource management
PGS	Participatory Guarantee System
PTO	Permission to Occupy
SANAMI	SEDA Alfred Nzo Agro-Manufacturing Incubator NPC
SANBI	South African National Biodiversity Institute
SEDA	Small Enterprise Development Agency
SMME	Small, medium and micro enterprise
TA	Traditional authority
UCP	Umzimvubu Catchment Partnership
WfW	Working for Water programme

1. Background

Figure 1: Map of Alfred Nzo DM with local municipalities



Source: <https://municipalities.co.za/map/1002/umzimvubu-local-municipality>

The case study covers activities mainly in Matatiele and to a lesser extent Umzimvubu local municipalities (LMs) in Alfred Nzo District Municipality (DM) in the former Transkei homeland in the Eastern Cape province. The area is mainly rural with many dispersed villages and a few small towns as service centres, with high density peri-urban settlements surrounding them (Figure 1; see Annex 1b as an example of actual settlement densities in the area). Tenure is primarily communal land under traditional authorities (TAs) with smaller sections of freehold land under private ownership.

KwaZulu-Natal (KZN) is to the north and east of the district (Harry Gwala and Ugu DMs), with Kokstad in Harry Gwala DM the biggest regional centre, about 75 km south-east of Matatiele town (see Annex 1a for a wider regional map). The whole area of Kokstad, Cedarville, Matatiele, Swartberg, KwaBhaca (formerly Mount Frere) and Umzimvubu is also known as East Griqualand, named after the Griqua who lived in the area historically. It is very mixed ethnically, with diverse clans with roots in Lesotho, KZN and the Eastern Cape (SAHO, 2019). The Joe Gqabi and OR Tambo DMs in the Eastern Cape are to the south and west of the district, and Lesotho is to the north. The district reaches the coast at Winnie Madikizela-Mandela LM.

There are three main towns in Matatiele LM viz. Matatiele (secondary node), Cedarville and Maluti (tertiary nodes) plus 8 rural centres. Umzimvubu LM to the south has two main towns, KwaBhaca (formerly Mount Frere) and eMaxesibeni (formerly Mount Ayliff). eMaxesibeni is the seat of the district municipality and is the only identified primary node in the district for spatial planning purposes. It was selected as the seat of the DM for its central position in the district. However, KwaBhaca is the larger town and serves administrative functions for the municipality, as well as functioning as a commercial retail and services consumption hub for the area.

There are two main routes through the district. The R56 is the main regional road, connecting Mount Fletcher via Matatiele and Cedarville to Kokstad in KZN, and is identified in the provincial spatial development plan as a strategic transport route (Matatiele LM, 2021:26). There are primary corridors from Matatiele to Lesotho via Maluti and Ongeluksnek. In Umzimvubu, the national N2 traverses the southern part of the municipality, connecting eMaxesibeni and KwaBhaca. Umzimvubu has very low internal connectivity with less than 3% of roads in the LM being tarred (Umzimvubu LM, 2020:70).

In 1978 Matatiele and the farmland in the surrounding plains was classified as a ‘white’ town and area under apartheid. It was placed in the then Natal province (now KZN) but the African villages remained in the Eastern Cape (former Transkei homeland). Post-apartheid demarcation in 1995 confirmed this arrangement. In 2005 Matatiele was moved to the Eastern Cape to link with the surrounding villages. This was a divisive issue, and produced a split in the local ruling African National Congress (ANC) with the establishment of the African Independent Congress (AIC) to lobby for a move back to KZN. Key concerns were about poor services in the Eastern Cape and long distances for administrative engagements. The population is differentiated, including some AmaHlubi who originally were part of the Zulu kingdom, and others associated with clans from the Eastern Cape and Lesotho. The demarcation issue remains unsettled, with ongoing protests and occasional flare ups (Mhleku, 2018; Tyabazayo, 2013) and the former apartheid spatial differentiation deeply continues to shape today’s socio-economic dynamics.

1.1 Ecology

Matatiele and Umzimvubu LMs are in the Upper Umzimvubu Catchment. The area as a whole is located within the Maputaland Albany Pondoland Hotspot stretching from southern Mozambique in the north to the border with the Western Cape in the south, in an area of high biodiversity. The catchment is mostly in the grassland biome, with pockets of indigenous forest. Only 3% of the grassland biome is currently protected in South Africa. There are 70,000 ha of montane grasslands, of which most are East Griqualand Grassland (McLeod and ERS, 2019:26). In 2012 the Eastern Cape Parks and Tourism Agency (ECPTA) identified various wetlands around Matatiele and Cedarville as priorities for protected area expansion. The Matatiele Nature Reserve conserves an area of 4 801 ha of East Griqualand Grassland vegetation poorly protected elsewhere in the country. The Cedarville Protected Environment covers an area of approximately 18 000 ha and is the third largest Protected Environment declared in the Eastern Cape comprising of privately-owned land that forms part of the Eastern Cape’s Biodiversity Stewardship Programme (Matatiele LM, 2021:203-204).

The area is defined by mountain ranges and river systems from the southern Drakensberg escarpment to the sea. The topography includes deep and steep-sided river valleys of the Mzimvubu and three of its four main tributaries (Tina, Kinira and Mzintalava Rivers), with extensive wetlands at the base of the escarpment (Alfred Nzo DM, 2017:57). A very small area is formally protected, with only the Ongeluksnek/Malekhalonyane nature reserve (13,787ha under the ECPTA) and Matatiele Mountain Lake consisting of two parcels (4,800 ha under Matatiele LM) (ERS and Conservation SA, 2011:21). There are some small private conservancy efforts.

The Upper Umzimvubu is a strategic water source area and, while the mountainous areas along the Lesotho border cover less than 10% of South Africa’s surface area, it supplies over 50% of water to South Africa (Matatiele LM, 2021:238). It is located in the Umzimvubu to Keiskammahoek Water Management Area with the highest mean annual runoff in South Africa at around 15% of the total (Matatiele LM, 2021:245-6). Rainfall is 550-1,000mm/year mainly during the summer months of October to April. Rainfall is mostly on the lower end of the scale except for the areas on the edges of the LM (Matatiele LM, 2021:246-7). Umzimvubu is the largest undeveloped river system in South Africa with only a few minor dams (ERS and Conservation SA, 2011:8). There are many springs in the area, often serving as the only potable water source for communities. There is interest in seeking RAMSAR² status for the wetlands, although Matatiele’s municipal dreams about damming the upper catchment for hydropower and to drain the land for commercial agriculture [Um11]³, with implications throughout the catchment, run counter to this.

Large lowlands characterise Matatiele LM, including the Umzimvubu flood plain, oriented west-east along the Matatiele-Kokstad road with hilly or mountainous areas on the south and north sides.

² UN Convention on Wetlands <https://www.ramsar.org/about-the-convention-on-wetlands-0>

³ A list of interviewees cited in shown in the References section below

Umzimvubu LM also has mountainous terrain, especially in the central and northern parts of the LM. It has a subtropical ecology with grassland, thicket, and forest margin biomes. Three quarters of the Umzimvubu land area is unimproved grassland, of which around 44% is degraded. Climatic conditions are favourable for agricultural production. About 12% of land is being cultivated, overwhelmingly semi-commercial or subsistence. Most land in the centre of the LM is suitable mainly for forestry and veld (Umzimvubu LM, 2020:75-6). Soils are generally good for cropping but there are high levels of erosion and thin topsoils (Umzimvubu LM, 2020:78). There is high fauna diversity where the grassland and thicket biomes meet around Rode and Ntsizwa, offering eco-tourism possibilities (Umzimvubu LM, 2020:78). Mean annual precipitation for Umzimvubu is around 780mm (range 620-816mm) (Umzimvubu LM, 2020:75-8).

Land degradation from overgrazing, alien plant encroachment (mainly black wattle), topsoil loss and river sedimentation (with downstream impacts) are key environmental concerns. High run off and weak rangeland management practices in the upper catchment have resulted in Matatiele becoming an erosion hotspot in South Africa (McLeod and ERS, 2019:14). Twenty six percent of the area of Matatiele LM is degraded grassland, with soil erosion, river siltation, and low livestock carrying capacity (Matatiele LM, 2021:246). Frequently occurring disasters include wildfires, floods, heavy storms and tornadoes. Climate change impacts are expected to be relatively muted but with some increased floods, higher rainfall and heat waves anticipated (Matatiele LM, 2021:249).

1.2 Socio-economic

As part of the former homeland system under apartheid, the area is characterised by high levels of poverty, based on high income inequality and low levels of investment (Alfred Nzo DM, 2017:18). Alfred Nzo DM is one of the most impoverished and underdeveloped districts in the country.

The district population, of around 867,000 in 2016, is very young with around 85% of the population under 35 years of age (Alfred Nzo DM, 2017:25). The majority of the predominantly African population lives in scattered rural villages, and depends at least in part on the use of natural and ecosystem services and resources for their survival and security. In Umzimvubu LM, an estimated 83-90% of the population live in about 250 villages of around 50-250 homesteads each (Umzimvubu LM, 2020:52; see Annex 1b for an example). Population dynamics are contrasted with the Alfred Nzo DM reporting both a population outflow from the district as a result of the perceived weak economy (Alfred Nzo DM, 2021), as well as a significant natural population growth (Alfred Nzo DM, 2017). The area is characterised by poor infrastructure, and social facilities. Basic services, housing and infrastructure are municipal priorities.

The population has very low overall levels of formal education, with only 7% of the Umzimvubu LM population and 27% of the Matatiele population having a matric or higher. Secondary and tertiary education facilities are sparse, with only the Ingwe vocational training college offering any post-school educational opportunities (Umzimvubu LM, 2020:59; Matatiele LM, 2021:33-5).

An estimated 75% of the district population was living in poverty in 2020, with an unemployment rate in the district at 50% in 2020, up from 32% in 2010. The district has the highest dependency ratio in the Eastern Cape (Alfred Nzo, 2017:26). Matatiele had 37% unemployment (66% for youth) in 2017 (Matatiele LM, 2021:36). The Umzimvubu LM had a labour force participation rate of just 38% characterised by low wages (Umzimvubu LM, 2020:60). Most jobs in the district are in the low- and semi-skilled categories (Alfred Nzo DM, 2017:42).

Communal tenure with grazing and subsistence farming is the norm. The benefits and value of this are not quantified in formal economic statistics. Nevertheless, fewer than 7% of the economically active population had an income of more than R1,600/month five or so years ago (Alfred Nzo DM, 2017:49).

The district contributes just 5% to Eastern Cape's Gross Domestic Product (GDP), which is the second lowest after neighbouring Joe Gqabi DM (Alfred Nzo DM, 2017:33). Community services is the largest sector in the district, followed by trade, catering and accommodation (Alfred Nzo DM, 2021:13). Two-thirds of recorded employment is in the formal economy, with one third informal. Eighty three percent of total employment in the district is in the tertiary sector (services) (Alfred Nzo DM, 2017:45).

Community services refers mainly to government services. Over a third of all economic activity in the district is derived from, driven by or associated with government services, with relatively limited private sector activity (Alfred Nzo DM, 2017:38). Most households rely on social grants and remittances to avoid extreme hunger (Alfred Nzo DM, 2017:58). Eighty five percent of municipal revenue in Umzimvubu is from national grants, in particular the equitable share and Municipal Infrastructure Grant (Umzimvubu LM, 2020:152).

Matatiele has the largest economy in the district. Wholesale and retail trade, catering and accommodation (28% of GDP), and community, social and personal services (27%) contribute a combined 55% of municipal GDP (Alfred Nzo DM, 2017:47). Retail trade is the second largest economic sector in Umzimvubu, centred mostly in KwaBhaca. All the major corporate wholesale and retail chains have stores in the main towns, which are consumption hubs. More generally, a limited economic/income base results in significant expenditure leakage to other towns (EC COGTA, 2020:134). There are no major commercial centres in the district, and business inputs and services are mostly imported from Kokstad, Mthatha and Port Shepstone.

“A relatively large retail trade sector in an area with a low average household income level indicates consumptive behaviour which is not sustained or supported by a notable productive base.” (Alfred Nzo DM, 2017:47)

Matatiele and Umzimvubu have only small-scale manufacturing activity. There are a small number of informal businesses in the district, estimated at only 5% of those in the Eastern Cape (EC COGTA, 2020:134). Manufacturing constitutes just 2% of employment in the district (Alfred Nzo DM, 2017:45).

Agriculture, forestry and fisheries contribute a very small share to the formal economy (between 1 and 6%, see section on local food system below). However, given informal production, “the reality on the ground is that the agricultural sector is probably worth much more in terms of the monetary value of its output and production and contribution to household food security” (Alfred Nzo DM, 2017:47). Agriculture contributes only 4% of total officially recorded employment, though it is likely higher as the large numbers of subsistence producers are not included in these statistics. Three quarters of recorded agricultural employment in the district is in Matatiele and Umzimvubu (Alfred Nzo DM, 2017:45), indicating where the commercial farms are. There is some tourism around Ongeluksnek/Maluti at the Lesotho border. Eco-tourism potential is limited by poor accommodation or dining facilities and no tourism information office.

Lack of basic infrastructure such as roads, telecommunications, energy, and health care pose obstacles to operating a business and mitigate against settlement of skilled labour in the area (Alfred Nzo DM, 2017:40). Communal tenure is considered to be a key obstacle to private investment (Umzimvubu LM, 2020:91). Currently there is no rural spatial planning legislation. Land tenure is authorised under Proclamation 26 of 1936 (except for towns, covered by TP Ordinance 33 of 1934) (EC COGTA, 2020:78).

2. Overview of the local food system

The area has good conditions for agricultural production, but this is mostly underdeveloped, especially in the former homeland areas (Umzimvubu LM, 2020:42). The majority of the land is

under communal tenure, with livestock and mainly subsistence crops. A small area mainly along the Matatiele-Cedarville-Kokstad corridor is private land under large scale commercial production.

“In agriculture, Matatiele has a huge potential, but it’s one of the highly, highly, racially sensitive space. The divide between commercial farmers and subsistence farmers, it’s huge.” [Um11]

Primary commercial agricultural production and food manufacturing combined only contributed 1.5% of real gross value added for the district in recent times (Alfred Nzo DM, 2017:35). Agriculture, forestry and fishing only constituted 6% of Matatiele’s GDP (Matatiele LM, 2021:36-37), and the agricultural contribution to (formal) Gross Geographic Product (GGP) in Umzimvubu is only around 2% (Umzimvubu LM, 2020:86). It is considered to be one of the lowest growth sectors (Matatiele LM, 2021:184). Nevertheless, agriculture is a major source of employment, and these figures do not take into account the important unrecorded informal and subsistence activities. As such, agriculture is identified as a key sector for development in Matatiele LM (Matatiele LM, 2021:209-10).

Key agricultural activities are livestock (cattle, sheep, goats, poultry) and to a lesser extent maize, vegetables (e.g. cabbage, spinach, potatoes, some tomatoes), sugar beans, and forestry. There was a shift from crops to pasture and fodder production over the past 15 years. There is potential for stone fruit and hemp/cannabis in the area.

Commercial agriculture is mainly found in the Cedarville Flats valley, the zones along the Cedarville-Matatiele corridor extending to the east and west with sedimentary soils. The area is around 440,000 ha, mostly under white ownership, with central pivot irrigation (see Annex 2). Farming has produced a transformation of indigenous grasslands through conversion to perennial rye grass lands with year round irrigation and fertiliser addition (ERS and Conservation SA, 2011:33). To the north and south, some areas are too mountainous for commercial production. There is no large scale commercial farming in Umzimvubu. The major agricultural zones in the LM are adjacent to the Umzimvubu and Kinira Rivers and the Kinira-Mpoza area. There is some mixed commercial farming in the north-west of the municipal area. Commercial agriculture is becoming increasingly concentrated across the wider area, with the expansion of vertically integrated corporate farming under pressure for economies of scale [Um05].

Communal land tenure is considered to be the major constraint to commercial agriculture (Umzimvubu LM, 2020:91). There were 146 land claims in the district, with only one resolved (in Matatiele LM) a few years ago. The towns of Mt Ayliff and Mt Frere were still under claim (Alfred Nzo DM, 2017:70). In Matatiele, land claims are mainly to the west (Matatiele LM, 2021:240).

Box: Forestry

Forestry is a small industry in the area. State, private and community forests currently occupy around 19,000 ha. Of these 69% are indigenous, 22% are commercial plantations, and 9% are woodlots. An area of 62,000 ha has good afforestation potential, while 538,000 ha has moderate potential (Alfred Nzo DM, 2017:67).

Plantations are mostly owned by the national Department of Forestry, Fisheries and Environment (DFFE). These are mostly eucalyptus. Plantations constitute about 20% of the total area under trees in Matatiele LM, and the rest is indigenous forest (Matatiele LM, 2021:192). Umzimvubu has a limited amount of indigenous forest, and some plantations.

Currently primary forestry and wood processing contribute 0.7% to gross value added in the district (Alfred Nzo, 2017:35). Sappi and Hans Merensky have commercial forestry operations, but these are mainly in the lower catchment. There are four established sawmills (one medium, three small) in the district (all in Umzimvubu). Elundini (in Joe Gqabi DM) and Kokstad both have wood processing facilities (Umzimvubu LM,2020:97). Hans Merensky has two sawmills (Singisi and Weza) around

Kokstad and one (Langeni) near Mthatha. There are some community-based forestry projects in the area, but trying to earn a sustainable income is difficult, as income is fairly small, economic returns are only long-term, and trees may displace other land uses (e.g. grazing) (Alfred Nzo DM, 2017:68).

Black wattle and other alien invasives are expanding in the area and are considered a pest. However, there is high community use of wattle at home for energy (heating and cooking), fencing mainly for livestock, and building, with up to 40% of respondents in a community survey indicating they buy wattle products at times (mainly those where there is no wattle nearby). The trees also have cultural uses (e.g. for initiation schools). As a result of these multifunctional benefits, there is strong interest in sustainable harvesting rather than eradication (ERS and Dartmouth, 2020:11-12).

The communal areas are predominantly residential over agriculture (Alfred Nzo DM, 2021:15). Communal land is under the custodianship of the national Department of Agriculture, Land Reform and Rural Development (DALRRD) on behalf of the land rights holders (the communities living on the land). “Local management is carried out under the jurisdiction of the TA system of area chiefs and village headmen. Any developments on this state held communal land require consultation with [DALRRD] which facilitates consultation with affected communities and Chiefs, under the Interim Protection of Informal Land Rights Act (IPILRA)” (ERS and Conservation SA, 2011:9).

There is an estimated 50,000 ha of communal arable land throughout the district, and an estimated 52,000 ha of *itsiya* (homestead gardens) in the district (Alfred Nzo DM, 2017:65), although rural-urban migration amongst the youth especially is leading to a reduction in home gardens (Umzimvubu LM, 2020:94). There is around 10,000 ha of arable land in the communal areas around Matatiele but in scattered fragments [Um11]. Umzimvubu has large pieces of vacant arable land.

Communal agriculture is mainly subsistence production, with dryland crops relying on rivers and summer rainfall. For the Eastern Cape as a whole, only about 1-5% of marketed agricultural output comes from smallholder farmers (Alfred Nzo DM, 2017:16). Communal agriculture in the province generally averages about 10% of household income, and up to 50% at the most. Production is wool for cash, maize intercropping for subsistence, and periodic livestock sales for short term cash injections (EC COGTA, 2020:125). There are weak or non-existent extension services, especially for communal farmers (EC COGTA, 2020:129).

“Historically, the low intensity traditional methods used in the rural areas of the former Transkei have allowed for lower [environmental] impacts, but the practise of contour ploughing is often neglected, resulting in sheetwash and gully erosion. The use of mechanised cultivation is increasing, especially through the promotion of state driven ‘massive food’ programmes, where productivity is prioritised at the expense of resource sustainability. Once topsoil is lost, the original grassland can never recover, and erosion becomes a permanent feature where grassland once existed” (ERS and Conservation SA, 2011:33).

There is limited market access for agricultural produce in the district, with sales mainly to Matatiele and Kokstad or further out. There is room for small scale farming but only in very localised markets [Um05]. Much processing takes place outside the district.

2.1 Beef cattle

Beef cattle, sheep and goat farming are the most prominent agricultural activities in the wider area, with maize as the main grain.

2.1.1 Commercial farming

Commercial farms are found around Matatiele, Cedarville, Swartberg and Mvenyane, with an estimated 150 or more farmers. Some are farming only sheep, some only beef cattle, and some both

[Um01]. There are around 20 big commercial dairy farmers in the East Griqualand area [Um06]. Large scale commercial farmers are mostly but not exclusively white. There is not too much interest or involvement in wider community development issues [Um08].

“The commercial farmers, the private guys ... are very influenced by the old boys’ club of agrochemicals, seed, those big guys ... They all went to school together, they went to varsity together and they all support each other. Bayer, all those guys, they have got such a foothold with these farmers. Some of the farmers are, yes, we’re going for low till or minimum till, thinking they’re all it, but they’re still spraying, chopping.” [Um08]

Conventional beef production is dominant, based on feedlots, with widespread use of force feeding, steroids and hormones and corporate supply of feed, medicine and services. The largest local agri-input retailers are BKB⁴ and TWK⁵ [Um01], both former farmer cooperatives that privatised and corporatised with deregulation that coincided with the end of formal apartheid. Farmers who don’t have the facilities to feed or don’t want to feed send their animals to the feedlots [Um01], including communal livestock farmers. The feedlots:

“are buying, fattening those animals up. Because generally speaking, these animals from these rural communities, they come off the land thin, but as soon you put them onto decent feed, quickly their condition improves, they pick up weight. It’s a quick win for these guys and then they sell it off to the abattoir.” [Um09]

However it does take longer because:

“you need to put these animals on adaptive periods where they just eat grass and you slowly start feeding them. Then it’s almost another month and a half cycle before they’re even ready to go into a feedlot setup. Otherwise they put them onto a feedlot ration, they die, poof, because they’re not used to that.” [Um01]

Triple A feedlot, operating from the Pietermaritzburg and Greytown areas of KZN is a dominant force. They have 55,000 cattle in their feedlot, and slaughter up to 800 a day [Um01]. There are two local feedlots – Greenlands Abattoir in Kokstad has a feedlot near Matatiele with 3,500 cattle, and there is one other seasonal feedlot. Greenlands feedlot is vertically integrated and supplies the Kokstad abattoir. They also have a small feedlot in Cradock in Chris Hani DM in Eastern Cape as a feeder for the main feedlot.

‘Conventional’ large commercial feedlot production is increasingly unsustainable. There are safety concerns around steroids and hormones, and health is a concern driving both consumers and producers towards alternatives [Um01].

“They pump these things in this animal, it grows. In 90 days it picks up double the body weight. It’s impossible. 90 days, geez, ready for slaughter, off you go. Unless you get that banned and out. I know there are guys busy fighting especially ear implants as a start. If they can get that accomplished, then you’ll have some momentum to start fighting this thing. Otherwise, I don’t know, I don’t see it happening, to be honest.” [Um01]

Matatiele is known for its grass reared and free range beef. Grass reared animals are not put into feedlots but growth stimulants and hormones are still used to “get the weaners out of the blocks as soon as possible” [Um01]. In contrast, free range production makes no use of hormones, and has regulated farm checks on water, fencing, quality, condition and size of pastures etc, although there are no specific grassland or grazing management protocols [Um01]. At least 12 commercial farmers in the area are producing free range [Um01]. According to one abattoir manager, for ecological

⁴ <https://www.bkb.co.za/>

⁵ <https://www.twkagri.com/>

alternatives, the big challenge is to show profitability otherwise farmers will not shift. Standards on hormone and steroid abuse and bans may be the best opportunity [Um01].

2.1.2 ‘Emerging’, small scale, communal and informal livestock owners

Box: Defining farmer terms

‘Emerging’ is the preferred government terminology. It means previously marginalised farmers who are in the process of becoming commercial farmers in the formal sector. ‘Small scale’ is more of a technical term. For livestock it is based on the number of animals in a herd. There is no formal definition, but under 50 head can definitely be considered small scale. ‘Communal’ refers to black farmers grazing on shared land under the control of TAs. ‘Informal’ refers to livestock owners who are not registered anywhere, don’t necessarily have their own land though they may have communal access rights, and may sell animals from time to time without any formal mediation or regulation. There are obviously strong overlaps between the categories, and the categories almost overwhelmingly refer to black farmers.

Forty percent of the South African cattle herd is owned by black communal farmers (Malusi et al., 2021:1). In the Umzimvubu catchment, between 50% and 82% of households own cattle (Matela and McLeod, 2016). A community survey conducted by Environmental and Rural Solutions (ERS, a non-government organisation (NGO) working in the area) and Dartmouth College (from the United States) in communal areas where ERS works showed household ownership of up to 175 animals (all types, including chickens) with one outlier significantly higher with 536. Sheep, goats, cattle and poultry were the most common. Male respondents generally had higher ownership except for poultry (ERS and Dartmouth, 2020). A survey of participants in a government livestock improvement project in the area offers another profile of farmers. Farmers were organised in group- and village-owned enterprises. The majority were older men, and most had less than matric education (though there was a higher percentage with tertiary education in Alfred Nzo DM) (Malusi et al., 2021:10). Old age grants were the main source of income and just 17% had cattle as their main source of income. The majority did continuous (as opposed to rotational) grazing, which aligns with the numbers on communal grazing land. Just over half were doing supplemental feeding (lucerne, mineral licks, maize). Vet services were mostly from drug suppliers rather than government extension. Herd sizes were mostly below 50 head. Water was sourced mainly from rivers and dams and water shortages were not a major issue for these farmers (Malusi et al., 2021:3-5).

Homesteads are the basic unit of livestock ownership and management. In communal areas, animals are often left to graze in an uncontrolled fashion. However, there is some collective herd management under village-level livestock and pasture management structures under the leadership of TAs (Madolo, 2008:14).

There are multiple reasons for farmers to hold livestock, including sales, emergencies and lobola (bride wealth). Ceremonies, dowry payment rituals, social status and other functions are important and there are multiple economic and socio-cultural uses of livestock outside of market sales (Mbatha, 2021:144-6). Cattle are held for cash when required rather than for sale at optimum market value. Sales are mainly direct to the buyer through informal channels for immediate cash, and because of the unavailability of other market channels (Madolo, 2008:28).

“We get stuck on this whole idea that we need to make these farmers, we need to take them from a subsistence scale to more of a profitable commercial scale, but we neglect the other perceived value of animals for traditional purposes and cultural purposes in general. We definitely need to acknowledge them.” [Um09]

Cultural motivations for keeping and using livestock is a challenge for market-oriented interventions (Mbatha, 2021:145). There is a difference between holding cattle as a flexible source of wealth that can be monetised as needed and that performs multiple other functions and services on the one hand,

and a market orientation, towards commercial livestock production on the other. The majority of communal livestock owners are not producing primarily for the market. The latter requires different management and planning, with more emphasis on animal health and weight, identifying markets, and timing of sales. Herd duality should be respected, incorporating both traditional animals for cultural / own use / resilience purposes, with breeding programmes for sales.

Commercialisation focuses on improving animal health and weight, but this is beneficial for farmers even if they are not commercialising. This is the basis of livestock improvement programmes, and incorporates at least three areas of consideration: breeds, feed and grazing/rangeland management, and disease management.

Different breeds are used for different purposes. Imported breeds are favoured for commercial production mainly because of better weight (and hence market value) than local Nguni breeds. However, imported breeds are susceptible to diseases, environmental conditions and limited feed availability and require a high level of dietary supplements especially in the dry season (Malusi et al., 2021:2). Nguni are hardier and better suited for conditions and for disease conditions. They are bred to deal and live in these conditions and are able to withstand and come out of seasonal disease periods in healthier states. From a productive point of view, they don't grow as big as some of the more commercial breeds, so there's some trade-off and there are perceived quality issues. Meat Naturally (see agroecological initiatives below) have introduced Nguni commercial crosses into herds as an experiment [Um09]. Greenlands feedlot includes Nguni, and are working with one farmer for 400-500 Nguni weaners yearly [Um01].

“Nguni, it's a very hardened breed and that is very adaptable to the Matatiele area. Because here it's a very cold area that has early frost. Nguni, it's easy even for calving. There are very less complications in terms of when they have to calve and it can withstand harsh weather.” [Um15]

There is a local Nguni breeder in Cedarville [Um15], but generally there is not really any considered breeding taking place. Lack of fencing makes this more challenging (Madolo, 2008:25). A lack of controlled breeding leads to inbreeding and decline in stock quality (Malusi et al., 2021:2).

A Nguni Cattle Project was launched in 2004, with the aim of reintroducing Nguni nucleus herds for adaptation and disease resistance. The project was a partnership between the Industrial Development Corporation (IDC), Department of Rural Development and Agrarian Reform (DRDAR), and the University of Fort Hare, and implemented in three sites in Alfred Nzo. Each site received 10 in-calf heifers and 2 bulls. After 5 years, the same number were to be returned to the project and given to other communities. Part of the project was fencing and rotational grazing, with existing bulls to be replaced with registered bulls. It also aimed to develop a niche market for Nguni beef and skins, and provide cattle management training (Malusi et al., 2021:2).

Although about 180 beneficiaries of the project are still active in cattle farming (Malusi et al., 2021:10), results have not been great. All the cattle provided in Mt Ayliff and Maluti died because of poor vaccination schedules (Madolo, 2008:19). More generally, the project was unable to overcome the significant limitations on a commercialisation model for communal farmers, regardless of breed. Challenges facing communal farmers in generating income from livestock are many, including land and water access, market channels and access, rangeland management, feed, poor animal condition, diseases, small herd sizes, stock theft, low fertility, vet services, capital resources, education, and extension services (Malusi et al., 2021:2). Government approaches of productivity through fencing and commercial management practices, and commercial contracts with a fixed offtake at certain times of the year just do not work [Um03].

Feed and grazing/rangeland management is the second area of intervention in efforts to improve livestock health and weight. There have been longstanding traditional grazing arrangements with

enforcement and sanctions and a person responsible for it appointed by the chief [Um03]. Rotational grazing has local equivalents in the form of mabuela/dobogasi (“closing the land”).

“Traditionally there would literally be herders making sure that livestock aren’t going into certain areas and some sort of person in the management authority would be making sure that there’s compliance and no one’s going into those areas and anyone who infringes on those regulations is fined in some kind of way.” [Um09]

But these governance systems have crumbled over the years, especially in the face of colonial and apartheid interventions, and this has contributed to land degradation amongst other things. In the early 1980s government did fence a lot of the camps, but post-1994 most of the fences were stolen and a lot of the animal management infrastructure deteriorated and just became unusable. Grazing and land use became uncontrolled open access, and there were no regulations or enforcement of rules [Um09]. Farmers have expressed dissatisfaction with communal grazing systems, especially the lack of control because of no fencing (Madolo, 2008:27).

A key challenge regarding feed is that most animals need supplementary feed during the winter months as the available grass is inadequate to meet their nutrition needs. However, commercial feed is expensive and not readily available. Likewise irrigated pasture is costly, and requires secure access to land, water for irrigation, and fencing. Because of the difficulties of securing supplementary feed, many animals are underfed during winter, leading to poor condition, low weight and even death.

Key infrastructure problems include no fencing for grazing camps, no handling facilities and limited water points. Communal grazing occurs in largely unfenced areas which makes effective pasture management and rotational grazing almost impossible. Water comes from the rivers which are long distances from most villages, and leads to exposure to drought despite the apparently water-rich conditions (Madolo, 2008:10).

Disease management is the third area of intervention for livestock improvement. Government used to provide veterinary services (e.g. dipping, vaccinations) but these services have more or less ceased, with a few fragmented government programmes providing sporadic services. Provincial DRDAR has a livestock improvement programme including provision of animals (cattle, goats) and support to improve quality to meet market standards especially on animal health and vaccines. National DALRRD also has their own programmes on livestock support [Um15]. The Matatiele LM Local Economic Development (LED) Unit assists small-scale livestock owners mainly with animal health, with a target of 10,000 cattle [Um15]. The area does have dipping tanks, but most are not functioning (Madolo, 2008:11). The provincial Department of Cooperative Governance and Traditional Affairs (EC COGTA) has noted an increase in animal diseases following budget cuts to services such as dipping, inoculation and shearing (EC COGTA, 2020:129).

2.1.3 Livestock value chain

See Annex 3 for a schematic diagram of the livestock value chain.

2.1.3.1 Auctions

Aside from selling locally to other farmers and households, auctions are the main channel through which farmers sell cattle on to abattoirs, supermarkets or individuals for meat production. Some commercial operations sell directly to abattoirs when their grading systems are adequate [Um01].

There are monthly auctions in Cedarville, Kokstad, Swartberg and elsewhere in the area. Farmers either bring weaners or fat slaughter animals for sale by batch. Auctions organised by the Cedarville Farmers’ Association attract buyers from Gqeberha, eThekweni, Howick and Pietermaritzburg. The main buyers are feedlots, abattoirs and butcheries, and big feedlots like Triple A come to buy in the area [Um01]. Demand from the bigger feedlots in the KZN Midlands has a strong influence on local

prices [Um06]. The Meat Naturally initiative also organises mobile auctions (see 3.1) but the formal sector seems unaware of them (Um01) in spite of their numbers (about 20/year).

Prices offered at auction were at around R52/kg for fat A grade at the time of the research. A standard commission of 3% is deducted from the farmers' share, going up to 6% for unregistered farmers [Um06] (others say up to 14% [Um15]). Registered farmers pay annual fees via their associations to the auction, which is why they pay a lower commission. The commission is split between the auctioneer and for use of the facilities. The abattoirs then take the animals for slaughter, incurring slaughtering fees and running expenses, with around 20% added to the cost. Retailers add a 25-30% markup, and the final product on the shelf can end up costing R99/kg [Um06].

Challenges for auctions include low quality production, weak land use management, limited infrastructure and services, large distances between farmers, and lack of knowledge about markets (Matatiele LM, 2021:189). Theft is a big concern and there are onerous requirements to prove ownership of cattle being sold, such as branding, branding certificates, a letter from the chief, and removal slips. In the past stolen cattle have been confiscated after sale, making buyers reticent to purchase unless ownership is confirmed [Um01]. The cost of transport for smaller farmers to get to market is high. There are limited or no loading facilities where farmers can bring their livestock for weighing, payment, and transport out by truck which is usually organised and paid for by the buyer. Provision of decentralised auctions with appropriate facilities would assist communal farmers to gain access to auctions [Um01].

2.1.3.2 Abattoirs and processing

There are three abattoirs in the area, two in Kokstad (Greenlands Meats⁶ and East Griqualand Meat) and one in Matatiele (Drakensberg, owned by Modern Group). Drakensberg is oriented more towards the Eastern Cape market, and the others more to KZN. Greenlands slaughter around 150 animals a week, Drakensberg about 60 [Um01].

Abattoirs source from a combination of their own herds, auctions, and direct from farmers. One abattoir indicated 60% own production and 40% sourcing from other farmers, working with about 150 farmers, of which just two are black. There is a preference for direct sourcing as it removes the auction commission fee, but the farmer must have a good grading system to know which animals are slaughter-ready [Um01]. Local farmers can take their own animals for slaughter at Drakensberg, but it is costly [Um06].

Abattoirs have two streams: wholesale (mainly to supermarkets) and processing. One of the abattoirs had a ratio of around 60% wholesale and 40% to their own processing facilities and butcheries. They are slaughtering 95% cattle and 5% sheep (there are currently low sheep stocks in the area). They do some trade in pig carcasses but there is a high disease risk so there is limited handling, and they basically just on-sell mainly to the wholesale market [Um01].

There is product segregation of free range carcasses at the abattoir and processing. Free range processing has strict protocols and testing regulated by the South African Meat Industry Company (SAMIC)⁷. Abattoir and processing facilities must be registered and audited for free range carcasses. On approval, the facility receives a certified roller mark for use on carcasses. There are regular checks and strong traceability [Um01].

Vertical integration is trending: “We’ve basically what we call a gate-to-plate situation ... We buy them in, we feed them, we slaughter them, we process them, we move them to our butcheries. We take it from the farm right through to the consumer” [Um01].

⁶ <https://greenlands-meats.business.site/>

⁷ <https://samic.co.za/>

There is no dairy processing in the local area. Raw milk is taken to Clover in Ixopo or eThekweni and East London for processing and then is sold back to retailers in the area via centralised distribution systems [Um06].

2.1.3.3 Markets and logistics

For small-scale livestock farmers the majority of sales are within local communities where there is greater trust and lower costs (ERS, 2016:6), fewer regulations and controls, and greater flexibility.

Commercial markets are divided into so-called “A grade” (conventional production through feedlots) and grass-fed beef, with the latter splitting into free range and grass-reared. The basic difference between these two is the use of hormones in grass-reared beef. Feedlots have captured the quality narrative by being able to call their meat “A grade”.

Free range beef has a 10-15% premium on the market. However, it is a small market because of the cost of production, especially the longer time it takes to raise the animal because there is no force feeding or use of growth hormones. Sales are mainly to ‘boutique’ butcheries and is only an estimated 1% of the total beef market, as very few people can afford it. For example, a ‘conventional’ T bone sells for R140/kg, grass fed sells for R260/kg, and free range for R460/kg. This lacks sustainability, as shown by the recent failure of a wagyu beef factory in eThekweni because it was priced out of market [Um01]. Free range farmers in the area are also selling to Cavalier (the Woolworths abattoir in Johannesburg) [Um01].

Abattoir wholesale goes mainly to supermarkets. These have multiple stores in one area, which reduces transport costs. They require volumes. Supermarkets have their own in-house butcheries and they do process retail cuts. Abattoirs also sell to hotels, bed and breakfasts and restaurants [Um01]. One supermarket in Matatiele indicated that 75% of meat is sourced from local abattoirs/butcheries and others in eThekweni. The centralised corporate distribution centre is used for frozen meat [Um07].

There are a number of local independent butcheries in the towns. Greenlands owns butcheries in Kokstad and Harding and is opening a third in Port Shepstone. Modern Butchery in Matatiele is under the same ownership as Drakensberg abattoir (Modern Group), and EG Meats has a butchery in Kokstad. These are vertically integrated, with the abattoirs supplying the butcheries. Other smaller butchers are falling out of the market due to lack of volumes to make it cost effective [Um01].

“Selling meat is not a good model. Selling meat from communal lands is probably one of the highest risk enterprises you can take on. There’s so much that’s out of your control.” [Um03]

Informal markets also play a role. There are some “bakkie traders” who purchase from farmers and on-sell to communities. In the former Transkei area informal markets and small butchers were a big market, but the last five years have seen significant displacement by corporate supermarket chains. Most supermarkets work with the corporate distribution centres (DCs) and local drop shipment distribution centres. Volumes are key, and small independents can’t compete on costs [Um01]. Fresh and boxed offal is available mainly targeting the low income segments of the market [Um01].

Despite legislation, regulations and plans on public procurement, there is limited procurement of meat from small scale producers. Mount Frere prison and hospital (Madzikane ka Zulu) procure beef from independent suppliers who tender, but they usually procure from the formal abattoirs. A challenge for public or private direct procurement from local farmers is the need for slaughtering first. As such they have to go through an abattoir and then deliver. The food safety issue is more complex than for fruit and vegetables, which means direct local procurement of meat from farmers is less feasible [Um06].

Smallholder farmers face numerous challenges in gaining access to formal markets. One abattoir in Kokstad provides support with a team and a truck one time a month: cattle are weighed and bought or

directed to feedlots if needed. But many smallholders are dropping out due to input costs [Um01]. Communal and informal farmers graze on a lot of land and there is a lot of potential but investment is required [Um01]. Small herds and poor quality livestock raise transaction costs for buyers seeking good quality animals from many scattered small herd owners (Mbatha, 2021:143). Most smaller and informal livestock owners lack the detailed knowledge for a profitable enterprise for market-oriented production, such as costing, early growth, feed, and breeding. Lack of market information e.g. requirements/ standards, market operations, auction dates etc and transport costs mitigate against participation (Mbatha, 2021:147). “When you do meat farming, it all goes with the live weight, the quality, the grade of your animal” [Um06]. Black farmers need training/information and a plan for what and when to sell, as well as capital investment. “Farming is a long term project. You can’t go into it thinking just about money, you need to have passion for farming and production. These are the people to select for support” [Um06]. Land access and material and technical support are required for black small-scale farmers [Um07].

2.1.3.4 Related value chains

Sheep and goats constitute a smaller element of livestock production in the area. The meat mostly goes to local abattoirs in Matatiele and eMaxesibeni, and wool and mohair go to BKB and Cape Wool in Matatiele and Cedarville. Challenges for smaller producers include lack of machinery and infrastructure, lack of skills, and lack of land for processing facilities (Matatiele LM, 2021:189).

There was some increase in goat production in the past two decades. Small stock have a higher reproduction rate than cattle and can also promote participation of women (ERS, 2016:6). However, as with cattle, there is a lack of stock handling facilities and poor rural connectivity. The nearest auctions and abattoirs are in Cedarville and Kokstad, which do not cater for emerging farmers. There are no feedlots, a lack of dipping and other vet services, overgrazing, low quality of genetic stock, and poor commonage management leading to land degradation (Umzimvubu LM, 2020:93). Sheep theft is a major issue [Um01].

The Umzimvubu Goat Project was launched in the mid-2000s as a partnership of Alfred Nzo DM with a number of private and public sector partners and established in eMaxesibeni. Six registered goat coops were to form the Umzimvubu Central Goat Coop in partnership with the DM, and would receive shares in Umzimvubu Goats Pty Ltd with a processing facility in eMaxesibeni. However, the project had limited impact as a result of low buying prices, with farmers preferring to sell in the local community at their convenience (Madolo, 2008:19-20). All the infrastructure (mostly buildings) is abandoned. However, the project is memorialised in the location of the DM offices, which is named the Umzimvubu Goat Complex.

Maize is not widely grown in the Eastern Cape despite relatively good production conditions for this crop. The study area has good rainfall and a “fantastic farming environment” especially around Kokstad, and “the Cedarville flats are beautiful open lands” [Um01]. Maize is grown commercially especially in areas around Cedarville and Kokstad. Some feedlots and livestock farmers plant their own maize on 1,000 ha or more each, and some individual farmers focus only on grain and plant thousands of hectares for bulk commodity and feed markets [Um01].

Government commercialisation plans, working with GrainSA (commercial grain farming industry body), target 80,000 ha for soya and maize production with an emphasis on animal feed and a planned link to the proposed Agrihubs. Qualifying farmers (minimum 5 ha current production, available matching funds and a plan to secure additional funds are required) may receive a R3,200/ha subsidy with a farmer contribution to support discing, planting, spraying and top dressing at government rates. The subsidy supports conventional production, with some no till. However, according to officials we spoke with from Matatiele LM and provincial DRDAR:

“Ultimately we want to build up a biological farmer than a conventional one so as to work with the climate change parameters ... Our wish is for a shift in government to

actually acknowledge the effect of these inputs, the fossil fuels on our atmosphere and, two, the fact that the usage of them would further affect, degrade our only resource, which is land. I do wish that one day we can move away or try to move a bit from conventional practices.” [Um15]

The Eastern Cape Rural Development Agency has a Rural Enterprise Development Hub (RED-Hub) at Mbizana which stores and mills maize. Matatiele LM is completing construction of two siloes for local storage, and there is some small scale independent maize milling in the area, but overall maize production and milling is not a significant activity in the area. Small millers have to compete with prices of large-scale commercial and corporate milled and packaged maize, readily available in all supermarkets and other retailers.

2.2 Horticulture / vegetables

Conditions are conducive for horticultural production in the area (Matatiele LM, 2021:190). Kokstad is well located to take advantage of the different growing times in the colder area near Matatiele and the warmer KZN side. Nevertheless, there is not much local production. Mostly production is the basics of spinach, cabbage and potatoes, and some tomatoes and peppers. The mix of sellers is about 50/50 smallholder and larger commercial farmers but mainly because commercial farmers tend to focus on livestock and maize, with vegetables as a supplementary cash crop [Um05].

Municipal household food security programmes focus on increasing production for own use. Councillors select beneficiaries who receive seedlings from a nursery in Ixopo, with monitoring by Agriculture staff in the LED Unit. The LED Unit also has a small cropping programme. Farmers must set up committees to participate. The programme supports a total of 200 ha beans and maize but not in all wards because of limited funds. They assist with marketing, mainly to local siloes or millers [Um15].

The Small Enterprise Development Agency (SEDA)⁸ Alfred Nzo Agro-Manufacturing Incubator NPC (SANAMI) in eMaxesibeni is a collaboration between the incubation division of SEDA Technology Programme and Alfred Nzo Development Agency (ANDA)⁹. The idea is to incubate small enterprises in agro-manufacturing, including support with business and tax registration, business plans and proposals for access to finance. According to a Department of Economic Development feasibility study, the SANAMI facility should be cleaning, sorting, cutting, sanitising, washing, cooling and sealing into appropriate packages. SANAMI was registered in 2012 and started operations in 2015 [Um12].

SANAMI currently gets 90% of its budget from SEDA National, but it is insufficient to carry out the required functions. A packhouse was constructed but is not yet operational because it doesn't have all equipment and there are no funds to run it. Any processing at this stage will be limited to packaging. There is a staff of 12, and a very limited budget so they are not able to do much more at present [Um12].

Currently they are working with farmers in KwaBhaca, eMaxesibeni, Tabankulu, Bizana and Matatiele to improve volumes and consistency of supply. Instead of incubating small agro-manufacturing enterprises, they are operating as an aggregator, purchasing cabbages on delivery from 88 small-scale farmers in communal areas and selling to local supermarkets. They have a service level agreement with a Boxer (supermarket chain) supplier, but this is currently not functioning so Boxer is buying directly from SANAMI for now. Farmers get R10, SANAMI gets R4, and the retailer markup is R6 per cabbage. Participating farmers must have secure land access and existing production. SANAMI do promote organic soil fertility through use of manure, but pest management is still based on synthetic chemicals [Um12].

⁸ <http://www.seda.org.za/>

⁹ <http://www.anda.org.za/>

Commercial farmers tend to sell to private wholesalers or retailers, within the area and beyond. Savvas Fruit and Vegetable Wholesaler in Kokstad is a family business part of a larger family group (Rolyats Group) networks incorporating 28 Spar stores in the region (Rolyats Group). Savvas Fruit & Veg is probably the biggest fresh produce distributor in the region between Kokstad, eThekweni and East London, with 400m² of cold storage in Kokstad. They have a staff of just under 70 permanent workers between the Kokstad facility and one in Mthatha [Um05]. They are the main fresh produce supplier to Spars in the area and buy in bulk and sells to retailers [Um07].

Local sourcing can be up to 70-80% of the total for basic crops but this is seasonal. There is very limited sourcing from Matatiele. Savvas Fruit & Veg also source from the Western Cape especially for fruit (apples and stone fruit), and from the Free State and Limpopo, especially potatoes. National Fresh Produce Market (FPM) purchases are about 10% of the total. They do buy from walk-in sellers on the basis of an assessment of a sample, looking at quality and consistency. Prices are negotiated based on national market landed prices (delivery to the door). Continuous supply is important, and they look for bigger producers that can supply for long periods. Relationships are trust-based, without contracts [Um05].

Savvas washes and grades for supply mainly to retail. They are not processing because this requires its own food safety system and there is less chance of contamination if they are handling bulk. For Spar, they generally don't supply basics like spinach or cabbage, which can be sourced locally around the store. The market is 85-90% formal, with the balance informal which is mainly fruit which others are not supplying e.g. nectarines, peaches, plums, and other highly perishable products where not a lot of people have got the facilities to store [Um05].

The wholesaler tries to minimise waste through good planning. Any excess goes to the local soup kitchen if usable, otherwise farmers collect from the facilities for pig food [Um05]. Spar Matatiele fresh produce waste also is disposed of for free to a pig farmer [Um07].

Food safety is an issue for formal markets. LocalGAP certification is required to supply into DCs. This is challenging for smaller farmers as it is expensive and time-consuming. The bigger commercial farmers are mostly GlobalGAP certified, especially the exporters. Smaller farmers tend not to use pesticides, so it is less of an issue when buying from them. The FPM wholesale facility has biannual Hazard and Critical Control Point (HACCP) audits [Um05]. Generally produce is checked for quality on entry to supermarkets but no specific checks are done for pesticides etc for local purchases [Um07].

Fruit and vegetable sales are mainly to supermarkets and street traders in the towns, and traders from Lesotho. Some supermarkets insist that managers only procure from the corporate DC or a list of approved suppliers, including the national FPMs. Some local farmers take their produce to eThekweni national FPM and then supermarkets purchase from there, which adds significant cost to the final product [Um06]. Other supermarket franchises do allow managers to make local purchases. Spar has drop shipments (warehousing and delivery to the door on order), to limit the amount of stock the store carries, and suppliers deal with the stores directly rather than going through the DC, with a percentage of sales going to the DC [Um05]. Shoprite and other corporates are considering vertical integration for fresh produce, including integrating primary production [Um05].

Spar Matatiele sources from Savvas Fruit & Veg in Kokstad, the Spar DC in eThekweni for Freshline products, and some local sourcing of spinach and cabbage based on assessment of a sample and approval from the regional manager. Farmers can and do come to the door to sell. Prices are benchmarked to national prices with a retail markup. The supermarket is targeting Living Standards Measure (LSM) 1-5 in Matatiele, and LSM 1-3 for fresh produce. These lower income categories are highly sensitive to quality and there is need to ensure the product is good quality [Um07]. Quality is less of a challenge with local farmers than volumes and consistent supply [Um07; Um10].

There is limited public procurement of fresh produce despite laws, regulations and policies. The school food programme appears relatively decentralised. The district nutrition coordinator has said farmers could go directly to schools and say they have met with her, but farmers can also go via the education office for formal contracts [Um10]. There is a smallholder farmer cooperative in the area selling sugar beans and vegetables (potatoes, cabbage) to schools [Um04].

Government has had ideas of establishing an FPM in Matatiele (Matatiele LM, 2021:190), but this does not appear to have seen the light of day. Work was done on it but there was no apparent feasibility study or business plan [Um12]. There are reports of unused FPM facilities in town (Ngcukana, 2020), but no-one we spoke to knew about them.

“Farmers want to sell their product on time and get their money. They don’t want to have to sell it themselves at the facility. This led to farmers withdrawing. Transport costs are a big factor if you are selling outside the locality. FPMs have failed in Mthatha and Port Shepstone even though the location and situation is more favourable in those places” [Um11].

There is no farmers’ market in Matatiele but for end users fresh produce is readily available from street traders in an embedded system that is quick and easy, offering consumers time savings, smaller units and often lower prices than supermarkets. Quality and food safety assurance is the main difference with the formal sector [Um05]. Supermarkets need someone who can manage financial systems and many individual small-scale farmers will struggle [Um04].

“You’ll find that in Matatiele, people who have spinach, cabbages, they go with their vans and they open their vans and they park somewhere in the south because that’s what makes sense to them as opposed to taking everything into a Spar” [Um11]. Stokvels (savings and buyer associations) buy in bulk in December but not throughout the year [Um05].

3. Agroecological initiatives

3.1 Meat Naturally Initiative

The Meat Naturally (MN) Initiative is a rangeland restoration project started in 2013 and driven by Conservation South Africa (Conservation SA) in partnership with ERS, Lima, and the Institute for Natural Resources (INR) as an initiative under the Umzimvubu Catchment Partnership (UCP).

3.1.1 Key actors

Conservation SA¹⁰ is the branch of Conservation International which works on conservation, restoration and sustainable use in South African biodiversity hotspots linked to food security, land reform and equitable development. Conservation SA is working in the Cape Floral Kingdom, the Succulent Karoo and in the Maputaland-Pondoland-Albany hotspot where Matatiele is located. They were working in the Namaqualand on predator-friendly meat and red meat standards with WWF and discovered that communal farmers suffer lower predator losses than commercial farmers. They wanted to learn from and promote those indigenous practices in grassland biomes. Conservation SA initiated a process of engaging with ERS and then other local organisations. Together they established the UCP (see below) [Um02].

ERS¹¹ is a 20 year old local environmental NGO which emerged from and took forward earlier work in the area by the Environmental and Development Agency (EDA) Trust. ERS’s mission is to promote “sustainable landscapes to underpin resilient livelihoods”. They focus on “co-creating

¹⁰ <https://www.conservation.org/south-africa>

¹¹ <https://enviros.co.za/>

solutions to problems in the landscape with governance structures”, and work with six traditional authorities in the area (Sibi, Moshoeshoe, Mzongwana, Mafube, Makhoba and Nkosana). Practical work includes spring protection, alien plant clearing including with the Working for Water programme (WfW), rangeland management and youth in the green economy which includes Eco Futures (para vets, small business skills, and fire management) and South African National Biodiversity Institute (SANBI) Eco Champs as community-based multisectoral extension workers. They work with 75 people who subcontract in the field either to clear wattle or do spring repairs, etc [Um02].

Lima Rural Development Foundation¹² is a non-profit organisation based in Pietermaritzburg in KZN and working in four provinces on a range of topics including agriculture, food security, social development, land reform, construction and engineering, and education. On farmer support they deploy teams of technically-qualified agricultural facilitators, extension assistants and master farmers. Lima is currently running two projects in the Matatiele area, wattle clearing with WfW in two sites, and a spring protection programme. They have previously done work on agricultural production but currently they have no funding to support it. Lima has in-house trainers that come to the catchment and offer farmers training on topics such as crop management, production, and animal health, through to linking farmers into markets and getting them to a point where they can consistently supply markets [Um09].

The INR¹³ is a non-profit consultancy based in KZN and providing a range of services to government, private and NGO projects focusing on adaptation and resilience, agriculture and rural livelihoods, sustainable futures, and ecosystems.

Conservation SA and ERS developed a Memorandum of Understanding (MoU)¹⁴ and invited other organisations to join in, leading to the establishment of the UCP¹⁵ in 2013. The MoU elaborates on the objective of integrating sustainable natural resource restoration, conservation, management and use and equitable economic development for local people. The UCP is not registered and there are no formal signed agreements. It is a voluntary collective based on the MoU. Participants share a common vision but do different activities. The UCP offers a community of practice, and gives a collective voice. They hold quarterly platform meetings for information sharing, presenting on activities, opportunities etc. The last meeting had 74 participants.

Thirty five partners initially signed on, including government departments and agencies at municipal, provincial and national levels; TAs; NGOs; co-operatives; and conservancies and trusts¹. Since then some have left, others are not active, and yet others are become active but have not signed on. Government officials at municipal, provincial and national levels remain active in the UCP, albeit unevenly. “We try and embed the work that we do in their IDP and get that they recognise it. They’ll never support it financially, but if we’ve got their mandate and their blessing, we can go a long way” [Um02]. The UCP has a logo for collective products e.g. the Rangeland Toolkit and the Spring Protection Guide and Toolkit. ERS provides voluntary coordination for the UCP and the partnership continues to function despite no managers or plans [Um02].

Activities are mainly in the upper catchment at present but with some links to civil society organisations (CSOs) in the lower catchment [Um08]. In the upper catchment, UCP works in six TA areas¹ on outreach and declaration, eco-rangers, alien plant clearing, ecotourism, grazing plans and auctions, game, fire management, erosion control, agricultural development, wetland rehabilitation, fish farming, stock theft, land claims, job creation, biomass value chain, water and sanitation, with annual training on committee skills. Funded projects are sought and allocated across these areas and sites (McLeod and ERS, 2019:7).

¹² <https://lima.org.za/>

¹³ <https://www.inr.org.za/>

¹⁴ <https://umzimvubu.files.wordpress.com/2014/09/ucpp-mou-signed-7mar2013-dwa.pdf>

¹⁵ <https://umzimvubu.org/>

3.1.2 Brief overview of Meat Naturally

The MN initiative has a primary objective of finding solutions for how to sustain a supply of quality cattle off soundly managed rangelands without dependence on external funding (ERS, 2016:2). The immediate goal is to get collective herds into a healthier, more productive state [Um09]. The basic principle is that healthy rangelands will produce healthy cattle, resulting in an increase in value for smallholder farmers. Livestock is understood as a livelihood asset as well as a tool for landscape management and restoration.

In this model farmer / rangeland associations sign negotiated stewardship agreements for improved rangeland management (grazing management for improved grassland cover, rest areas, monitoring, incentives, with local livestock farmers and specified livestock supply (ERS, 2016:4). These serve as guidelines and a standard of practices for farmers to adopt, that will protect wildlife and optimize rangeland health.

This is built on the revival of traditional rangeland practices and restoring social capital and governance. This involves allowing traditional institutions to function effectively, integrating restoration efforts into existing local regulations and sanction systems, clearly linking conservation actions with livelihood resource improvements (local knowledge and ownership, and peer to peer exchange), and support and guidance through adaptive co-management (ERS, 2016:4).

Meat Naturally Pty¹⁶ was set up in 2016 as a for-profit company to run the initiative. Farmers hold 70% of the shares through a Trust, and 30% is held by the manager based on investment [Um03]. The farmers' Trust then gets a "profit share that's proportional to the revenues that the farmers contribute to the business" [Um03].

MN partners with NGOs to offer rural farmers formal training on regenerative grazing techniques, rangeland restoration practices, cattle management, stock theft patrol, and predator control. They organise mobile auctions and abattoirs to provide small-scale farmers with market access, and complete sales. In exchange for training, equipment and market access, farmers commit to preserving rangelands and providing quality meat products that are sustainably produced. MN aims to contract others to manage the regenerative farming aspect and supply, and works with local NGOs for now to mobilise farmers and to facilitate the eco-rangers [Um03].

Key determinants of success include (ERS, 2016:10):

- Farmers' ability to supply a minimum number of cattle at least once per year on an ongoing basis, comply with grazing agreements, and receive benefits
- Governance - strength of TAs, degree of support for compliance and sanctions, effective grazing committees / associations, social cohesion, trust
- The state of landscape resources and rangeland
- Availability of extension services and inputs

At present, according to participating farmers, the benefits of Meat Naturally are mainly lower commissions paid at auctions and improved forage. Other incentives such as vaccinations, licks, supplementary feeding and jobs were not considered to be significant as part of the initiative by most responding farmers (ERS and Dartmouth, 2020:8). Nevertheless, there is a need for a range of incentives to make sure people stay involved, especially given meat price volatility [Um03].

¹⁶ <https://www.meatnaturallyafrica.com/>

3.1.3 Rangeland management practices

Regenerative practices are based on rotational grazing and collective herding, taking inspiration from the Holistic Management model of dense grazing for short periods where the animals can fertilise and trample the ground intensively and not overgraze before moving to another area, following the behaviour of wild herds in these biomes (Savory and Butterfield, 1998). They are “looking at high-density kraaling and just using very basic infrastructure, like single-strand electric fences that eco-rangers can literally carry out into the field to kraal livestock and to keep them within certain areas and to help them manage livestock” [Um09].

The emphasis of rangeland management is on governance, as “an eroded landscape stems from eroded governance” [Um09]. The initiative works with TAs and community-based rangeland or livestock associations and facilitates discussions and training. Associations voluntarily sign on to stewardship agreements. “They agree to certain management practices within their rangeland area. In the early stages it’s simply resting in one area and farmers are able to graze everywhere else. A veld assessment is done in each place, key intervention areas are identified, and then calculations made according to the grazing densities and what the herds will need to sufficiently move through the season and then rest certain areas” [Um09]. About 90% of the livestock owners are anticipated to be involved or active within the association and benefiting from that collective action and that collective pool of resources [Um09]. A lot of the work focuses on support for traditional governing systems:

“so that we can re-establish these traditional land management systems, these land management systems that work, that historically have worked in the catchment, trying to re-establish them to rehabilitate these landscapes. As opposed to trying to introduce new ones, which we don’t know what would happen and we don’t know how communities would perceive and adopt those strategies.” [Um09]

TA structures in this area are still intact and strong, they “are longstanding, people know and trust those leaders within the community and it’s an institution that’s been well established and been there for many, many years. They already have the lines of communication for us to be able to engage and really move into a community ... [whereas] elected leaders, often their terms are, it’s short term, they’re there for four years, it’s fragile communication structures, it’s fleeting trust in that one person” [Um09].

Uncontrolled fire is a challenge and many TAs have no fire management plans for now. People are starting fires illegally. There were previously sanctions from the chief but he has no power now [Um17]. Part of the idea of rangeland associations is to widen beyond livestock and to integrate with water management, veld monitoring and planning, alien vegetation clearing / harvesting and associated livelihood opportunities.

The initiative aims for a gradual transition “into a stage where we’ve built enough capacity within the community to start handing over some of those roles and responsibilities onto community members and into institutions like the association or the traditional leadership structures to take those roles on so that we are able to exit”. There is slow progress but signs are positive [Um09].

“One of the considerations that we’ve been thinking about with this grazing programme and the rangeland work, is how do we help farmers benefit from that in-situ stewardship in terms of downstream benefits, that grass is being retained rather than ploughed into maize lands or feed for these animals? How do we incentivise maintenance of rangelands? The Meat Naturally system is actually pretty good for that” [Um08].

Box: Mafube Traditional Authority

Mafube TA has a livestock association participating in the MN initiative. Cattle, sheep and goats are kept on communal grazing land. According to members, the main challenges are lack of feed especially in winter, and stock theft. They do sell some animals, but it does not generate a lot of money. They couldn't sell their cows at the auction or only at low prices because of poor condition and low weight. Rangeland condition has improved since a 2013 Lima programme to remove alien trees and it has created more grazing land and improved food for cattle. This has allowed prices to go up from R8,000 to R15,000 or more per head. They are looking for improved breeds, especially Bonsmara for beef and Jersey for dairy. This is expensive but they want calves [Um17].

There is collective herding of up to four herds happening in some communities. There are different beliefs on protecting herds from theft but in principle it could work. They can use one area as a farm where there are currently a number of kraals. Some farmers take their livestock to commercial farms where they are secure and have good grass. They need a separate area for livestock, and in winter they can plough in the areas where they have grazed [Um17].

The Mafube TA has many ideas about what they could do, including improved beef and dairy cattle, a short-term feedlot to fatten cattle three months prior to auctions, wool sheep and shearing, and planting maize and sunflower for feed. However they are not receiving support from government and there is a lack resources to follow these plans, including fencing for camps, and equipment and seed for cropping [Um17].

3.1.4 Eco-Rangers and herders

Eco-rangers / eco-champs are essentially capacitated, community-based extension workers providing a range of support services to livestock farmers and wider rangeland conservation and restoration. ERS works with SANBI Eco Champs as community-based multisectoral extension workers responsible for conservation agreements, rangeland and veld monitoring, developing green business value chains off alien plants, looking at the whole value stream and trying to build up small enterprises to run those [Um02]. Other functions are as paravets, stock theft and fire patrol, alien clearing follow up and erosion control, facilitating trampling on cleared areas, auction preparation and support, recording and monitoring, and serving as community stewardship ambassadors (McLeod and ERS, 2019:28).

A key role for eco-rangers is around livestock. "Eco-rangers act as the support to the association and they are the guys on the ground who are monitoring the livestock, monitoring the livestock movements, monitoring the livestock health, putting in place measures to manage those livestock and to step in when interventions need to take place" [Um09].

Eco-rangers are at the core of the rangeland management methodology. "The method behind our rotational rest grazing is we hire an eco-ranger or a herder from the community and in the initial stages they monitor those rested camps and ensure that no livestock go into those camps. But as their capacity grows, they will slowly reach a stage where they are herding a collective herd of all of the livestock in the community, providing all of the animal health monitoring, and intervening when animals do need some kind of medication or medical treatments" [Um09]. Eco-rangers in the MN initiative are paid by Meat Naturally for now, with the idea to transfer responsibility to rangeland associations once profits from better livestock health and higher meat prices are apparent [Um09].

There is need for a professional herding qualification. The South African College for Tourism's Herding Academy¹⁷ in Graaf-Reinet is the only place in South Africa offering a qualification so far. It is Sector Education and Training Authority (SETA)-accredited, generally for six months, but also broken up over a course of three years to allow for work and study. It acknowledges herding as a

¹⁷ <https://www.herdingacademy.co.za/>

livelihood option and an important role in the community. This is an important part of changing perceptions around herding, which is still considered the lowest job. It upskills youth in the different sites to provide support to farmers to be able to manage their livestock on the lands and enforce the rules and regulations that the traditional leadership and the associations put in place to really make it work [Um03; Um09]. The Southern African Wildlife College¹⁸ offers some short courses for herding in the Big Five areas to do with human-wildlife conflict mitigation. There is a need for one herding academy per ecological zone [Um03].

Afrivet¹⁹ provides the eco-rangers with the capacity for animal health interventions such as basic animal health training, and providing them with the medicinal resources when medical intervention is needed in these herds. Blanket herd health interventions are made e.g. for parasites. This is subsidised by a Lima project, and associations may pay a small fee for some resources [Um09].

Livestock association members in Mafube TA indicated that eco-rangers have helped them to identify rest areas and monitoring, and used to help with vaccinations, environmental and fire awareness, auctions and the grazing association. However there is no money to support rangeland management. In the past, rangers were employed by government to do fire breaks, fencing, and monitoring of camps. People in the area don't want to volunteer as rangers. "Grants have spoiled the youth so they don't want to work without pay". In principle, the association is willing to pay eco-rangers (preferably permanent) because they are helping, but funds should also pay herders to assist with monitoring of stock theft. If they work as an association and get government support, a percentage could go to covering costs and they could employ from within the association [Um17]. The eco-ranger model offers opportunities for associations and NGOs to work with TAs and extension services to secure training for eco-rangers (Mbatha, 2021:151-3).

3.1.5 Meat Naturally livestock auctions

MN facilitates mobile livestock auctions (one or two times a year per village) for small scale producers to incentivise participation in environmental protection efforts and regenerative practices, with economic incentives through participation in livestock-based enterprises. Cattle from the improved grasslands goes to these auctions. Mobile auction platforms can reduce transport, logistical and infrastructure costs for small farmers (Mbatha, 2021:156). An auction date and mobilisation of buyers and sellers are agreed in discussion with community leaders. Prices fluctuate quite a lot and dates should be targeted when prices are higher e.g. in April. A minimum of 70 cattle must be sold to generate a sufficient commission size for the model to be financially viable (Mbatha, 2021:154).

Farmers with higher levels of monitored participation in environmental and restoration efforts pay reduced commission on sales (5% rather than 6%), which is used for auction overheads and reinvestment through grazing management structures (ERS, 2016:4). Farmers who are not part of grazing agreements have to pay a higher commission rate (up to 10%) than farmers who have been participating [Um03]. A regular supply of quality livestock is the key to success. MN needs flexible but consistent offtake, a minimum number of animals are required, and the chief must guarantee that he'll put up animals even if there is a local shortfall [Um03].

Almost 3,000 farmers are participating in MN now, supplying from November to August. They were previously only selling for three months. A higher number of men than women sell cattle at the MN auctions. Women are more satisfied with the prices from the auctions (ERS and Dartmouth, 2020:7). MN is currently supply constrained. The demand is there, the model is there, but the constraint is the "time it takes people to get farmers organised to implement regenerative grazing" [Um03]. While farmers do sell into the auction, many have a continued preference for sales into local markets. Transport is an issue for auctions, and the effort may not be worth it for sales of individual animals.

¹⁸ <https://wildlifecollege.org.za/>

¹⁹ <https://www.afrivet.co.za/>

About 75% of farmers in an ERS community survey were selling locally, with the majority selling five or fewer animals a year (ERS and Dartmouth, 2020:8).

MN has an insignificant market share at this stage. “At the moment I think on average we’re probably selling about 100 animals per auction. If we were at 1 000 animals per auction, I think we’d be able to pull in a lot more of the bigger players in the meat market and engage different markets. Engage the range-fed beef market, market the meat as range-fed meat, market it as reduced carbon or meat that has a smaller carbon footprint and take it from there. But I think it’s slow steps to there” [Um09].

Nevertheless, the initiative is generating some income. From 2014-2018, 25 auctions were held in which a cumulative 479 sellers sold 2,553 stock (87% of those put up for sale) at an average of R16,20/kg and an average turnover of R730,551. Average household income was R14,139. There was a cumulative total of 112 buyers, with an average of 4 per auction (McLeod and ERS, 2019:5). In 2019 2,400 cattle valued at R15,3m were sold by 1,168 sellers through more than 20 mobile auctions. Most were classed as Grade B, thus excluding high end markets, and most animals ended up at local abattoirs, butcheries and farms for further fattening (Mbatha, 2021:153). In 2021, MN had a R27 million turnover, with 94% going to farmers directly, and a 6% commission to sustain the company [Um03]. In an MN post-auction survey in 2020 with 255 farmer respondents, 62% said the income from sales was critical for survival or extremely important as other income sources are insufficient to cover basic needs. The main uses of income were for food and child support, with about 25% looking to purchase items that Meat Naturally can supply (Meat Naturally, 2020a).

An MN buyer’s survey at an auction in 2020 based on 16 interviews (all men) revealed two large buyers purchasing more than 50 animals per auction, with most others buying 10-50 animals, with a few under 10. Eighty five percent of buyers fatten the animals for on-sale, with 40% going to small to medium size feedlots, some direct to the abattoir or butchery, and a few keeping them on their own farm. Motivation for participation in the auctions is mainly economic, with some buyers having social and environmental motivations as well. Logistics and distances are the main challenges in attending the auctions. Holding pens and loading areas/systems are needed to make it more efficient. The low number of animals on sale and poor quality arose as issues for some buyers. Survey respondents said improved financial terms and credit arrangements could build buyer participation, and that sellers should have a better appreciation of buyers’ costs in attending auctions (Meat Naturally, 2020).

Box: Carbon credits as a supplementary funding source

Carbon credits are being considered as a possible source of income linked to land management, with a communal claim to the carbon. Communities participate in regenerative practices and get a share from carbon credits. MN has been discussing this with an investor who is also interested in purchasing livestock [Um03].

“Carbon revenue is marketed through a carbon trader called TASC. They are basically funding the initiation, they are catalysing this first stage of the project with the understanding that five years down the line when we start to see the positive impacts of the project, they’ll be taking carbon as an offtake of that” [Um09]. The plan will operate in three catchments (Tsitsa, Umkhomazi and Umhlathuze), targeting 130-160,000 ha. It is a large project, and the first of its kind in the world in a communal setting and communal rangelands. Meat Naturally is taking on the full risk associated with the project. Carbon is priced low so there is a need scale for profit [Um09].

Three levels of the carbon plan have been developed: Level 1 is rotational rest and the development of a fire management committee and a fire management plan. Level 2 is planned grazing. More than just selecting one rest area, they have rotational rest during the grazing season, but not the creation of a village herd yet. Level 3 is the village herd and training eco-rangers and professional herders as first responders for fire management. Previous activities had no fire element, and were mainly at Level 1. Carbon credits offer an opportunity to extend that work. MN is putting 500 eco-rangers through a Herding Academy programme to sustain the carbon investment [Um03].

The value of carbon in a village grazing area is at best one-fifth of livestock value, so it will be relatively small share of income [Um03]. “The profit that the community receives or the financial incentives that they receive from that [carbon credits] is actually not that big. But we see it as an opportunity to establish this in the communities and the benefits that they will be receiving from marketing their livestock is going to be much, much bigger. It provides us with an opportunity to establish better market access for them, healthier rangelands, healthier animals and more profitable animals, more productive livestock systems” [Um09].

3.1.6 Challenges

The MN initiative is still in early stages, and is based on a long term change in rangeland quality that translates into improved livestock quality. In the short term, participating small-scale and communal livestock farmers continue facing the same challenges as others. An ERS survey of participants found the main livestock challenges were disease and theft (40-50% of respondents each), followed by parasites and drought (10-20% of respondents each). Farmers indicated key areas for support are vaccinations (over 40% of respondents), dipping and supplementary feed (just below 20% each), and animal husbandry and animal health (around 10% each) (ERS and Dartmouth, 2020:9).

Gender equity is a big issue for cattle ownership, land use and ownership rights, and auction buyers and sellers. Women were only participating in auctions as food traders. This is a deeply institutionalised issue (Mbatha, 2021:157-8).

Time with farmers, mediation, facilitation, community dynamics and conflict etc are considered to be some of the biggest challenges. The key is to work with people over time and build up trust. “90% of our work is probably community engagement and facilitation” [Um09].

3.2 Smallholder agroecological vegetable production

Agroecological or organic horticultural production is limited in the area, whether commercial or smaller scale. Various very small scale civil society initiatives are opening up the space, but are hampered by lack of resources to carry the work forward. In Matatiele, SaveAct and Mahlathini Development Foundation (MDF) are NGOs working with backyard and smallholder farmers on agroecology and climate resilient agriculture. In Umzimvubu, farmers are working to establish a Participatory Guarantee System (PGS) quality assurance, organic production and marketing network.

In the markets, organic is quite widely perceived as a premium market with little interest in rural areas where lower prices are a priority. There are also concerns in the formal markets about lack of assurance that the product is organic [Um05].

SaveAct²⁰ works in villages around Matatiele, KwaBhaca and Mount Fletcher (Tlokoeng), with about 100 members in cooperatives and 100 individuals. Community-based, self-managed savings groups are the backbone of SaveAct’s work, with financial literacy education and training to support that. Participants self-select using their own money, which remains entirely under their own control. They form groups which can approach SaveAct for support and guidance. The groups are regulated, with rules. There has been a successful spread of the savings groups. From there SaveAct developed a programme on livelihoods and enterprise development, providing mentorship and training support including drawing on others e.g. Department of Agriculture, the Matotomana Agricultural College (a private local college in Maluti near Matatiele²¹), the Department of Social Development (DSD) and other NGOs. They promote aggregation, production coordination, and market access. Provincial DRDAR is interested in partnering because they say “at least your people are already organised, at

²⁰ <http://saveact.org.za/>

²¹ <http://www.matotomana.co.za/index.html>

least your people are already trained in record keeping and business skills, so if we fund them in their projects, we are sure that the money is safe and that you continue to mentor them” [Um10].

SaveAct’s Zis’Ukhanyo (“Bringing Light”) is a non-profit supplier of farming inputs:

“It started providing everything, from seedlings, fertilisers, herbicides and pesticides, but then the interest declined because I think of the teachings or the encouragement on good farming practices. We don’t order, in our storeroom now we don’t have those ... We’re not focusing on those chemical stuff now. Because even the trainings that you are having with the Mahlathini guys that were here, we are encouraging less use, if ever, of chemicals. I know there was a training recently on liquid manure that is made of locally produced things, indigenous and waste material. We want to do away with those stuff that it harms the soil, it’s not good in the long run.” [Um10]

SaveAct have introduced climate resilient agriculture (CRA) and conservation agriculture (CA). Principles of CRA are loosely defined to include good water management, controlling soil movement, crop management and soil health. MDF provides training [Um10], with seedlings from a certified commercial nursery in Pietermaritzburg. There are opportunities for a nursery in the area [Um10].

MDF ²² is based in Pietermaritzburg and works in southern KZN, the Midlands and Bergville, in Hoedspruit and Tzaneen in Limpopo, with a project recently started in Umzimvubu. MDF provides training on production, soil and water conservation, biodiversity, seed saving, livestock integration and other topics; support to farmers on agroecology, permaculture, regenerative agriculture and conservation agriculture; water sourcing including water harvesting; market access with a focus on local markets; and farmer to farmer learning and sharing. Farmers are organised in groups per village [Um04]. According to MDF staff, it is easy to speak to people about ecological production methods because synthetic inputs are expensive. There are weed management issues and, while they produce their own pest remedies, it is more labour intensive than spraying toxic pesticides. Farmers lack knowledge about things like seed and just take what they are given [Um04]. A challenge is the long time it takes to build up soil organic matter [Um04].

Lima has no specific agriculture activities yet in Matatiele because of lack of funding. However they have plans to start up a couple of climate-smart community gardens and demo gardens to catalyse small-scale household production in all of the areas using climate-smart agricultural techniques. Lima essentially defines climate smart agriculture as adapted crops and practices for arid climates, and water conservation and harvesting [Um09].

The coordinator of the PGS initiative is part of the PGS Pollinators’ Programme and is working on establishing a PGS with 40 farmers around KwaBhaca and eMaxesibeni in Umzimvubu, and in Tabankulu, in part building on the Embo Regenerative Agricultural Cooperative. Personally he currently produces diverse vegetables, legumes and poultry on a backyard plot using permaculture methods in Mgungundlovu village in Umzimvubu. He has some sales, mostly to local spaza shops and occasionally to Spar in KwaBhaca. He is negotiating a Permission to Occupy (PTO)²³ agreement on 5 ha for larger production of sugar beans, groundnuts and cassava. Through national organic farmer networks, a potential market opportunity was identified, working with an aggregator in Gauteng for

²² <https://mahlathini.org/>

²³ Permission to Occupy is a formal recognition of use rights and lawful occupation of unsurveyed communal land granted by the traditional authority responsible for land management and allocation. “PTOs were originally issued in areas scheduled for Black Occupation in accordance with the Black Administration Act, 1927, the Native Land Act, 1913 and the Development Trust and Land Act 1936” (Lexis Digest, 2012). Although PTOs are no longer supposed to be issued and are to be replaced by formal title deeds, in reality they continue to be issued as cadastral surveys that underpin the formal titling system have not been conducted or completed (Lexis Digest, 2012).

organic production of sugar beans. Total demand is 160 tonnes/month and the aggregator is looking for suppliers countrywide. There are other potential market projects on ducks and poultry [Um14].

Municipal LED and provincial DRDAR are generally not involved in civil society activities, although organisations are trying to connect with them to bring them closer to the farmers. Farmers have expressed their dissatisfaction with the lack of government support [Um04]. Civil society organisations in the area do consult with the TAs and their experience has been good. TAs are supportive, but allow projects to go ahead without intervention if there are no problems. They appear happy for the assistance [Um04].

4. Public support and role of local authorities

Agriculture is considered to have growth potential in the district, and government plans focus on commercialisation of smallholder production as a driver of agricultural growth in the area (Alfred Nzo DM, 2017:16). There have been various programmes and many good-looking plans in documents, but these have been relatively or entirely ineffectual to date.

In line with the national Agriparks Programme (DRDLR, 2019), Alfred Nzo DM was to establish one Agri-hub for the district, as well as Farmer Production Support Units (FPSUs) in each LM. Cedarville was identified as the location for a district Agri-hub, to focus on animal feed, maize meal, mutton and scoured wool (Matatiele LM, 2021:188). Land was identified around Cedarville but did not pass the Environmental Impact Assessment (EIA) as it was on wetlands. Alternative land was identified in Matatiele but there was no development in the past 3 years [Um11]. In Umzimvubu, the SEDA Alfred Nzo Agro-Manufacturing Incubator NPC (SANAMI, see below under horticulture):

“was identified as an FPSU because they even developed a business plan, but it disappeared. That programme disappeared ... Everything just went quiet. Because Land Reform was championing that, but they just disappeared” [Um12].

There is some sense that the Agri-parks programme is no longer really functioning, but there is no alternative comprehensive farmer support plan to replace it. More recent times have seen a government orientation towards localisation (buying and selling more locally), with public procurement proclaimed as a ready market for smallholders, but rarely acted on.

There are a number of national, provincial and local programmes through different departments. These include national and provincial agriculture department farmer support programmes such as the Comprehensive Agricultural Support Programme (CASP), LandCare, Massive Siyakhula, Siyazondla and Letsima. These have offered ploughing, fencing, irrigation, other infrastructure, production inputs, training, shearing sheds and dipping tanks based on ‘conventional’ (high external input) commercial agricultural models. Many other commercialisation programmes have been planned with and without the private sector, ranging from livestock improvement to maize, deciduous fruit and horticultural tunnel farming, but few have come to fruition, and fewer to a point of sustainability. The method of production comes at the expense of environmentally and socially sustainable production methods, is threatening sustainable production and is moving the district towards a “welfare state” (Alfred Nzo DM, 2010:6).

Matatiele LM provides support for smallholder farmers in various ways. These include the Expanded Public Works Programme (EPWP) to subsidise employment, small-, medium- and micro-enterprise (SMME) and cooperative training and funding, informal trader facilities in town, fertilisers, seed and seedling distribution, alien plant eradication, a household and food security gardens project and a livestock improvement project (vaccinations) (Matatiele LM, 2021:92, 111, 126, 287-9). Plans to develop an FPM and construction of silo facilities in Matatiele are discussed briefly in the sub-sector overviews below. Matatiele LM’s LED unit is segmented into SMME development, tourism, forestry and agriculture, but agriculture is not a core mandate. They try to coordinate, and to bring others to do the actual work [Um15].

SEDA, a government agency under the Department of Small Business Development (DSBD), has district offices in eMaxesibeni. SEDA provides non-financial support to SMMEs, such as business and tax registration (required to access public funds), needs assessments, business training and planning, applications, compliance, market access, and mobilising other sources of support. People approach SEDA for support [Um13]. SEDA and ANDA have established SANAMI specifically for support on agriculture (discussed above).

Government agricultural projects tend to be separate from each other, with the municipal wards divided into spheres of operation for each governmental body instead of working together. The provincial DRDAR currently has about four projects in Matatiele, district Agriculture has about six projects, and the LED Unit in Matatiele LM has about eight projects out of 27 wards. A district tribunal is meant to sit quarterly to decide on projects, but it doesn't sit as regularly as it should which slows processes down, as each application takes a long time and there are four municipalities to consider [Um11]. Livestock owners in Mafube TA said they work with DRDAR on livestock branding, and there is some communication with the LM when technical advice is needed. However there is no assistance on livestock inputs. The LM focus is on Reconstruction and Development Programme (RDP) houses and services. They do try to input to the Integrated Development Plan (IDP) every year but nothing is happening [Um17].

Municipal capacity is very weak, with under resourcing, under staffing and lack of appropriate skill sets. Support programmes focus on provision of inputs, lack effective M&E, and remain shaped by a top-down approach where government representatives know and tell, and local producers listen.

Public employment programmes like the EPWP and WfW are visible in the area. However, they are limited by rigid rules, lack of funds for proper management, and are only sporadically available and sometimes on short notice which results in discontinuous activity. "We do have [agro-processing] programmes as wish list from the IDP ... But you'll find that due to shoestring budgets that we have, we don't have a staff complement that can match that" [Um15]. Programmes have been narrowed to only deal with clearing. Further development of value chains is left to other units (i.e. than agriculture) and departments who have not effectively picked this up, leading to disjointed and fragmented government programmes.

"Alien clearing operations through the Working for Water programme have initially been effective, but follow up is essential, and requires substantial funding. Clearing operations which leave biomass in or alongside the river course can create problems during floods through artificially increasing the flood load, causing damage to bridges and leaving some riverine areas impenetrable after the load has been deposited" (ERS and Conservation SA, 2011:31).

Government-civil society relations in the area are cordial in part but are not strong. We heard a number of allegations of corruption, perceived or real, in government at all levels including nepotism, kickbacks and bribery. CSOs have made inputs into IDP processes but there is limited follow up from either side beyond that. CSOs indicate lack of time and lack of confidence that it will lead anywhere:

"We've just really struggled with getting any kind of government institutions involved in these programmes. We keep them in the loop and let them know exactly what's happening ... There's little to no support. It's often fleeting ... We have a good relationship with the community development officers and some of the other government-appointed representatives in the communities and they really are great. They really support us. But I think general government bureaucracy and their line managers just, it's not conducive to working through them to get anything done. But from a community perspective, they really help us better engage the communities and if they see a number of institutions and organisations present supporting the same initiative, the communities really buy into it and want to be part of it." [Um09]

“We do have the meetings [with the municipality], but we don’t have any activities that we work together with them. For instance, we know that there’s the LED office, there’s the environmental office, but our plans and our activities don’t match for some reasons ... We just know that there’s this office, but they are not necessarily reaching out. I think they’re having their internal meetings more than engaging with the rest of the stakeholders. Because if they could invite us to those meetings, we would jump, knowing that they’ve got resources, they’ve got everything. There’s still a gap.”
[Um10]

From the LM side, the experience is that civil society doesn’t make much effort to engage: “They do come here when they have a problem or if the chief does not want to give them land or whatever, or if their communities feel they are not getting the worth of the pieces of land that they have put into the project for development. They would only consider us when they start fighting or they need us to intervene” [Um11].

5. Main lessons and way forward

Based on Wezel et al. (2016)’s concept of agroecological territories, an overall assessment of agroecological initiatives in the Umzimvubu-Matatiele area indicates:

- i) Adaptation of agricultural practices – rangeland management, free range cattle, rotational grazing, no growth hormones or steroids, communal herds, adapted breeds, integration with landscape management, and smallholder inclusion (important in the South African context)
- ii) Conservation of biodiversity and natural resources – integration of livestock management with diverse landscape management activities including fire and water management, wetland and spring protection, alien clearing, grassland and biodiversity restoration, catchment level actions
- iii) Development of embedded food systems – limited impact to date, as local markets are skewed towards corporate manufactured products resulting in local farmers selling out of the locality, and consumers buy in from outside.

A diversity of terms is used for sustainable agricultural production in the area, including agroecology, climate smart, climate resilient, conservation agriculture, regenerative, organic, permaculture which were all used by interviewees, often interchangeably. These are loosely defined and mostly refer to the same basic sets of practices and issues, in particular soil and water conservation and management practices, adaptive management, and rangeland management that conserves and restores natural resources, with a focus on marginalised producers, and efforts to boost their livelihoods and economic benefits.

Agroecological initiatives in Matatiele and Umzimvubu are at very early stages, with limited impact or recognition to date. As in the Overstrand site, local actors are pressured into adopting neoliberal market-based approaches to natural resource management (NRM) and conservation. It is not that the individuals indicating and experiencing these pressures are neoliberal, but they are forced into a particular rationality to survive. In this model, initiatives must stand or fall on the basis of their profitability. As one interviewee said: ““How does it become financially viable to convert to agroecology? Because that’s the bottom line for farmers” [Um08].

But NRM reveals a significant market failure, with the undervaluing of the wide range of recognised ecosystems goods and services from sustainable rangeland management, and the externalisation of negative ecological consequences from mainstream pricing. This translates into general unwillingness of consumers to pay a premium for sustainably produced meat, in turn limiting the incentives for livestock owners to alter their practices. On the other side, true valuation of ecosystem goods and services as well as negative impacts of production would result in a sharp rise in food prices. This is not feasible in the context of widespread hunger and lack of resources. Carbon credits are being

considered as a way to generate income to support transitions, but because of the low market price for carbon, this is also a limited incentive.

The MN model is not necessarily entirely sustainable as a self-sustaining market based initiative. “It’s definitely hard to be profitable and have the social and the environmental missions that we have” [Um03]. The business model is premised on farmers paying a commission on improved sales, potentially with funding for eco-rangers incorporated. But it does not consider the cost of the NGOs who are working with farmers to meet the rangeland practices. Although at some stage it is anticipated that rangeland associations will be able to take over these functions, this will take time and meanwhile this is a hidden subsidy. As a result, “it can never just be market reliant. There’s always going to have to be some kind of investment and a consideration of the other impacts on rangelands upon which livestock are dependent” [Um08].

CSOs seek donor funding but this is not a long term solution, and even at present there is pressure to develop a profitable model as soon as possible. As a result organisations experience difficulties in finding funding for the work [Um04]. On the ground there is a lack of business skills and mindset: “there’s a big gap in terms of trying to farm even a small garden for business. They don’t have that. It’s not there” [Um04]. However, this returns to measurements based on profitability as the key. In reality this model is not applicable for many people, which raises the question of what type of support is required for adaptability to adversely changing contexts?

The main alternative to the market-based or donor-funded models of NRM is public sector support. As indicated, there are various sporadic and disjointed government initiatives mainly on conventional agriculture with a lack of coordination except for dividing municipal areas between governmental bodies for intervention. Local actors including government officials appear to be open and sympathetic to more ecologically sustainable production systems, but they are subject to top-down programmes that generally are rigidly enforced for financial control and economies of scale. This entrenches corporate input suppliers and a particular model of smallholder farmer support mostly based on adoption of and access to chemical inputs as part of the dominant socio-technical regime.

There appears to be a lack of creative thinking. Different entities and departments tend to provide the same types of support (production inputs and aggregation), regardless of their actual differentiated mandates. For example, SANAMI is meant to be an incubator for small enterprises but in practice it is simply aggregating and selling, and potentially processing later on, on behalf of farmers [Um12]. DRDAR also farms on behalf of farmers, doing disking, planting, spraying and top dressing [Um15].

The biggest opportunity presented in the area for now is linking extension services with eco-rangers for mutual learning and sharing and more effective support both to livestock farmers but also on wider grassland management. A whole catalogue of support needs can be listed, but these are no different from marginalised and smallholder farmers anywhere else in the country. They include training, mentorship, extension, farmer exchanges and field schools; financial support; infrastructure, especially holding pens and loading facilities at decentralised auction sites; animal health interventions; and secure land and water access.

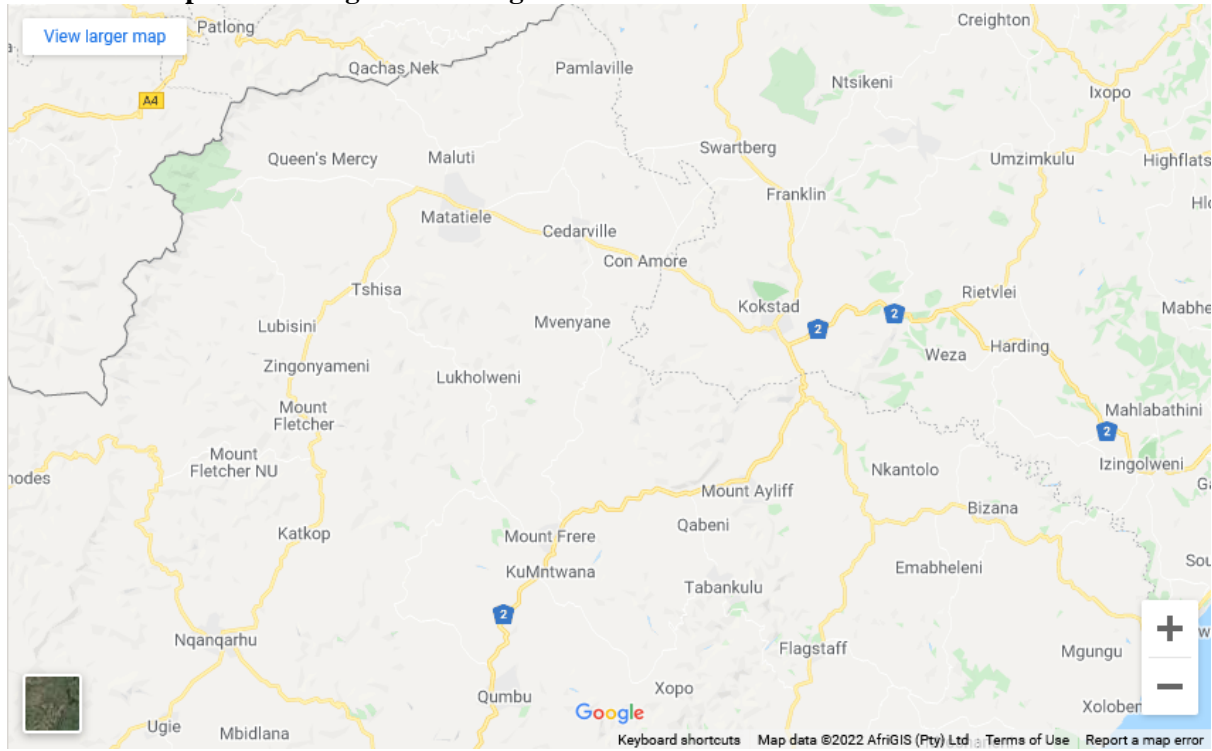
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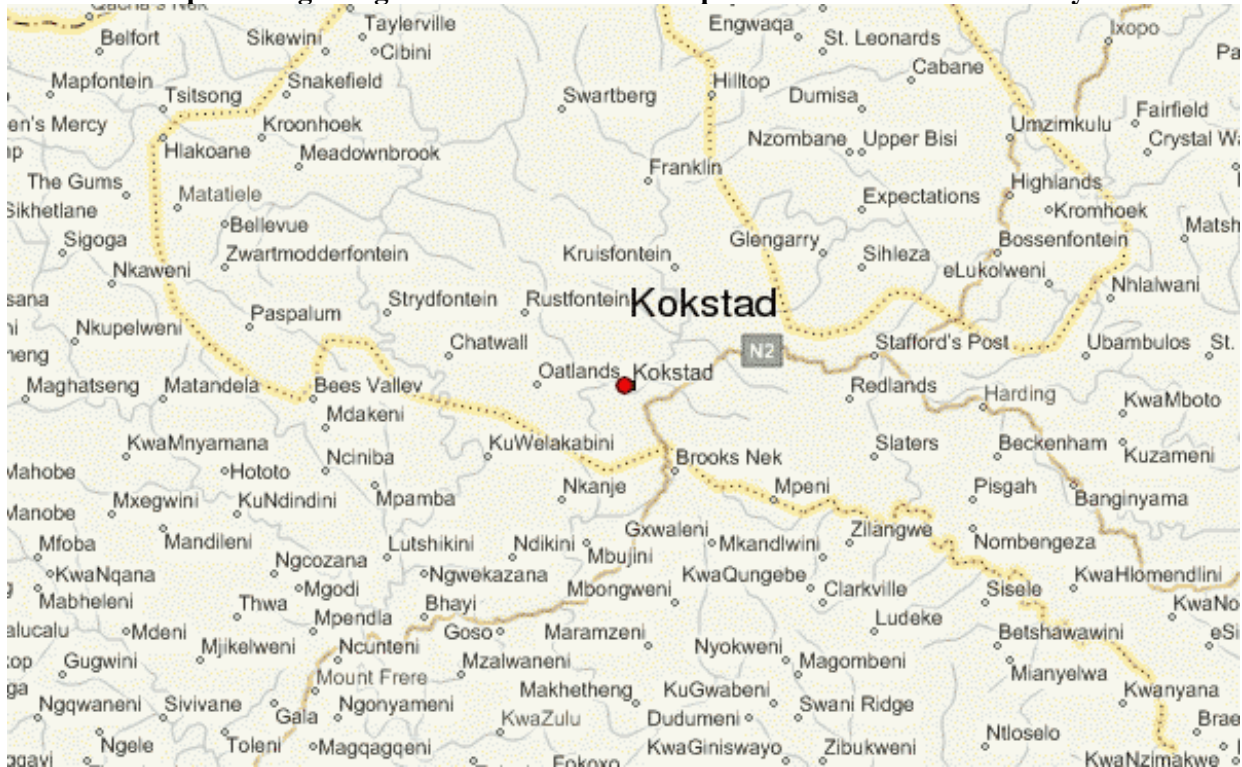
Interview #	Description of interviewee	Location	Date
Um01	Manager, commercial abattoir	Kokstad	18/3/22
Um02	NGO team group discussion	Matatiele	16/3/22
Um03	Manager, Meat Naturally	online	14/3/22
Um04	NGO staff	Matatiele	15/3/22
Um05	Manager, private FPM	Kokstad	18/3/22
Um06	Store manager, corporate supermarket	Matatiele	14/3/22
Um07	Store manager, corporate supermarket	Matatiele	14/3/22
Um08	NGO team group discussion	Matatiele	16/3/22
Um09	NGO staff	Matatiele	14/3/22
Um10	NGO team group discussion	Matatiele	15/3/22
Um11	Government official, Matatiele LM Economic Development and Planning Unit	Matatiele	18/3/22
Um12	SANAMI	eMaxesibeni	15/3/22
Um13	SEDA	eMaxesibeni	15/3/22
Um14	Coordinator, Umzimvubu PGS	Mgungundlovu	17/3/22
Um15	Government officials, DRDAR and Matatiele LM LED Unit	Kokstad	18/3/22
Um17	Livestock association group discussion	Mafube	16/3/22

Annex 1a: Map of wider region including Kokstad



Source: Google Maps

Annex 1b: Map showing villages in the area as an example of actual settlement density



Source: <https://www.weather-forecast.com/locationmaps/Kokstad.10.gif>

Annex 2: The Matatiele-Cedarville corridor



Source: Google Earth

Annex 3: Schematic diagram of livestock value chain

