



GTAC/CBPEP/ EU project on employment-intensive rural land reform in South Africa:  
policies, programmes and capacities

Municipal case study  
Sakhisizwe Local Municipality, Eastern Cape

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## Abbreviations and acronyms

BFAP	Bureau for Food and Agriculture Policy
CMW	Cape Mohair and Wool
CPA	Communal Property Association
DAFF	Department of Agriculture Forestry and Fisheries
DRDLR	Department of Rural Development and Land Reform
FTE	Full time equivalent
GFADA	The Grain Farmer Development Association
LRAD	Land Reform for Agriculture Development
LSU	Large Stock Unit
LSUE	Large Stock Equivalent
NWGA	National Wool Growers Association
PLAS	Proactive Land Acquisition Strategy
RDP	Reconstruction and Development Programme
SADT	South African Development Trust
SASSA	South African Social Security Agency
SLAG	Settlement and Land Acquisition Grant
SPLAG	Settlement, Planning and Land Acquisition Grant

## Contents

Abbreviations and acronyms .....	ii
Executive summary .....	1
1. Introduction .....	4
2. Status quo .....	6
2.1 Descriptive overview of Sakhisizwe Local Municipality .....	6
2.2 Agro-ecological conditions.....	7
2.3 Small-scale farming sector .....	12
2.3.1 Statistical overview .....	12
2.3.2 Findings from fieldwork .....	14
2.4 The large-scale commercial farming sector.....	20
2.4.1 Livestock production systems.....	25
2.4.2 Crop production systems .....	28
2.5 Land reform to date .....	31
2.5.1 Overview .....	31
2.5.2 Findings from fieldwork .....	32
2.5.3 The GFADA programme .....	35
2.6 Settlement patterns, local food demand and markets.....	37
3. Promising commodities, production systems, and marketing strategies.....	40
3.1 Livestock.....	40
3.2 Dryland crop farming .....	42
3.3 Horticulture.....	43
4. Specific proposals for employment-intensive land reform in Sakhisizwe .....	45
4.1 Extensive grazing with sheep .....	46
4.2 Dryland crop farming .....	47
4.3 Irrigated vegetable farming .....	48
5. Conclusions .....	51
References .....	53
Appendix: Additional maps.....	56

## List of figures

Figure 1: Elliot Magisterial District and Sakhisizwe Local Municipality .....	6
Figure 2: Land cover categories of cultivated land, with annual average rainfall .....	8
Figure 3: Potential of arable and non-arable soils.....	9
Figure 4: Grazing capacity (HA/LSU), 2016 .....	10
Figure 5: Satellite images showing land use patterns in the Elliot part of Sakhisizwe (top two images) versus the Cala part of Sakhisizwe (bottom two images).....	11

Figure 6: Satellite image showing land use patterns on either side of the fence separating Elliot District (upper-left) from Engcobo Local Municipality (lower-right) .....	11
Figure 7: Sheep shearing near Askeaton Village .....	17
Figure 8: Photos of 'Farmer 1' (left) and 'Farmer 3' (right) .....	20
Figure 9: Trends in the composition of commercial agriculture, by shares of gross farm income .....	22
Figure 10: Derelict farmhouse amid productive maize fields .....	23
Figure 11: Agricultural employment trends, 1970 to 2002 .....	24
Figure 12: Agricultural employment trends, 1993 to 2018 .....	24
Figure 13: Herd of Bonsmara on large-scale farm in western part of Elliot District.....	27
Figure 14: Pattern of relatively small, discrete fields .....	29
Figure 15: Potato packing .....	30
Figure 16: land redistribution delivery in Sakhisizwe over time.....	31
Figure 17: Spatial distribution of land redistribution projects in Elliot.....	32
Figure 18: Labour intensity of maize production as a function of hectarage.....	37
Figure 19: Highstreets of Elliot town (top) and Cala town (bottom) .....	38
Figure A1: Mean annual rainfall in and around Sakhisizwe .....	56
Figure A2: Land capability in and around Sakhisizwe .....	56
Figure A3: Degraded land in and around Sakhisizwe.....	57
Figure A4: Pension pay-points, 2003 .....	57

### List of tables

Table 1: Disaggregation of the population of Sakhisizwe .....	7
Table 2: Numbers of households involved in different types of agriculture .....	12
Table 3: Estimated numbers of households owning cattle, sheep or goats .....	13
Table 4: Estimated numbers of cattle, sheep or goats owned by households.....	13
Table 5: Summary table of livestock numbers (in large-stock unit equivalents) per area .....	13
Table 6: Farmers who have a significant numbers of sheep .....	17
Table 7: Components of value added of Sakhisizwe Local Municipality .....	21
Table 8: Commercial agricultural land uses in Elliot District, 1993.....	21
Table 9: Livestock numbers in Elliot District, 1980 to 2002.....	23
Table 10: Summary of employment during harvesting through the GFADA programme.....	36
Table 11: Estimated annual consumer food expenditure. R millions.....	39
Table 12: Estimates of 50% of the remaining commercial farmland in Sakhisizwe Municipality .....	45
Table 13: Employment changes due to the redistribution of 50% of the remaining commercial farmland in Sakhisizwe Local Municipality .....	49
Table 14: Estimated costs of 50% scenarios in Sakhisizwe Local Municipality.....	50

## Executive summary

This report presents the municipality case study for Sakhisizwe Local Municipality in the Eastern Cape. The goal of the report is to examine the employment creating potential of land redistribution in Sakhisizwe Local Municipality and the costs associated with doing so.

Sakhisizwe Local Municipality is located in the north-central part of the Eastern Cape. Its area comprises a large share of commercial farmland, and a smaller share of former Transkei. There has already been a reasonably large amount of land reform there: about 24% of the Municipality's commercial farmland has changed hands via land reform, most of which happened between 2001 and 2009 via the redistribution programme.

The undertaking of this study involved a number of complementary activities, but mainly the analysis of relevant secondary datasets in relation to Sakhisizwe, its sub-parts, and its neighbours; and interviews with various key informants, including municipal officials, extension officers, shop keepers, agro-processors, and small and large-scale farmers, including but not limited to land reform beneficiaries. Particular care was taken to interview key informants in both parts of Sakhisizwe, i.e. its traditional commercial farming side, and its former Transkei side.

In 2011 the Municipality had a total population of about 62 000 people, of whom not quite half resided in one or the other of the two main towns, namely Elliot (now 'Khowa') and Cala, which were home to about 14 500 people each (Stats SA 2013). The rural part of the 'Elliot district part of Sakhisizwe', is relatively empty, and seemingly becoming progressively more so over time. By contrast, rural dwellers account for not quite two thirds of the population of the Cala part of Sakhisizwe. Sakhisizwe presents a compelling case for using land reform to 'de-congest the communal areas', which has long been stated as an objective of land reform in South Africa, but little realised. Having said that, it is likely that the economic centre of gravity of Sakhisizwe will remain its two towns, especially Cala town.

The agro-ecological conditions of Sakhisizwe Local Municipality are differentiated in two main ways. First, conditions differ between the commercial farming side of Elliot and the former Transkei side of Cala, whereby the latter is slightly more arid and characterised by depleted if not degraded soils. And second, within the Elliot side of Sakhisizwe, rainfall and soil quality improve as one moves from west to east, and from south to north towards the Drakensberg foothills. However, the whole area is characterised by mixed farming, thus these differences are incremental and partial rather than such as to create farming systems that are starkly differentiated according to geography.

From secondary data there appear to be about 6 300 black households in Sakhisizwe involved in agriculture at some scale, excluding land reform beneficiaries, representing about 68% of black households in the municipality. While we do not know how many of these agriculturally-active households could be described as commercially-oriented smallholders or small-scale commercial farmers, a rough estimate is about 500. However, it is also important to remember that the Elliot part of Sakhisizwe shares a 40 kilometre boundary with Engcobo Local Municipality, where one finds another 16 000 households involved in agriculture at some scale, of whom perhaps 1300 are commercially-oriented. In thinking about land reform in Sakhisizwe, it is natural to consider Engcobo Local Municipality as well, given that there is no other commercial farming area nearly as close to Engcobo.

The dominant agricultural activity among black households in Sakhisizwe, and in the parts of Engcobo bordering Sakhisizwe, is sheep farming, generally using dual-purpose breeds such as Merino

and Dohne Merino. However, sheep farmers vary enormously in terms of the size of their flocks. Interviews revealed that farmers are acutely aware of the pressure on grazing, and a scenario that naturally emerged in the course of discussions was that farmers with larger numbers of sheep should be prioritised to receive land through land reform. This would be somewhat ironic, however, in that large-scale commercial farmers in the Elliot part of Sakhisiwe, have by and large moved away from sheep farming and towards cattle due to the fact that sheep are more easily stolen.

Although the involvement of black farmers in crop production has declined over time, it does still happen. Broadly there are two distinct situations. First, there are small-scale vegetable producers using 2 to 10 hectares of land, mainly within the former Transkei part of the municipality, delivering to local shops and conducting informal sales. They struggle with water supply, access to secure land, and access to markets; they appear to receive little if any support. And second, there are better-off farmers who have purchased their own land or benefited from land reform, who cultivate maize and other field crops on a larger scale, e.g. 20 to 80 hectares. They rely mainly on formal markets, and also enjoy a fair amount of technical and material support. Importantly, these farmers use about ten times as much labour per hectare as their large-scale farmer counterparts. While it is difficult to know for certain how viable they would be in the absence of the support they presently receive, indications are that these farmers have potential and in fact offer a model for further land reform in Sakhisizwe.

The potential for employment-intensive land reform in Sakhisizwe is obviously in large part a function of the type of land available. Excluding about 7000 hectares in commercial forestry, about 91% of commercial farmland of the Elliot part of Sakhisizwe, is suitable for extensive grazing, and 9% for arable production. Of the land suitable for arable production, only about 4% or 5% is irrigated. On the other hand, dryland arable production in the Elliot part of Sakhisizwe is generally feasible due to good soils and ample rainfall, although the topography of the area necessitates contour farming such that arable plots tend to be small and scattered within the larger amounts of grazing land.

One of the striking aspects of the commercial farming sector in the Elliot part of Sakhisizwe is the process of consolidation. In 1971, there were 214 farms, whereas in 1981 there were 163, in 1993 there were 136, and in 2002 there were 61. At present it is difficult to say for lack of hard data, but farmers in the area speak of there being possibly 40 farms in total, of which 10 are especially large and competitive. As theory would predict, this process of consolidation has been accompanied by the shedding of farm jobs to a point where at present there are less than 1000, possibly quite a lot less.

Given that the Elliot part of Sakhisizwe mainly comprises grazing land, it is obvious that land reform should continue to emphasise livestock production. The general question is whether the next generation of land reform beneficiaries can do something to ensure that more employment is created, within the limits of what is reasonable to expect from extensive grazing systems. The more specific question is whether land reform beneficiaries should do what white farmers are presently doing, or whether they should do something else; this question boils down to the balance between sheep and cattle. A logical approach would be to support land reform transactions in which beneficiaries shift land use from cattle to sheep. In the first place, this accords with the keen interest in sheep farming among farmers in the communal areas. Second, there is broad agreement among farmers in the communal areas that it is larger sheep farmers who should relocate to the Elliot part of Sakhisizwe. These farmers, by definition, already have relatively large numbers of stock, and they would be better able to cope with the social dislocation and/or transport costs associated with starting to farm in Elliot.

Regarding arable land, the suggestion is that a distinction be drawn between dryland arable and irrigated land, even though among commercial farmers these types of land are used for more or less the same crops. Drawing on the experience with the medium-scale black grain farmers mentioned above, it is suggested that farms comprising dryland arable land are subdivided into smaller dryland arable farms, roughly 50 hectares each. Irrigated land, by contrast, would be subdivided into much smaller plots, perhaps 10 hectares on average, for vegetable production. Arguably the trickiest aspect of converting irrigated field crops to irrigated vegetables in the Elliot context is the preponderance of centre pivots, which are not ideal for small-scale vegetable farming. The pivots in Elliot vary in size from 8 hectares to 45 hectares, with the most common size being 20 to 25 hectares.

Based on the assumption that 50% of the commercial farmland of Elliot that has not been redistributed to date, is redistributed in proportion to these three main types of land (i.e. grazing, dryland and irrigated), it is estimated that about 1600 full-time equivalent employment opportunities could be created either within Sakhisizwe Local Municipality, or within Sakhisizwe and Engcobo local municipalities. This is 'net' of the employment opportunities that would be lost due to the displacement of large-scale commercial farming on this same land. In the context of the area, these 1600 FTEs would be significant: they would reduce the number of unemployed people in Sakhisizwe by about one third; or, if taking the unemployed of Engcobo Local Municipality into account as well, the net job creation due to land reform would reduce total unemployment of the two local municipalities by 12%. However, it should be noted that many of these jobs would be created not on the redistributed land, but rather within the former Transkei, specifically because the relocation of larger sheep farmers would make space for new entrants, together with new jobs for herders. Excluding these 'off-site' jobs, the estimated potential employment creation would be 1069 FTEs. The estimated upfront cost of creating these jobs is estimated to be R456 million, which works out to R426 000 per FTE. Whether this is a lot or a little is difficult to judge, but it must be pointed out that 80% of this price tag accrues to the cost of the land, the reallocation of which is an important objective in its own right.

## 1. Introduction

This report presents the municipality case study for Sakhisizwe Local Municipality in the Eastern Cape, thus it is one of the four local municipality case studies that form part of the project on employment-intensive land reform in South Africa. The goal of the overarching project is to use empirical evidence to demonstrate the possibility of pursuing rural land reform in South Africa in a manner that creates more employment and/or self-employment than has been the case up to now, while spelling out in detail what would be required for this to happen. The goal of this particular report is to examine the employment creating potential of land redistribution in Sakhisizwe Local Municipality, while also estimating the cost of doing so.

Sakhisizwe Local Municipality is located in the north-central part of the Eastern Cape. As is explained in more detail below, its area comprises a large share of commercial farmland, and a smaller share of former Transkei. Among the reasons for which Sakhisizwe is interesting is that there has already been a reasonably large amount of land reform there – that is, relative to most other local municipalities – in particular through the redistribution programme. Thus although the emphasis of this particular study is not to assess the performance of land reform to date in Sakhisizwe, the exercise offered an opportunity to interact with a number of land reform beneficiaries, from which we learned much about the employment created to date through land reform.

The undertaking of this study involved a number of complementary activities: examination of previous studies of Sakhisizwe; the mining of relevant secondary datasets in relation to Sakhisizwe, its sub-parts, and its neighbours; and interviews with various key informants, including municipal officials, extension officers, shop keepers, agro-processors, and small and large-scale farmers, including but not limited to land reform beneficiaries. Particular care was taken to interview key informants in both parts of Sakhisizwe, i.e. its traditional commercial farming side, and its former Transkei side.

Much of the report (section 2) is devoted to understanding Sakhisizwe as it is now and, as importantly, as it has been changing over time. Thus we summarise what is known about its agro-ecological conditions, the nature of the smallholder and small-scale commercial farming sector, the nature and structure of the large-scale commercial farming sector, the performance of land reform to date, and the composition of the population and its implications for consumer demand.

The other two main sections of the report seek to draw out a possible approach to employment-intensive land reform in Sakhisizwe, which in effect means to land reform in the part of Sakhisizwe made up of commercial farmland, generally known by its former name, 'Elliot District'. In section 3, the report focuses in on the three main types of types of land in Elliot – namely grazing land, dryland arable land, and a small amount of irrigated cropland – and deliberates as to how each of these types of land could feature in redistributive land reform. The 'thought process' broadly involves considering current land use strategies and the logic thereof, and then superimposing what we know about 'black agriculture' in the area, whether from the land reform experience to date or farming within the former homelands. In some cases what emerges is a suggested reorientation of land use (e.g. from cattle to sheep, and from irrigated field crops to irrigated vegetables), and in other cases what is proposed is a continuation with the same land use, but using smaller-scale, more labour-intensive farming strategies. Importantly, for our particular analysis, the potential of land reform in Sakhisizwe is not only to do with what happens in the Elliot part of Sakhisizwe where the commercial farmland is located, but the implications of redistribution there for resource use and agricultural livelihoods back in the former Transkei part of Sakhisizwe and beyond.



Section 4 of the report takes the emerging suggestions per type of land as presented in section 3, and translates them into a specific, costed strategy, based on the thought experiment that 50% of all of the commercial farmland not redistributed to date, would be availed through land reform according to the suggested models. Crucially, at this stage we attempt to estimate how many employment opportunities would be displaced and created through land reform. The particulars of the strategy offered are based on evidence from the area, rather than appeals to abstract theory, which is not to claim complete and perfect knowledge of what is happening in the area.

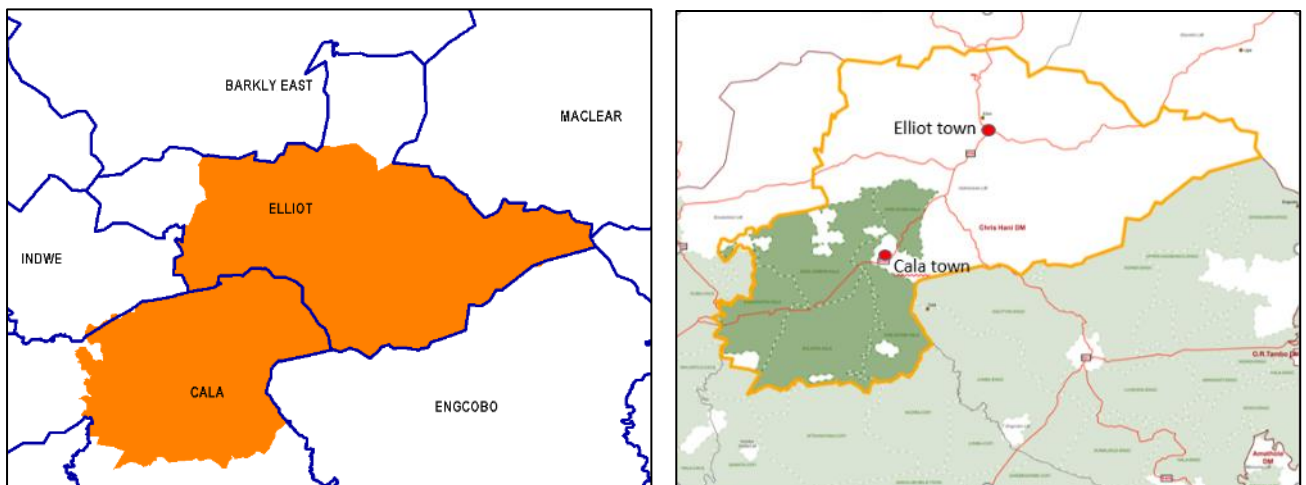
It is important to stress that the land redistribution strategy detailed for Sakhisizwe in this report is meant as an *illustration* more than a *proposal*. The purpose is to illustrate what is possible, and how much it would cost, but this is not to say that the strategy detailed here is the only possible or worthy strategy. The exercise is also meant to illustrate how one might go about developing an actual, specific proposal for Sakhisizwe, or for that matter for other areas.

## 2. Status quo

### 2.1 Descriptive overview of Sakhisizwe Local Municipality

Sakhisizwe Local Municipality is in the north-central part of the Eastern Cape, at the north-eastern corner of Chris Hani District Municipality. Sakhisizwe Local Municipality can usefully be thought of as an amalgamation of two parts: to the southwest, a portion of the former Transkei, specifically much of what had been Cala Magisterial District; and to the north and northeast, most of Elliot Magisterial District, a white commercial farming area that in 1876 had been created by means of the Tembuland Annexation Act of 1876 (SAHO 2011), but in which white farmers were permitted to settle shortly thereafter by Chief Ngangelizwe (CALUSA 2019). The northern fringe of Sakhisizwe consists of foothills of the Drakensburg mountains; to the east and west are other predominantly white farming areas; and to the south is Engcobo Local Municipality, which is entirely within the boundary of what had been the Transkei.

Figure 1: Elliot Magisterial District and Sakhisizwe Local Municipality



Note: in the left-hand image the blue lines represent the 1998 magisterial district boundaries, and the orange-shaded area corresponds more or less to Sakhisizwe Local Municipality. In the right-hand image, the main orange line represents the outline of Sakhisizwe Local Municipality, while the shading indicates areas under traditional authorities, though it may understate these.

In 2011 the Municipality had a total population of about 62 000, of whom not quite half resided in one or the other of the two main towns, namely Elliot (now 'Khowa') and Cala, which were home to about 14 500 people each (Stats SA 2013).

As shown in the table below, the rural part of the 'Elliot district part of Sakhisizwe', is relatively empty, and seemingly becoming progressively more empty over time. By contrast, rural dwellers account for not quite two thirds of the population of the Cala part of Sakhisizwe.

**Table 1: Disaggregation of the population of Sakhisizwe**

Area	People	Households	Household share
Elliot town	14 376	3 780	23%
Elliot rural	3 499	741	5%
Cala town	14 520	4 165	26%
Cala rural	31 187	7 465	46%
Total	63 582	16 151	100%

Source: calculated from Census 2011 data (Stats SA 2013)

Since 1996, the overall population of what is now Sakhisizwe has remained stable, although the number of households has increased, presumably owing to a decline in the average household size. Notwithstanding this snapshot, it appears that Sakhisizwe continues to urbanise, with people leaving farms (both voluntarily and involuntarily) and tending to end up in Elliot/Khowa, or drifting to Cala town from outlying villages; more so than Elliot, Cala town has a sizeable peri-urban sprawl, whereas the 'locations' to the west and east of Elliot town are compact, planned, and bordered by commercial farmland.

Food insecurity is widespread but appears to be worse in the towns than in the rural areas. According to the Community Survey of 2016, 37% of urban respondents answered 'yes' to the question, 'In the past 12 months, did this household run out of money to buy food?', versus 19% of rural (i.e. former homeland) respondents; similarly, 32% of urban households reported skipping meals in the previous 12 months, versus only 9% of rural households (Stats SA 2017a).

Having said that, the relatively large population of the Cala part of Sakhisizwe probably accounts for the visible difference between the very busy high street of Cala town and the more subdued high street of Elliot; according to some respondents, the commercial property of Cala town – much of which is owned by white farmers residing in the Elliot part of Sakhisizwe – is extremely valuable.

## *2.2 Agro-ecological conditions*

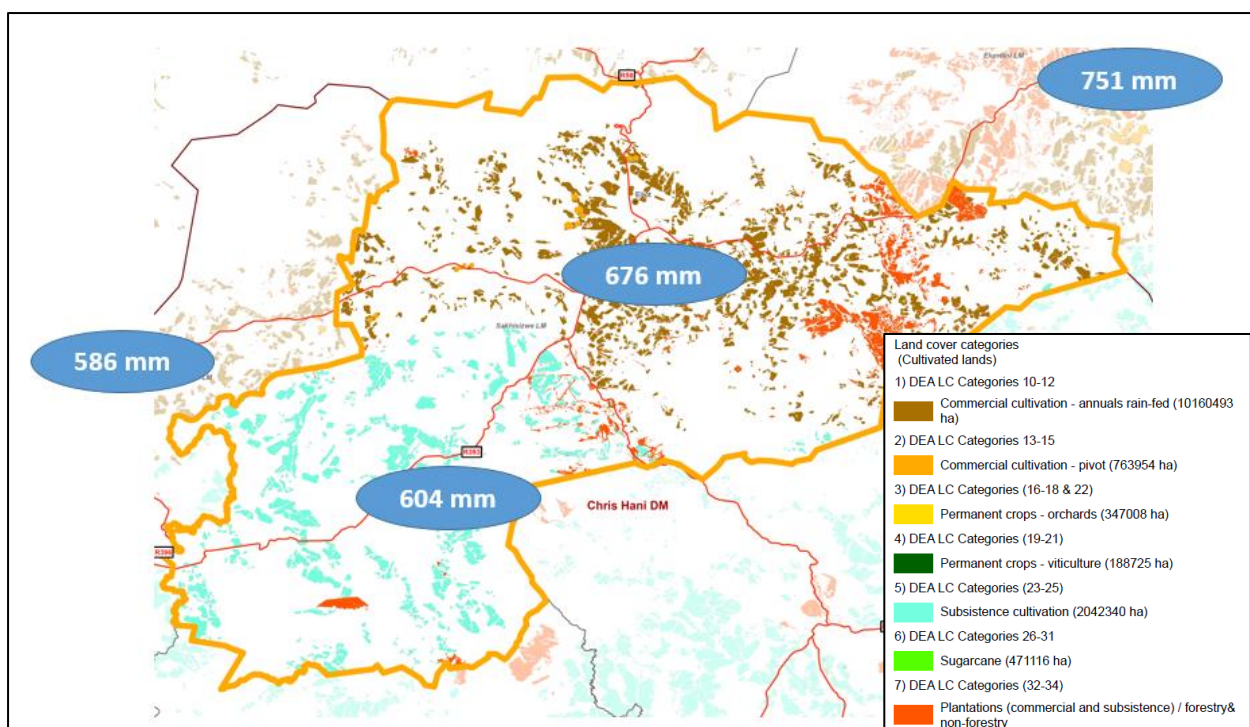
The agro-ecological conditions of Sakhisizwe Local Municipality are differentiated in two main ways. First, predictably, conditions differ between the commercial farming side of Elliot and the former Transkei side of Cala, whereby the latter is slightly more arid and characterised by depleted if not degraded soils. And second, within the Elliot side of Sakhisizwe, the main dynamic is that rainfall and soil quality improve as one moves from west to east, and from south to north towards the edge of the Drakensberg mountains, of particular importance for crop farmers. However, it should be stressed that the whole area is characterised by mixed farming, and these differences are incremental and partial rather than such as to create farming systems that are starkly differentiated according to geography.

The three figures that follow arguably do more justice to the latter distinction than to the former. Figure 2 shows land cover categories for cultivated land. The preponderance of commercial arable production is near the middle of Elliot District and to the east, rather than to the west. Small amounts of commercial forestry plantations existed historically, but in the 1990s this expanded as Mondi bought up 17 farms on the eastern side of Elliot, and even more land further to the east

around the towns of Ugie and Maclear.<sup>1</sup> The effective boundary between the former Transkei part and the commercial farming part of Sakhisizwe (i.e. Elliot) is revealed by the distinction between commercial crop cultivation (shown as brown or orange), and subsistence crop cultivation (light blue), though it would appear that this distinction is based not on observation but interpretation; conspicuously and dubiously, all crop cultivation in the former homeland part of the municipality appears to be defined as ‘subsistence’.

The figure also conveys a sense of rainfall patterns. In Elliot town, mean annual total rainfall is 676 mm, versus 586 mm for Indwe town (51 km west by southwest of Elliot town, but close to Sakhisizwe’s western border – see Figure 2 below), and 751 mm for Ugie (41 km east by northeast of Elliot town); meanwhile, the mean annual rainfall for Cala town is 604 mm.<sup>2</sup> (See also Figure A1 in the appendix.)

**Figure 2: Land cover categories of cultivated land, with annual average rainfall**



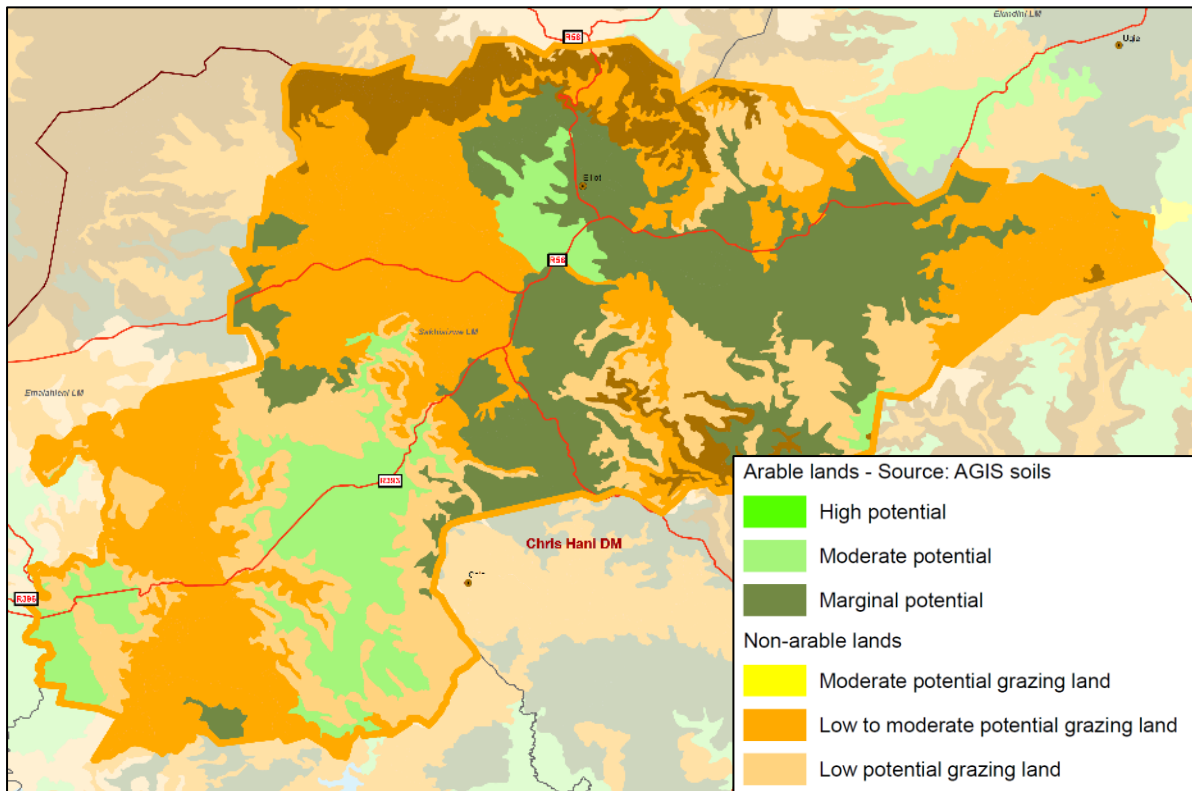
Source: project team

Figure 3 provides a compact picture of both cropping and grazing potential based on soil types. The figure indicates that the Cala portion of Sakhisizwe contains much more ‘moderate potential’ arable land than the Elliot part, something that is difficult to reconcile with the visible realities, as well as with the data on land degradation (see Figure A3).

<sup>1</sup> Allegedly, Mondi discovered that the area was not as well suited to forestry as it supposed, thus much of that which it did not immediately develop as forestry, was released back onto the market, including through land reform (McCann, 2008).

<sup>2</sup> Estimates of average annual rainfall are taken from <https://en.climate-data.org>.

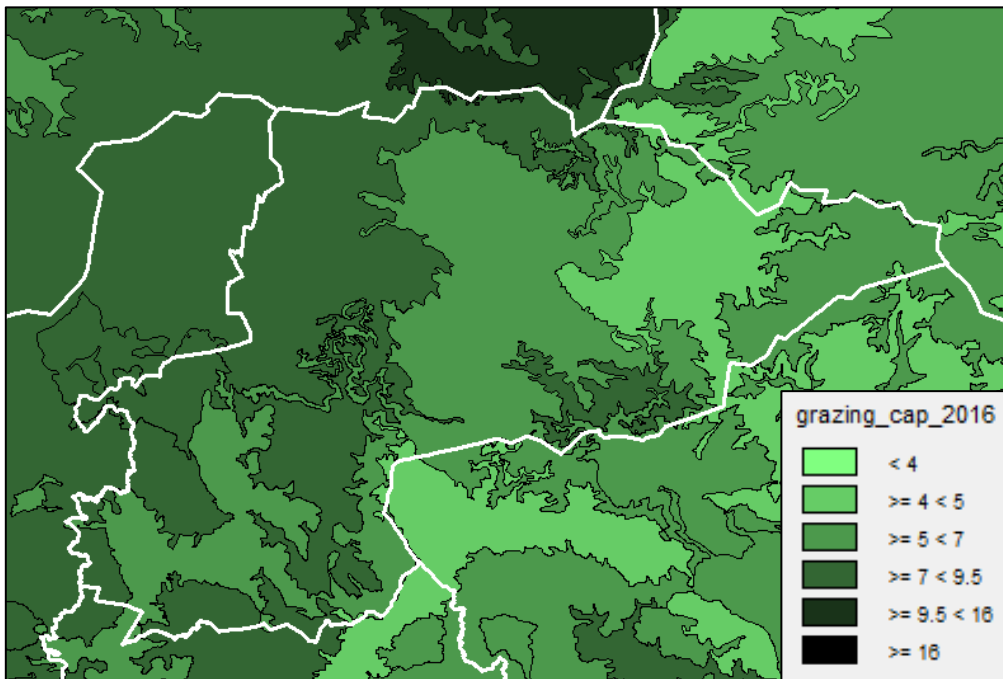
**Figure 3: Potential of arable and non-arable soils**



Source: project team

Figure 3 also indicates that Sakhisizwe’s grazing land can all be categorised as either ‘low to moderate potential’ or ‘low potential’, the former of which is proportionately balanced between the Cala and Elliot portions of the Municipality. However, this is arguably contradicted by the grazing capacity map (Figure 4), which suggests that Sakhisizwe is home to grazing land for which the stocking rate is very dense, but generally more so in the Elliot part. On the other hand, the grazing tends to be more characterised by sweetveld towards the west and extreme north (i.e. on top of the mountain in the direction of Barkley East), and sourveld towards the east, meaning that livestock raised in the east and south tend to be in need of more supplementary feeding, e.g. protein licks in winter and mineral licks in summer.

Figure 4: Grazing capacity (HA/LSU), 2016



Source: data downloaded from 'DAFF Portal for GIS'

Taken together, these images suggest that technical information cannot be accepted at face value or at least needs to be interpreted with great care.

Regardless of the technical parameters, one would have to acknowledge that there are fairly stark differences in the visible aspect of agriculture in the two parts of Sakhisizwe; if these cannot be traced clearly to the underlying agro-ecological conditions, they are nonetheless real.<sup>3</sup> These differences will be explored in the sections that follow; for now it is worth pondering the satellite images below in Figures 5 and 6, which convey the differing agricultural landscapes. In Figure 5, the top two satellite images are of typical large-scale commercial farming areas in the Elliot part of Sakhisizwe, whereas the bottom two images show the same for the Cala part of Sakhisizwe. The image in Figure 6 straddles the fence-line between the Elliot part of Sakhisizwe (upper-left) and Engcobo Local Municipality (lower right). While it is not possible to control for all of the factors that account for the differences (not least the authors' selection of images), what one seems to observe is more exposed soil and less dense vegetation in the former homeland images, as well as an apparent non-use of arable fields in favour of homestead gardens.

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<sup>3</sup> The one notable exception to this is a wedge of land in the extreme northeast of the Cala part of Sakhisizwe. This was white farmland transferred to the South African Development Trust through the homeland consolidation process, but ended up being leased by Transkeian authorities to well-connected individuals, meaning to continue as large-scale commercial farms. (Personal communication, M. Kenyon.)

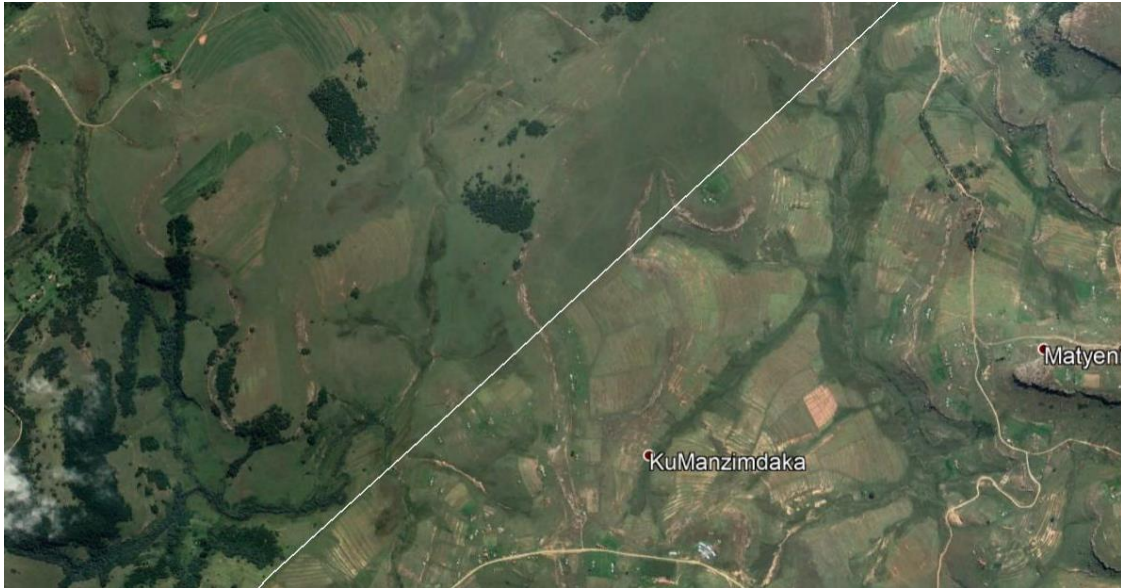


**Figure 5: Satellite images showing land use patterns in the Elliot part of Sakhisizwe (top two images) versus the Cala part of Sakhisizwe (bottom two images)**



Source: Google 2019

**Figure 6: Satellite image showing land use patterns on either side of the fence separating Elliot District (upper-left) from Engcobo Local Municipality (lower-right)**



Source: Google 2019

## 2.3 Small-scale farming sector

### 2.3.1 Statistical overview

From the Community Survey of 2016, we know that there are about 6 300 black households involved in agriculture at some scale, excluding land reform beneficiaries (Stats SA 2017a). These agriculturally-active households represent about 68% of black households in the municipality, which is an unusually high share. If we were to assume, as per the provincial average, that 8% are commercially-oriented (meaning they farm mainly to earn income, as opposed to farming mainly for own-consumption), then this would be about 500 households.<sup>4</sup> However, it is also important to remember that the Elliot part of Sakhisizwe shares a 40 kilometre boundary with Engcobo Local Municipality, where one finds another 16 000 households involved in agriculture at some scale, of whom perhaps 1300 are commercially-oriented. In thinking about land reform in Sakhisizwe, it is natural to consider Engcobo Local Municipality, given that there is no other commercial farming area nearly as close to Engcobo.<sup>5</sup>

The two tables that follow show the estimated numbers of households in Sakhisizwe and Engcobo involved in different types of farming, and having different types of livestock, respectively. Livestock and poultry production are obviously very common, but field crops are also grown by a large number of households, albeit generally on a very small scale.

**Table 2: Numbers of households involved in different types of agriculture**

	<b>Sakhisizwe (Cala part)</b>	<b>Engcobo</b>	<b>Both</b>
Livestock production	4 744	14 306	19 050

<sup>4</sup> It is important to point out that while these categories of ‘subsistence-oriented’ and ‘commercially-oriented’ may be indicative of how agriculturally-active households can be classified at a given point in time, they are hardly fixed, discrete groups. In practice households readily ‘move’ back and forth between these categories – and indeed between farming and not farming – according to need and opportunity.

<sup>5</sup> Of course this is also arbitrary, in the sense that there are several other ‘former Transkei’ local municipalities that are not as close to any other commercial farming area.



Poultry production	3 943	13 478	17 421
Grains and food crops	1 698	4 288	5 986
Fruit production	946	391	1 337
Vegetable production	1 707	1 673	3 380

Source: calculated from Community Survey 2016 data (Stats SA 2017a)

**Table 3: Estimated numbers of households owning cattle, sheep or goats**

	Sakhisizwe (Cala part)	Engcobo	Both
Cattle	3 217	7 892	11 206
Sheep	2 887	10 930	13 857
Goats	2 302	7 870	10 216

Source: calculated from Community Survey 2016 (Stats SA 2017a)

To put these numbers in perspective, as of 2002 – the last year for which there was a reasonably credible commercial farmer census – there were 61 commercial farm units in Elliot District, supporting not quite 800 farm employees, half of whom were casual or seasonal workers.<sup>6</sup>

Also from the Community Survey, we can estimate the numbers of livestock owned by households in the former homeland part of Sakhisizwe, and Engcobo. The bottom row of the tables is for ‘large stock unit equivalents’, wherein each cattle counts as one LSUE, and each sheep or goat counts as one sixth of a LSUE.

**Table 4: Estimated numbers of cattle, sheep or goats owned by households**

	Sakhisizwe (Cala part)	Engcobo	Both
Cattle	25 936	58 758	84 694
Sheep	84 786	346 858	431 645
Goats	22 003	87 378	109 381
LSUEs	43 734	131 131	174 865

Source: calculated from Community Survey 2016 (Stats SA 2017a)

While there are no up-to-date estimates available for the commercial farming sector – and whereas from past agricultural censuses these numbers have varied significantly over time (as will be shown in due course) – the estimated number of LSUEs in the Elliot part of Sakhisizwe appears to be in the order of 20 000 to 50 000. Table 5 shows what is implied in terms of the density of livestock in the two parts of Sakhisizwe as well as Engcobo. While the figures are coarse, not least because no attempt is made to account for only grazing land, they do convey an important reality, namely that livestock are more than twice as dense in the former homeland areas than in the Elliot part of Sakhisizwe.

**Table 5: Summary table of livestock numbers (in large-stock unit equivalents) per area**

	Gross hectarage	LSUEs	HA/LSUEs
Sakhisizwe, Elliot part	148 500	30 000	5.0

<sup>6</sup> Although this is a comparison of apples and oranges, they are both fruit.

Sakhisizwe, Cala part	87 000	43 734	2.0
Engcobo	248 400	131 131	1.9

Note: by 'gross hectarage' is meant the total hectarage of the respective area without consideration of land that is usually regarded as 'grazing land'

### 2.3.2 Findings from fieldwork

Interviews were conducted with farmers, extension officers, and various other key informants. Most of the farmers who were interviewed are farming in the Cala part of Sakhisizwe or in Engcobo, although a few farmers were also interviewed who bought land in the Elliot part of Sakhisizwe without the assistance of land reform. In the case of sheep farmers, two types of interviews were conducted, namely interviews with the executive members of sheep shearing associations, who tended to be associated with different sheep shearing sheds serving sheep farmers in communal areas; and one-on-one interviews with 40 larger sheep farmers in these same areas. (Findings from interviews with farmers who are beneficiaries of land reform are reported in section 2.6.) Extension officers interviewed included those who work in Cala, Engcobo and Elliot. Other key informants included staff at CALUSA, BKB, GFADA, and Sakhisizwe Local Municipality.

Finding sheep farmers with whom to speak was easy thanks to the assistance of government extension officers who work with them, and also due to the fact that communal sheep farmers are fairly organised. The fact that they are organised owes in part to government extension and interventions such as collective shearing sheds, but also to BKB. Finding crop producers was more challenging. Government extension officers in Cala and Engcobo were unaware of any crop farmers, apart from subsistence-level producers. On the one hand, this accords with the visible evidence that fields are largely abandoned in favour of homestead 'gardens' (see e.g. Figure 5 above). On the other hand, people can farm commercially on small parcels depending on what and how they are producing, moreover even satellite imagery suggests at least some commercial fieldcrop production within Cala. In any event, some crop farmers were eventually identified and interviewed, as will be discussed below, including some in the Cala part of Sakhisizwe.

#### Sheep farming

Interviews were conducted with the executive members of three sheep shearing associations in the presence of some ordinary members. These three associations have a collective membership of 531 farmers. It was after these three initial meetings that interviews were set up with individual sheep farmers, in particular those with above-average numbers of sheep. The rationale for this second set of interviews is explained below.

#### *Phama shearing shed farmers, Askeaton village*

The Phama shearing shed association is made up of 121 sheep farmers. Some of these farmers also keep cattle, but none are crop farmers. Crop farming pretty much stopped in the area in the mid-1990s, when government stopped providing tractor services. Farmers used to crop maize, wheat and sorghum. The tractors were kept at the chief's place so that they had easy access to the villages they served. The respondents emphasised that they wish the government could resume providing these ploughing services. At the same time, local households have long since stopped maintaining oxen capable of providing draught power.

Most of the farmers keep Merino sheep and sell their wool to brokers such as BKB and CMW ('Cape Mohair and Wool'). Thanks to access to this market, sheep farming has increased significantly over the past 10 years or so. Every year in October their shearing shed produces more

than 100 bales of wool. Live animals are sold to the local 'ritual market', including both young rams, older rams, and older ewes.

Most of the farmers who belong to the association feel that they do not have access to enough land for their sheep, therefore they would be interested in relocating should there be an opportunity, or perhaps rather encourage those with the most stock to relocate. They are keenly aware that their veld is over-grazed. More than half of the members have more than 100 stock, and about 30 have herds of around 600-700 head. According to these farmers, larger stock owners such as these were meant to be assisted by government to access more land, not least to leave more space for other farmers with smaller herds. There seemed to be agreement among those participating in the discussion that relocating these larger farmers through land reform would be the best approach, though farmers' skills should also be taken into account when it comes to selecting land reform beneficiaries. Apart from the benefits these farmers would derive, their departure would alleviate some of the over-grazing in the area. However, farmers are not aware of how the land reform programme works, and blame government officials for not sharing information with them. Their impression was that, until recently, one of the problems with land reform was that government was taking beneficiaries 'from the townships', i.e. who did not have farming experience, and these people inevitably failed.

The second reason for some of these farmers to want land is that they want to diversify their farming activities and (re-)introduce cropping, among other enterprises. Farmers report that since democracy they have not received any support from government. Given an opportunity of getting more land, they would expand their farming and employ more people, and venture into cropping for selling and feeding their livestock.

About 40% of the farmers have employees, i.e. herders, most of whom are from Lesotho. The problem the farmers experience with employees is that they are unreliable, in particular they have a tendency to disappear without notice, especially the South African herders.

#### *Kuzikhokwane sheep shearing shed, Lufuta village*

The Kuzikhokwane sheep shearing association has 202 farmers of whom the average farmer owns 70 sheep. About five members have 100-150 each. The shed earns about R1 million per year through the sale of wool. Most farmers plough maize to supplement their livestock, but depend mostly on the sale of wool for their livelihoods.

Most of the farmers participating in the discussion said that they do not want to relocate to somewhere else as their stock still have enough grazing. However, there is also awareness that, thanks to the market being opened up by BKP and CMW, more households are farming with sheep. This appears to be true especially of female-headed households. Among other things, this has led people to start employing people from Lesotho due to the fact that they struggle to get local people. Farmers' children are reluctant to work as herders, but rather prefer to seek other jobs, whether they find them or not. Unfortunately, other employment opportunities in the area seem to be limited to seasonal jobs.

#### *Zikhokwane sheep shearing shed, Zikhokwane village*

The Zikhokwane sheep shearing association comprises 70 Merino farmers. Over the past few years there has been a significant increase in the number of households in the area involved in sheep farming. The average farmer owns 50 sheep. About 14 of the 70 farmers own more than 100 sheep and hire herders, while the rest use family members to look after their sheep. Zikhokwane farmers sell their wool to CMW. Many in principle would be willing to relocate. They have already

approached government for help to acquire a nearby farm, but their efforts have not come to fruition.

Apart from the group interviews indicated above, 40 other, generally larger sheep farmers were interviewed, one-on-one, in the following villages: Mtyatya, Lower Cala, Mnxe, Tiwana, Upper Indwana, Manzimahle, Manzimdaka, Zikhokhwane, Xhonxa, Lower Lufutha, Rabbelskloof, Kwanonqayana (in Engcobo), and Sdakeni. The reason for targeting larger sheep farmers is that, as per the interviews with the sheep shearing associations, it seemed that larger sheep farmers were more likely prospects for land reform, whether because they wanted to relocate, or because other sheep farmers in their vicinity wanted them to relocate.

Many of the farmers interviewed also keep cattle, but prefer sheep because the sheep offer a stream of benefits while still alive, i.e. via the sale of wool. Of the 40 farmers interviewed, 30 keep Dohne Merino, and 10 keep Merino; both are regarded as dual purpose breeds, but Merino yields more wool and less meat relative to the Dohne Merino.

Of the 40 farmers interviewed, 20 employ workers, whereas the other half rely on family labour, i.e. for herding. Those who employ herders employ only one each, and half of these employees were non-South Africans (seven from Lesotho and three from Zimbabwe). One of the important findings is that farmers use one herder (whether employee or family member) regardless of the size of their flock, however larger flocks are more likely to be herded by a paid employee rather than a family member. The sheep management system resembles what white farmers used to practice, in the sense that rams are generally castrated and raised for their wool along with the ewes.

Despite tending to complain that they receive no assistance from government, it transpired that most farmers' stock are vaccinated by government twice per year, moreover farmers are regularly called to 'information days' organised by the extension officers in collaboration with the likes of BKB and the National Wool Growers Association (NWGA). Farmers in some areas also benefit from a genetic improvement programme run by government in collaboration with the NWGA, whereby farmers exchange inferior rams for ones with better production characteristics. About 350 rams were distributed to Chris Hani District communal farmers within the past three-year cycle. According to BKB officers, Chris Hani District municipality is helping farmers by building shearing sheds. In 2018/19, 10 shearing sheds were built by the district, of which three were built in Sakhisizwe; Sakhisizwe presently has 22 shearing sheds.<sup>7</sup>

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<sup>7</sup> This raises the possibility that the estimates extrapolated from the Community Survey of 2016 presented above are too low. Supposing, conservatively, 22 sheep shearing sheds each with an average of 100 farmers of which the average farmer keeps 50 stock, that implies almost 110 000, as opposed to the 85 000 indicated in Table 4. Unfortunately, we do not have data from enough sheds.

Figure 7: Sheep shearing near Askeaton Village



The table below summarises the production and financial features of some of the farmers interviewed. The 'amount after deductions' relates to the fact that when these farmers are paid for their wool, BKB and CMW subtract for marketing costs such as transport and wool testing, also an administration fee. The revenue from the sale of sheep is indicative, in that farmers were only asked how many they sold, not the amount they earned from these sales; the figure of R1500 per sale, however, is the average price reported by respondents.

Table 6: Farmers who have significant numbers of sheep

Farmer	Gender	Number of sheep	Greasy KGs sold 2019	Amount after deductions	Sheep sold in 2019	Revenue from sheep sold (@ R1500 each)	Total revenue from sheep
1	Male	56	164	R9 962	10	R15 000	R24 962
2	Female	50	109	R6 736	10	R15 000	R21 736
3	Female	68	268	R13 078	15	R22 500	R35 578
4	Male	41	123	R7 748	7	R10 500	R18 248
5	Male	43	128	R9 948	8	R12 000	R21 948
6	Female	35	106	R6 014	5	R7 500	R13 514
7	Male	68	203	R13 157	15	R22 500	R35 657
8	Female	92	261	R18 101	18	R27 000	R45 101
9	Male	99	240	R15 545	18	R27 000	R42 545
10	Male	100	297	R18 309	20	R30 000	R48 309
11	Male	113	337	R19 392	20	R30 000	R49 392
12	Male	130	390	R22 448	30	R45 000	R67 448
13	Female	68	206	R11 115	15	R22 500	R33 615
14	Female	141	423	R24 819	35	R52 500	R77 319
15	Female	380	1020	R58 405	50	R75 000	R133 405
16	Female	350	987	R60 532	40	R60 000	R120 532
17	Female	136	408	R16 963	32	R48 000	R64 963
18	Male	134	403	R15 305	29	R43 500	R58 805
19	Male	185	554	R25 321	39	R58 500	R83 821
20	Male	127	381	R17 865	27	R40 500	R58 365

Source: Field survey 2020

Obviously, income from sheep is more or less proportional to the size of one's herd; and interestingly, despite farmers' evident excitement about the opportunity to sell wool, they all appear to make more money from sales of live animals. It appears that one needs about 50 sheep to derive an income that is more or less the same as an old age pension; whereas from the Stats SA data, it appears that the average herd size for Cala and Engcobo is 30. But these smaller herds nonetheless make a meaningful contribution to a multiple livelihood strategy, whereas the larger herds appear to allow for a decent living. What the table does not show is that virtually all of the farmers interviewed are in fact pensioners, many of whom were migrant workers in the mines or cities. Respondents emphasised the role played by the revenue from sheep towards the education of their children and grandchildren.

In contrast to large-scale commercial farmers in Elliot, the farmers in Cala and Engcobo interviewed did not regard stock theft as a major problem, though it is a concern. Only a few households reported experiencing stock theft in the past few years, and none of these lost more than five animals. At least in these areas, farmers appear to be coordinated in fighting stock theft; thieves tend to be from local families, and when they are caught they are punished with the permission of their families. Having said that, presumably stock theft is also minimised by the fact that farmers ensure the herding of their flocks, and kraal their sheep at night.

An interesting if sobering counter-example is that of a farmer who used his pension to purchase a 465 hectare farm along the road that leads from Elliot to Ngcobo. He has 70 beef cattle and employs one South African worker. He also has 78 Dohne Merino sheep, however he rather keeps these sheep at his village, where theft of sheep is not such a serious problem; if not for the theft problem, he would rather have them on his private farm because he likes how they provide income both through wool and meat. Another challenge he is having at his farm is with the farmworkers left behind by the previous owner, who appear to have colluded with local villagers to remove his fence to allow easy access to his grazing resources. While it is difficult to say whether or not this case is typical, it does need to be borne in mind given the idea of relocating larger sheep farmers from the former Transkei to land reform farms in Elliot.

Another point of uncertainty is what kind of management practices relocated sheep farmers are likely to apply. Unlike large-scale commercial sheep farmers in Elliot, those interviewed in Cala and Engcobo are not accustomed to trying to adhere to a given stocking rate, presumably because the effectively open access nature of the grazing regimen makes this impractical. For their part, extension officers who work with communal sheep farmers do not seek to communicate or encourage any stocking norms.

### **Crop farming**

A number of crop farmers were interviewed, including some engaged in field crops, or vegetables or both. Some of these also kept livestock, but identified themselves primarily as crop farmers. With one exception, all of these are farming in the Cala part of Sakhisizwe; the exception is one respondent who bought a farm in the Elliot part of Sakhisizwe with his own resources. (Crop farmer land reform beneficiaries are discussed later.)

What follows are brief profiles of four of these farmers and their farming enterprises:

- **Farmer 1** – About three decades ago the family privately acquired a 25 hectare farm situated in the Cala area close to the border with Elliot District.<sup>8</sup> For about five years the family was planting five hectares each to cabbage and spinach, but stopped due to insufficient market demand, despite the fact that they were selling to the Spar and Boxer in Cala town. This demand was regular but left the farmer with large amounts of unsold produce.<sup>9</sup> They now plant 15 hectares of maize and 10 hectares of rye grass. The farm used to employ seven permanent workers and 30-40 workers at peak season, and presently just employs the seven permanent workers.
- **Farmer 2** – The family has a farm of five hectares on the outskirts of Cala town in which until recently they were planting three hectares of vegetables, including spinach, carrot, cabbage, green peppers and potatoes. They were irrigating from various sources including roofs and taps, but due to drought reduced production to one hectare, and focused on drilling a borehole, which they are now in the process of equipping. When producing on all three hectares, the farmer employed seven full-time workers, and was selling at the farm gate and also targeting the informal market in the townships, especially on pension pay-days. The remaining two hectares are for guest lodging.
- **Farmer 3** – The farmer was using communal land in Cala to grow vegetables for the Spar and Boxer in Cala town. She began with her family's land of about two hectares, and then engaged neighbours so as to access another eight hectares. She continued for 10 years using about eight permanent workers, with occasional support from government, up until the neighbours wanted their land back. That disturbed her operation and her markets. She is now looking to government to assist her through land reform but has not yet received anything.
- **Farmer 4** – The farmer owns a 410 hectare farm in Elliot of which 200 hectares are arable. According to the farmer, who is also a chief, they purchased the farm privately (i.e. without government assistance) in 1989. He plants oats and maize on the arable land, of which about a third is supported through the GFADA programme (see below). He sells 80% of all the produce to BKB and OVK in Elliot, and to local 'Muslim shops' and 'China shops' in both Cala and Elliot. He also raises livestock on the rest of the land and sells weaners to Andrews Abattoir (the only functioning abattoir in Sakhisizwe, which is on the outskirts of Elliot town). The farm employs eight permanent workers with 50 seasonal workers during harvesting season.

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<sup>8</sup> The exact situation is unclear, for instance from whom this land was bought. Although the Cala part of Sakhisizwe is generally regarded as a communal area, the cadastral map shows a couple of dozen surveyed farm portions, most of which technically became SADT land via homeland consolidation.

<sup>9</sup> This is not likely because the farmer's supply was much in excess of the stock needed by these shops. More likely is that the shops were also committed to other suppliers and/or this particular farmer's supply was not spread over time in accordance with the shops' needs.

Figure 8: Photos of 'Farmer 1' (left) and 'Farmer 3' (right)



Although brief, these vignettes illustrate the potential of smallholder field crop and vegetable producers to create jobs. The challenges identified, however, include both water and markets. Presumably, any land reform beneficiaries set up as vegetable producers would have to have more or less assured water supplies, together with the necessary licenses. As for markets, that would presumably require some degree of collective action among beneficiaries. The challenge is that this is not a highly populous area with a large effective demand, thus transporting produce to markets further away is probably required, especially if a number of beneficiaries will be embarking on vegetable production at the same time. This in turn implies both the possibility and necessity of collective action.

#### 2.4 The large-scale commercial farming sector

As indicated above, the large-scale commercial farming sector occupies most of the part of the Sakhisizwe that is more or less equal to Elliot Magisterial District.<sup>10</sup> Before proceeding to describe the commercial farming sector, it is important to dispel the notion that agriculture is a critical sector, which is not to suggest it is unimportant. The table below conveys a sense of how agriculture (and forestry) compare in the greater scheme of things. The fact that agriculture's economic share for Sakhisizwe is not very different from that for South Africa as a whole is perhaps surprising, given that Sakhisiwe has the appearance of a rural area with little discernible industry. This probably reflects three realities. First, as already indicated, half the population is classified as urban, and in addition to this, a large share of the rural population of the Cala part of the municipality could fairly be described as 'displaced urban'. Second, the figures for agriculture only reflect *large-scale* commercial farming, and not the *gross value* of large-scale commercial farming, but the *value added*, meaning the gross value less the value of intermediate inputs, which in large-scale commercial farming are considerable. To be fair, there is some value-addition of agricultural products subsumed within the manufacturing figure, in particular there is an abattoir on the outskirts of Elliot town, and also a grain

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<sup>10</sup> The 'more or less' qualification refers to a piece of Elliot to the west and another to the north that are not part of Sakhisizwe. Together, these pieces account for perhaps 15% of the surface area of Elliot, however the portion to the north is mountainous, and portion to the west is relatively arid, thus they account for considerably less than 15% of Elliot's productive agricultural land. Thus when Stats SA statistics are cited here for Elliot District (because for commercial farming data, Stats SA uses magisterial districts rather than municipalities), it must be remembered that they are only approximately representative of the commercial farming area of Sakhisizwe.



storage facility. Moreover, as is shown below, commercial farm jobs account for a small and shrinking share of overall employment.

**Table 7: Components of value added of Sakhisizwe Local Municipality**

Sector	Share
General government	39.2%
Wholesale and retail trade	16.4%
Financial services	13.4%
Community, social and personal services	11.9%
Construction	5.8%
Transport, storage and communication	5.4%
Agriculture	2.8%
Manufacturing	2.3%
Electricity, gas and water	1.8%
Mining and quarrying	0.5%
Forestry	0.3%
Total	100.0%

Source: Quantec EasyData 2019

As of 1993 – the last year in which the commercial agriculture census reported land use types by hectareage – the breakdown of Elliot District was as shown in the table below. ‘Perennial crops’ most likely refers mainly to forage crops such as perennial ryegrass. It is unclear to what ‘orchards and vineyards’ refers.

**Table 8: Commercial agricultural land uses in Elliot District, 1993<sup>11</sup>**

	Dryland	Irrigated
Annual crops	11 677	326
Perennial crops	3 591	271
Orchards and vineyards	420	0
Commercial forestry	7 361	
Grazing	141 277	
Other	9 865	

Source: CSS 1998

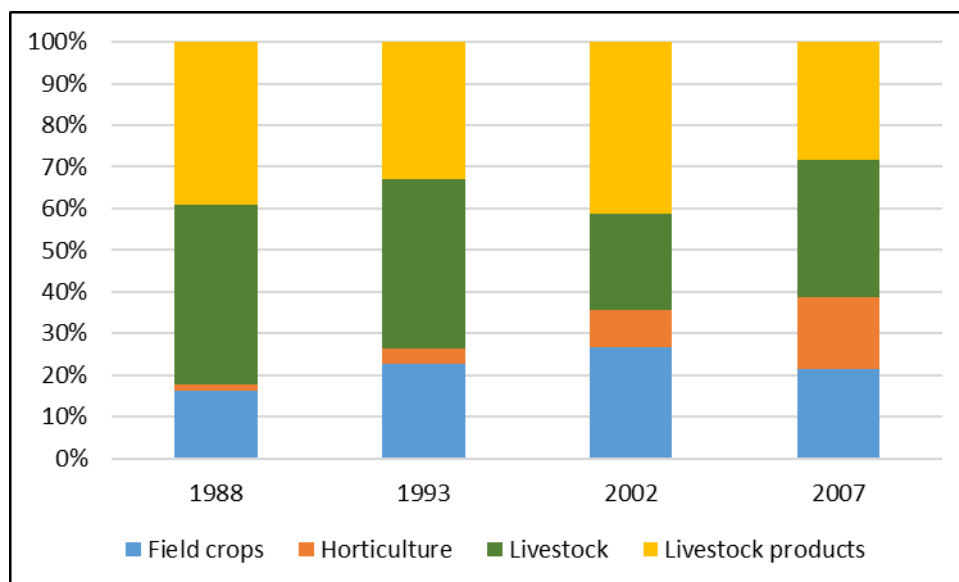
Thus arable production in 1993 accounted for 9.3% of agricultural land use, and of this, irrigated crops accounted for about 4%. On the one hand, this would seem to suggest that Elliot is disadvantaged in terms of irrigation resources; such irrigation as exists is mostly used for annual crops such as maize and potatoes, and for forage crops.<sup>12</sup> On the other hand, Elliot happens to be one of the few areas in South Africa where commercial farmers can undertake dryland potato production.

<sup>11</sup> Respondents indicated that there is a municipal commonage to the west of Elliot town comprising about 2000 hectares, and that this is used by black farmers, including households living in the townships. It is not clear if this land is or is not included in the 141 277 hectares of grazing indicated in the table.

<sup>12</sup> While no statistics exist as to the amount of land irrigated presently, there is anecdotal evidence that some farmers are investing in expanding the area under irrigation. This usually involves building farm dams, which can cost from R600 000 to R2 million depending on size, together with pumps, pipes and usually centre pivots.

Over time there have been two main shifts in what farmers farm. One of these is suggested in the figure below, which shows the shares of gross farm income attributable to the different main agricultural subsectors. The most conspicuous trend is the relative rise of horticulture, which for the case at hand means potatoes. 'Livestock products' mainly refers to wool, for which the trend is not as clear, but which according to farmers has declined because, in light of rampant stock theft, livestock farmers have tended to transition from sheep to cattle.

**Figure 9: Trends in the composition of commercial agriculture, by shares of gross farm income**



Sources: CSS 1991; CSS 1998; Stats SA 2005; Stats SA 2009

Table 9 provides partial support for the idea that there has been a shift from cattle to sheep. The table provides livestock numbers from four commercial agricultural censuses. It is not particularly clear that there has been an increase in cattle, but the decline in sheep is fairly significant, even bearing in mind the apparent increase from 2002 to 2007. Unfortunately, 2007 is already a while ago, and we have no statistical basis for determining what has happened since then.<sup>13</sup>

<sup>13</sup> Unfortunately, the Community Survey of 2016 had too few observations among farmers in the Elliot part of Sakhisizwe to allow for any extrapolation of white farmers' stock ownership in 2016. Also, as of this writing, no district-level data have been released from the 2017 commercial agriculture census.

**Table 9: Livestock numbers in Elliot District, 1980 to 2002**

	1980	1993	2002	2007
Cattle	28 801	18 974	10 770	15 741
Sheep	233 003	125 333	34 416	52 490
Goats	1 097	320	1 646	230
LSUEs	67 818	39 916	16 780	24 528

Sources: CSS 1985; CSS 1998; Stats SA 2005; Stats SA 2009

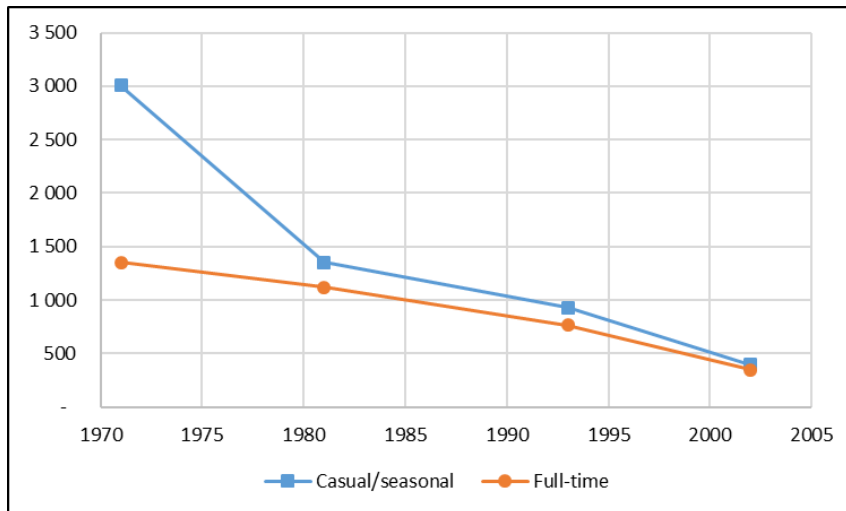
More striking than the above-mentioned shifts within and between agricultural subsectors, is the process of consolidation. In 1971, there were 214 farms, whereas in 1981 there were 163, in 1993 there were 136, and in 2002 there were 61. After that we have no data, but farmers in the area speak of there being possibly 40 farms in total, of which 10 are especially large and competitive. These larger farmers, of whom we spoke to three, mostly carried on a process begun by their parents and grandparents, but arguably have accelerated it, such that it appears that the agricultural structure of the area is more uneven than previously, i.e. with a small number of farms accounting for a disproportionate share of both the area and farm income.

**Figure 10: Derelict farmhouse amid productive maize fields**



As theory would predict, this process of consolidation has been accompanied by the shedding of farm jobs. This is confirmed by interviews with large-scale commercial farmers who describe how, as a rule, when a farmer takes over an adjacent farm, he rarely takes on the workers of the farmer who is selling, though he may well purchase larger and more powerful tractors and equipment. Statistically, the picture is fragmented owing to the absence of recent commercial agriculture censuses. Figure 10 shows the trend according to these censuses up to 2002. The fact that casual/seasonal workers declined more between 1970 and 1981 probably owes to the increased use of combine harvesters during this period (see e.g. de Klerk 1984).

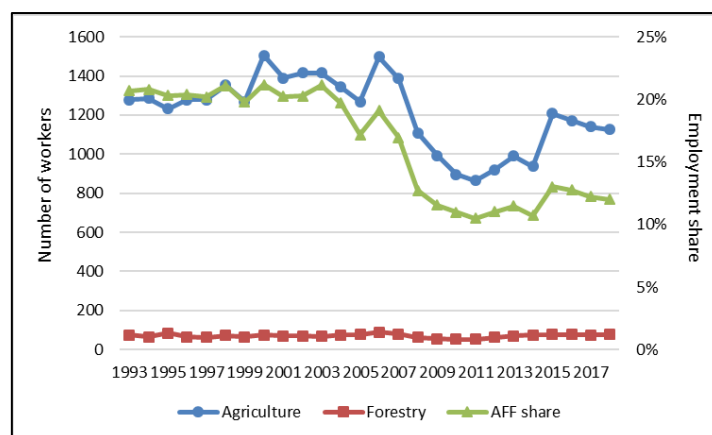
**Figure 11: Agricultural employment trends, 1970 to 2002**



Sources: Department of Statistics 1974; CSS 1985; CSS 1998; Stats SA 2005; Stats SA 2009

For the more recent era we have only Quantec ‘data’, but it is difficult to gauge how accurate this depiction is, since it would appear that these are not so much data as interpolations based on modelling, perhaps anchored to higher-level geographical aggregates. It is doubtful whether there was in reality an upward swing in farm employment between 2011 and 2015, rather this likely reflects patterns of change elsewhere in the country. Another concern is that the figure for 2002 is far higher than the 800 or so jobs indicated by the agricultural census for that year.<sup>14</sup> In any case, however, the graphs supports the idea of a continued downward trajectory of farm employment consistent with our interviews. In terms of the employment share, it has declined by almost 50% since the mid-1990s. Given the recent sale of one of the district’s largest potato farmers to a mega-farmer from outside, it is expected that 150 to 200 jobs will soon be lost.

**Figure 12: Agricultural employment trends, 1993 to 2018**



Source: Quantec EasyData 2019

<sup>14</sup> In terms of how statistics are gathered, one would expect the employment figures from the agricultural census to be greater than those from household surveys such as the Quarterly Labour Force Survey, since the former asks farmers how many employees of different types they had in the previous 12 months, whereas the latter is usually based on household members’ employment at that point in time or over the previous week.

Of the commercial farmers interviewed, most expressed concerns about farm labour. This was partly a function of the higher cost of labour over time, but more so an expression of frustration with labour relations, in particular poor work ethic and absenteeism among employees. Farmers perceived and approached these challenges in various ways. One stock farmer had taken particular care to establish a stable working relationship with a small core of loyal, non-drinking workers over a long period of time. Another replaced a team of local workers assisting with the potato harvest, with a team from Lesotho on the grounds that the latter have a stronger work ethic and in effect come with their own headman/supervisor. Another farmer indicated that he was constantly looking for options to further mechanise so as to reduce reliance on workers. A different potato farmer whom we did not interview but whose situation was explained to us by another farmer, in response to a contentious relationship with workers, decided to sell his potatoes in bulk to McCain as a means of no longer having to hire workers to operate a pack-shed. One large-scale commercial farmer stood out as having a different perspective. He actively cultivated a friendly relationship with workers, but also reasoned that sophisticated machinery presents its own challenges, such as high maintenance costs and reduced flexibility. A key decision farmers make is whether to have workers reside on the farm. Stock farmers value the presence of farm-dwelling workers who can discourage theft, e.g. they set up shelters for herders by the kraals that are used to reduce the theft of sheep (see below); other farmers, however, discourage farm dwellers for fear of the Extension of Security of Tenure Act.

Apart from a small number of specialised farmers – there are two dairy farmers and one poultry farmer in Elliot – farmers in Elliot are either livestock farmers or farmers who engage in mixed farming. As mentioned above, livestock farming mostly involves extensive production of sheep and cattle, with a shift over time from the former to the latter; crop production mainly involves dryland production of maize, potatoes, soybeans and wheat. Most if not all farmers could be described as ‘family farmers’,<sup>15</sup> most of whose families have been farming in Elliot for four or five generations, although the larger farmers depend to some extent on farm managers.<sup>16</sup> Most farmers envisage the farm being taken over by a son or daughter.

All of the commercial farmers interviewed are farming on three or more of what used to be separate farms, with some as many as seven or 10. Most of the farmers are also renting in additional land, especially but not only grazing, whether from other white farmers or from land reform beneficiaries. The norm for rental of grazing land is R200 per hectare per year. Farmers describe the current land market as very tight, and some ascribe this to land reform. This is probably true not so much because much land has been acquired for land reform recently, but because none of the land acquired for land reform comes onto the market.<sup>17</sup> The tightness of the farmland market probably has at least as much to do with the recent expansion of some of the larger farmers.

#### *2.4.1 Livestock production systems*

At present, livestock farmers in Elliot by and large either farm beef cattle only, or a mix of both cattle and sheep. Similar to black farmers, large-scale commercial farmers appreciate sheep because of the quicker returns and their contribution to one’s cash-flow. The sheep kept are mainly dual purpose

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<sup>15</sup> Though not in the strict sense of relying mostly on family labour.

<sup>16</sup> The one exception to the rule of family farmers is that early in 2020, one of the larger farmers in Elliot sold his properties to David Osborne, the well-known ‘mega-farmer’ based in Queenstown. While some local farmers welcome this development, others are concerned about the fact that the farmer Osborne is replacing was one of the area’s larger potato farmers, meaning the loss of possibly 100 to 200 seasonal jobs.

<sup>17</sup> White farmers’ perceptions of the amount of land transferred in Elliot via land reform tend to be far high than what the data suggest – one farmer ventured that 60% of Elliot’s farmland had become land reform land, whereas, as discussed below, the data suggest that the figure is 24%.

breeds, in particular dorker, Merino, and Dohne Merino, which all produce both wool and meat, but in different proportions. When raising both cattle and sheep, farmers keep the sheep on one farm and the cattle on another,<sup>18</sup> or they practice one or another form of co-grazing, with either both cattle and sheep sharing the same paddocks at the same time, or being in a sort of rotation whereby cattle are allowed to graze in an area until they have shortened the grass to the point that the sheep find it attractive and easier to eat.

Livestock farmers describe Elliot as a difficult place to farm owing to the variability in the climate and the prevalence of ticks and internal parasites; there appears to be a trade-off – there are fewer ticks and parasite problems at higher elevations, but also more frost, which damages the nutritional quality of the veld.<sup>19</sup> Tick control is a bit onerous, with some farmers ‘dipping’ stock every three weeks in summer.<sup>20</sup> Despite this, the upkeep of cattle requires relatively little care and labour. Farmers’ main concern is to ensure that cattle are counted on a frequent (e.g. daily) basis so as to know if there is a stock theft problem, and from time to time they need to be moved from one camp to another. A number of cattle farmers in the area are experimenting with intensive rotational systems akin to the Savoury method. One farmer interviewed managed to increase his number of cattle from 600 to 1000 within the same area over a period of four years by means of introducing the system. This is despite the fact that his transition to the system is incomplete, owing to the costs of putting in the additional fencing and water points. The undulating terrain makes it technically challenging and expensive to set up additional, reliable water points; some farmers are experimenting with solar-powered pumps as part of the solution.

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<sup>18</sup> The two situations we came across of this were whereby the farmer keep cattle on the land that for one reason or another is relatively vulnerable to theft, and kept sheep on other parcels which are less vulnerable, e.g. because they are ‘on the mountain’ or on the slopes leading up to the mountain.

<sup>19</sup> Some farmers based in the Elliot part of Sakhisizwe have farms which include mountain slopes near the northern boundary of the district/municipality. Other Elliot farmers have farms ‘on the mountain’, which generally means within the northern ‘peninsula’ of Elliot that technically falls outside of the boundaries of Sakhisizwe (see Figure 1).

<sup>20</sup> Traditional dipping seems to no longer take place, rather farmers spray. One farmer described how he loads mobile handling facilities into his bakkie and sets up ‘spray races’ in different parts of his property so as to avoid having to bring livestock together at a central point. A spray race is a narrow corridor of rails through which cattle walk, during which they are sprayed above and below by anti-tick medication. Small-scale farmers sometimes use backpack sprayers to do more or less the same thing, e.g. where government support for communal dip tanks has collapsed.

**Figure 13: Herd of Bonsmara on large-scale farm in western part of Elliot District**



Sheep farming is somewhat more labour intensive than cattle farming, in the first place because the flock has to be segregated, e.g. ewes from lambs (lambs are typically weaned at around two months), which means one or two herders for each group.<sup>21</sup> Farmers tend to say that each sub-herd of sheep should not exceed 400 head. Secondly, lambing season requires more intense supervision, whether or not using lambing pens; some farmers arrange lambing on paddocks planted to 'green feeding', e.g. oats and ryegrass where ewes can lamb in the open while getting good nutrition.<sup>22</sup> And in the third place, because of the theft problem, sheep are usually kraaled at night. Farmers report that this is a new practice in the area that became a necessity over time as the stock theft problem grew worse, and this in particular has increased the need for labour for sheep farming.<sup>23, 24</sup> Two farmers also spoke of the jackal problem as an additional rationale for kraaling the sheep at night. Allegedly this jackal problem did not previously exist, but started to emerge with the forestry developments of the mid-1990s; that is, the timber plantations have created an attractive habitat or refuge for jackals, who nonetheless travel far from the forests in search of prey.<sup>25</sup> In any case, the difference between the kraaling practices of white farmers in Elliot and black farmers in the communal areas is that the former keep multiple kraals depending on how large their number of sheep is, and none of these are necessarily close to the farmers' actual homes. Then the question is

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<sup>21</sup> Herd composition has tended to change over time as there has been a trend away from a primary focus on wool towards a more balanced approach with meat. For instance, sheep farmers used to castrate male lambs and raise the wethers/hammels for wool, along with the ewes. However, this imposed additional expenses (e.g. veterinary) for the upkeep of the wethers, whereas now farmers prefer to sell the uncastrated male lambs immediately upon weaning. At the same time, there has tended to be a shift from Merino to Dohne Merino.

<sup>22</sup> Worldwide, 'pasture lambing' seems to be replacing 'shed lambing'. One advantage is that it appears to be healthier, another that it requires less labour (Schoenian, 2016).

<sup>23</sup> Staff assigned to tend to sheep are not necessarily with them all day. The main thing is that they move the sheep out from the kraal in the morning and back in the evening, and in between they may well be assigned to other tasks. Thus they are not necessarily full-time herders in the same sense as those who work for sheep farmers in the communal areas.

<sup>24</sup> The exception is some farmers who are relatively inaccessible, especially those 'on the mountain'. To illustrate the challenges encountered in farming in some of these areas, some farmers keep donkeys which serve as pack animals for carrying salt licks up the mountain.

<sup>25</sup> By one account, the forestry company actively introduced jackals in the area as a means of controlling a kind of rodent that damages tree bark.

whether staff have accommodation next to the kraals so as to provide security at night; this entails an added expense, but in the absence of this measure, kraaling can backfire and make it easier to steal sheep.

Commercial farmers interviewed do not try to adhere to a simple stocking ratio in terms of numbers of hectares per head of sheep or cattle, and in effect seem to apply very different stocking rates from one another. At farm level this could possibly be explained by differences in the quality of the veld and different degrees of reliance on supplementary feeding. However, the historical data also show enormous variability over time in the effective stocking rates; just in terms of the four data points indicated in Table 9 above, numbers of hectares per large stock unit equivalent varied from 2.1 in 1980, to 8.5 in 2002.

Farmers sell the odd cattle to the local abattoir, but most wieners are sold to feedlots far away, e.g. Gauteng.<sup>26</sup> Lambs and adult ewes are sold to abattoirs near and far, though some may be sold to feedlots or via auctions (DAFF 2017). Most wool is sold through auctions in Port Elizabeth for which BKB or CMW serve as brokers.

#### 2.4.2 *Crop production systems*

Most crop farming involves highly mechanised production in which the main tasks are performed by a small core of tractor drivers using large-scale, modern tractors and equipment. For the largest farmers, these operations are fine-tuned using 'precision agriculture', which farmers credit with either helping them reduce input costs at the margin or enhance yields. One farmer cultivating 1100 hectares of arable land relied on two tractor drivers. This reality has been true for many years in South Africa, in particular when the spread of combine harvesters replaced more manual forms of harvesting. Incremental changes over time relate to trends in machinery, e.g. equipment that can manage larger numbers of rows of ploughing / planting / spraying / harvesting at a time. Having said that, the undulating landscape of Elliot is such as to discourage gravitation towards the largest machinery since it necessitates contour farming (see Figure 5). This also puts Elliot farmers at a slight disadvantage; for instance, as explained by one farmer, the numbers of rows has to change along the contour, because contours are generally not entirely parallel, meaning that a driver has to make more passes to farm a given area relative to a situation where the terrain is flat. Moreover, farmers have to contend with numbers of discrete fields rather than one or two contiguous plots, meaning more turning per unit area than would be the case otherwise.

Commercial farmers sell their maize in a variety of ways. Some deliver their maize to the local OVK silo for storage until sale, while a few have erected their own silos as a means of avoiding others' storage and handling fees.<sup>27</sup> Most of this maize is destined for distant markets via milling plants or export, however some maize is bought by Andrews Abattoir for their feedlot or by BKB. In the last few years, one farmer in nearby Maclean set up a packing operation wherein he buys in maize from near and far and, together with his own maize harvest, puts it in bags of various sizes for sale to supermarket chains and 'Muslim shops', from where people buy it for animal feed.

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<sup>26</sup> One white farmer said that the local abattoir mostly served black farmers in the area, but this was not the impression gained from the abattoir owners.

<sup>27</sup> Allegedly, OVK's handling and storage fees exceed R350 per tonne, taking a large cut out of farmers' profits, especially in light of the current low maize price.



**Figure 14: Pattern of relatively small, discrete fields**



The big exception to the non-labour-intensive nature of crop production in Elliot is potato farming. In 2007, Elliot farmers planted 344 hectares of potatoes, which was the fourth most of any district in the Eastern Cape, after Maclear (1389 hectares) next door, Hankey (1178 hectares) and Humansdorp (872 hectares). Maclear and Elliot together accounted for only 3% of South Africa's total potato production for that year, thus the Maclear/Elliot area is not necessarily important in terms of national potato production, but arguably potato production is important for Maclear/Elliot. Although it appears that potato production in Elliot has increased since 2007, it is difficult to know by how much. One farmer indicated that the total hectareage in potatoes in 2018/19 was less than 800 hectares. Potato production is usually undertaken in rotation with other fieldcrops, especially maize, with the potatoes grown only once in five to seven years on a particular plot so as to safeguard against the build-up of soil pathogens. Thus the area under potatoes is necessarily limited, but in principle could go as high as, say, 1500 hectares.

Potato production is more labour-intensive than maize or soybean production for two reasons. First, once the potatoes are 'lifted' out of the ground, a team of workers manually picks up the potatoes and loads them into large bags. In other parts of the country and world, this process is more mechanised by means of harvesters with integrated conveyor belts, 'picking tables', and bins, but these machines are very expensive and impractical for the tight contours of Elliot. Thus one Elliot farmer with 65 hectares in potatoes has 48 seasonal employees assisting with the harvesting in the field. The other labour-intensive task is in the pack-shed, which involves washing, sorting, and bagging potatoes. This is a mechanised process that nonetheless demands a large number of people; the same farmer mentioned above has 59 workers in the shed overseen by a manager.

Figure 15: Potato packing



Although commercial potato farming is labour-intensive, it also requires a great deal of capital.<sup>28</sup> The machinery is specialised, e.g. the potato planter and harvester. A pack-shed can cost R3 million to R5 million. And the production costs for dryland potato production can be in the order of R80 000 to R120 000 per hectare.

Most potatoes produced in Elliot are sold to the fresh produce markets of Johannesburg, Durban and Port Elizabeth, however as noted above, at least one farmer sells in bulk to McCain, and evidently this same farmer attempted to create his own distribution depots in Mthatha and Queenstown, so as to avoid going through the fresh produce markets. In addition, at least one farmer is certified to produce seed potatoes. Apart from soft prices for potatoes in recent years, a challenge with the marketing of potatoes is timing; a large share of consumer expenditure takes place at the turn of the month, when people receive salaries and wages, or social grants. Potatoes lose their freshness over time, especially given the norm across South Africa of washing potatoes before packaging them;<sup>29</sup> therefore much depends on getting one's potatoes to the fresh produce market at just the right time for them to get to the retail outlet at the height of consumer spending, but the farmer has limited control. Beyond this, the fresh produce market and the agent take commissions totalling about 12%.

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<sup>28</sup> This is another way of saying that distinguishing between farming systems that are labour-intensive versus capital-intensive is not always helpful, in that some systems could fairly be described as both or neither.

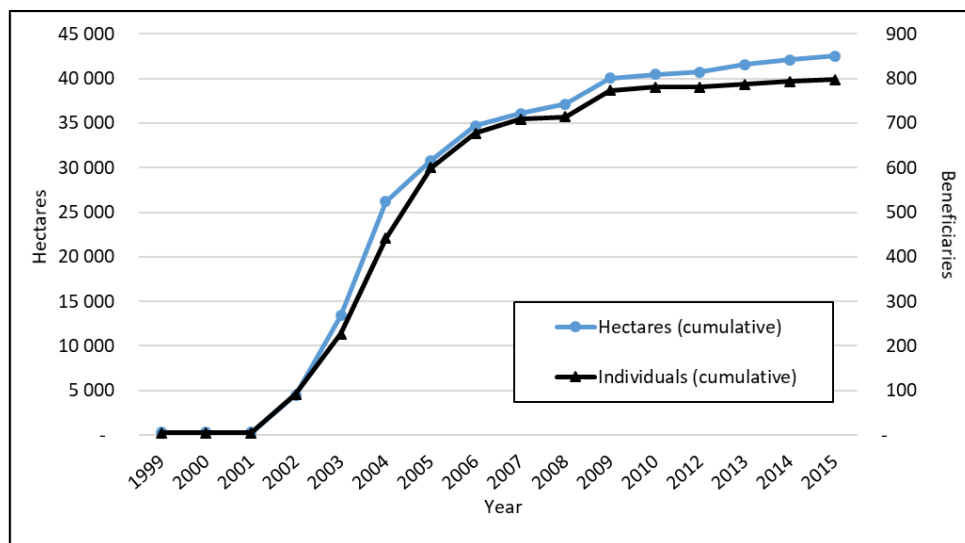
<sup>29</sup> So much for the advantages of 'norms and standards'.

## 2.5 Land reform to date

### 2.5.1 Overview

Sakhisizwe is notable because although there have been no restitution projects, there has been a significant amount of land redistribution. According to data acquired from DRDLR, there have been 106 redistribution projects in all: SLAG – 1; SPLAG – 1;<sup>30</sup> LRAD – 97; and PLAS – 7. The fact that there were so many redistribution projects owed to a deliberate strategy devised by the provincial Department of Land Affairs office with assistance from the provincial agriculture department. In short, benchmark price-per-hectare values were established for different types of land, e.g. grazing versus arable versus irrigated, after which these were communicated on a ‘take-it-or-leave-it’ basis to commercial farmers through a series of public meetings. Because the prices were regarded a good, many farmers were interested, and because government did not engage in farm-by-farm negotiations, settlements were reached quickly (Aliber, Kenyon, Mogaladi and Kleinbooie 2010). The graph below conveys a sense of delivery over time, with the period 2001 to 2009 being especially intense. The cumulative amount of land affected comes to 42 500 hectares, which represents about 24% of commercial farmland. The total cost of this land was about R36 million, though in inflation-adjusted terms it would likely be closer to R50 million. Although seemingly very successful, the land acquisition approach has never been tried elsewhere in South Africa’s land reform programme.<sup>31</sup>

Figure 16: land redistribution delivery in Sakhisizwe over time



Source: based on project-level data obtained from DRDLR 2019

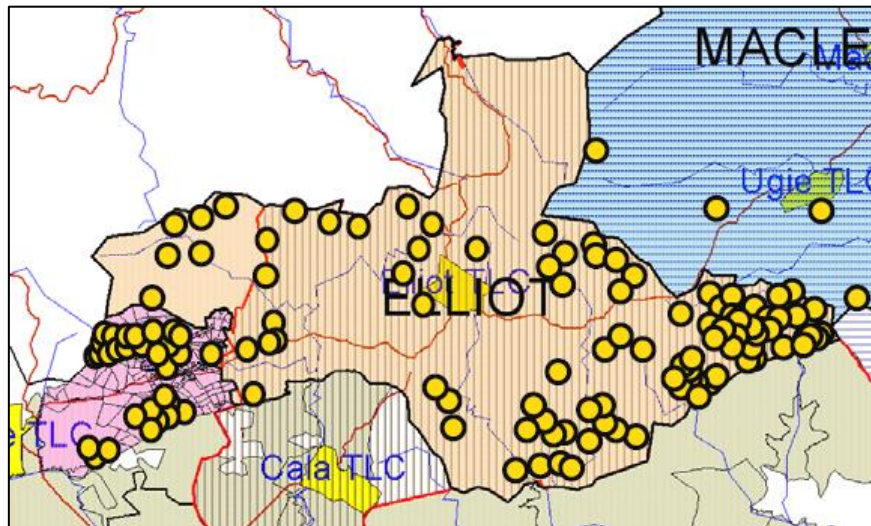
Land reform projects in Elliot appear to be fairly well distributed over space, although there are some discernible clusters, e.g. in the extreme west and east of the district. Although no recent map is available, the one constructed by McCann was done at a time when most of the redistribution projects completed to date had already been effected. (Note that the dense concentration of

<sup>30</sup> SPLAG stood for the ‘Settlement and Production Land Acquisition Grant’; it seems to have existed around 2008-9, and was R111 000 per household.

<sup>31</sup> There has been some land acquisition by black people outside of the land reform programme, though it is not clear how much. Among the well-known instances is the land acquired by the Mantashe family and by the former director general of National Treasury, Lungisa Fuzile.

projects towards the lower-left are mostly in Indwe District, which is part of Emalahleni Local Municipality.)

Figure 17: Spatial distribution of land redistribution projects in Elliot



Source: M. McCann (2008: 28)

There have been a few piecemeal assessments of the performance of these redistribution projects to date. A very early research effort established that many of the LRAD projects involved beneficiary groups that mixed together former farm workers and recruits from nearby villages (i.e. in the former Transkei); within one to three years, there was a large gap between the numbers of official and active beneficiaries, with evidence that at least some of these non-participating beneficiaries had at one time been active (Aliber, Masika and Quan 2006). A somewhat later survey of eight land redistribution projects showed that they were quite productive, with most beneficiary respondents producing milk, meat and wool, and a number also producing field crops (Phiri 2009). Even so, the author was at pains to indicate that the land reform farmers were mid-way in their transition from being marginal black farmers to fully-fledged commercial farmers:

*These emerging farmers were culturally embedded, rather than production-oriented.... This does not mean that the emerging farmers were not growing crops and attempting to keep animals commercially. Rather, social relationships and social networks were considered a critical part of an emerging black commercial farmer sector in Sakhisizwe Local Municipality. These relationships meant a lot more than earning a profit, or adopting a more market orientated approach, as was the case among the white commercial farming sector. (Phiri, 2009: 113)*

### 2.5.2 Findings from fieldwork

Our own interviews with various key informants generally yielded sobering impressions regarding the performance of land reform in Sakhisizwe, though it should be stressed that this was not a systematic assessment. The general impression – shared by a variety of different types of stakeholders – was that only a small share of land reform projects were performing well, while most others suffered from the fact that the farmers were under-skilled and/or under-capitalised and/or

under-committed. The chair of the local farmers' association stressed that many land reform beneficiaries were not interested in developing their farming skills, but those who were willing might well be successful because from being willing to learn, one would also develop a love of farming. A black commercial farmer raised the concern – echoed by several others – that too many land reform beneficiaries who lack the means or interest to use their land, end up taking on tenants from the former Transkei who are looking for a place to bring their livestock. This was a concern because it was assumed that therefore the overstocking that is endemic in the communal areas would then be manifest on what had been good grazing land, but there also seemed to be a concern for security, in that one was no longer clear who one's neighbours were.

One of the larger white commercial farmers was very negative about land reform farmers, indicating that they did not have the expertise for modern farming, and were compromised by the fact that they were 'given everything'. An extension officer also felt that land reform beneficiaries tended to be granted project support whether they were worthy of it or not; in fact, medium-scale black commercial farmers were regular customers of the agriculture department's food security programme through which they received free seed, which the extension officer himself thought was questionable. (Having said that, it was difficult to ascertain how significant this support was, as opposed to the assistance provided by GFADA, which we discuss below.)

However, a number of active land reform beneficiaries were also interviewed, thus it is far from true that there are no original beneficiaries still farming on redistributed land. Some of the land reform beneficiaries interviewed expressed dissatisfaction with being part of a group.<sup>32</sup> Most expressed a wish to expand their farms, in particular to accommodate more livestock. They are farming livestock, in particular sheep (Dohne Merino and Merino) and cattle, and some are planting maize and forage crops for animal feed and for the market. From the perspective of promoting employment-intensive agriculture, a big concern was what was learned from an extension officer and one of the beneficiaries, namely that redistribution beneficiaries have a tendency of not making use – or making only partial use – of their arable land; this in turn implies a de-intensification of land use. The reason is lack of equipment and/or money to cover input costs. However, it is not possible to quantify the extent to which arable land is under-utilised. Moreover, there are indeed some land reform beneficiaries using some or all of their arable land, thus the above-mentioned concern should not be exaggerated.

The project team met five LRAD beneficiaries in the Elliot area who are mostly maize and fodder farmers. Most of them own the land as members of CPAs, and grow maize of about 50-200 hectares per year depending on the weather. On average they plant about 100 hectares of maize, and sell 80% of their harvest to formal markets, in particular OVK, BKB and Andrews Abattoir, and to local shops around Cala and Elliot. In order to sell to local 'Muslim and Chinese shops', the farmers package the maize into 50 kg bags, which smaller farmers buy for animal feed, and which is also used for making traditional beer, e.g. '*magewu*'. Of the roughly 20% of maize that farmers do not sell, three quarters is for their own livestock, and the rest for household consumption. Some farmers rotate maize with annual ryegrass, the latter of which is for their stock, but sometimes also for sale. Maize is planted during summer and the ryegrass during the winter. Some farmers with livestock keep them for commercial purposes and others keep them for own consumption and cultural purposes.

The five farmers are described as follows:

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<sup>32</sup> An interview with CALUSA made the same point, but stressed that many of these groups were random assortments of beneficiaries put together to enable the land transfer.



- **Farmers 1 and 2** – Vulithuba CPA had 15 members in total, from which two members later informally subdivided themselves as a pair.<sup>33</sup> Over the past three years, Farmers 1 and 2 have been planting 20 hectares of potatoes, plus 120 hectares of maize and 15 hectares of fodder. Three or four years previously they tried soybeans and did well, however soya is difficult to harvest without a combine harvester, which was expensive to hire, thus they chose to not repeat the experience. The two farmers work together and employ four permanent workers and an additional 25 workers during the harvesting period. They market their maize harvest at OVK, BKB and Andrews Abattoir. The farmers benefit from Potato SA's 5-year seed programme, in which they are presently in the second year. They have two tractors and a potato planter. With the assistance of a local large-scale farmer, they sell their potatoes to the fresh produce markets in Port Elizabeth, East London and Durban. They also sell to local supermarkets, in particular the Spar in Cala and the ShopRite in Elliot.
- **Farmer 3** – In the last season Farmer 3 planted 52 hectares of maize. He sells at OVK, BKB and Andrews Abattoir, and employs four permanent employees. He receives assistance from OVK for harvesting, which is why he does not need seasonal workers. OVK uses a combine harvester that requires little labour.
- **Farmer 4** – Farmer 4's LRAD project originally consisted of himself and four other family members; he eventually bought out the family members to take full control of the 460 hectare farm. He has about 200 Simmental cattle, a large number of Dohne Merino sheep, and cultivates his 60 hectares of arable land, of which 40 hectares are for maize and 20 for fodder. He benefitted from the GFADA programme for the past two years. He sells his maize to BKB, OVK, Andrews Abattoir and a local businessman named 'Ngumbela'. Ngumbela owns supermarkets in Butterworth and Dutywa, and comes with his truck to the farmers and buys maize produced and packed by the farmer, unlike OVK, BKB and Andrews Abattoir, for which farmers need to make their own transport arrangements. In 2019 he also sold eight calves to Andrews Abattoir at about R6000-R8000 each, as well as 30 sheep at R1600 each.
- **Farmer 5** – By most measures Farmer 5 could be regarded as a large-scale commercial farmer. In 2006 he bought a 191 hectare farm in Elliot with his pension funds where he farms 200 Merino sheep, and uses 20 hectares for feed, which are divided between six hectares in Lucerne and 14 hectares in a mix of barley and ryegrass. Two employees are assigned to sheep herding. Through LRAD he later obtained a 480 hectare farm in Elliot together with four family members. He farms 164 hectares with maize and employs 12 permanent and 65 seasonal employees. He also uses his arable land to plant 16 hectares with potatoes and the remaining is for 260 Bonsmara and Simbra cattle. He owns a planter for potatoes and four tractors. He is also a beneficiary of Potatoes SA's 5-year seed programme, where in year 1 one receives seed potato for free, and in each successive year the subsidy decreases by 25%. He also produces cabbage on about three hectares and sells it to the Cala Spar, the ShopRite in Elliot, and the Kei Fresh Market in Mthatha. He sells his maize to OVK and other formal markets further afield. He sells his potatoes to the fresh produce markets in Port Elizabeth, East London and Durban, and sells to bakkie traders from Ngcobo, Elliot and Cala. He sells his cattle to Andrews Abattoir in Elliot.

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<sup>33</sup> According to DRDLR's redistribution data, Vulithuba CPA acquired a farm of 544 ha in 2006 for about R570 000. On the other hand, the same data indicate that the project originally consisted of 15 *individual* beneficiaries belonging to the three households, which is probably quite inaccurate if it is actually the case that the two above-mentioned families broke away from the rest of the group.

Even though these and other LRAD farmers interviewed are owners (albeit mediated via CPAs), most indicated that they would be willing to lease land by government, and some appreciated that it would make sense in general for government to lease land to land reform beneficiaries conditional upon them using it productively. The respondents observed that some other beneficiaries have long since *stopped* using their land productively. Such a policy should be used to ensure that land is used by farmers who are capable and passionate about farming. What the respondents worried about, however, was whether government could be trusted to not give away the land of legitimate beneficiary-lessees to ‘friends of politicians’.

The main challenge identified by some LRAD farmers is a lack of proper implements to expand their cropping, while others say that if they were given implements together with more land, they could employ more people and expand their farming operations. At present, most farmers have basic equipment, but hire service providers to perform the farming operations on their behalf for which they do not own the specialised equipment, e.g. planters, boom sprayers, fertiliser spreaders, etc. On the other hand, some also expressed an interest in having combine harvesters, which if they were to get them or even hire them, would somewhat reduce the labour intensity of their farming.

Regarding government support, most farmers expressed dissatisfaction, particularly in respect of seeds. The seeds that government supplies to them are either not of good quality, or not of the correct variety given the time of year or farming conditions, resulting in their maize yield being lower than it should have been. The challenge appears to be with government’s supply chain management processes, which are unpredictable. However, this arguably supports some of the stakeholder critiques expressed above to the effect that land reform beneficiaries are overly dependent on continuing government support. In connection with this, the most significant and, arguably, successful, support programme is discussed below.

### 2.5.3 *The GFADA programme*

Most or all land reform maize farmers in the Elliot area are benefiting from the Grain Farmer Development Association (GFADA) programme. GFADA was formed to help black grain farmers to commercialise, and the GFADA programme is the practical manifestation of that purpose. The programme assists by means of providing technical advice as well as subsidised seeds, lime and other inputs. The project team took advantage of an interview with the local manager of the programme to get more insight into the performance of these farmers, as well as pertinent data. It should be noted that as of this writing the farmers in Sakhisizwe are in their second season with the programme, meaning that they are eligible for three more years of support. It is also important to note that for a number of the farmers, GFADA assists them with cropping only part of their arable land, whereas the rest they farm without assistance, or at any rate without the assistance of GFADA.

According to the manager, despite the farmers being in the middle of only their second year of support, they have shown good development both in terms of increased yield (above 3.5 tons/ha) and profitability. As a consequence, most farmers show a keen interest to further invest in their farming businesses, and there is reason to be confident that most of the farmers will be viable when the funding is withdrawn.

Although the programme offers a standard support package, it is tailored to the needs of each farmer. Farmers receive credit with which to pay for inputs and mechanisation services, which is payable at the end of the season with interest. Due to their scale of operation and affordability, most farmers hire casual workers for manual harvesting rather than use a combine harvester. Most farmers, however, aspire to someday own a full complement of machinery and equipment. Table 10 summarises the data for eight GFADA beneficiaries, of whom all but one are LRAD farmers.

**Table 10: Summary of employment during harvesting through the GFADA programme**

Farmer	Full-time	Seasonal	Total	Hectares
1	5	13	18	16
2	3	0	3	52
3	3	33	36	45
4	5	0	5	40
5	5	4	9	37
6	4	0	4	19
7	7	10	17	78
8	3	21	24	66
<b>Average</b>	<b>4.4</b>	<b>10.1</b>	<b>14.5</b>	<b>44.1</b>

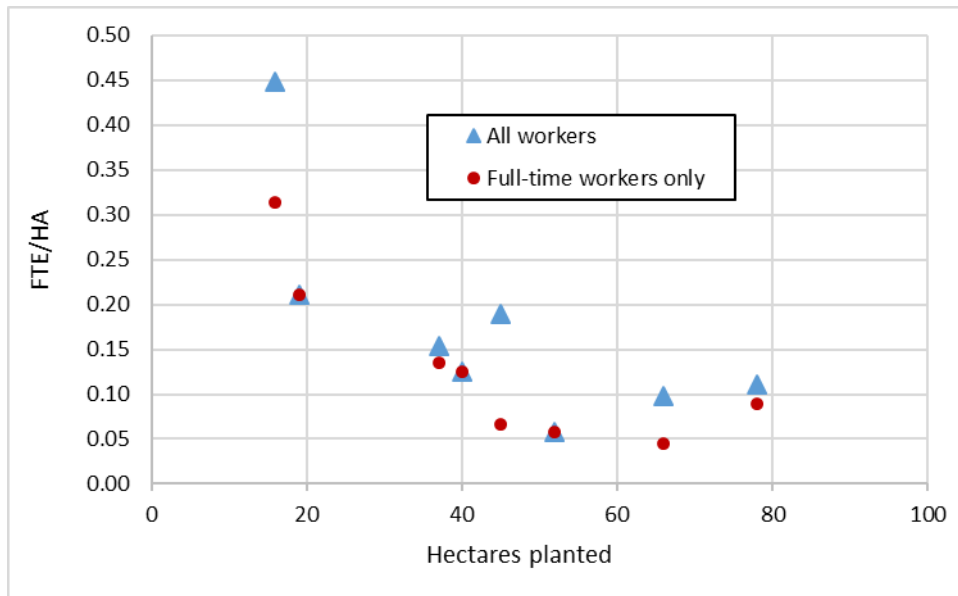
Source: field survey 2019

Notes: The number of 'full-time' workers includes the farmer. Farmer number 8 purchased his own land, whereas all the others are land reform beneficiaries

Although we have only eight data points, a graphical representation makes the relationship between labour intensity and hectarage fairly clear. The figure below shows labour intensity in terms of full-time equivalents (FTEs), but calculated in two ways, first taking all workers into account, and secondly taking into account only full-time workers (inclusive of the farmer). Regardless of whether one takes casual workers into account or not, there is a strong negative relationship between hectarage and labour intensity, meaning that smaller maize farms create more employment per hectare than larger ones, even within the relatively narrow range of these GFADA-supported maize farmers. This is important for two reasons: first, because it confirms that small-scale commercial grain farming is more labour-intensive the smaller it is; and second, because this labour intensity does not depend particularly on the creation of seasonal/casual work. It is also important to note that all of these farms are labour-intensive relative to large-scale commercial farmers in the area. The least labour-intensive among them is the second observation in the table, who uses 0.058 FTEs per hectare (as compared to the average among all eight farmers of 0.17); but large-scale commercial maize farmers in the area have an FTE/HA not more than 0.005. Thus although not nearly as labour-intensive as, say, vegetable production, the evidence shows that it should in principle be possible to create employment in maize farming by downscaling from very large to small-scale commercial, and within small-scale commercial, to focus particularly towards the smaller end, e.g. less than 30 hectares.



Figure 18: Labour intensity of maize production as a function of hectareage



Source: field survey 2019

## 2.6 Settlement patterns, local food demand and markets

From Table 1 above we know that, at the time of the 2011 census, about 72% of Sakhisizwe’s households were in the former homeland part of the municipality, and of these, two thirds were rural, whereas the Elliot part of Sakhisizwe was more urban than rural. We can also see from satellite imagery that over the past 10 years both Elliot town and Cala town have grown, not least through RDP-style housing developments.

However, regardless of the spatial distribution of Sakhisizwe’s 16 000 households, it remains the case that Sakhisizwe has two main commercial centres, namely Cala town and Elliot town. These are virtually the only centres with shops and where people can withdraw cash.<sup>34</sup> Some households might travel to other towns outside of Sakhisizwe to shop, e.g. Ngcobo town in Engcobo Local Municipality, or Indwe town in Emalahleni Local Municipality, but for the most part there would be little point, given that these towns are further away and offer little that is not available in Cala or Elliot towns. Both Cala and Elliot towns offer a similar array of retail outlets selling food, i.e. supermarket chain stores; smaller independent food retailers, general dealers and ‘cafés’; and informal traders. Cala has a Spar, a Boxer and a U-Save, whereas Elliot has a ShopRite and U-Save. Boxer is the no-frills subsidiary of Pic-n-Pay, whereas U-Save is the same in respect of ShopRite, which already is regarded as a discount supermarket. The miscellany of independent shops selling food generally offer limited stocks of perishables, while informal traders are few in number, though more evident during month end. The visibly busier high street of Cala town relative to Elliot may in part be a function of the fact that it is shorter, but more likely owes mainly to the fact that the town serves a larger population.

<sup>34</sup> Formerly, the South African Social Security Agency (SASSA) maintained a large number of grant pay-points throughout the Cala part of Sakhisizwe (see Figure A4), but it seems that most or all of these have been shut down.

Figure 19: Highstreets of Elliot town (top) and Cala town (bottom)



Source: Google maps

Brief interviews with some of the supermarkets revealed a mix of approaches regarding procurement. The Spar in Cala is the most linked to local suppliers. The Spar procures all of its beef from Andrews Abattoir in Elliot and its eggs from a commercial producer in Elliot, and most of its fresh produce from black farmers in Sakhisizwe and Engcobo, the latter being specifically from Ncora irrigation scheme. The ShopRite in Elliot also procures fresh produce from local farmers, but relatively little.

Using Stats SA's Living Conditions Survey for 2015/16 (Stats SA 2017b), which in effect was its most recent income and expenditure survey, we attempt to estimate aggregate consumer demand in Sakhisiwe and its close neighbour, Engcobo. The focus is on products that land reform beneficiaries could in principle provide. Table 11 summarises:

**Table 11: Estimated annual consumer food expenditure. R millions**

	<b>Sakhisizwe</b>	<b>Engcobo</b>	<b>Both</b>
Bread and cereals	75.5	169.3	244.8
Meat*	29.1	65.4	94.5
Fish	2.6	5.9	8.6
Dairy products & eggs	17.9	40.2	58.1
Oils and fats	11.0	24.8	35.8
Fruits	2.4	5.3	7.7
Vegetables*	20.3	45.5	65.8
Sugar, jam etc	18.4	41.3	59.7
Other food products	11.0	24.6	35.6
Coffee, tea cocoa	3.4	7.7	11.1
Misc drinks other	5.6	12.5	18.1
Unclassified foods	2.7	6.1	8.8
All food	200.1	448.6	648.6
Sheep for rituals*	1.6	3.6	5.3
Cattle for rituals*	4.4	9.8	14.2
*Of relevance to local black farmers?	55.4	124.3	179.7

Source: calculated from Stats SA 2017b

Note: The Living Conditions Survey does not enable one to extrapolate to local municipality level, rather only to province and geotype. Thus the estimates here are based on the average expenditure pattern of an Eastern Cape household residing in a 'traditional' area, scaled up according to the numbers of households in Sakhisizwe and Engcobo local municipalities. Figures were adjusted for inflation to 2020 Rand using the cpi. To estimate expenditure on 'sheep for rituals', the survey's category of 'medium stock' was used, and of this sheep are gauged to account for about two-thirds of expenditure based on anecdotal evidence. Goats were not considered mainly because the market for them is small and at present black farmers in the area are more focused on expanding their flocks of sheep.

Although the overall annual food expenditure in Sakhisizwe is R200 million, and that in Engcobo is more than twice as much, it is arguably a small share of these to which land reform beneficiaries could cater. In terms of what products land reform beneficiaries do or could provide and for which there is local demand, these would mainly include meat and vegetables, as well as sheep and cattle for cultural/ritual purposes, amounting to roughly R55 million for Sakhisizwe and R124 million for Engcobo. It is difficult to know how much of this is already being catered for by local black farmers, whether land reform farmers or otherwise, but it is probably not more than one third. Another consideration is that not all of the expenditure on, say, vegetables and meat could be translated into revenues for black farmers, given the 25% mark-up of shops such as Spar, and the share of final value going to intermediaries such as agro-processors.

Of course none of this is to suggest that future land reform beneficiaries would or should be limited to local markets. For wool, obviously, the market will likely continue to be exports via local agents BFK and CMW. For maize, on the other hand, the market will probably be a mix of local markets and non-local markets, though with the advantage that there is local infrastructure in place through which farmers can access non-local markets.

### 3. Promising commodities, production systems, and marketing strategies

The strategy of this section is to consider what is already happening in Sakhisizwe among land reform farmers and other black farmers, and to ask what could be scaled up via land reform, bearing in mind the type of land one could acquire in the commercial sector, the nature of market opportunities, and what has potential to create a net boost in employment. The idea of starting with what black farmers are already doing is perhaps too conservative, given that there are surely other opportunities available as well. On the other hand, there is little point in focusing on agricultural enterprises in which Sakhisizwe has no evident comparative advantage or reliable track record.

#### 3.1 Livestock

Given that the Elliot part of Sakhisizwe mainly comprises grazing land, it is obvious that land reform should continue to emphasise livestock production. The general question is whether the next generation of land reform beneficiaries can do something to ensure that more employment is created, within the limits of what is reasonable to expect from extensive grazing systems. The more specific question is whether land reform beneficiaries should do what white farmers are presently doing, or whether they should do something else; this question boils down to the balance between sheep and cattle. As indicated above, white farmers have gravitated away from sheep and towards cattle over time, but largely reluctantly;<sup>35</sup> as also indicated above, white farmers regard sheep farming as more labour-intensive than cattle farming, and some but not all of this can be traced to the theft problem that has compelled many white farmers to shift partially or completely away from sheep.

The logical approach would be to support land reform transactions in which beneficiaries shift land use from cattle back to sheep. In the first place, this accords with a keen interest of farmers in communal areas, who raise both cattle and sheep, but are especially eager to expand their farming of sheep. Second, there is broad agreement among farmers in the communal areas that it is larger sheep farmers who should relocate to the Elliot part of Sakhisizwe. These farmers, by definition, already have large numbers of stock, though not necessarily enough to use their new land up to its full potential; and they would likely be better able to cope with the social dislocation and/or transport costs associated with starting to farm in Elliot.

What is more ambiguous, however, is the question of theft. To the extent white farmers regard sheep farming as more labour-intensive than cattle farming because of having to guard against theft, this would constitute an ironic rationale for proposing sheep farming as a desirable activity for land reform beneficiaries. On the other hand, reducing the risk of theft is not the only reason given for the relative labour-intensity of sheep farming. Also, the main measure that white farmers use to discourage theft of sheep – namely kraaling – is already the norm among black sheep farmers in communal areas. The concern however is whether land reform farmers farming with sheep in Elliot will find themselves more vulnerable than they were when still located in the communal areas, the reason being that the social solidarity they formerly relied on to keep crime at manageable levels may no longer apply to their new milieux.<sup>36</sup> For their part, respondents with whom the prospect of

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<sup>35</sup> This is not to deny that there have always been some white farmers who preferred cattle; interviews with farmers made it clear that many of the choices they make relate to personal preferences which cannot be reduced to the economics of the area, whether this be the choice between sheep and cattle, the manner in which to balance both sheep and cattle, or which types of sheep and/or cattle to farm.

<sup>36</sup> The situation comes to mind of the farmer described above with the 465 hectare farm along the road that leads from Elliot to Ngcobo, who decided keep his sheep in his village rather than on his farm due to theft. One

relocating to Elliot was discussed, did not voice particular concern about being vulnerable to theft, but it would still require a vigilant eye if one were to proceed.

There is reason to suppose that land reform beneficiaries farming sheep in Elliot would follow the well-established management practices they applied while still in the communal areas. This is not dramatically different from the practices of white sheep farmers except in so far as they tend to castrate rams and allow them to grow into adults, where white farmers sell uncastrated rams as weaned lambs. The difference appears to relate to the fact that white and black farmers target different markets for their rams; white farmers sell young rams that will generally end up slaughtered as lambs and marketed through formal channels as such, whereas black farmers sell live animals to the local market for cultural purposes. It may be that if 'black sheep farming' expands significantly in the area due to land reform, the local market for sacrificial animals will become over-saturated, compelling sheep farmers to search for markets a bit further afield, and/or to start selling male lambs as do white farmers. This latter option would probably not be a bad thing in that it would lower the grazing pressure on the land.<sup>37</sup>

A potentially important aspect of this scenario is its implications for farmers who do not relocate from the communal areas. As indicated above, among smaller sheep farmers there is strong support for the departure of larger sheep farmers, related to concerns about over-grazing. But what exactly will be the implications of this departure? The first issue is whether departing stock owners would try to, or be allowed to, continue using grazing resources in communal areas when it suits them. The well-known example is Botswana following the introduction of the Tribal Grazing Land Policy in 1975, which on the face of it was a land reform programme aiming to alleviate the pressure on communal lands by means of allocating private ranches to generally larger stock owners. Because these stock owners were not necessarily required to cede their rights to grazing in communal areas, they often used both, e.g. the commons in the rainy season and their exclusive grazing in the dry season (Malope and Batisani 2008). These so called 'dual grazing rights' defeated much of the purpose of the Tribal Grazing Land Policy, while amplifying social inequalities between smaller stock owners and the elite to whom ranches had been allocated. Similar processes have been observed over the years in Namibia (Twyman, Dougill, Sporton and Thomas 2001). Certainly if such a situation were to transpire in Sakhisizwe, it would contradict the hopes and expectations of smaller stock owners, and dilute the employment creation benefits of the option; but how could such an eventuality be prevented? That is not clear; it does not appear that this is an issue which has been addressed in South Africa's land policy.

But supposing for whatever reason larger sheep farmers benefitting from land reform do not take advantage of 'dual grazing rights', what would actually happen in the communal areas they leave behind? This is very difficult to say with any certainty, however two logical scenarios suggest themselves. In the one, the smaller sheep farmers left behind will increase their stock to a point where the total stock in the area is not very different to what it was before the larger stock owners relocated. In the other scenario, the vacuum left by the departure of the larger stock owners will be filled by new entrants to sheep farming.<sup>38</sup> In the first scenario, the progressive increase in the size of farmers' herds from small to less small has little or no implications for herder jobs, because farmers employ one herder per herd over a wide range of herd sizes. In the second scenario, however, as

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interpretation of this story is that farming in one's own community affords a measure of security, whereas farming on private land in proximity to other communities can result in significant vulnerability.

<sup>37</sup> Unfortunately, we do not have enough data to compare the profitability of these alternative practices.

<sup>38</sup> The common assumption underlying these scenarios is that the departure of larger stock owners does little if anything to relieve the over-grazing pressure except in the short-term, unless a simultaneous effort is made to encourage effective community-based natural resource management.

many herder jobs are created as there are new entrants, even if these 'jobs' are occupied by unpaid family members. This scenario is not implausible, given what our interviews revealed about the recent increase in the number of households involved in sheep farming in the area. But more plausible than either of these two scenarios is a mixture of them, meaning that some existing sheep farmers will augment their flocks, while some other households begin sheep farming who were not involved in it before.

### *3.2 Dryland crop farming*

The premise of this option is that the Elliot portion of Sakhisizwe has a fair amount of arable land that is capable of good crop production under dryland conditions, and that, as shown above, small-scale black commercial farming on such land is relatively labour-intensive. In fact, the evidence presented above suggests not only that small-scale crop farming is significantly more labour-intensive than large-scale crop production, but that there is a strong negative relationship between farm/plot size and labour intensity even within the relatively narrow range of small-scale black commercial farming observed, e.g. 20 to 80 hectares. What accounts for the relative labour-intensity of small-scale crop farming is not entirely clear. From the evidence presented, it is not mainly the casual labour most of these farmers take on for harvesting, as one might have suspected, though the contribution of manual harvesting should not be dismissed.<sup>39</sup> Neither is it due to the absence of mechanical traction; on the contrary, small-scale farmers use tractors and conventional equipment. In fact it does not appear that the relatively labour-intensive nature of small-scale crop farming can be attributed to any one or two factors, but above all that, while mechanized, these farms employ machinery and equipment that are one or two orders of magnitude smaller and less sophisticated than that of large-scale farmers.

Of the field crops grown by large-scale farmers in Elliot, maize covers by far the most hectares, though farmers also grow soybeans, wheat, and potatoes. However, potatoes are arguably a qualitatively different type of crop, which for purposes of economic classification is often treated as a horticultural crop rather than a field crop. For our purposes, what sets potatoes apart is its production costs, approximately five to seven times as expensive per hectare as maize, which already comes in at a hefty R10 000 to R15 000 per hectare. In any case, at least in Elliot, one cannot 'be' a potato farmer, rather one can be a crop farmer who rotates in potatoes for a relatively small portion of one's arable land.

Land reform beneficiaries in Elliot have also been growing maize, soybean and potatoes, albeit with partial support from GFADA and Potato SA, meaning it is difficult to be certain whether these enterprises can be self-sustaining in the absence of that support. One reason to suppose that at least maize farming is truly remunerative is the fact that some of the beneficiaries of GFADA in fact grow much more maize than that for which GFADA offers support. Small-scale farmers producing potatoes, on the other hand, seem to depend to a greater degree both on Potato SA for inputs and on helpful large-scale neighbours for mechanisation and packing. For these reasons, despite its relative labour intensity, potatoes are not treated here as an essential piece of our proposal, thus it is not factored into the employment creation estimates ventured in the next section.<sup>40</sup> By the same token, when coming to deciding what land to acquire for land reform, one might wish to be careful

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<sup>39</sup> To be precise, when we measure labour intensity in terms of full-time equivalents (FTEs), the seasonal labour associated with manual harvesting does not count for a great deal, however it is still impressive in overall numbers.

<sup>40</sup> Nor were we able to determine whether small-scale potato production is more labour-intensive than large-scale potato production. According to Potato SA, there is no reason to believe that it is (personal communication, A. Jooste, Potato SA).

not to acquire land from those farmers who are especially active in potato farming, unless there is a convincing plan to either continue with it, or replace it with an activity that is equally labour-intensive.<sup>41</sup>

Although they are beyond the scope of this paper, other models of small-scale maize production could be considered. The model described above is in effect a miniaturised version of the large-scale commercial farming approach, e.g. in terms of the inputs used and to a large degree the technology. An alternative would be even smaller-scale production with maize and other crops intercropped, e.g. legumes, pumpkins, and/or butternut. The advantages of inter-cropping are well known (see e.g. Nassary, Baijukya and Ndakidemi 2020; Kruger and Smith 2017). The fact that the GFADA maize farmers described above for the most part rely on manual harvesting suggests the possibility that their farming approach is not entirely inhospitable to intercropping. Moreover, notably, the same large-scale commercial farmer described above who has developed a business of bagging maize for local distribution, is also considering going into beans.

Regarding the markets for maize and other field crops, it is assumed that future land reform beneficiaries would pursue the same mix as the current cohort, meaning largely formal markets, but also local shops. The reality however is that local shops will not likely be able to absorb significantly larger amounts of maize than they presently do, moreover these shops are not buying only from black farmers, but also from some white farmers. The good thing is that, in terms of formal markets, local farmers have a fair degree of choice, such as OVK, BKB, and the local abattoir, and there is no danger of saturating the first two of these. The real question is whether there is any space for local beneficiation. This is worth considering, for instance in the form of simple hammer mills that could produce inexpensive maize meal for the local market as happens in some other parts of the country.<sup>42</sup> However, there are numerous challenges associated with this suggestion, not least the apparent absence of government policies that support (truly) small-scale agro-processing,<sup>43</sup> but also the challenge of competing with well established brands (see e.g. Philip 2011). Thus this possibility is mentioned in passing as a possible means of enriching the impact of land reform, but the idea of using land reform to support maize farming is not predicated on introducing small-scale agro-processing, nor is small-scale agro-processing factored into the estimates ventured in the next section.

### 3.3 Horticulture

Apart from potatoes, the Elliot part of Sakhisizwe is not known for its horticulture, whether in terms of vegetables or orchards. One mixed farmer mentioned the possibility of planting pecan trees, and a livestock farmer indicated he was considering trying pumpkins; but at present horticulture does not appear to be practiced on a significant scale.<sup>44</sup>

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<sup>41</sup> On the other hand, this should not be taken too literally. Large-scale commercial farmers start and discontinue potato farming according to their judgement at the time, thus it is not a question of the land as such, of course apart from being arable.

<sup>42</sup> See e.g. the brief case study of Hluvukani Mills in Limpopo in Aliber *et al.*, 2013, p.171 and p.260.

<sup>43</sup> Cases in point are the dti's previous efforts to support 'micro-mills' or the Eastern Cape Rural Development Agency's 'RED Hubs'; these mills may indeed be small relative to the facilities of Tiger Brands, but they are nonetheless large relative to truly small-scale milling enterprises that have worked elsewhere.

<sup>44</sup> The 2002 agricultural census reports 11 hectares of tomatoes, but we did not determine which farmer(s) might have been responsible for this and whether any such production is still taking place.

As mentioned above, such irrigation as does exist in the Elliot part of Sakhisizwe is devoted to field crops or forage crops, mostly under centre pivot. (For large-scale commercial farmers, centre pivots have the advantage of requiring little labour to operate.) Irrigation depends on farm dams, though one farmer reported irrigating from the Xuka river, which last year dried up on account of the drought, prompting him to build a dam.

While there is nothing inherently wrong with irrigating maize and fodder, where the quantity of water allows, for purposes of employment-intensive land reform it would be better to irrigate labour-intensive crops such as vegetables.<sup>45</sup> And whereas there appears to be a lack of interest among large-scale commercial farmers in vegetable production, such is not the case among farmers in Cala, where we observed a number of small-scale vegetable producers. These producers have experienced various challenges, namely access to water, secure land, and markets. But two of these could be addressed through redistributing the correct land, and the third – i.e. lack of access to markets – could in principle be remedied through some other means, e.g. appropriate advice. As mentioned previously, where marketing is concerned there might well be scale issues to consider, in the sense that a number of farmers taking up vegetable production at more or less the same time could prove problematic if they harvest too much of the same crops at the same time, i.e. they could easily create a local glut to their common detriment. On the other hand, provided these issues are born in mind, and given the estimated aggregate annual local expenditure on vegetables of R66 million, there would appear to be scope for expanding local vegetable production before it becomes critical to seek markets further afield. But if and when this does become necessary, Elliot is two hours from Mthatha and somewhat less to Queenstown.

Arguably the trickiest aspect of converting irrigated field crops to irrigated vegetables in the Elliot context is the preponderance of centre pivots. Centre pivots can be used for irrigating vegetables, but they are not ideal, not least because it is difficult to moderate the amount of water delivered to different parts of one's field, meaning that it is difficult to grow a variety of different crops – or the same crop at stages of development – under a single centre pivot. At least as challenging is sharing a centre pivot between two or more producers. The pivots in Elliot vary in size from 8 hectares to 45 hectares, with the most common size being 20 to 25 hectares.

If one is to shift away from a centre pivot, then to what?<sup>46</sup> Water efficiency is not as great a concern in Elliot as in other places in South Africa owing to the fact that rainfall in Elliot is reasonably good, though of course much depends on the time of year; even so, the terrain is such that flood irrigation is not an option, while a shift to drip irrigation would be impractical owing to onerous management and technical requirements (SASRI 2017). Probably the best option would be a sprinkler system, which comes in two main forms, namely 'permanent' and 'portable'. In the former, the mainline and laterals are buried at least 50 cm underground, with risers from the laterals leading to the actual sprinkler heads. The burying of pipes allows easy movement of tractors and equipment, and also discourages theft, but also accounts for the high cost of installation of the system. This is precisely the system that the provincial department of agriculture in the Eastern Cape installed on behalf of small-scale vegetable farmers in the Port St Johns area about 10 years ago. The alternative, less expensive portable system can take different forms, e.g. 'quick coupling pipes', 'side-roll', 'hop along', and draglines. These vary in cost, sophistication, durability and labour requirements; they may or may not also involve buried mainlines and laterals, but fewer of the latter. The dragline system tends to require relatively little capital (Reinders, no date) and is arguably the most flexible (SASRI 2017).

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<sup>45</sup> For the most part the irrigation requirements for field crops and vegetables do not differ significantly (see e.g. Stevens *et al.*, 2012).

<sup>46</sup> Note that used centre pivots do have some resale value depending on their condition.



#### 4. Specific proposals for employment-intensive land reform in Sakhisizwe

This section takes the considerations offered in the previous section and translates them into specific, tangible proposals for employment-intensive land reform in Sakhisizwe. It is important to stress, however, that the proposals offered here are not the only possible approaches that could be used to pursue employment-intensive land reform in Sakhisizwe; the purpose is not to suggest that this is the only possible approach, but to illustrate at least one possibility, and more broadly an easily replicated methodology.

Moreover, even though the presentation that follows abides by the three-way distinction drawn in the previous section between livestock farming (in particular sheep farming), field crop production, and vegetable farming, it is acknowledged that the manner in which these options are structured as stand-alone possibilities is rather artificial. This is conspicuously the case for Sakhisizwe where mixed farming is common, whether among large-scale commercial farmers, medium-scale land reform beneficiaries, or small-scale farmers in the communal areas. Various combinations of livestock farming, field crop production, and vegetable farming are not only conceivable, but desirable, both because their combination contributes to a more sustainable multiple livelihood strategy, and because in some instances these enterprises are technically and economically complementary, such as maize production and livestock production. Even so, there is no particular combination that stands out as especially advantageous, thus these options can be thought of as 'combineable' or not, in practice to be determined by the specifics of the land being acquired for land reform.

As per the common approach adopted for the municipality studies, the enterprise-specific estimates described below are premised on the scenario of acquiring 50% of the commercial farmland of Sakhisizwe *that has not already been transferred via land reform*. These estimates are presented in the table below, organised according to grazing land, dryland arable, and irrigated land, so as to facilitate the enterprise-based scenario-building that follows. These are estimates in two senses. First, the overall hectareage figures are from the 1993 agricultural census for Elliot District, which are no doubt out-of-date. The main concern here is the balance between irrigated arable and dryland arable, which appears to have changed since 1993 in favour of the former, but we do not know by how much. The working assumption is that irrigated farmland has increased by 20%, but we simply do not know. The second estimate relates to the nature of the land reform land transferred to date. In the absence of knowing how much of this land is of what type (i.e. grazing versus dryland versus irrigated), we simply assume that the types of land transferred to date are in proportion to the types of commercial farm land of the district.

**Table 12: Estimates of 50% of the remaining commercial farmland in Sakhisizwe Local Municipality**

	Est. total hectares, Elliot	Est total hectares, land reform	Remaining commercial farmland	50% of remaining commercial land
Grazing	141 277	38 107	103 170	51 585
Dryland	15 569	4 199	11 369	5 685
Irrigated	716	193	523	262
<b>Sum</b>	<b>157 562</b>	<b>42 500</b>	<b>115 062</b>	<b>57 531</b>

Notes: excludes approximately 7000 hectares of forestry, and assumes a 20% increase in irrigated area and commensurate decline in dryland area since 1993

Thus it is assumed that 57 531 (more) hectares are redistributed, of which most (51 585 hectares) is grazing land, some (5685 hectares) is dryland arable land, and a small amount (262 hectares) is irrigated land with water rights. Further assumptions underlying the scenarios are explained below.

#### 4.1 *Extensive grazing with sheep*

For grazing land acquired for land reform, it is assumed that 75% is used at present for cattle and the rest for sheep; this is a very rough estimate based on the perspectives of the commercial farmers interviewed. Stocking rates are assumed to be 6 hectares per large stock unit and 1 hectare per small stock unit, with no particular assumptions regarding the possibility of denser stocking rates where co-grazing is practised. The employment intensities used were 0.25 FTEs per 100 large stock, and 1 FTE per 600 small stock, bearing in mind that commercial farmers who keep both cattle and sheep often assign responsibility to the same workers to tend to both, with the larger share of their time devoted to sheep. Based on these assumptions, there are approximately 38 FTEs' worth of employment on the 51 585 hectares of grazing land. It is further assumed that upon being acquired for land reform, this land will be devoted entirely to sheep farming, in accordance with the stated preferences of black sheep farmers interviewed.

It is further assumed that the grazing land acquired will be subdivided in such a way as to allow the average beneficiary to accommodate 200 adult sheep. Given that this is an average, it is accepted that some plots will be larger to accommodate relocating sheep farmers who have larger numbers of sheep to begin with. Some of the 'below average' plots will be allocated to farmers with fewer sheep, however these will still be farmers with more sheep than the average sheep farmer in the communal areas of Cala and Engcobo, and yet the amount of land accessed will still allow them to enlarge their flocks upon resettlement. At an average of 200 hectares per farm/plot, this will allow 258 sheep farmers to relocate to the Elliot part of Sakhisizwe. Of these, it is assumed that one third will need to hire one additional herder to manage their larger number of animals.<sup>47</sup>

It is questionable whether one should count the sheep farmers themselves in terms of calculating net creation of jobs. The general assumption across agricultural activities is that land reform should target people as beneficiaries who are already farming, e.g. in the communal areas, and in this particular case it is not just an expressed preference but an essential feature of the scenario; but then can these be counted as new 'jobs' at all? Beyond this, sheep farming in the communal areas is generally a part-time activity for the farmers themselves, as opposed to for the herders who are actually looking after the sheep. In order to allow for the fact that land reform will enable beneficiary sheep farmers to grow, but not overstate the implied job creation of this, each beneficiary sheep farmer is counted as one quarter of an FTE.

Another aspect is shearing jobs, though they make only a very small contribution. In communal shearing sheds, the local norm is that a single shearer shears about 50 sheep per day, whereas in commercial areas of the Eastern Cape the norm appears to be 100 to 120, though some shearers manage considerably more. Converted into FTEs, the shearer jobs that would be 'lost' in Elliot would

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<sup>47</sup> The tricky methodological question is whether or not to count all the herders employed by land reform sheep farmers in Elliot as 'new jobs'. The argument is that these represent new jobs on land reform land. The counter-argument is that most of these are not truly new jobs, rather they are jobs re-located from the communal areas to the commercial farming area, i.e. the herders move with their employers' herds. The question is complicated further by the fact that it is unclear how to treat new herder jobs created within the former homelands; these might well be created by virtue of land reform, but they are not created on land reform land.

be less than one, and the number gained through the increase in the number of sheep would be less than four. Overall, the net effect would be only about three net FTEs.

The main job creation associated with this scenario relates to the opportunities created within the communal areas for new sheep farmers. As discussed above, it is difficult to know what the departure of larger sheep farmers will mean exactly, thus it is assumed that half of the 'space' they leave behind will be filled by existing sheep farmers in the communal areas getting bigger, but the other half by new entrants, based on the observation that there is keen interest.<sup>48</sup> Assuming further that the average new entrant will have a flock of 30 sheep (which is 'conservative' in the sense that this is larger than the average sheep-owning household in the former Transkei), this implies over 700 new flocks, each with either a hired herder or family member. However, because these jobs would not be created on land reform land (even though many or most would be within Sakhisizwe), they are not counted in the employment creation estimates shown below.

Putting this all together by accounting also for herding and shearing jobs lost, the net creation of FTEs associated with the reallocation of half of the remaining grazing land through land reform, is estimated to be 115. It must be stressed that this does not include the likely larger number of FTEs that would be created within the communal areas, underlining the importance of not allowing land reform beneficiaries to continue using grazing land in these areas lest they prevent new sheep farmers from emerging there.

#### 4.2 *Dryland crop farming*

The second scenario involves the reallocation of 50% of the remaining non-irrigated arable land, i.e. 'dryland'. This scenario is relatively simple: it envisages a continuity of use for mostly maize production and related crop rotations, but because of the down-scaling from very large farms to relatively small ones, a shift towards greater labour intensity.<sup>49</sup> For the sake of building the scenario, it is assumed that the average dryland farm would encompass 50 hectares of cropland, which seems to be somewhat below the average size of cropland-based land reform projects to date.

In terms of existing dryland cropping of large-scale farmers in Elliot, our observations suggest an employment intensity of less than 0.005 workers per hectare. However, given the uncertainty – in particular the fact that farmers interviewed seemed not to account for workers other than tractor drivers – and in keeping with norms used elsewhere (e.g. BFAP 2011: 88), a factor of 0.01 FTEs per hectare is used. Our assumption for new crop farmers, on the other hand, is 0.1 FTEs per hectare, which is conservative in the sense that it is lower than the ratios for most of our sample of GFADA-supported farmers (see Figure 18).

Assuming 5685 hectares transferred and rendered into 50 hectare farms, this allows for the establishment of about 114 farmers. Because this will be a full-time activity for farmers, beyond what their self-employment previously would have involved, it is assumed that each farmer constitutes one FTE, together with hired workers making up 569 FTEs, and partially employed family

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<sup>48</sup> Not only is there keen interest, interviews with the sheep shed associations indicate that there have been numerous 'new entrants' over the past two years, though these were not quantified.

<sup>49</sup> As mentioned in a previous section, it is also assumed that under this scenario one is neither supposing that beneficiaries grow potatoes, nor that any of the land acquired had been used for potatoes under the previous owner.

members adding another 34 FTEs. FTEs 'lost' through the displacement of previous owners' operations are estimated to be a total of 57 FTEs,<sup>50</sup> leading to an estimated net creation of 660 FTEs.

#### 4.3 *Irrigated vegetable farming*

The third scenario entails the reallocation of 50% of the remaining irrigated land, for which our rough estimate is 262 hectares. The scenario further assumes that this land switches from use in field crop or fodder production, into vegetable production, resulting in a net creation of employment. For the pre-transfer employment, we again assume 0.01 FTE per hectare as for dryland cropping. In principle this could possibly be pushed up a bit to account for the labour requirements associated with managing the irrigation infrastructure itself, however centre pivots are known to require little labour (SASRI 2017; Reinders, no date), and in any case the 0.01 figure is conservatively high.

It is assumed that the average vegetable plot established on the redistributed land is 10 hectares. This is an arbitrary size, in the sense that there is no inevitable reason why it should not have been smaller or larger. The rationale for the 10 hectares is that it is larger than some of the vegetable enterprises we encountered in Cala, but not dramatically so, while being mid-range relative to a cluster of vegetable farmers around Port St Johns who we used as a sort of model, not least because our evidence base from Sakhisizwe was a bit thin. Given the average of 10 hectares per vegetable farm, it would be possible to establish 26 such farms. Based on our evidence, we use 1 FTE per hectare in terms of hired labour, then also count the farmer's participation as one FTE, and one third of an FTE for family labour per farm. This provides for a gross creation of FTEs per farm of 11.3, which over all 26 farms comes to 297; subtracting the FTEs 'lost' due to the discontinuation of the previous owners' farming, the net FTE creation through this scenario is 294.

The table below summarises the job creation figures associated with the three scenarios. The total number of net jobs created – in full-time equivalents – is over 1000.<sup>51</sup> Is this a lot? In some places it would be trivial, however in the context of Sakhisizwe it would reduce the number of unemployed people by one fifth.<sup>52</sup> If one were to take the unemployed of Engcobo Local Municipality into account as well, the net job creation due to land reform would reduce total unemployment of the two local municipalities by 8%.

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<sup>50</sup> This does not have to be taken literally, in the sense that it is very possible that the previous owners' farmworkers will carry on working for the new owners; however these jobs must still be subtracted so as to ensure that they are not double-counted.

<sup>51</sup> It should be stressed that this does not include the 500 to 700 herder jobs that one would expect to be created within the former Transkei on account for more space created there for small-scale sheep farmers.

<sup>52</sup> This is not quite exact, in the sense that 1069 is the estimated number of net FTEs created, which would be less than the number of countable employment opportunities created, given that many of these would be casual/seasonal.

**Table 13: Employment changes due to the redistribution of 50% of the remaining commercial farmland in Sakhisizwe Local Municipality**

Agro-eco zone / land use	Production system change	Farmers	Family members	Gross jobs created (FTEs)	Net jobs created (FTEs)
Grazing (sheep farming)	Shift of grazing from a mix of 75% cattle / 25% sheep, to 100% sheep, while shifting from larger to smaller farms/herds with greater labour intensity, while opening up space in the communal areas for new sheep farmers.	258	NA*	154	115
Dryland (maize etc. production)	Shift from large-scale capital-intensive to smaller-scale, more labour-intensive, based on 50 hectare plots	114	34	717	660
Irrigated (vegetable production)	Re-allocation of irrigated land from field crop/forage production to smallholder vegetable production based on 10 HA plots	26	9	297	294
<b>Total</b>		<b>398</b>	<b>43</b>	<b>1168</b>	<b>1069</b>

\* It is assumed that some family members will be taken on as herders, but there is no effort made to determine how many family members versus hired herders (both of which are counted as FTEs), thus this is left blanks.

For purposes of costing the above scenarios, both land costs and other upfront costs are taken into account, whereas operational costs are not taken into account. The land costs were obtained from a local estate agent as R5000/hectare for grazing land, R17 000/hectare for dryland, and R40 000/hectare for irrigated land, inclusive of water license. Regarding all other upfront costs, the guiding principle is to meet farmers' minimum needs in a frugal manner, which almost necessarily means that it would not be as much as farmers would prefer. It is acknowledged that this leaves plenty of room to debate 'what is necessary' and 'what is enough'.

For extensive sheep farming, it is assumed that existing perimeter and camp fencing of the acquired farms will provide for the perimeter fencing of the subdivided plots. However, provision is made for each farmer to have a kraal consisting of 2500 square metres of 5-strand barbed wire fence at R4000 per kraal. Provision is also made to purchase breeding ewes for those farmers whose initial stock is far below the carrying capacity of the land acquired on their behalf. We assume that two thirds of farmers will need an average of 50 ewes each, at R2000 each, taking transport costs into account. What hasn't been provided for – and which might need reconsideration – is the costs of erecting sheds for shearing. Elaborate shearing sheds are not necessary, but large-scale commercial farmers mention the importance of having shelter for sheep so that they do not fall ill after being shorn. The working assumption is that in the short term sheep farmers will share sheds left behind by the large-scale commercial farmers who are bought out.

For dryland crop farmers, the main costs are fencing and equipment. For fencing, provision is made for the erection of enough 5-strand barbed wire fence to enclose each 50 hectare plot, at R54 000 per plot. In addition, it is envisaged that each farmer will be provided with a 'mechanisation package' comprising a medium-sized tractor together with an 8-row disc plough, ripper and sprayer at a total cost per package of R440 000. This is not necessarily all the equipment that farmers need or want,

but it is regarded by the local GFADA advisor as adequate to meet most of their needs, outside of which the farmers can hire in equipment or services they lack, e.g. planters and fertiliser spreaders.

The budgeting for the irrigated vegetable farming is somewhat similar to that for dryland crop farming. First, there is provision for fencing each plot at about R25 000 each. Second, there is a 'mechanisation package' of R350 000 for a small-to-medium tractor, and 4 to 6 row disc plough, ripper and sprayer. Third, it is envisaged that each farmer would be provided with a second-hand bakkie worth R150 000, the rationale being that small-scale vegetable producers are significantly more viable if they can make at least some of their own deliveries. And lastly, provision is made for 'irrigation adjustment', by which is meant changing from the existing irrigation system to one that is more suitable to the circumstances of a small-scale vegetable farmer. This cost is especially difficult to estimate, first because in some cases it may not be necessary at all (e.g. because some farms may have appropriate irrigation infrastructure in place), and second because it is arbitrary to decide in advance what is the most appropriate system in different places. Estimates of installing a new dragline system based on buried mainlines and laterals is about R25 000 to R30 000 per hectare.<sup>53</sup> It is assumed however that these costs can be substantially reduced by means of repurposing existing infrastructure as well as making do with above-ground pipes where necessary. Thus R10 000 is budgeted per hectare, or R100 000 per farmer.

The table below summarises the estimated costs, together with the estimated total cost per net FTE. One observation is that the more land-intensive the farming system, the higher the ratio of non-land costs to land costs; for the irrigated vegetable farming option, in fact, non-land costs exceed land costs, whereas for extensive sheep farming the asymmetry is strongly in favour of land costs. Perhaps more surprisingly, the cost per job – or more precisely, the 'cost per net FTE' – is considerably lower for the more land-intensive type of farming, and yet in Sakhisizwe, at least in terms of the '50% across-the-board' redistribution scenario, it is not possible to create as many jobs on irrigated land as on dryland cropland, because there is so little irrigated land in Sakhisizwe.

**Table 14: Estimated costs of 50% scenarios in Sakhisizwe Local Municipality**

	<b>Land costs (R mn)</b>	<b>Other costs (R mn)</b>	<b>Total costs (R mn)</b>	<b>Total cost per net FTE (R)<sup>54</sup></b>
Grazing (sheep farming)	258	18	276	2 401 000
Dryland (maize etc. production)	97	56	153	232 000
Irrigated (vegetable production)	10	16	27	91 000
<b>Sum</b>	<b>365</b>	<b>91</b>	<b>456</b>	<b>426 000</b>

One implication of this is that the '50% across-the-board' redistribution scenario illustrated here could be improved upon. Perhaps for example one should focus on a larger share than 50% of irrigated land, and a smaller share than 50% of extensive grazing land. Everything else being equal, this would allow one to create the same number of jobs at lower overall expense, or more jobs for the same expense.

<sup>53</sup> Taken from Reinders's estimate for 2012 (Reinders, no date, p.86.), but adjusted for inflation.

<sup>54</sup> If one were to take into account the herder jobs expected to be created within the former Transkei, then the total cost per net FTE for the redistribution of grazing land would rather be about R402 000, and the total cost per net FTE for all three land types together would be approximately R278 000.

## 5. Conclusions

The purpose of this report was to illustrate a possible approach for creating employment through redistributive land reform in Sakhisizwe Local Municipality, Eastern Cape, based on an analysis of the natural resource base, the agricultural systems currently in place, and the experience of land reform to date. The work involved interviews with a large number of various kinds of key informants, ample use of secondary data and literature, and a discursive process of considering and then refining possible approaches.

Generally speaking, the case of Sakhisizwe is relatively straightforward. In the first place, the geography of the local municipality is fairly clear. There is a clear demarcation between the part of the municipality comprising commercial farmland, and that part comprising former Transkei, in the latter of which one finds numbers of black farmers eager to get land through land reform in the former. At the same time, the commercial farming part of Sakhisizwe – which is more or less synonymous with what used to be known as Elliot Magisterial District – is reasonably well documented by previous agricultural censuses, and is not especially diverse in terms of agricultural practices, perhaps because the agro-ecological environment is more or less uniform throughout.

The suggested approach to land reform was designed around the three main types of land one finds in Elliot, namely grazing land, dryland arable land, and irrigated land. The question is whether and how the use of these types of land could be partially reorganised through land reform.

In the case of grazing land, the chief suggestion is that land reform be used to accommodate a number of larger sheep farmers from the former Transkei; this would involve changing the grazing land use in Elliot from cattle towards sheep, while opening up ‘space’ within the former Transkei for both the expansion of smaller sheep farmers, and the entrance of new, small sheep farmers. While the labour intensities of livestock farming in the area are not high, Elliot is mainly comprised of grazing land, and thus the redistribution of some of this land is critical to land reform. The scenario developed exploits the odd fact that there is a fairly elastic relationship between herd size and employment in the former Transkei side, whereby even sheep farmers with small herds either employ one herder, or dedicate one family member to herding. However, in order to ensure methodological consistency with the other local municipality case studies, the jobs created in the former homelands are not counted in the estimates of total FTEs created, thus arguably making the estimates as to total cost per FTE being excessively high.

Dryland arable land in Elliot is mainly used at present for maize and to some extent for other crops rotated with maize. Large-scale commercial farmers are highly mechanised to the point that they farm large amounts of land with minimal labour. The exception is potatoes, the cultivation of which is relatively labour-intensive, however the area under potatoes is limited by technical parameters and high input costs. The land reform scenario designed around dryland arable land is that there be a continuation of field crop production, but with downsized production units. The analysis drew largely on evidence collected from existing black maize farmers in the area, most of whom are land reform beneficiaries. While these farmers may be large relative to crop farmers in the former Transkei, they are small *and* labour-intensive relative to large-scale commercial farmers in the area.

Regarding irrigated crop land, what is observed is that large-scale farmers use it in more or less the same manner that they use dryland areas, that is, for field crops and fodder crops. This presents an opportunity to shift the use of some of this land via land reform in favour of vegetable farming, which tends to be far more labour-intensive, especially when conducted by smaller-scale farmers.



Based on the assumption that 50% of the commercial farmland of Elliot that has not be redistributed to date, is redistributed in proportion to these three main types of land (i.e. grazing, dryland and irrigated), it is estimated that almost 1100 full-time equivalent employment opportunities could be created within the commercial farming area of Sakhisizwe Local Municipality. In the context of the area, these 1100 FTEs would be significant: they would reduce the number of unemployed people in Sakhisizwe by one fifth. The estimated upfront cost of this is estimated to be R456 million, which works out to R426 000 per FTE. Whether this is a lot or a little is difficult to judge, but it must be pointed out that 80% of this price tag accrues to the cost of the land, the reallocation of which is an important objective in its own right. Moreover, it does not take into account the employment opportunities that would be expected to be created within the former Transkei part of Sakhisizwe due to the 'decongestion' effect caused by the relocation of larger sheep farmers into the Elliot part of Sakhisizwe.

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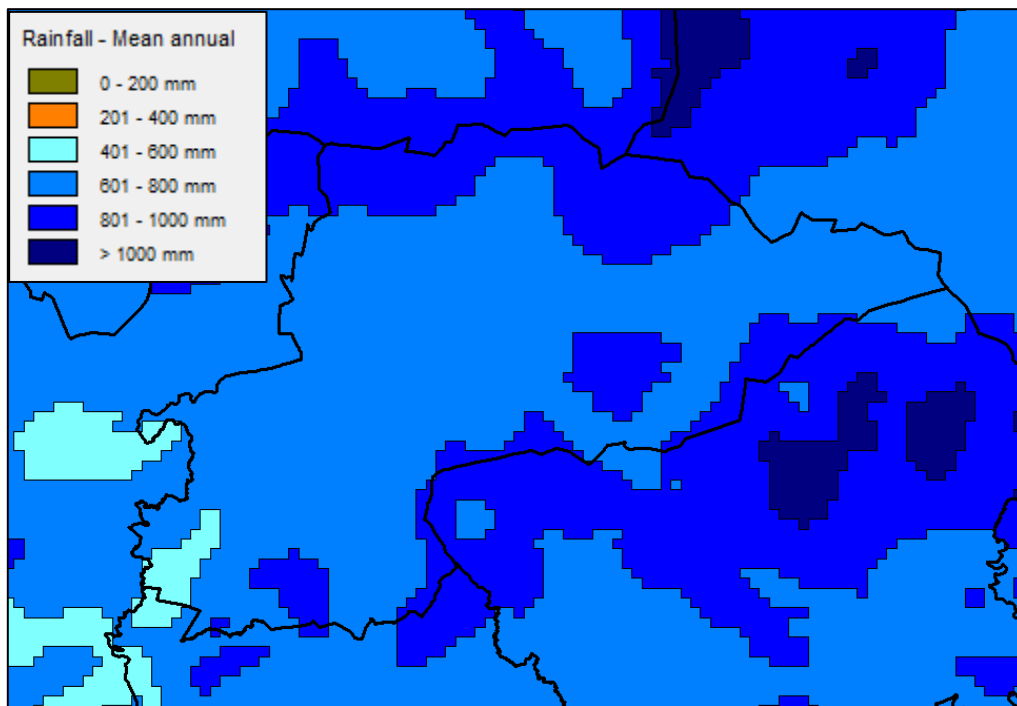
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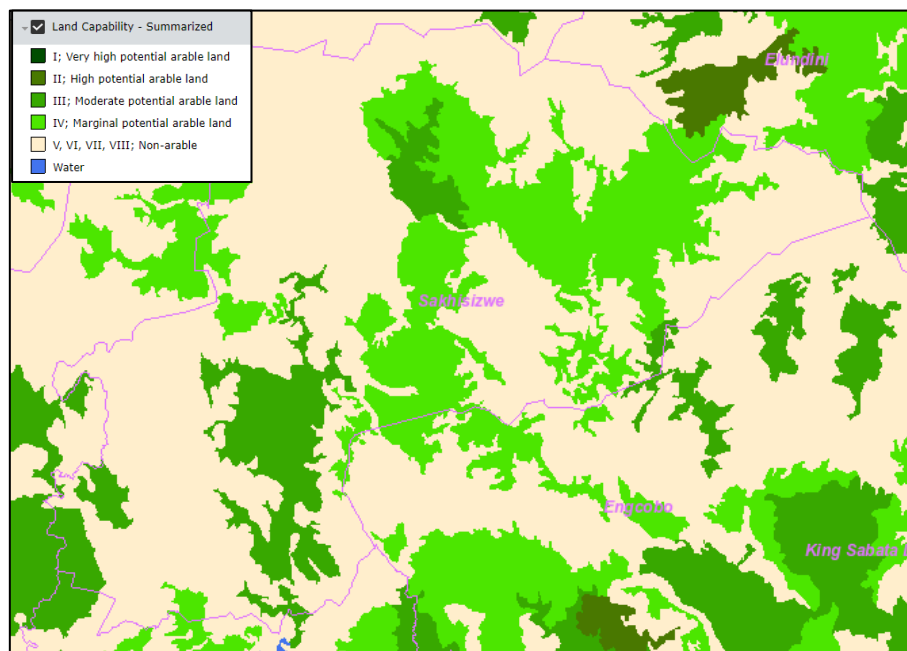
Appendix: Additional maps

Figure A1: Mean annual rainfall in and around Sakhisizwe



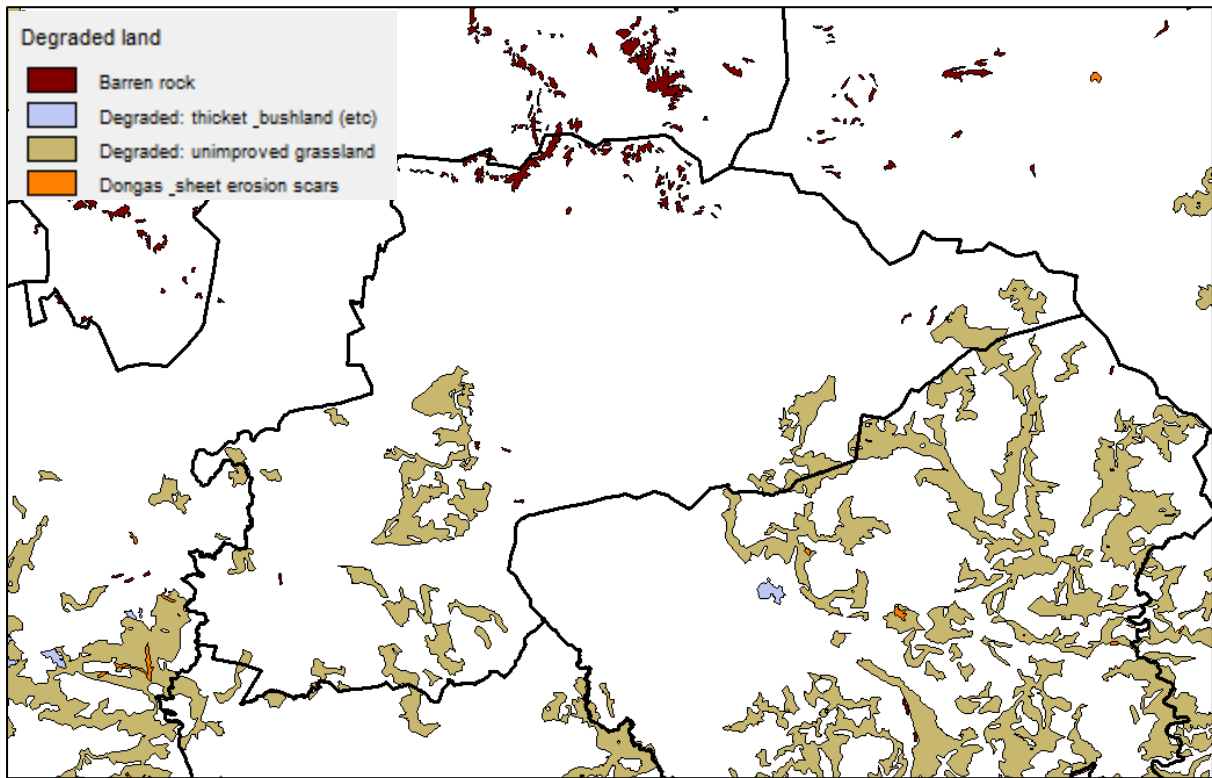
Source: data downloaded from 'DAFF Portal for GIS'

Figure A2: Land capability in and around Sakhisizwe



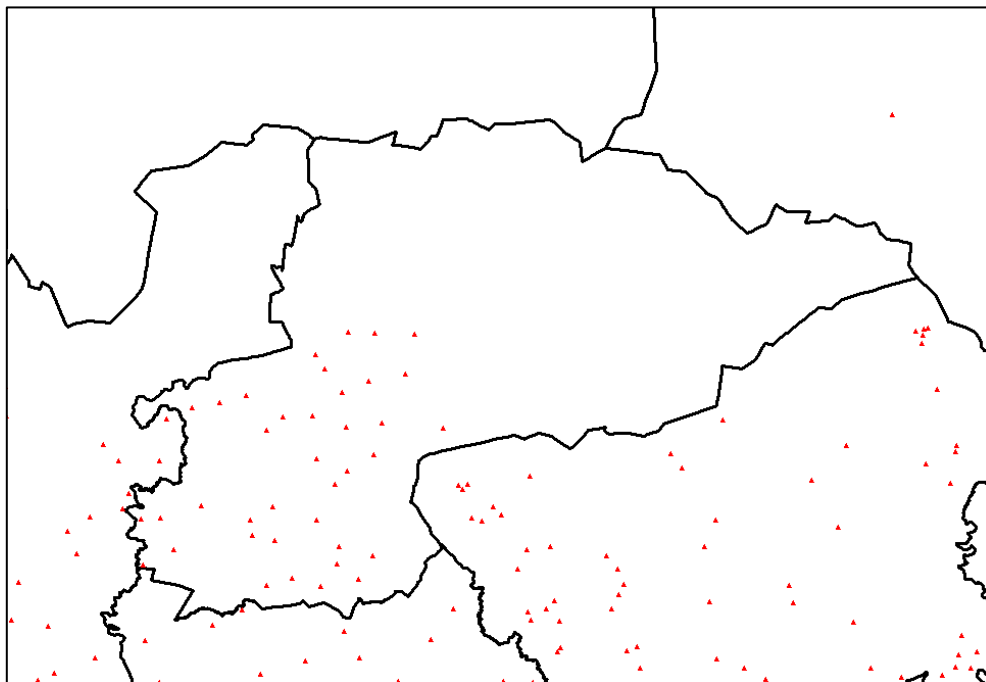
Source: generated within online GIS app at [http://daffarcgis.nda.agric.za/Comp\\_Atlas\\_v2/](http://daffarcgis.nda.agric.za/Comp_Atlas_v2/)

Figure A3: Degraded land in and around Sakhisizwe



Source: data downloaded from 'DAFF Portal for GIS'

Figure A4: Pension pay-points, 2003



Source: data downloaded from 'DAFF Portal for GIS'