

Working Paper 2

Rural Livelihoods and Small-Scale Sugarcane Farming in Nkomazi, Mpumalanga province, South Africa.

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This paper is part of a research project “Farm scale and viability: an assessment of black economic empowerment in sugar production in Mpumalanga Province, South Africa”, funded by the UK government (ESRC-DFID Joint Programme on Poverty Alleviation. Grant no. ES/1034242/1).

April 2015



Research jointly supported by the ESRC and DFID

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Acknowledgement

The authors wish to acknowledge the contribution to this research of many people in Nkomazi. In particular we wish to thank the staff at TSB, Akwandze, LIMA, Agriwiz and Mpumalanga Canegrowers for their generosity and professionalism in making time available for discussion, in providing data and in other assistance to help us achieve our research objectives. We wish also to acknowledge the contribution of the Mill Cane Committees at Malalane and Komati, SSG project secretaries and the more than one hundred and twenty small-scale growers who took part in farm surveys or interviews. Finally we thank Zinhle Mhlana, Phindile Ndlala and Sertorio Mshothola for their invaluable contribution to the fieldwork we report here.

Rural Livelihoods and Small-Scale Sugarcane Farming in Nkomazi, Mpumalanga province, South Africa.

1. Introduction

Small-scale sugarcane farming is practised by approximately 1200 small-scale growers (SSGs) across 37 irrigated farming projects in Nkomazi in Mpumalanga province in Eastern South Africa. The growth in the sector has occurred since the 1980s and embodies the most significant form of small-scale commercial agriculture in the area. However, in recent years the sector has struggled, and while including approximately 20% of the land used to grow sugarcane for two mills owned by TSB, it delivers only 11.2% of the total sugarcane.¹ The growth and subsequent marginalisation of the small-scale sector has had significant implications for the livelihoods of households that are reliant on it. This paper seeks to identify the evolving dynamics through which small-scale sugarcane farming contributes to rural livelihoods.

The expansion of sugarcane growing in South Africa has been closely associated with patterns of displacement and subsequent “re-incorporation” of the black population into the agricultural economy of the South African lowveld. The forced relocation of the black population from much of present day Nkomazi during the twentieth century reinforced the dualistic agrarian structure that supported white owned large-scale commercial farming on the one hand alongside small-scale agriculture pursued by the black population in the bantustans. The emergence of small-scale sugarcane farming arguably shifted this agrarian structure as increasing numbers of black households were incorporated into commercially oriented agriculture. In its early years, this development contributed to the increasing wellbeing of many SSGs involved, noted in increasing wealth through the education of children, construction of large houses, purchase of vehicles, and accumulation of cattle.

The “crisis” in small-scale sugarcane farming has developed since about 2000, manifested by falling levels of productivity and incomes, and the collapse of individual farms and whole irrigation projects. The causes of the crisis are multifaceted. Physical and climatic shocks have coincided with an increasingly marginal economic environment and a need for significant reinvestment to replace irrigation infrastructure. The failure of many SSGs to manage these problems has fostered a narrative amongst industry actors of poor financial discipline on the part of the SSGs. The sugar industry, and to some extent the South African government, have responded to the crisis in the small-scale sugarcane sector through a series of interventions that seek to restructure irrigation projects along cooperative lines. Evidence to date suggest that this has few livelihood benefits in the short term for the SSGs involved but has secured project debts and ensured the resumption of production. Alongside this formal restructuring of the industry there is evidence of increasing rates of differentiation among SSGs. A minority appear well-positioned to take advantage of the current economic climate to expand production significantly by purchasing small-scale farms from other SSGs.

The rest of the paper is structured as follows. The next section (Section 2) explores the processes of displacement and relocation of black people during the apartheid administration and discusses the ways in which livelihoods were formed in KaNgwane. Section 3 develops a history of the establishment of small-scale sugarcane farming in Nkomazi, identifying three distinct phases of

¹ Data supplied by TSB.

development. Following this, Section 4 discusses the pre-crisis phase of small-scale sugarcane farming (1982-2000), including the ways in which small-scale farms operate and the livelihood outcomes of the sector in this period. Section 5 first develops the argument that small-scale sugarcane farming is in a period of recurring crises, highlighting the extent of the problems faced by SSGs and the responses to them. It then presents a series of SSG household histories that offer an in-depth exploration of the impacts of the crisis on livelihoods. Finally, Section 6 identifies conclusions concerning the changing contribution that small-scale sugarcane farming has made to rural livelihood formation in Nkomazi.

2. Displacement and relocation

2.1. Displacement

The formation of rural livelihoods by households involved in sugarcane farming has been directly influenced by patterns of displacement, forced removal, and resettlement experienced under apartheid. These processes defined a set of 'tribal' identities and authority structures which influenced how people obtained access to sugarcane fields, and continue to have repercussions in terms of rights to land and water to this day.

Through much of the 19th century, the area now covered by the Nkomazi Local Municipality was an arena of settlement and struggle linked to the establishment and expansion of the Swazi state. From the 1840s to the 1870s, a period of Swazi supremacy over much of the area, people moved in and out of the area as control was contested between the Swazi and neighbouring African powers (Zulu, Pedi and Gaza-Shangaan) and the Boer republic centred on Lydenburg. By the period of decline in Swazi power, in the 1870s, the area was populated by a number of groups identified with leaders of diverse origins. Many of these had been established by the Swazi monarchy in administrative/military settlements along the northern periphery of Swazi territory. Although the Swaziland frontier had been demarcated at its present-day position since the 1880s, and 43 farms had been surveyed up to 1907, by the time of the 1913 Land Act title deeds had been issued on only 12 farms and white settlement in 'Barberton district' was limited to about 3,500 people. These were concentrated mainly in mining communities near present-day Barberton township. Most of the area between the Crocodile river and the Swaziland frontier was occupied by African communities totalling about 30,000 people (Myburgh, 1949).

Following the 1913 Land Act, a Native Land Commission was established to identify areas for African settlement. Having initially identified these to be on 'crown land' (as yet unsurveyed and not demarcated as 'farms') to the south, along the Swazi border, and to the north, along the Crocodile river (the area known as 'Tenbosch'), the Commission came under pressure from white settler interests to revise this allocation. In particular, there was pressure through the 1930s to remove the African population from the northern part of the district (Tenbosch). In the event, 'tribes' and their leaders were identified and demarcated only after the National Party gained power in 1948, and people were removed in the 1950s from the northern parts of the district to the 'trust land' reserved for black settlement in the south. Two forms of displacement were therefore experienced: some groups (the three Ngomane groups, the Mhlaba, and some of the Matsamo and Mawewe) were displaced to make way for white settlement, while others (some of the Matsamo, Mawewe and Mahlalela) were displaced to make room for those relocated from the north (see figure 1). The entire black population of the area was subject to separate administration by the KaNgwane 'homeland' government from 1982 to 1995.

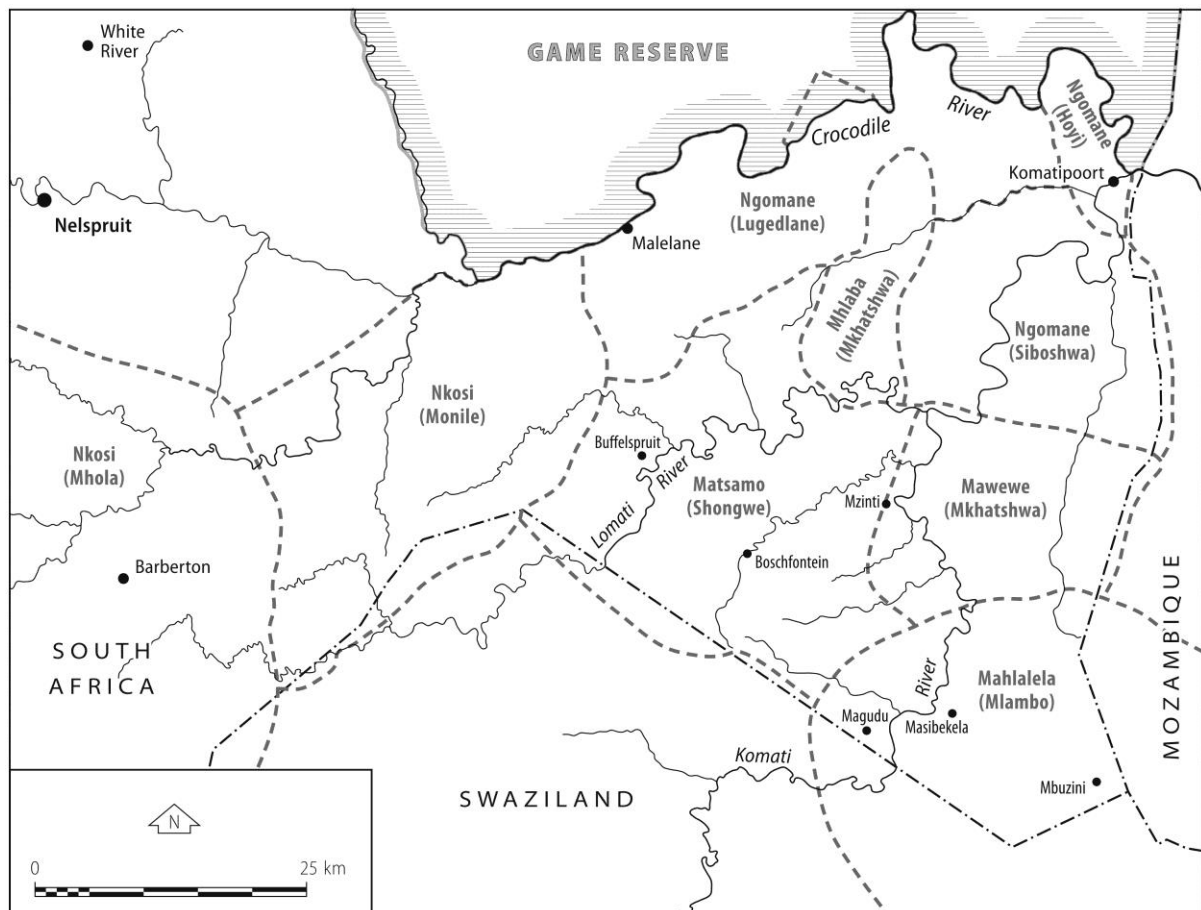


Figure 1. Approximate distribution of areas settled by African communities in 1949 (after Myburgh, 1949 and Fischer et al 2010)

The consequent disruption of livelihoods, particularly where these were based on agriculture, was experienced in different ways by individual households, depending on their particular trajectory of relocation and the 'tribal authorities' to which they had been allocated. Displacement and resettlement within the area that would become the Nkomazi district of KaNgwane resulted in loss of access to significant land and water resources that historically contributed to the formation of livelihoods.

As the area was already populated, relocation of people caused an increasing demand for scarce land and water resources. The government response (as elsewhere in South Africa) was a strategy of settling households in villages (villagisation) and a re-organisation of production to enable introduction of more productive farming methods ('betterment'). The following section will trace the patterns of movement in more detail. Specific household case studies will then explore the impact on livelihoods.

As noted above, there is a degree of variation in the extent to which the populations of different tribal authorities experienced displacement during the apartheid era. The confiscation of land from the black population and creation of an area reserved for black settlement resulted in a range of outcomes. While some tribal authorities lost the entirety of the land that originally fell under their control, some lost only a portion as their land originally covered both Trust Land and private lands. Other tribal authorities were always located within trust lands yet experienced displacement and resettlement as a result of influx of the displaced populations. The three Ngomane tribal

authorities (Siboshwa, Luggedlane and Hoyi) and the Mhlaba (Mkhatchwa) were all located in land to the north of the area that would become KaNgwane. Therefore, these populations were displaced and relocated in their entirety with significant evictions occurring in 1954 from the Tenbosch, Coalfields and Townlands areas surrounding Komatipoort. The Matsamo (Shongwe) tribal authority originally covered a large expanse of land, the northern portions of which they were displaced from. The Mawewe (Mkhatchwa) tribal authority traditionally resided on land in Nkomazi East between the Komati River and the border with Swaziland. While this was Trust Land, the need to accommodate the three Ngomane authorities resulted in the relocation of the Mawewe to the west of the Komati on lands to the north of the border with Swaziland. Finally, the Mahlalela were settled historically on trust land on and surrounding the Mbuzini plateau bordering both Mozambique and Swaziland. The extent of displacement of the Mahlalela was probably the least significant, although they claim land to the north of their current location. The historic locations identified in 1949 for each of the tribal authorities is shown in Figure 1, while the current areas governed by each authority are indicated in Figure 2.

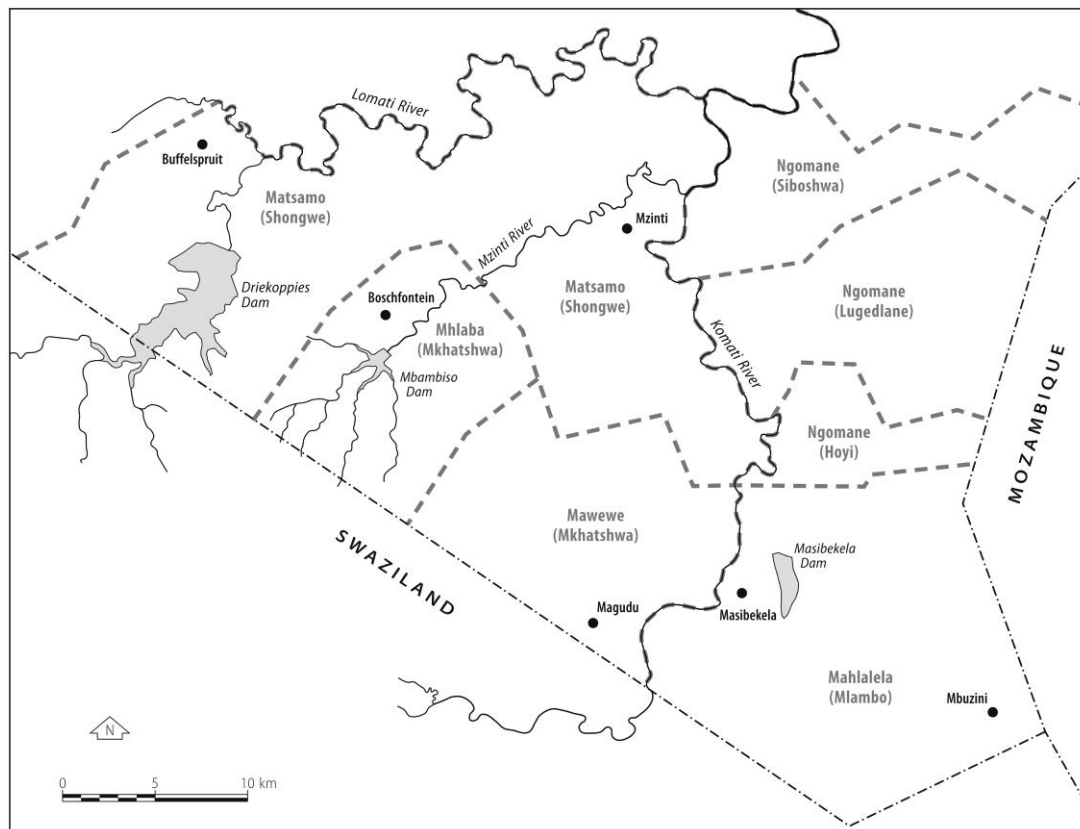


Figure 2. Designated areas for ‘tribal authorities’ following relocation in 1950s

Many of the SSGs currently farming projects on land administered by the three *Ngomane* tribal authorities were either directly removed, or are the children of households that were removed from land allocated to white farmers during apartheid. While located in the Tenbosch area, many households engaged in subsistence agriculture, growing maize as a staple crop alongside other crops such as sorghum, jugo beans, peanuts and cowpeas. Even prior to these evictions, the Ngomane had suffered confiscation and destruction of cattle by the government in 1937 following an outbreak of foot and mouth disease. Myburgh (1949: 112-3) notes that, despite the Ngomane being considered agriculturalists rather than pastoralists, this had caused substantial economic and social hardship for

the Ngomane communities, limiting incomes and restricting marriages due to lack of cattle to pay lobola (a traditional payment made in the form of cattle by a man to the family of his bride). It was also common for young men to find employment on farms or mines across the area: 'Consequently nearly all the men are compelled to work for wages. As influx to the Reef is controlled, most of them have to content themselves with the lower local pay. There is no saving; the earnings hardly suffice to buy food and clothing' (Myburgh, 1949: 115-6).

The *Mhlaba* were largely settled on land to the north of the area that would become KaNgwane in a location known to the community as Matibetibe. The population under the Mhlaba authority were relatively impoverished, with few cattle, and the Mhlaba authority was widely considered to be subordinate to that of the Matsamo. Migration for wage labour was coupled with subsistence agriculture practiced with varying levels of investment, some households working the land with hoes (Myburgh, 1949).

The *Mawewe* also faced displacement despite being historically settled on land reserved for Africans. As Ngomane communities were moved southwards after the Tenbosch evictions, the Mawewe were relocated towards the border with Swaziland. Myburgh (1949) observed that the Mawewe were 'by the standards of the district neither rich nor poor'. He does not mention labour migration from the community, but subsistence agriculture and cattle ownership, despite poor herds.

The pre-apartheid *Matsamo* administration covered land on both sides of the Swaziland border. Within South Africa this included land both within the 'reserve' as well as surveyed farms to the north of the Lomati river. As such, displacement was experienced by some members of the community while others were unaffected. Displacement from white-owned farms to the north of the Lomati River also appears to have been delayed compared to other sites, as the households eventually removed were labour tenants who provided labour for the commercial farmers in return for a plot for their own cultivation. This contrasts with those displaced from the Tenbosch area who were leasing land (initially from the state and later from private landowners), rather than living on land that was being farmed commercially. For the many Matsamo households who already lived in the reserved area, which includes many small-scale growers located around the villages of Schoemansdal and Driekoppies (for example, those who farm on Nhlangu East, Nhlangu West, Driekoppies, Schoemansdal and Mbongozi), the main experience of removals and relocation arose from villagisation. This meant that previously scattered households were moved into villages and allocated individual plots within blocks for cultivation bordering the villages.

The *Mahlalela* are the sole community who were largely unaffected by displacement under apartheid. Having settled on and around the Mbuzini plateau in the extreme south east of the district, their lands remained 'Trust Land' and later part of the KaNgwane bantustan. The Mahlalela held. Myburgh's (1949) survey portrayed the Mahlalela as being relatively well off, with subsistence agriculture alongside large cattle herds, except where foot and mouth disease control measures had resulted in destruction of cattle. In contrast to the impoverished Ngomane, who pursued wage labour extensively, Myburgh observed the Mahlalela to be 'almost self-supporting and many of the tribesmen never go to work' (Myburgh, 1949: 104).

2.2. KaNgwane Livelihoods Prior to Sugar Farming.

Interviews with SSGs revealed that prior to farming sugarcane livelihoods were constructed from cash crop farming, labour tenancy and labour migration, supplemented by subsistence agriculture. Employment in local government and commercial activities such as retailing were also evident to some degree. Every sugarcane grower interviewed had come from a household that had historically

participated in farming to some extent. Most common was 'subsistence' farming, ranging from vegetable farming on small irrigated plots such as those allocated to members of the Ngomane, to dryland maize farming on several hectares. Matsamo and Mhlaba households in Boschfontein and Magogeni typically farmed dryland maize plots of eight to ten morgens (6.85 – 8.56 hectares) in areas close to where sugarcane projects would be created.

In both these instances dryland maize farmers were central to the creation of farmers' associations that later formed a vanguard of small-scale sugarcane growers. Elsewhere, in Nkomazi East, efforts to develop cash cropping, particularly (dryland) cotton, also catalysed the creation of farmers' associations that became the focal point for small-scale sugarcane projects resulting in many households ceasing cotton production in favour of the more lucrative sugarcane crop. The poverty of agriculture in Nkomazi East prior to sugarcane is emphasised by the NIEP project proposals (Du Plessis and Burger, 1995). These state that in 1993 only 25% of the 442 households in Sibange village were involved in agriculture and only 15% had livestock. Further, maize production by 20 households in the agricultural seasons of 1990-1, 1991-2 and 1992-3 averaged 5.3 bags (477kg), 1.8 bags (162kg) and 3.7 bags (333kg) per household respectively. These were drought years and the NIEP proposal had an interest in emphasising the advantages of irrigation, but the numbers emphasise the marginality of dryland production, even for subsistence purposes.

Non-farming enterprise was also evident in the livelihood histories of people we interviewed. These included households who developed businesses within KaNgwane, such as small retail shops, but also included a case of harvesting wild reeds for sale as roofing thatch. Many of the sugarcane growers we interviewed had worked as labourers either commuting daily from KaNgwane to commercial farms on the lowveld or migrating further afield to work in the Witbank coal mines or in the major cities of Gauteng. A number had returned to the area following retrenchment from jobs in the formal economy and intended to farm for subsistence.

3. The establishment of small-scale sugarcane projects

3.1. *Growth of small-scale irrigated sugarcane production.*

Small-scale sugar projects have been created broadly in three distinct phases of development in Nkomazi. A first phase of development took place in the mid 1980s, coordinated and funded through Agriwane, the parastatal agricultural development body of the former Bantustan KaNgwane. A second phase of development took place in the mid 1990s following the building of a second sugar mill located near Komatipoort and the Nkomazi Irrigation Expansion Program (NIEP). Finally, a third phase of project creation took place in the mid 2000s funded by the Land Bank. Aspects of the creation of the projects have had a continuing effect on the relative success of projects including: the ways in which projects were initially financed, decisions concerning farm size and the involvement of different actors and institutions.

3.2. *Early establishment of irrigated projects*

The development of small-scale commercial farming in Nkomazi has its roots in the 'betterment' policies of the 1950s and 1960s associated with the concentration of populations into villages, and the consolidation of cultivated and grazing areas to facilitate technical improvement. Initial steps towards commercial farming began in the area in the 1970s in the form of state-funded projects plantations that primarily grew cotton at areas including Driekoppies, Figtree and Mangweni. Many of these state farms were converted to small-scale grower projects during the 1980s, but as observed above, dryland productivity was poor (McIntosh and Vaughan, 1995). The rapid expansion

of irrigated commercial agriculture on white-settled areas to the north was reflected in a request in 1979 by the Siboshwa tribal authority for an irrigation project for farmers in the Figtree area. Many of the individual small-scale farms created on projects at this point were of a size significantly larger than those created in later phases; each farmer was allocated approximately twenty hectares in the phase one projects of Figtree A and Shinyokane while farmers at Figtree B received between twelve and twenty hectares.

The creation of the Ngogolo small-scale project near the village of Driekoppies is indicative of the process involved in the creation of farms set up in the first phase of development². Ngogolo was created in 1982 with government funding. Prior to sugar farming the area was used by households from the Driekoppies area for dryland farming of maize, beans and other subsistence crops. There were many households farming on plots of between one and three hectares. Government funding was used for the installation of irrigation and the introduction of sugar. The existence of farmers' associations was significant because our interviews with SSGs at Boschfontein Two and Ngogolo established that the number of maize farmers greatly exceeded the number of sugarcane plots available and a selection process was implemented. The transition to irrigated sugarcane thus introduced a strong limitation to the number of people able to benefit from the increased productivity of commercial agriculture. In the case of Ngogolo this was tempered by the fact that many of the dryland farmers were uninterested in farming sugar as they wanted to grow produce that could be consumed in the household (Vaughan and McIntosh, 1993). As a result, an initial thirty one farmers were selected to grow sugar with a further twenty nine farmers joining soon after. Farmers were allocated plots of approximately eight hectares each as this was considered to be a viable sized small-scale sugar plot. Ngogolo differs in its structure from projects such as Figtree A and Figtree B that were developed in Nkomazi east during the same phase. First, the projects created in Nkomazi East allocated larger plots to fewer farmers with individual plots of between twelve and twenty hectares. Second, irrigation infrastructure is shared at Ngogolo whereas farmers at Figtree A and Figtree B have individual pumps for which they are responsible for the maintenance. It is not completely clear why these variations exist although given the fact that there were more farmers who were farming dryland maize than land available at Ngogolo there was pressure to reduce plot sizes to accommodate as many farmers as was feasible. As the various tribal authorities played a role both in the application for the creation of sugar farms and in the allocation of plots it is possible that the authorities faced varying demands for land.

3.3. *The Nkomazi Irrigation Expansion Programme (NIEP)*

The second phase of development of small-scale sugar farms in Nkomazi took place in the mid 1990s. They occurred as a result of the signing of a 1992 water treaty between the South African government and the government of the Kingdom of Swaziland that made provisions for the construction of Driekoppies dam on the border between the two countries and Maguga dam within Swaziland (Treaty, 1992). A subsequent agreement on the usage of water was signed between the South African government and the KaNgwane administration (Agreement, no date). The building of a new sugar mill by TSB at Komatipoort created the required additional demand for sugar cane. The agreement between South Africa and KaNgwane allocated a total 7,191 hectares of newly developed irrigation alongside 2,349 hectares of existing irrigation to the bantustan. Of this total, 6,764 hectares were designated for the production of sugar, 1,001 hectares for the production of other crops bananas, leather ferns, rice, coffee and cotton, and 1,775 hectares were not allocated (Du Plessis and Burger, 1995). The allocation of irrigated land was split across tribal authorities. In Nkomazi West new allocations were made according to the respective populations such that the

² Interview #1 – 15/05/13.

total allocation to each tribal authority was proportional to the population of the area. In Nkomazi East, the new allocation of 3,330 hectares was split evenly between the four tribal authorities regardless of existing allocations. This is set out in Table 1 below.

Table1: NIEP Irrigation Allocations.

Tribal Authority	Population %	Existing Development	New Development	Area Total
Matsamo	33%	909 ha	2311 ha	3220 ha
Mawewe	11%	0 ha	1100 ha	1100 ha
Mhlaba	6%	0 ha	450 ha	450 ha
Siboshwa	22%	400 ha	832.5 ha	1232.5 ha
Lugedlane	11%	646 ha	832.5 ha	1478.5 ha
Mhlambo	11%	0 ha	832.5 ha	832.5 ha
Hoyi	6%	394 ha	832.5 ha	1226.5 ha
Total	100%	2349 ha	7191 ha	9540 ha

Data from Du Plessis and Burger, 1995.

The water allocation agreements and developments of new sugar farming projects came at a time of transition in which the end of Apartheid signalled the dissolution of the KaNgwane Bantustan and its reintegration into South Africa. As such, in documents from the time, there is a certain lack of clarity in terms of how the funding arrangements for the NIEP based developments were carried over into the democratic era. However, many of the assumptions that informed the project's creation are set out in the project ledger of Sibange, a project built by NIEP as part of the Mawewe tribal authority's irrigation allocation (Du Plessis and Burger, 1995). The creation of projects under the NIEP was an undertaking with many stakeholders. In the case of Sibange, institutions involved in the creation of the project included the NIEP Central Steering Committee (itself constituted of at least sixteen institutions), the Mawewe Project Committee, local government, the Mpumalanga Department of Agriculture and Forestry (MDAF), the Mpumalanga Development Corporation Ltd, the Mpumalanga Agricultural Union (MAU), TSB, SASA, the Financial Aid Fund (FAF), the Development Bank of Southern Africa (DBSA), the Malelane Mill Cane Committee (MMCC) and the Khipulwazi Farmers Association (Du Plessis and Burger, 1995:n 5-12). Over 75% of the funding of the project came from the DBSA while Agriwane and FAF also made contributions.

The example of Sibange illustrates the dynamics operating at village level, where the 40 members of the Khipulwazi farmers' association took the lead in bidding for funding for an irrigated area of 10ha for each of its members. Negotiations with six maize farmers to allow the sugarcane project to be implemented on land that included their maize fields resulted in a modified scheme of 48 sugarcane plots of 7ha each. In all, the Sibange project planned irrigation for 336ha of sugarcane and 45 ha of maize and vegetables. This was reflected more generally in the land allocations under the NIEP, which specified that "although Mpumalanga has secured sugar allocations for both mills, the irrigation expansion programme is not restricted to sugarcane only. On the contrary, the production of other crops [sic] under irrigation is encouraged. Similarly, non-agricultural developments are also encouraged" (Du Plessis and Burger, 1995). However, in the period between the design of the NIEP

and the current time, the production of other crops on a small-scale basis has ceased to exist almost completely. While some projects have retained irrigated community vegetable farms and a small amount of dryland cotton is still grown, commercial crop production is almost solely focused towards sugar cane. A tobacco growing cooperative has emerged in the Buffelspruit area in recent years although it appears that this is not included in formal water allocations as negotiations concerning water are ongoing.³ This suggests that sugar has remained a relatively attractive crop for small-scale growers, particularly given the readily available market whereas markets and technical support for other crops have proved weaker than for sugar. This is a sentiment that was commonly referred to by interviewees during the fieldwork. Our interviews provided little evidence of food crops being grown for sale rather than household consumption. All those interviewed remarked that maize was grown primarily for household only or that sales only occurred in times of surplus. This suggests that a narrowing of the focus of irrigation to sugarcane alone may have had reasons other than lack of availability of irrigated land for crops other than sugarcane.

A significant aspect of the NIEP may be found in the projected periods in which infrastructure was expected to be replaced. Sibange was conceived as a 25 year project with underground irrigation infrastructure expected to last for the whole period. Aboveground irrigation infrastructure, electrical engines and pumps were planned to last for 15 years (Du Plessis and Burger, 1995: 78). This is of significance as projects created under the NIEP such as Sibange are approaching twenty years in age and therefore much of the infrastructure is older than the age for which it was designed. The impacts of this will be discussed in more detail in a following section that describes the current crisis in the small-scale sector. This suggests that many of the projects created in the NIEP phase of development are likely to currently be in a position that requires significant reinvestment in infrastructure. As will be demonstrated below, the need for recapitalisation of such projects is now a key driver of structural change within the small-scale sector.

3.4. *The 'Land Bank' phase*

The third phase of small-scale sugarcane project development occurred during the mid 2000s under funding from the Land Bank. As such the projects are collectively referred to as the Land Bank Projects. The seven Land Bank Projects utilised land that had been earmarked for development with water allocations during the NIEP phase. The development of these projects was beset by problems that have directly influenced their productivity since, as almost all of them are in a state of severe crisis or have actually collapsed. The most significant of the problems is the financing of the projects. Projected incomes and yields were unrealistic given the land used for development and as such, the loans from the Land Bank were unsustainable. High debt burdens reduced the incentive and ability of SSGs on Land Bank Projects to invest in their farms. Alongside the unsustainable debt levels of the projects, poor productivity has been blamed on contractors involved in the project design and installation been accused of inflating costs and carrying out sub-standard work. In the case of Langeloop Phase Two, a project that is discussed in more detail in a following section, mainline irrigation pipes that were installed were narrower than those required by the project and as a result the project suffered inadequate irrigation levels from its inception. There were also numerous cases of sub-standard land preparation and the selection of land that was ill-suited for irrigation leading to problems of insufficient drainage and consequent salinization (salt accumulation) in the soil. . Due to these problems in their creation, the general crisis of production in the small-scale sector has been most sharply felt on the Land Bank projects while the associated trends of consolidation are also at a more advanced stage than is the case with earlier projects. These issues are discussed further in later sections. Table 2 below presents a breakdown of the current projects by area and the tribal authorities in which they are located. A total of 10292.4 hectares of irrigated land located across 37 projects is currently allocated to small-scale sugar production in the region.

³ Interview #2 – 23/03/13.

Table 2. Current Small-scale Projects.

Project	Phase	Tribal Authority	Area
Malelane Mill			
Tikhontele	N/A	Nkosi (Tikhontele)	314.1
Blue Dot	N/A	Shongwe (Matsamo)	41.4
Boschfontein 1	NIEP	Mkhatshwa (Mhlaba)	249.1
Boschfontein 2	NIEP	Mkhatshwa (Mhlaba)	128
Buffelspruit	Agriwane	Shongwe (Matsamo)	232.4
Langelooop 1	NIEP	Shongwe (Matsamo)	426.5
Langelooop 2	NIEP	Shongwe (Matsamo)	299.3
Mbongozi	NIEP	Shongwe (Matsamo)	178.9
Middelplaas	Agriwane	Shongwe (Matsamo)	68.4
Ngogolo	Agriwane	Shongwe (Matsamo)	591.4
Nhlangu East	NIEP	Shongwe (Matsamo)	136.6
Nhlangu West	NIEP	Shongwe (Matsamo)	122
Schoemansdal	NIEP	Shongwe (Matsamo)	92.9
Vlakbult	NIEP	Shongwe (Matsamo)	43.2
Sub-Total			2924.2
Komati Mill			
Figtree A	Agriwane	Ngomane Hoyi (Ntiyi)	256.6
Figtree B	Agriwane	Ngomane Hoyi (Ntiyi)	241.3
Figtree C	Agriwane	Ngomane Hoyi (Ntiyi)	426.5
Figtree D	NIEP	Ngomane Hoyi (Ntiyi)	407.4
Lugedlane	Agriwane	Ngomane Lugedlane	342.6
Madadeni	NIEP	Mkhatshwa (Mawewe)	422.6
Mangweni	Agriwane	Ngomane (Lugedlane)	131.5
Mbunu B	NIEP	Ngomane (Lugedlane)	392.1
Mfunfane	NIEP	Ngomane (Lugedlane)	333.9
Shinyokane	NIEP	Ngomane (Lugedlane)	197.2
Sibange	NIEP	Mkhatshwa (Mawewe)	381.2
Spoons 7	NIEP	Mahlalela (Mlambo)	240.9
Spoons 7B	NIEP	Mahlalela (Mlambo)	93.8
Spoons 8	NIEP	Mahlalela (Mlambo)	628.7
Walda	NIEP	Ngomane (Siboshwa)	839.8
Mbunu C	NIEP	Ngomane (Siboshwa)	157.4
Mangane	NIEP	Ngomane (Siboshwa)	152.1
Phiva	Land Bank	Shongwe (Matsamo)	250.8
Mzinti	Land Bank	Shongwe (Matsamo)	285.8
Ntunda	Land Bank	Shongwe (Matsamo)	313.9
Sikwahlane	Land Bank	Shongwe (Matsamo)	400.1
Magudu	Land Bank	Mkhatshwa (Mawewe)	427
Ntunda B	Land Bank	Shongwe (Matsamo)	45
Sub-Total			7368.2
Total			10292.4

3.5. *Irrigated projects and land tenure*

Nkomazi has a population of approximately four hundred thousand people while there are approximately 1,200 SSGs in the region (StatsSA, 2011). The demand for small-scale sugar plots is constrained by available irrigated land and as such, it is necessary to understand the mechanisms by which certain households were able to acquire plots while the majority were evidently unable to do so. The following section draws on interviews with small-scale growers and with an official from an agricultural NGO working in the sugar sector to explore the ways in which SSGs are able to access sugar plots and the factors that mediate this access. In particular, the central role of tribal authorities in allocating sugar plots and the implications of this process are discussed.

As noted in the preceding section, a number of the projects in Nkomazi East were initially state plantations that were farming crops other than sugarcane, and were converted to small-scale farms in an effort to foster a viable smallholder agricultural sector. Upon the switch to sugarcane farming, plots were re-allocated to enable re-adjustment to sizes that were perceived to be economically viable. Other projects that emerged from the NIEP were also made up of farmers who were already engaged in cash crop production although this was on a dryland farming basis. Mrs Mhlaba is an example of this latter path to sugar farming having initially farmed at Mbunu B, a project that was created under the NIEP in 1994. Since 1986 she had been farming a two hectare plot of cotton alongside half a hectare of subsistence crops⁴. In cases such as this selection to grow sugar farming, while directed through the local tribal authority, was tied to a pre-existing history of cash crop farming. Yet, given the change in plot sizes, it appears that numerous farmers of cash crops would have been unable to farm sugarcane.

The allocation of land for any type of use has remained under the control of the tribal authorities throughout the history of the area. Given the limited number of sugarcane plots and the apparently high demand for agricultural opportunities, there has existed a degree of competition for farms and contestation over the ability to access land. Previous studies of the area have emphasised a division between commercial small-scale farmers and landless or land-poor households (Rangan and Gilmartin, 2002). Numerous interviews conducted with SSGs during the fieldwork phase suggested that in certain cases, close familial ties to the chief or to other members of the tribal authority played a role in the allocation of land. Mr Maseko⁵ who farmed land on Boschfontein II noted that every one of the 13 farmers who had originally been part of the project was related to the Mhlaba chief, a fact confirmed by interviews with SSGs^{6,7}. Mr Khoza offered a more generalised definition of relations to the chief, stating:

“We, as his subjects, are from around the area, not from another authority. The chief knows us as his children; that is his relationship to us; ‘these are my children, I must help them’.”⁸

This definition suggests that anyone who historically fell under the authority of the chief may be considered a ‘family member’. In such a case, ‘familial ties’ may not be seen to determine access to land. However, the three farmers interviewed from Boschfontein II were direct relatives or married to direct relatives of the chief. It should be noted that the Mhlaba tribal authority are the smallest community of the seven tribal authorities in Nkomazi and the pattern of close familial relations is not uniformly present in other circumstances. However, it is apparent that at least in the case of the Mhlaba tribal authority, close relations to the chief are a factor through which households have been able to access irrigated land and practice sugar farming.

⁴ Interview #3 – 20/06/13.

⁵ Interview #4 – 12/04/13.

⁶ Interview #5 – 12/04/13.

⁷ Interview #6 – 15/04/13.

⁸ Interview #5 – 12/04/13.

The suggestion that numerous SSGs are related to chiefs was supported particularly in the instance of the smaller tribal authorities.⁹ However, this was not usually the case in the larger communities such as the Matsamo partly due to the larger population and also to the dispersion of sugarcane among many villages. An employee of LIMA, an agricultural NGO working in the sector, felt that in some instances relations to the tribal authorities were claimed as a way of gaining prestige:

“To answer your question though, you do have projects where most of the people in the area are somehow related to the chief but it is not a relation that is too close. It’s just that everyone wants to be related to the chief you know [laughs]. It is not everyone really, yes the royal family or the tribal home is huge but he cannot be related to the whole community. It’s just that some want to be closer to god than you can ever be [laughs]. But in cases like Boschfontein it is possible.”¹⁰

Therefore, it appears that familial relations have played a role in the allocation of sugarcane plots although this is not a generalised pattern. Given the structure of Swazi South African society, the notion of family is somewhat obfuscated as notions of family and community may become blurred together.

The allocation of plots in Nkomazi is done through a right to occupy (RTO)¹¹ certificate issued to SSGs by the local traditional authority. An RTO does not amount to a freehold title to the land and is essentially an agreement between the traditional authority and the SSG that allows occupation of the land. A RTO could in principle be rescinded and the land transferred to someone else. SSGs typically have to pay an initial fee to the relevant traditional authority for an RTO to be issued. Such fees vary between authorities and at different times, although they are usually in the range of 500 to 1000 rand, regardless of the area of land acquired through the RTO. In most cases SSGs also have to pay an annual fee for their RTO. On land under the Matsamo traditional authority, for instance, this amounts to a charge of 105 rand per hectare per year (amounting to an annual income of approximately 370,503 rand for the Matsamo traditional authority for the sugarcane land occupied by SSGs. There is a degree of resistance to annual fees for RTOs and many farmers have not paid them for a number of years. Nor have many residents whose housing stands are subject to similar fees. However, as residents and SSGs eventually require the services of the traditional authority to complete many official procedures, such as the creation of bank accounts or registering for utilities, these provide opportunities for the traditional authority to demand payment of overdue fees. As explained by the LIMA employee:

“In most cases what usually happens is the traditional authority, the chief, is usually greedy. They will charge for things and stuff, making it impossible for the growers to live comfortably in their business. Or if they do not pay that, when they require some documents because in fact almost all the growers you are dealing with are under tribal authority, they won’t get the documents.

To be honest with you the system is different with every chiefdom. It’s not like you know, one size fits all. You know in one chiefdom (by the way I’m originally from Swaziland where we call them chiefdoms), I’ll say in one tribal authority you find like this one I know where if you want some document to be signed you have to pay 2000 [rand]. Where can you get 2000 in this day and age? You can’t even get 2000 at the end of the year after harvest because some people are taking a mere two hundred or six hundred, some nothing. So it even becomes so strict. And I realise that the traditional authority leaders are also hungry, or their pay has been cut or something like that, they have been removed from the payroll or stuff like that so now the only way they can make a living is through this. They essentially tax the farmers.”¹²

⁹ Interview #7 – 17/04/13.

¹⁰ Interview #7 – 17/04/13.

¹¹ RTOs are known in other contexts as PTOs (permission to occupy).

¹² Interview #7 – 17/04/13.

This system of land titling has a number of consequences for SSGs, most significantly they create circumstances that may hinder farmers' access to credit from commercial banks. The information contained within an RTO is typically vague, usually denoting only an approximate area of land without formal demarcation (see appendix for an example). The existence of the industry-run financial body Akwandze counters this problem to some extent as it recognises RTOs as a legitimate form of ownership of sugarcane plots and thus is able to lend to SSGs. Yet, the lack of further options for financing of production arguably limits the choices available to SSGs and therefore increases the influence of Akwandze in respect to the farmers.

As land allocation is mediated by traditional authorities, it is to be expected that the allocation of sugarcane land reflects the social status of recipients. Therefore, there is an element of social seniority in the individuals who have become SSGs, and of those surveyed, almost three-quarters of the SSGs were found to be aged over 50 (the oldest of the age categories recorded), while only 4 were less than 30 years of age (Table 3). An ageing population, and the lack of succession apparent in small-scale sugarcane farming, has implications: sugarcane farming is a very physical job and many small-scale plots are located significant distances from residential areas so that where SSGs don't have access to transport farm supervision is increasingly difficult.

Table 3. Age Profile of SSGs.

	Age				Total
	20 – 30	30-40	40-50	50 +	
Male	3	7	9	43	62
Female	1	3	7	33	44
Total	4	10	16	76	106

Many chiefs have access to small-scale farms within the projects. Allocation of plots through the tribal authorities meant they were able to allocate sugarcane land to members of chiefly families. The pattern and extent of ownership varies across the tribal authorities. In some cases, the chief directly owns a significant proportion of the land allocated to sugar within the tribal authority. For example, the chief of the Mahlalela (Mlambo) tribal authority holds over 80 out of a total of approximately 964 hectares of irrigated sugarcane land under the tribal authority's administration. Given the fact that demand outstrips supply for irrigated farmland, this indicates the prominent role of the tribal authority in controlling productive resources in the area and the ability of the tribal authority to capture many of the gains from sugar farming. Not all of the chiefs of the area directly own land. In the case of the Shongwe (Matsamo) tribal authority, the chief allocated a plot on each of the seven Land Bank projects to a person who was a representative of himself. In this circumstance the farm was registered under a different name to that of the chief and is farmed by that individual although the profits are directed to the tribal authority.¹³

Self-allocation of land by the Matsamo tribal authority has been a source of conflict at one of the Land Bank projects. Langelooop Phase Two collapsed and has been reformed as a cooperative, an

¹³ Interview #8 – 19/11/13.

issue that is discussed in more detail later in the paper. However, during re-organisation of the project the issue of paying an annual fee of 42500 rand to the tribal authority (150 rand per hectare over 283 hectares) became contentious as the cooperative committee felt that it was unfair that the chief was receiving an income from the proxy owner of his sugar plot at the project at the same time as charging the rest of the farmers an annual fee for the land.¹⁴ As the project was undergoing reorganisation into a cooperative a joint RTO needed to be issued in place of the individual RTOs that SSGs had held. The issuing of a new RTO required cooperation from the tribal authority, so the cooperative have agreed to pay the fees. However, it was indicated that once the project is fully functioning as a cooperative they may resist further payments.

4. Livelihoods in the early phase of sugarcane projects

4.1. Introduction.

Having established a history of the development of small-scale sugarcane farming in Nkomazi, this section seeks to achieve two things. First, an overview of the ways in which small-scale farms operate is presented. Particular attention is given to the ways in which SSGs invest in small-scale farming and the financing that is available to them. Labour arrangements are also discussed. The second part of this section discusses the contribution of small-scale sugarcane farming to rural livelihoods in the period 1982-2000 that broadly correlates to the pre-crisis era of small-scale production. It is argued that sugarcane farming in this era contributed to significant wealth generation for the SSGs involved, as indicated by expenditure on house construction, vehicles and the accumulation of cattle.

4.2. The operation of small-scale sugarcane production

The following section develops an understanding of the way in which SSGs manage their sugar farms and the conditions within which they operate. The decisions that SSGs make in the management of their farms have a direct impact on the performance of farms and hence the livelihoods that may be derived from them. Furthermore, understanding the investment choices made by SSGs goes some way to explaining their relative success or decline.

Unlike the extensive small-scale sector in KwaZulu Natal, sugarcane farming in Mpumalanga is reliant on irrigation due to the extremely seasonal distribution of rainfall in the lowveld. This has implications for sugarcane farming on a small-scale. First, due to the high capital investment costs involved in setting up an irrigated farming operation, numerous small-scale plots are grouped together with collectively owned infrastructure. The collective ownership of infrastructure exists alongside individual responsibility for assets and investments within each farm (see below). Small-scale projects are typically located close to the main rivers or dams and outside the principal residential areas. This is a result of both the need to be close to water sources for irrigation purposes and the historic processes of villagisation as discussed earlier. The physical location of sugarcane farms thus differs substantially from rainfed small-scale sugarcane farming in KwaZulu Natal where farms are typically dispersed and each contains the SSG's homestead.

The second key implication of practising irrigated agriculture is the relatively high costs involved in production. High capital costs associated with irrigated sugarcane farming mean many small-scale growers need access to credit to maintain production. The majority of SSGs use Akwanzde Agricultural Finance, a financial body created in wake of the collapse of the industry's Financial Aid

¹⁴ Interview #9 – 16/05/13.

Fund (FAF) (later renamed Umthombo Agricultural Finance (UAF)) that operated between 1973 and 2006 across the whole of South Africa's small-scale sugar sector. After the FAF/UAF collapse, the Mpumalanga section of the loan book was the only part deemed financially viable.¹⁵ TSB then formed a 50-50 partnership with Ligugulethu Co-operative Limited, a new cooperative representing 889 SSGs in the Mpumalanga region. Each partner contributed 25m Rand while a further partnership with Khula Enterprise Finance Initiative founded the Khula Akwandze fund capitalised to a total of 100m Rand also to provide credit for SSGs (TSB, no date).

There are two broad channels of credit used by SSGs to invest in their farms. The first is through a crop proceeds retention scheme (hereafter retention savings), a savings scheme administered by Akwandze that holds money for SSGs, deducted from earnings from previous year's crop (at a fixed rate per ton of cane delivered), to provide working capital for field production costs. The second channel (the Khula Akwandze Fund) provides loans repayable over periods of between one and six years designed to meet costs not covered by retention savings (or in which there is a shortfall in retention savings). These include repairs and replacement of equipment, such as irrigation sprinklers, and costs of cane replanting.

Sugarcane is a ratoon crop: once 'seed cane' has been planted it is harvested while leaving the root intact to regrow in the following season. Successive harvests of regrowth (ratoon) can thus be taken before replanting. Under conditions in Nkomazi, sugarcane ratoons are harvested on a roughly annual cycle, typically extending over 8-10 years before replanting. Yields from ratoon crops decline each year after planting, but the rate of decline may be slowed under good crop management, so increasing the number of seasons in which harvests can be taken before productivity has declined to a point at which it is no longer considered economically viable. Maximising the number of ratoon seasons is critical to profit margins as it minimises the annualised costs of replanting. Loans to replant sugar cane are repayable over six years indicating that this is the minimum expected interval between replanting. Conversely, farmers that fail to replant when annual ratoon yields fall (typically less than 60 tons per hectare is regarded as a minimum to cover costs) may find themselves with mounting debt arising from losses on a system in which many production costs are fixed.

For SSGs, annual costs include those financed individually, such as fertiliser, labour, pesticide spraying, and cane cutting, loading and transport, and those funded collectively by the project, such as electricity bills for pumping and water costs. These are normally paid either through retention savings (e.g. fertiliser, labour, pesticides) or as deductions from the SSG's income from cane delivered to the mill (e.g. cutting, loading and transport, and electricity and water). However, in instances where retention savings are insufficient to meet production costs, a SSG may apply for a loan from the Khula Akwandze fund.

Loans from Khula Akwandze fund are largely intended to finance less regular, higher-cost investments such as cane replanting, upgrading or replacing irrigation infrastructure and purchasing additional sugarcane plots. The 'communal' land tenure system of the ex-bantustan areas on which SSG projects are located means SSGs have few options for obtaining credit. Land Bank is one of the few lenders available, but Akwandze's integration within the sugar industry is viewed by SSGs as beneficial, while commercial lenders are often seen as less sympathetic if a SSG is struggling to repay a loan:

"Well fortunately for us we have the services of something called Akwandze. So we borrow money from Akwandze, we take loans, when we need to invest in the sugar. Yeah we have been able to service and pay them back because after harvest before we get our money it is deducted from TSB and sent straight to Akwandze... Also some of them they do take loans from Land Bank

¹⁵ Interview #10 – 26/06/13.

and then Land Bank is not so friendly like Akwandze... It has been of benefit to us the small cane growers.

The problem with Akwandze, when you are in trouble, like for example with the cable theft, it is difficult for them to come to us quickly to lend us money. They have to go through a certain procedure that takes a long time. So I think that is the downfall of them. I think if Akwandze can change that pattern and come to the farmers quickly then that would be important. But they are rigid. They like to look and assess the loan and it takes time.”¹⁶

Problems associated with funding project-level costs shared across project members was a recurring theme of interviews with SSGs and indicative of a central problem with the farming model. These include recurrent costs, such as water and electricity bills, or emergency financing in the event of infrastructural damage. The failure or inability of some SSGs to contribute towards shared costs, for example where a particular SSG had ceased production and was no longer contributing towards the cost of irrigation pumping, was widely seen as a threat to the remaining farmers in the project. As this inevitably reduced the margins of the remaining farmers it can contribute to a vicious cycle in which increasing numbers of farmers fall out of production or can no longer secure access to credit, leading eventually to the collapse of the project. This has been the case at Nhlangu East where farm failure has spread due to the inability of the project to pay for irrigation costs.¹⁷ Similar problems have been experienced at Mbongozi¹⁸ and Walda¹⁹.

Most SSGs employ one permanent labourer who is responsible for the irrigation of the sugar farm. This tends to be the case on farms across a broad range of sizes. Average permanent employment by SSGs within the survey was one labourer for every 5.4 hectares. The average wage paid to permanent labour by SSGs surveyed was 857 rand per month, less than half the R105 per day (R2100 per month) statutory minimum (Woodhouse and James, 2015). Permanent labourers employed by many farmers interviewed were migrants from either Swaziland or Mozambique. Some farmers claimed that they only employed South Africans due to the need for permanent workers to hold ID cards:

“No the permanent workers are South African. The casual workers are from Swaziland and Mozambique. Why the permanent workers? Because of the I.D. You must have the I.D. Casual workers, they cut sugar then they are finished and go to the next farm.”²⁰

However, in many cases the permanent workers were foreign. Approximately 75% of the irrigators employed at Walda were from the neighbouring Mozambique, Swaziland and to a lesser extent, Zimbabwe.²¹ The fact that many such workers are undocumented increases their vulnerability to being paid below the legal rate.

Temporary labour is employed on a daily basis for tasks including weeding and spraying. Most farmers pay temporary workers approximately thirty rand per day. As this wage is significantly less than the minimum wage for the sector (R105 per day), it was common for farmers to emphasise during interviews that the temporary labourers rarely worked a full day but rather would start at 6am and finish before midday. This would suggest five hours work, which at a statutory minimum of R11.69 per hour should give at least R50 per day, still almost double the amount paid. As with permanent labour, much of the temporary work is done by migrant labourers. Explanation for the

¹⁶ Interview #11 – 18/03/13.

¹⁷ Interview #12 – 11/04/13. Interview #13 – 26/08/13.

¹⁸ Fieldwork Notes.

¹⁹ Interview #14 – 16/05/13.

²⁰ Interview #5 – 12/04/13.

²¹ Fieldwork Notes – Observation of Farm Training.

employment of migrant labour was typically framed in terms of South Africans being too lazy to work on sugar farms:

“No, no you know, most of these workers they are from Swaziland and some Mozambique. You know these South Africans they play very smart, they can’t cut sugarcane, they are lazy. So most of these workers come from Mozambique and Swaziland. Because they come from other countries they take what you offer. We around here, we are lazy and too smart.”²²

However, given that the small-scale sugar sector is a less significant employer than the commercial farms in the rest of the lowveld region and is non-compliant in terms of wage paying, it may be argued that migrant labour is employed simply because it is readily available, unmonitored and cheap. Meanwhile, South African labourers who seek work in agriculture are able to seek employment on wage compliant large-scale commercial farms in the region or further afield.

SSGs use contractors to perform numerous functions on their farms. Cane-cutting, loading and transport are always done by specialist contractors, while replanting, and in some cases pesticide spraying, may also be. The primary reason for the use of contract labour appears to be the occasional nature of these tasks on a farm and the availability of service providers capable of completing the job for a set fee. Further, Akwandze will only release loans and retention money to SSGs for the payment of contracted tasks when the contractors being employed are registered. This limits the options available to SSGs in their outsourcing of tasks on the farm but allows Akwandze to maintain a level of control over the quality of work undertaken and thus gain additional security for the repayment of loans.

4.3. *Livelihoods in the early years of small-scale sugarcane production (1982-2000).*

4.3.1. Wealth Generation and Education.

One of the key livelihood outcomes from the development of small-scale sugarcane farming in Nkomazi was a dramatic increase of wealth among many SSGs.²³ Interviews with SSGs consistently found that the pre-crisis years of sugarcane farming were remembered fondly. Incomes generated by farming were significant, particularly within the context of rural Nkomazi and within the broader national economic context in which bantustans functioned as labour reserves where a black population lived at semi-subsistence levels of agriculture allowing migrant labourers to work at a price below the cost of household reproduction.

Among the farmers interviewed, the most commonly identified improvements enabled by sugarcane income were construction of large new homes (or the extension of existing homes) and ownership of vehicles. The houses of SSGs interviewed during the research were consistently larger and of a visibly higher quality than those more commonly found in the local villages.²⁴ While many houses in rural Nkomazi are rudimentary, often constructed in a piecemeal fashion and with basic facilities such as outdoor toilets and cooking facilities, the houses of SSGs were uniformly fitted with indoor flushing toilets, fitted kitchens and fully furnished rooms, including consumer goods such as televisions. Vehicle ownership was also widespread amongst SSGs, some of whom emphasised the

²² Interview #5 – 12/04/13.

²³ As discussed in Section 2.2, small-scale farming prior to the development of sugar farming was not exclusively subsistence based; some households, particularly in Nkomazi East, were involved in the production of cash crops including cotton.

²⁴ Fieldwork Notes – inc. Madadeni, Ngogolo, Masibikela.

importance of having their own transport due to long distances between irrigation projects and their villages and homesteads.²⁵

“I would say the benefit mainly is upliftment. I was able to build a nice house, it’s a shame the meeting is here I wanted to show you my house. It’s a nice house and it is because of the sugarcane. In the whole area, Nkomazi, people have got work from it, they have jobs you know. And when I think back to these farmers who have sugarcane now, none of them had a car. Now they are driving nice cars, they have nice houses, it’s like that.”²⁶

Alongside improvements to housing and the acquisition of vehicles, many of the SSGs interviewed had used income from sugarcane farming to buy cattle. While in some respects the accumulation of cattle represents a diversification of economic activities, the continuing relevance of cattle in Swazi social and cultural functions allows it to be considered an aspect of wealth more broadly than a purely productive enterprise. Cattle appeared to play three roles in the livelihoods of SSGs in Nkomazi: they represented an asset that allowed accumulation as cattle bred and herd sizes increased. More commonly, cattle appeared to be used as a form of savings mechanism, providing an alternative to either formal financial institutions or the saving facilities provided by the sugar industry. Finally, there were cases in which SSGs identified the use of cattle for ceremonial purposes.

Numerous interviews identified the expansion and reduction of cattle herds as a prominent feature in livelihood strategies. During times when sugar farming was proving to be profitable SSGs would expand their herd of cattle significantly. Then, if a SSG had to raise capital for off-farm expenditure, or if the SSG entered a period of crisis, they would access capital through the sale of the cows. Numerous examples of the utilisation of cattle in this manner are presented in the household histories in the third section. However, while the role of cattle was discussed amongst almost all of the SSGs interviewed, there was often a reluctance to provide detailed figures on how many a particular SSG owned:

“That’s a difficult question. You see, for us the farmers, it can be like asking us how much money do we have. When we have money we will buy a cow and when we don’t we may sell the cow. So for us, having cows is the same as having money and we may not always say what it is that we are having.”²⁷

Increasing cattle herds were not universally viewed as positive. Given the susceptibility of the region to prolonged drought there was a constant danger that SSGs would lose their investment through the deaths of cattle. This had occurred with two of the SSGs interviewed. Some saw this approach to investment as traditional or archaic and therefore unsuitable for the needs of commercially oriented SSGs:

“It’s like a cow; they’d rather see an old cow walking around the yard than to sell the cow when it is still young and can make money. No matter how the cow is costing them they’d rather have the cow cost them a lot of money than to sell the cow.”²⁸

Moreover, as noted below, there is evidence that some use cattle productively to the extent that it has formed a central aspect of their ability to accumulate both within, and external to, the sugar sector. A prominent example of this was in the case of Mr Shongwe (see 5.2.3, below) who amassed a herd of 551 cows that he has used to finance expansion within the sugar industry. Of 2,916 agricultural households that owned cattle in Nkomazi in 2011, only 32 owned more than 100 cows

²⁵ Interview #15 – 08/10/13.

²⁶ Interview #5 – 12/04/13.

²⁷ Interview #16 – 26/08/13.

²⁸ Interview #7 – 17/04/13.

(Stats SA, 2011). Therefore, Mr Shongwe is in the top 1.1% of cattle owners in the district. This suggests that income from sugarcane farming may facilitate significant wealth above levels generally prevailing in Nkomazi.

As is the case with many issues relating to the small-scale sector in Nkomazi, wealth generation as a result of small-scale sugarcane farming has been uneven. While those SSGs farming on projects that have maintained production for significant periods may be seen to have benefitted, those who were located on projects that were affected by the crisis in the sector from an early stage have experienced fewer benefits. An example of the latter may be seen in the experiences of farmers at Langelooop Phase Two. Having been established with what are broadly agreed to have been unsustainable levels of debt, SSGs from Langelooop Phase Two never received significant incomes, either in the first years of production (during which production was high) or since the project's reformation as a cooperative (during which production is again high).

Many farmers identified their ability to educate their children (or indeed to be educated in the case of second generation farmers) as a key improvement to their livelihoods that had been facilitated by sugar farming. Higher education remains expensive in South Africa and is inaccessible to many poorer families from areas such as Nkomazi. However, some sugar farming families have managed to send their children to universities across the country. Of the SSGs interviewed, six had sent at least one of their children to university while a further four said that all of their children had matriculated. Two SSGs were too young to have sent children to university but had been educated there themselves alongside eleven of their siblings while their parents were SSGs. Two SSGs who have progressed to medium scale farming had also sent their children to university.

4.3.2 Livelihood Trajectories in the Early Phase of Sugarcane Farming.

While we argue below that the current crisis has caused an increase in levels of differentiation between SSGs, there is evidence that processes of differentiation occurred from the outset of small-scale farming. Indeed it should be noted that, given the initial discrepancies in allotted farm sizes both across and within projects, the contribution of small-scale sugarcane farming to livelihoods was always uneven. While some SSGs were allocated plots of approximately 20 hectares that were (and arguably still are) capable of generating significant incomes, others were allocated plots as small as 2 hectares and have faced income constraints since beginning farming.

Following initial disparities in farm sizes, there is evidence that a relatively small number of SSGs pursued a path to accumulation within sugar farming from an early stage. Prior to Akwandze establishing a RTO consolidation loan to facilitate acquisition of additional plots by SSGs wanting to expand (and release of plots by growers looking to exit), there was no financial assistance available from within the sugar industry through which the sale or rental of sugarcane plots could be funded. It was necessary to fund increased landholdings either through money saved from farming, money from non-farm incomes, or in some cases loans from financial institutions. The latter source remained problematic however due to the insecure land tenure system that meant SSGs lacked title deeds their land. However, examples of the funding of accumulation from funds acquired through sugar farming and from non-farm income were encountered during the fieldwork, detailed in case studies in section 5.2.3. These include Mr Shongwe, who invested in cattle using income from sugar farming before financing his acquisition of additional sugarcane plots from sales of cattle. He has also diversified his agricultural investments and has income from non-farm businesses.²⁹ In another example, a SSG who farms four plots on projects in Nkomazi East illustrates accumulation within sugarcane farming funded through non-farm income. In his case, ownership of two private businesses alongside the income of his wife who worked in a high profile position in the public

²⁹ Interview #17 – 21/05/13.

sector allowed him to purchase an additional three sugar plots.³⁰ In each of the instances above, sugar farming does not represent the sole source of income for the SSGs or their households but it makes a significant contribution and the individuals involved identified farming as their primary occupations.

Differentiation between SSGs is not only evidenced by changing farm sizes within the sector. Some individuals diversified away from small-scale sugar farming to the extent that it no longer represents their primary source of income. Examples include a prominent group of SSGs who have established themselves as labour contractors. During the KaNgwane era, labour contracting was controlled by the Agriwane parastatal, but SSGs felt they could obtain labour more cheaply, resulting in the emergence of labour contractors from within the SSG community. By the time Agriwane was dissolved, the sourcing of labour for cutting and harvesting of sugar cane was largely controlled by an emerging group of labour contractors. One such labour contractor, Mr Magagula, is discussed in section 5.2.3 below.³¹ His diversification into labour contracting occurred shortly before the crisis affected small-scale sugarcane farming and has, to some extent, shielded him from its impacts.

The three examples above are each indicative of patterns of accumulation that developed during the pre-crisis years of sugar farming. In the cases of Mr Shongwe and the SSG from Nkomazi East, these patterns have since accelerated during the crisis years. However, they were evident from the period prior to this and indicate that differentiation amongst SSGs occurred relatively rapidly within the sector. In the case of the labour contractor, small-scale farming has come to represent a minor income source alongside a major agricultural services business. However, he remains a SSG and it was this position that enabled his accumulation in non-farm income. Of significance is the fact that each of the SSGs either has prior non-farm income or has diversified to develop it since. This is a pattern that is evident with numerous other SSGs who were identified as accumulating also and suggests that there is recognition that pursuing a livelihood strategy solely reliant on small-scale sugarcane production is less optimal than diversifying livelihoods.

Interviews with SSGs indicate that many had left other forms of employment either shortly before beginning sugar farming or during their time as farmers. Of the fifteen SSGs interviewed about prior employment, three had returned to the rural area following retrenchment, four had retired from employment and continued farming, four had left employment early to focus on farming, three still had other jobs while farming sugarcane and one had never worked, having shifted from subsistence to commercial farming once sugarcane projects began. This suggests a narrowing of livelihoods and that, at least in the past, small-scale sugarcane farming was viewed as a livelihood option that was better able to support the needs and aims of households.

There are a number of explanations that may contribute to this observation. The first relates to the increasing age profile of SSGs over time. Four SSGs who were interviewed had retired from formal employment once an opportunity to become involved in sugar farming emerged. Explanations of this decision were varied. In the case of some SSGs, farming represented an opportunity to return to their rural homes and live with their families. Participation in migrant labour had caused the dissolution of the family structure and the opportunity to generate an income at home allowed this issue to be addressed. Other SSGs had simply reached retirement age and as such had narrowed their focus to farming.

A second explanation relates to the development and expansion of small-scale farming within the broader economic history of South Africa. The majority of SSGs have entered the industry during a period that has been marked by processes of labour shedding and retrenchment in numerous

³⁰ Fieldwork Notes.

³¹ Interview #18 – 17/10/13.

sectors of the South African economy including mining, manufacturing and agriculture. Fewer employment opportunities in the traditional centres of employment alongside the emergence of a better educated younger generation may be seen to have contributed to the declining diversification of livelihoods amongst SSGs. Three SSGs who were interviewed had faced retrenchment at some point before or during the pre-crisis period in the small-scale sector. Given the relatively robust incomes being generated through small-scale sugar farming in the era, it is perhaps unsurprising that many of these SSGs decided to limit their activity to farming sugar cane.

5. Livelihoods in the ‘crisis’ of sugarcane projects

5.1 Introduction.

A significant crisis of production has occurred in small-scale sugarcane farming since 2000. The widespread failure of SSGs and the marked decline in sugarcane deliveries has prompted a response at government and industry level resulting in a partial restructuring of the small-scale sector. This section of the paper traces these developments. The following section (5.2) presents information concerning the nature and the extent of the crisis. Section 5.3 discusses the different explanations that have been offered in seeking to understand why the crisis developed and why it has endured. Section 5.4 identifies two key developments – the consolidation of farming operations and the increasing sale of small-scale plots – that have been triggered by the crisis in the sector and have led to its restructuring. Finally, Section 5.5 presents a series of household histories that detail the livelihood impacts of small-scale sugarcane farming and the crisis within the sector. Two divergent categories of SSGs are identified; those who are accumulating and those who are not.

5.2 Establishing the Extent of the Crisis.

The crisis that is affecting small-scale sugarcane farming in Mpumalanga may be identified through indicators of productivity at both sector-wide and individual bases. Table 4 shows changes in the number of hectares harvested, total tons of cane delivered and yield across the small-scale sector from 2006 to 2014. Data is taken from 2006 onwards as this marks the point at which the sector grew to its largest point with the development of the “Land Bank” projects and hence data for area harvested and cane delivered were, potentially, at their highest. Changes in these figures from before 2006 are obscured by the continuing development of new irrigation projects.

Table 4. Overall SSG Production 2006-2014.³²

Season	Area Harvested (ha)	Cane Delivered (tons)	Average Yield (tons/ha)
2006	8,602	621,491	72.2
2007	8,456	524,902	62.1
2008	8,015	538,313	66.6
2009	7,542	468,712	62.1
2010	7,259	465,687	64.2
2011	7,392	497,130	67.2
2012	6,226	369,438	59.3
2013	6,769	485,394	71.7
2014	6,403	460,737	72.0

³² Data Provided by TSB.

As can be seen above, the area of sugarcane harvested and total deliveries of cane have declined across the period. Area harvested declined by 25.6% from a peak of 8,602 hectares to 6,403 hectares in 2014. Cane deliveries declined by 25.9% from 621,491 tons of sugarcane in 2006 to 460,737 tons of sugarcane in 2014. These trends are shown in Figures 3 and 4, below. In both instances figures for the year 2012 appear to be an anomaly with a sharp decline that has been followed by a marked initial increase before a continued decline. The clearest explanation for the rapid decline in 2012 is the impact of a hauliers' strike that resulted in a lot of SSGs supplying Komati Mill being issued with a "carry over" that delayed delivery until the 2013 season.

Figure 3. Total SSG Area Harvested 2006-2014.³³

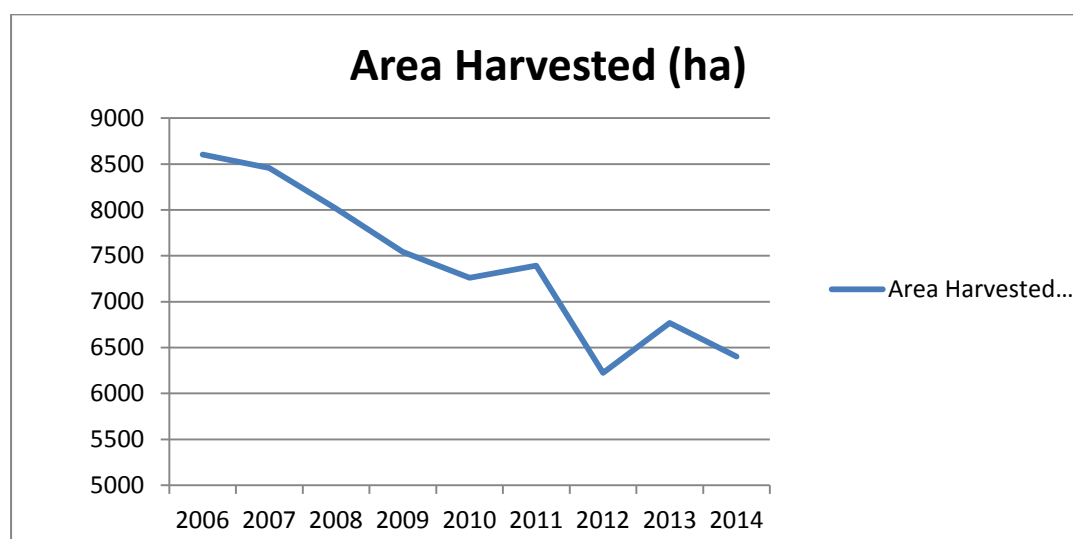
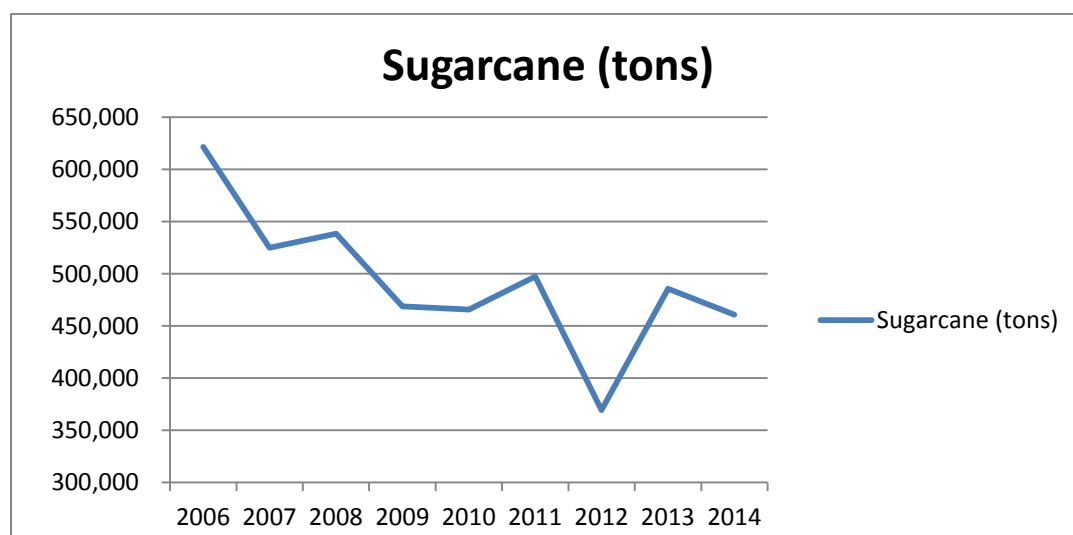


Figure 4. Total SSG Sugarcane Deliveries 2006-2014.³⁴

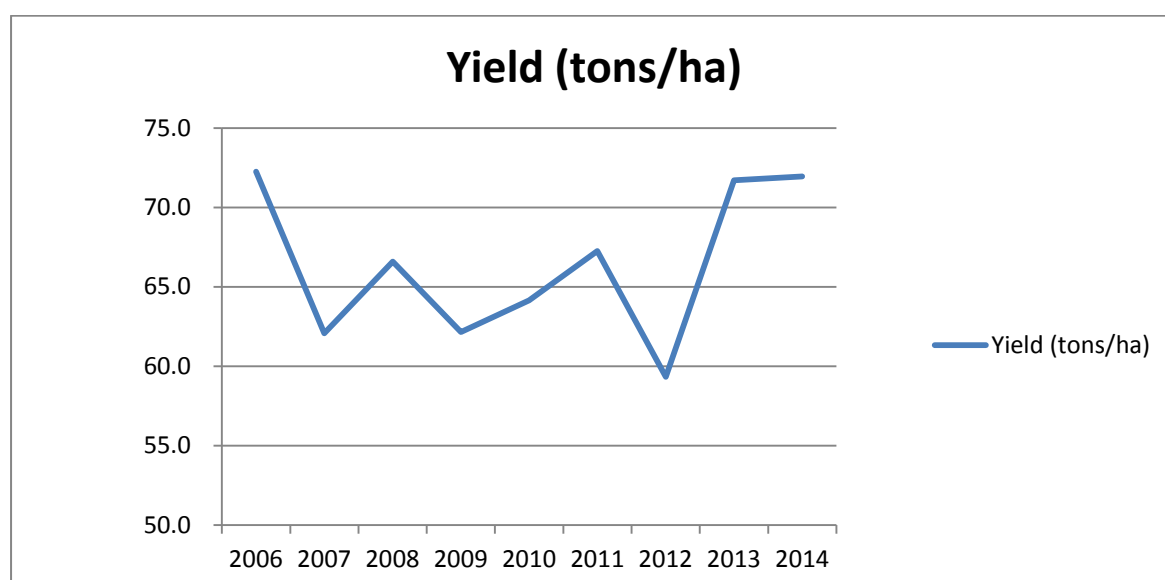


³³ Data Provided by TSB.

³⁴ Data Provided by TSB.

There is less of a clear pattern regarding yields across the period (Figure 5). As with area harvested and tons of sugarcane delivered, yields were highest (72.2 tons per hectare) in 2006, the first year of the data. Yields similarly reached a low point in 2012 but the decline to this date was not uniform. Since 2012 yields have recovered to 72 tons per hectare in 2014. The first thing that should be noted is that yields are directly affected by the climatic conditions of the season in question. Therefore, changes in the level of rain the region received may cause short term volatility in a pattern of change in yields. The second issue relates to the declining number of hectares that were harvested across the period. This decline broadly relates to the collapse of farms, either on an individual or a project basis. It may be assumed that the farms that fall out of production are generally those that are worst performing or low yielding. Therefore, as low yielding SSGs exited the sector, the average yield across the sector actually increases. The 2013 and 2014 seasons both experienced high levels of rainfall across the wet season. This has likely contributed to the rapid recovery in yields.

Figure 5. Average SSG Yield 2006-2014.³⁵



Of 25 active small-scale projects, all but four have witnessed a decline in average tons per hectare over the last seven seasons to the season with most recent data available. Further, fifteen of the projects have seen a decline in the number of farmers who delivered cane during the growing season. In 2014 seven projects – Boschfontein I, Boschfontein II, Mbongozi, Mzinti, Phiva, Sikwahlane and Tikhontele – harvested no cane. A further four projects – Magudu (77.6 ha harvested from 427 ha), Mangweni (12.9 ha of 131.5 ha), Nhlangu East (34.9 ha from 136.6 ha) and Ntunda (32.4 ha from 313.9 ha) – could be considered to be on the brink of collapse based on the proportion of their area harvested. Between these eleven projects, a total of 2658 hectares (approximately 25.8% of the total small-scale sugarcane growing area) was not harvested.³⁶ When including failure of individual growers on other projects this figure is likely much higher.

³⁵ Data Provided by TSB.

³⁶ Data Provided by TSB.

At a meeting to discuss the financing of small-scale growers it was stated that SSGs who were not producing a minimum of 60 tonnes per hectare would no longer be considered financeable by Akwandze. Further, SSGs could not expect an income after costs on yields of less than 60 tonnes per hectare, even with zero debt. For SSGs who did have debt, they were advised that 80 tonnes per hectare was needed to secure an income.³⁷ By the 2012/13 (or 2011/12 where newer data is unavailable) growing season, 49.5% (410 of 828) of the growers who delivered cane produced yields of fewer than sixty tons per hectare.³⁸ Given the fact that 90% of SSGs do hold debt, the number of growers who receive little or no income is likely higher than this figure. The above data doesn't include a number of the failed farming projects which make the overall situation seem yet more serious.

Of the SSGs sampled in the questionnaire survey, Of the SSGs sampled in the quantitative survey, the average cane yield was 65 tonnes per hectare. This figure is significantly below the levels achieved on large-scale commercial farming. 51 of the 108 SSGs (47.2%) surveyed averaged less than 60 tonnes per hectare for the years 2010-2012. This figure is close to the data for the sector as a whole. Given the expectation that SSGs need to produce more than 60 tonnes per hectare to be financeable, this implies that a significant section of the SSG population will struggle to access credit to finance further production.

5.3. *Explaining the Crisis.*

Two competing explanations of the crisis in small-scale sugarcane farming were identified through interviews with employees within the sugar industry and SSGs. These explanations variously place emphasis on the failure of SSGs as commercial farmers and on external shocks including drought and the failure of irrigation infrastructure. It may be argued that while the explanations focus on different issues, they are to some extent complimentary in the sense that the former has exacerbated the latter. Droughts, flooding and the general degradation of irrigation equipment have clearly affected the sector as a whole. However, the impacts of these issues have not been experienced uniformly and it is likely that variations in operational and financial management both at individual and project level have contributed to the varied levels of crisis observable.

A production manager at TSB outlined the history of the crisis in the sector.³⁹ The crisis arguably began in 2000; before this point production levels had broadly been in line with the climatic conditions of each season with generally profitable levels of production across most small-scale growers. However, severe flooding in February 2000 damaged many of the river pumps used to supply water to the small-scale projects and delays in repairing the pumps left many projects with no irrigation during the majority of the growing season. In effect, a serious flood had caused a drought in terms of irrigated farming. Production levels gradually improved from this point until 2004 when a drought lasting until 2006 halted any further recovery and caused retention savings to fall. The decline in retention savings limited investment in the farms and retarded the process of recovery. While there was some degree of recovery between 2006 and 2011, a second phase of drought in the 2011/2 wet season led to a further sharp decline in production. Although total amounts of rain were satisfactory, poor time distribution of rainfall negatively impacted the sector. In an irrigated agricultural sector the distribution of rainfall should have little impact on the performance of farms. However, the poor condition of irrigation infrastructure meant that the SSGs were overly reliant on well-distributed rain to water their sugarcane crops. When this did not occur, productivity levels fell. Despite favourable rains in 2013 production levels were predicted to remain low due to the constrained financial position of many SSGs.

³⁷ Fieldwork Notes – MCC and Project Chairperson Meeting.

³⁸ Data Provided by Canegrowers.

³⁹ Interview #10 – 26/06/13

The above outline shows a convergence between the two strands of explanation that were evident. While recognising the impact of shocks to the sector, the manager claimed that many farmers “lacked the discipline” to cut back on household expenditure and continue investing in their farms during a time of constrained income resulting in a cyclical decline in production. He claimed that approximately 10% of farmers made adequate investment and continued to farm successfully, 30% of farmers did not cut back on household expenditure at all and were in serious trouble in terms of farm production, and the rest made some (but not wholly sufficient) adjustment in favour of farming.⁴⁰ This narrative ties together the two separate approaches concerning the causes of the crisis: while conditions have been unfavourable to sugar farming, a majority of farmers failed to make adequate investment and thus exacerbated the situation.

SSGs interviewed tended to focus on the role of external shocks as an explanation for the current crisis. Many SSGs identified a spate of thefts of electrical cables over recent seasons as a core reason that many individual farmers and projects as a whole are in crisis. Cable theft is a common occurrence in South Africa given high metal prices globally. Once cables are stolen from pump stations and transformers a project is unable to irrigate the sugar cane. All farmers interviewed said that their projects had experienced some level of cable theft in the preceding years. Some farmers identified the joint ownership of physical infrastructure as a reason that projects had been unable to agree on taking out a loan to pay for repairs to pumps. As a result many projects had significant periods of time with no irrigation, adversely affecting yields, as illustrated in the quote below.

Alongside cable thefts, there have also been significant periods without irrigation on numerous projects due to pump breakdowns and dilapidated physical infrastructure. Again, problems leveraging finance as a group tended to slow down the process of repairs. A lack of communal savings exacerbated this problem.

“The first years we would take about forty thousand rand back home. That was after all deductions. That’s where I say we as farmers went wrong because if with that money we had saved, it would help us. But we decided to build big houses, do that and that you know, it is where we went wrong. If we had savings after the theft we could have fixed it. We could say ok I’ve got money, you’ve got money, let’s fix this.”⁴¹

Broadly, there appeared to be a situation on many projects in which the original infrastructure has reached or is approaching the end of its usable life and yet there has been little in the way of planning for its renewal. As such, many projects are in a position where they need to replace equipment yet due to the problems of production outlined above are unable to leverage the necessary funds to do so.

Sugar farming in South Africa has been in a period that may generally be characterised as one of a cost price squeeze (USDA, 2011). This has been particularly acute in the irrigated regions as the price of electricity has risen far faster than the price of sugar and is projected to continue rising at an average of 16% a year (SACGA, 2013). Therefore, even if one was to discount the shocks experienced since 2000, it may be expected that SSGs farming on a fixed amount of land would have experienced reduced incomes over time. This suggests the need to increase the scale of farming. This perspective was supported by a manager of an agricultural “business incubation” organisation working in the sector who identified the constraints in expanding production horizontally as a key constraint facing SSGs.⁴² The following section (5.4) discusses two trends within the sector that have essentially pursued this path to larger scale farming, albeit along different lines.

⁴⁰ Interview #10 – 26/06/13

⁴¹ Interview #5 – 12/04/13.

⁴² Interview #19 – 13/09/13.

5.4. *Reactions to the Crisis.*

5.4.1. Consolidation of Sugar Projects.

Having established the nature and extent of the crisis in the small-scale sugar sector, it is necessary to examine the responses from growers and the industry. The following section traces a relatively new development within the sector; the creation of cooperative farms and the (re)insertion of professional external management to small-scale projects. The section traces the development of one particular project, Langeloop Phase Two, that has been a precursor to these changes as well as the emergence of a new management company that is being inserted into small projects on both a project-wide and individual basis. The management company was still in the early stages of its establishment when fieldwork was undertaken, but it appears to illustrate a new model of farm organisation and management and a new orthodoxy in the position of small-scale sugar farms within the sector as a whole. Finally, the role of government policy and intervention within the sector and the implications of this for the consolidation of small-scale projects are presented.

The crisis in the small-scale sector has created conditions under which many SSGs and projects as a whole are unprofitable and therefore unfinanceable, so that external intervention has been necessary to maintain or restart production of sugar cane. A broad alliance of government and big capital (in the form of TSB and financial lenders who sought repayment of loans) has sought to reorganise and reinvigorate the small-scale sector. This process began in 2009 when SASA, at the request of TSB, commissioned LIMA (an agricultural NGO) to conduct participatory rural appraisals with SSGs to design interventions that would improve the governance of small-scale irrigated projects. LIMA developed a model under which projects were required to adopt new constitutions and, in the case of severe crisis, convert to cooperatives. The model was used by TSB to renegotiate debt levels at Land Bank projects and has since been adopted at government level by the Department of Rural Development and Land Reform.⁴³ A key measure included in the model is the requirement for cooperatives to appoint either mentors or managers. The combination of initial funding and leverage from the sugar industry, willingness of financial institutions to write down debts and a government role in providing grants under conditions defined by the sugar industry is exemplified by Langeloop Phase 2.

Langeloop Phase Two is a project that was in severe crisis and has undergone organisational restructuring through the creation of a cooperative, which has arguably been used as a model for later developments in the reorganisation of small-scale sugar production. This is indicated by the fact that SSGs from other projects – Phiva, Walda, Mbongozi and Sikwahlane – that are considering becoming cooperatives have been taken on visits to Langeloop Phase Two by Mpumalanga Canegrowers, the industry's organisation representing growers' interests.⁴⁴

Langeloop Phase Two was created under the Land Bank phase of expansion as a 283 hectare project involving 39 farmers on approximately seven hectares of land each. As with other Land Bank projects it was created with unsustainable debt levels on land that was not uniformly suited to irrigation and with poorly designed and installed infrastructure. Land preparation work carried out at the project by a contractor was also inadequate. The varieties of sugar cane planted at the project (N25 and N32) performed relatively poorly and were susceptible to smut (a fungal disease that affects sugar cane resulting in a loss of yield).⁴⁵ Smut infection is monitored by an industry body (Lowveld Pest, Disease and Variety Control Committee) and in cases of continuation of infection across inspections beyond certain points (>15% on first inspection; >10% on second inspection; >5% remaining at third

⁴³ Interview #7 – 17/04/13.

⁴⁴ Interview #9 – 16/05/13.

⁴⁵ Interview #9 – 16/05/13.

inspection), a 'plough out order' is issued that requires the complete destruction of the sugarcane crop.

Despite the design problems, yields at Langeloo Phase Two were generally high in the early years of cane production, averaging over 85 tonnes per hectare in 2005/6 (Qwabe and Murray, 2011) although there were negligible incomes for the SSGs due to debt levels. However, in 2007/8, the project was affected by a widespread outbreak of smut and the failure to bring it under control resulted in a plough-out order. Given the high remaining debt levels, the project was not considered to be financeable and SSGs were unable to plant new seed cane and the project ceased production. Interest on the original loans plus financial penalties for failure to keep up with repayment schedules meant that the level of debt on Langeloo Phase Two escalated from 16 million rand to 24 million rand.⁴⁶ By this point the project was completely collapsed; individual SSGs had no means to repay debts or to secure finance to replant their crops so the project lay fallow.

In response to the crisis affecting Langeloo Phase Two, a plan was developed to reduce debt levels, recapitalise the project and allow production to recommence. This involved collaboration between the farmers' association, the provincial government and TSB alongside various other industry related stakeholders. The Mpumalanga Department of Agriculture, Rural Development and Land Administration (DARDLA) provided a grant of 3.6 million rand to rehabilitate the irrigation infrastructure while SASA provided a grant to create a seed cane nursery that would allow the future replanting of the project with seed cane that was certified as smut-free and of resistant varieties. Negotiations, in which Canegrowers played a central role, resulted in Land Bank debt owed by the project being restructured to 6.8 million rand, predicated on the reorganisation of the farmers' association as a cooperative and the hiring of professional, external management.

Since 2011 government grants have enabled a gradual replanting of Langeloo Phase Two: in 2011 a grant of 2.9 million rand funded planting an initial 58 hectares of land; in 2012 a second grant of 3.4 million rand was for planting a further 80 hectares. Due to heavy rains only 50 hectares were replanted that year, and the remaining 30 hectares alongside another 50 hectares were due for planting in 2013 financed by a third grant from government. The project was on course to be fully replanted by the end of 2014. Cane that has been harvested so far has been of high quality and won regional industry awards. The yield for the 2013 harvest was expected to be approximately 150 tonnes per hectare with 17% RV, both significantly above the levels achieved across large-scale and small-scale sugar cane farming.⁴⁷ However, while production levels have been impressive, 'dividend' income for shareholders has been severely limited by debt repayment. The agreement under which the cooperative would lease land from the SSGs was developed to provide a level of income to the shareholders while the cooperative serviced the debts that it held. The rate of lease was set at 100 rand per hectare per month which meant that each shareholder could expect an income of 700 rand per 7 hectare holding, or 8400 rand (US\$764) per year⁴⁸ (since the fieldwork was completed this rate has been increased to 150 rand per hectare)⁴⁹.

As a cooperative, Langeloo Phase Two is organised with an executive committee elected every two years. The committee is responsible for overseeing the management decisions of the employed manager and reporting to the other shareholders. The remaining shareholders do not have a defined role within the project. This raises the question as to whether SSGs who enter into cooperatives may still legitimately be considered to be farmers. The control over decision making on the farm for each SSG is reduced to the attendance of monthly reporting meetings, voting on issues at AGMs and

⁴⁶ Interview #9 – 16/05/13.

⁴⁷ Interview #9 – 16/05/13.

⁴⁸ Data Provided by Langeloo Phase II SSGs (Project Budget).

⁴⁹ Interview #20 – 12/08/14.

electing members to the committee. Meanwhile, production control has been outsourced to a manager who earns approximately 42000 rand per month.⁵⁰ Employment opportunities are also limited on the farm as a decision taken by the manager and the chairperson has stipulated that labour should be sourced from villages other than Langelooop due to problems associated with labour supervision when relatives of shareholders are employed.

Since the formation of the cooperative, Langelooop Phase Two has been beset by governance problems that have threatened to undermine the success of the project. The cooperative's shareholders dissatisfaction with limited financial benefits has led to tension between the general shareholders and the executive committee. Accusations of corruption and financial mismanagement have been levelled at the chairperson, in particular, who is perceived to be benefitting at the expense of others. Furthermore, meetings have not been held as regularly as they are meant to and, despite requests for an emergency general meeting, one has not been held.⁵¹ The situation appears to have continued to deteriorate, culminating in the committee being removed from power in August 2014 and the re-hiring of the original farm manager who had himself been sacked less than a year earlier.⁵²

It may be argued that Langelooop Phase Two is an early example of structural changes that are now being undertaken within the small-scale sector more generally. The specific circumstances of the project, in particular the outbreak of smut, meant that the crisis that is currently being experienced at numerous other projects occurred earlier and the cooperative restructuring is correspondingly further advanced. However, the spread of cooperatives is neither uniform in its reach nor in the particular form that a cooperative may take. As noted above, the creation of cooperatives has been condition required for the release of recapitalisation funds and is primarily a 'debt recovery' instrument.⁵³ The insertion of professional management and removal of direct financial control from the SSGs is thus seen as a necessary condition of financing projects in crisis. However, in some cases such as at Walda, associated structural changes – in particular the creation of joint RTOs and the joint farming of plots – are not due to be undertaken despite cooperatives being formed. The extent to which cooperatives are being formed appears to be linked to the levels of debt held at projects, and in projects with little or no debt there is a lack of incentive to create an organisational structure that may limit incomes and reduce the role of individual SSGs. Indeed, in some projects the prospect of becoming a cooperative has not been discussed at all.⁵⁴

While Langelooop Phase Two represents an early example of the consolidation of small-scale farming projects, a new management company called TSGro set up as a joint venture between TSB and the SSGs appears to mark a new, accelerated phase in the process. TSGro is a new initiative. It was formally launched in November 2013 towards the end of the fieldwork period of this research, and only insights into its impact are possible here. TSGro offers two forms of management services. Firstly, it offers a bulk water management service for projects as a whole. For a set fee TSGro assumes responsibility for the delivery of water and the maintenance of bulkwater irrigation infrastructure. This service is designed to ensure a supply of water to the field edge of each SSG's plot. It aims to address some of the problems associated with the shared ownership of infrastructure resources within the projects. In the case of events such as the theft of cables or the breakdown of pumps it will be the responsibility of TSGro to make repairs within an agreed timeframe, avoiding the lengthy process by which farmers within the project negotiate a group loan, which in the past has delayed irrigation and harmed productivity. The second management service offered by TSGro is

⁵⁰ Data Provided by Langelooop Phase II SSGs (Project Budget).

⁵¹ Interview #21 – 21/11/13.

⁵² Interview #20 – 12/08/14.

⁵³ Interview #20 – 12/08/14.

⁵⁴ Fieldwork Notes - Dissemination Meeting.

crop management, available to individual SSGs or to a whole project. This represents a more comprehensive service that involves the transfer of farm management control from the SSGs to TSGro. The purchasing and application of inputs, employment of labour and the contracting of services will all become functions of the professional farm manager appointed to the farm.

Given the recent creation of TSGro the reach of the company is still relatively limited. By November 2013, eight projects had expressed an interest in signing up for the bulk water management service. In addition, 25 individual SSGs and two projects (Sikwahlane and Sambo Brothers) had agreed to the appointment of a professional manager for crop management.⁵⁵ As the company had existed for less than a month at this point, it showed significant demand for the services provided. By August 2014 TSGro was managing 584.4 ha of small-scale sugarcane farms, a number that was to increase to 1607 ha by the end of the season. The bulk water supply service is still in the process of being created but in late 2014 projects totalling approximately 6400 ha had indicated that they would use the service with this figure expected to surpass 8000 ha in the following years.⁵⁶ A key explanation of this success may be found in the role of debt in constraining the options available to SSGs. In a meeting with a manager at TSB, it was acknowledged that Akwandze were providing information to TSGro of which farmers were currently considered, or were in danger of being considered, unfinanceable. This connection between TSB, TSGro and Akwandze is further strengthened by the fact that the former CEO of Akwandze had recently moved jobs to become the CEO of TSGro, and his role at Akwandze had been taken over by the former secretary of Mpumalanga Canegrowers.⁵⁷ This close link between the organisations and suggests that the high levels of debt farmers have is being used to leverage the reach of the new company. In the case of these farmers, further financing for their sugar farms was conditional on the appointment of professional management. While SSGs or projects are not compelled to choose TSGro as their manager, the position of the company given their access to financial information and ability to market themselves to specific farmers gave them a relative advantage over other management options.

5.4.2. Sale of Small-scale Sugar Farms.

While small-scale sugar farming occurs in Nkomazi exclusively within communal land held on a customary basis administered by traditional authorities, there exists an active land market both in terms of land rental and sale. The following section explores patterns of land transfers occurring within the small-scale sector. It is argued that while the crisis in small-scale production has adversely affected the sector in broad terms, it has also created opportunities for certain individuals and families to expand their sugar farming operations through the purchasing and leasing of land. Alongside numerous farmers who have expanded modestly, there exist a small number of individuals who have purchased numerous plots to the extent that their land holdings are of a similar size to 'medium scale' (40-400ha) growers in the region. The factors that have driven the development of these larger farming enterprises on communal land are discussed below.

As with the creation of cooperatives, consolidation of sugar farms through land purchases has been influenced by actors within the sugar industry. Akwandze began offering a loan product specifically intended to allow the purchasing of land between SSGs – a RTO consolidation loan – in 2005. To date Akwandze has issued 100 such loans to SSGs who have increased their holdings.⁵⁸ While this figure is indicative of a segment of the land transfers taking place it is not exhaustive. Despite land being held

⁵⁵ Data Provided by TSB.

⁵⁶ Interview #22 – 22/08/14.

⁵⁷ Interview #23 – 27/11/13.

⁵⁸ Interview #20 – 12/08/14.

under communal tenure SSGs are able to approach other lending facilities such as ABSA or Land Bank to finance purchases or may also accumulate land without credit. Further, Akwandze's RTO consolidation loan is only available to currently active SSGs as the ownership of an existing sugar plot is a prerequisite for a loan. Therefore numerous land transfers are hidden from the figures available through Akwandze. This is the case for example of the land purchases of Mr Lubisi who has acquired eight plots totalling approximately 64 hectares over a two year period. As Mr Lubisi was not a current SSG he was unable to obtain financing from Akwandze and instead used capital from his private professional business.⁵⁹ Meanwhile, Mr Shongwe has also acquired sugar plots but has chosen to use capital raised privately through the sale of cattle rather than to take on debt.⁶⁰

Not all among SSGs are supportive of this process of land acquisition. LIMA works instead to encourage the lease of land in situations where a farmer is looking to exit sugar production, arguing that the permanent sale of land risks depriving households of a future source of livelihood. The organisation has developed a lease mechanism that allows for the temporary transfer of land with a view to the land being returned to the original landholder when appropriate.⁶¹ Some SSGs also view the sale of land within small-scale projects as problematic, a zero sum game in which one household loses out while another benefits.⁶² This is reinforced by the fact that the irrigation capacity of the local area is fully allocated according to the Department of Water Affairs so, although there remains available farmland, a lack of irrigation access limits potential expansion of sugarcane farming. Expansion beyond the borders of the communal areas is also limited by the widespread land restitution processes (James and Woodhouse, 2015)

Data from the questionnaire survey indicates a total of 22 plots purchased by the sample population in the period 2000 to 2013. As a survey of approximately 10% of the SSG population it may be extrapolated that approximately 220 such land transfers have occurred across the sector in the given period. Of the 22 purchases of land documented, 16 were financed with loans while the remaining 6 were not. There were no documented purchases of land prior to 2000 and only one prior to 2004. This illustrates the argument that recurring crises since 2000 have accelerated processes of differentiation by which more successful SSGs accumulate land while less successful SSGs have fallen out of production, or experienced reduced incomes to an extent where the sale of their sugarcane farm makes financial sense.

While the crises of production may have contributed to the number of 'willing sellers' of small-scale sugarcane plots it is necessary also to consider the factors that encourage those purchasing plots. The key driver in the accumulation of more land is the potential it offers to increase incomes. When taking into account all methods of acquiring extra land – therefore including extra allocations by tribal authorities and inheritance as well as purchasing – there is a clear pattern between increased land sizes and increased earnings. Within each of the three productivity levels identified SSGs who had acquired more land experienced greater earnings as shown in Table 5 below. This suggests that even at low levels of productivity (below sixty tonnes per hectare) SSGs may respond to the crisis of reproduction through acquiring more land.

⁵⁹ Interview #24 – 03/10/13.

⁶⁰ Interview #17 – 21/05/13.

⁶¹ Interview #7 – 17/04/13.

⁶² Fieldwork Notes – Dissemination Meeting.

Table 5. Impact of Additional Land on Average Net Income.⁶³

Average Cane Yield 2010-2012	Acquisition of Additional Land?	Average Net Income (Rands)
<60 t/ha	Yes	42100
	No	21230
60 t/ha – 80 t/ha	Yes	72618
	No	29987
>80 t/ha	Yes	117254
	No	70189
Total	Yes	79811
	No	34483

Given that the number of land transfers has shown signs of increasing and the sugar industry has provided financial products to facilitate this process, it is worth considering the relationship between this response to the crisis in the small-scale sector and the patterns of reorganisation discussed in the preceding section. There are a number of factors that may contribute to the creation of cooperatives and the insertion of management acting as a barrier to further accumulation of land by certain small-scale farmers. First, once land has been entered into a cooperative, it is contractually tied to it for a minimum period of eight years (essentially the cycle before replanting is required). Therefore, a SSG seeking to increase their sugarcane land would initially have to accept a role as a shareholder, with the reduced control that this entails. The appointment of management may also run against the desires of farmers who are seeking to accumulate land. As land accumulation is generally a sign of successful sugar cane farming (only farmers who are financially successful may obtain loans to purchase further plots), it is unlikely that such SSGs will want to rely on (and pay for the services of) an external manager. Finally, indications from existing cooperatives suggest that the level of income on cooperative farms is largely constrained by large levels of debt that are being serviced communally. As such, there appears to be little potential for large incomes to be accessed from a plot that is part of a cooperative in the short term and hence there is little incentive for SSGs to seek to increase their farm size through land acquisitions. This is borne out by the experiences of projects supplying Malelane mill. It has been claimed that individuals and groups who have purchased numerous plots on projects including Nhlangu East, Nhlangu West, Ngogola and Mbongozi have actively tried to prevent the creation of cooperatives as they see it as a barrier to their future expansion.⁶⁴⁶⁵

⁶³ Survey Data.

⁶⁴ Interview #20 – 12/08/14.

⁶⁵ Interview #7 – 17/04/13.

5.5. *Livelihood Case Studies.*

5.5.1. Overview.

The crisis and subsequent restructuring of the small-scale sugarcane sector has had implications for the ways in which sugarcane farming has contributed to the livelihoods of SSGs and their households. There appears to be a pattern of increased differentiation between SSGs. In particular, divergent trajectories may be seen between a group of SSGs whose small-scale sugarcane is in crisis due to low productivity or to financial constraints, and a smaller group of SSGs who are pursuing paths to accumulation. Data from a survey of SSGs highlights this pattern (Woodhouse and James, 2015). The acquisition of additional plots within the small-scale sector may be taken as an indicator of investment in expanded production. Approximately 31.5% of the SSGs surveyed had acquired additional land while 68.5% had not. Only 16% of SSGs surveyed received income from jobs outside sugar farming including businesses (Woodhouse and James, 2015). This indicates that SSGs are more likely to invest in expanded production than in other income generating activities and is hence the most prevalent form of accumulation present.

The evidence concerning the impact that improved access to education has had on small-scale sugarcane farming is mixed. It may be argued that the ability of SSGs to invest in the education of their children has, in most cases, had a negative impact on the performance of the small-scale sector. Improved levels of education have created new opportunities for the children of SSGs and as such disincentivised them from taking over the management of their parents' farms. The lack of young people becoming involved in farming was often cited as both an indicator of the problems within the sector and as a contributing factor to those problems. In a dissemination meeting held with SSGs it was claimed that farms would need to be generating an income of at least R15,000 a month to persuade the younger generation to farm. While farms are failing to do this there are more lucrative opportunities elsewhere. While R15,000 a month is a figure far beyond what most small-scale sugarcane farms are generating, it does not appear to be excessive in terms of what a graduate may expect to earn in formal employment. Median entry level salaries for civil engineers, mechanical engineers and accountants are all in excess of this figure earning R263,860, R286,002 and R183,837 annually respectively (Payscale.com, 2015).

Woodhouse and James (2015) provide a detailed analysis of the net earnings and production costs of SSGs in the current period. Therefore, the rest of this section of the working paper focuses on the individual household histories of selected SSGs. Four SSGs who cannot be classed as accumulating are discussed first, followed by the cases of four SSGs who are accumulating. Table 6 below provides a summary of the eight SSGs who were selected. These household histories provide insight into the dynamics of the small-scale sugar sector at the level of the individual SSG, highlighting the factors involved in the relative failures and successes of the SSGs involved. There was a great deal of diversity apparent within the small-scale sector. This diversity existed not only between successful and less successful farmers but also within these categories.

Table 6. Selected SSGs Interviewed.

Name*	Gender	Age	Project(s)	Original Farm Size (ha)	Current Farm Size (ha)	Non-farm Income**
Mrs Mnisi	Female	54	Boschfontein II	10	0	Yes
Mr Nkosi	Male	69	Madadeni	7	7	No
Mr Ndlovu	Male	63	Spoons 7B	15.4	7.7	No
Mr Ndhala	Male	54	Walda	10	10	Yes
Mrs Ngomane	Female	63	Ngogolo & Nhlangu East	10.8	12.7	Yes
Mr Shongwe	Male	60	Langeloo I & Langeloo II	7	39	Yes
Mr Magagula	Male	52	Figtree A	6.2	6.2	Yes
Mr Lubisi	Male	37	Ngogolo	0	64	Yes

*All names are changed for purposes of anonymity.

** Non-farm income is not inclusive of social grants given the age profile of the interviewees.

5.5.2. Non-Accumulating SSGS.

Mrs Mnisi.⁶⁶

Mrs Mnisi is a 54 year old woman who lives in the village of Magogeni. She is a widow who lives in a household of fourteen people including her seven children, two grandchildren, and mother in law, sister in law and her two children. While the family other than Mrs Mnisi's firstborn child live in the same property, they act as two separate families with their own income sources. Mrs Mnisi's firstborn daughter lives in Pretoria where she works for a government department and occasionally buys food for the family. Some of the other children have informal jobs and contribute to the household's costs. The household receives a single child grant for one of the grandchildren. The family also have a dryland farm of ten morgens (approximately 8.56 hectares) that is used to grow maize for subsistence needs. When her husband was alive they also grew vegetables but the borehole has broken so they are now unable to do so.

Mrs Mnisi inherited a ten hectare sugarcane farm at Boschfontein II when her husband died in 2004. Her husband, a cousin of the chief of the Mkhathshwa Tribal Authority, had been farming sugarcane since the projects inception in 1994. Mrs Mnisi said that while her husband was alive the yields were very good and he was able to build the house in which they now live, provide food for the family and pay school fees for all of their children. Throughout the time of production, sugar farming represented the primary source of income for the household.

After the death of her husband, Mrs Mnisi encountered problems in production, that she attributes to being targeted for repeated thefts owing to the fact that she was a female farmer. She also identified problems with labour supervision as a cause to her problems as she felt that workers were less willing to listen to her than they were to her husband. Mrs Mnisi admitted that during times when her income from the sugar farm was low she would purchase full allocations of fertiliser but only apply some of it so that she could sell the rest to access money. As with the other farmers at Boschfontein II, cable thefts eventually made the project unviable and production ceased in 2008.

⁶⁶ Interview #6 – 15/04/13.

The impact of the collapse of the sugar farm has been acutely felt by Mrs Mnisi's household. Mrs Mnisi had to sell cattle in order to continue to pay the university fees of one of the children. The car which was purchased while the farm was running has broken down and the household are unable to pay for it to be repaired. Due to the lack of a reliable income, Mrs Mnisi has started a small informal business to earn extra money. She travels to a local market on a weekly basis where she buys tomatoes in bulk that she sells informally in her village. She estimates that she earns approximately one hundred rand a week from this activity. Faced with little alternative, Mrs Mnisi is supportive of a plan to convert Boschfontein II into a cooperative managed by TsGro.

Mr Nkosi.⁶⁷

Mr Nkosi is a 69 year old man who lives in Madadeni. Mr Nkosi's household consists of nine people across three generations including an adopted child from his extended family. Two of Mr Nkosi's sons are working locally as a builder and temporary farm worker respectively and contributing to the household. The household also receives two pensions for Mr Nkosi and his wife alongside a child grant for the adopted child. The family also have a small plot of land next to the Madadeni sugar plots on which maize and vegetables are farmed on a seasonal basis. The food farmed on the plot is principally used for subsistence although he remarked that some produce would be sold if yields were high in a particular season.

Mr Nkosi farms sugarcane on a seven hectare plot at Madadeni since the project started in 1994. The chief allocated Mr Nkosi the plot at the cost of one thousand rand. There was greater demand than supply for plots within the village; fifty five individuals were placed in group one and were allocated farms while a second group that was created did not receive land. The SSGs at Madadeni were not issued with RTO's as the chief was reluctant to formally give land away instead entering into informal verbal agreements with the farmers. Before the recent crisis in the sector, sugar cane farming represented the primary form of income for the household. Mr Nkosi said that it made a very important contribution to the household, allowing him to educate his grandchildren, support his family and to purchase some cattle.

Mr Nkosi has been affected by multiple facets of the crisis. Madadeni has suffered long periods without irrigation as a result of cable thefts while he personally has significant debts with Akwandze that have been taken for replanting the sugar two seasons before and also a loan taken to pay for school fees for his grandchildren. The combination of a lack of irrigation and debts for a new ratoon of sugar cane have crippled Mr Nkosi's farm, and created a downward cycle in production. While Mr Nkosi claims not to have used retention savings for off-farm expenditure, loans secured against the property have been used to fund the education of his children, indicative of the relative priorities of the household, in favour of educating the younger generation rather than investment in the farm.

Mr Nkosi has displayed a range of mechanisms for coping with the lack of income from sugarcane. First, his wife now labours on the farm to earn a wage. Secondly, he has sold cattle as a means to financing household consumption in recent years.

"It affects me a lot because we only harvest once a year and we are not getting much so I am forced to sell my cows in order for me to be able to support my family. I have cows; I bought them the time I was still working. When I do not have money I sell a cow and that's how I managed to pay bills last year. I have 12 cows... I had more. I had 30 but some were stolen, some died because of diseases and some I sold them."

⁶⁷ Interview 25 – 19/03/13.

Mr Ndlovu.⁶⁸

Mr Ndlovu is a 63 year old widower who lives in Masibikela. There are eight people in his household including him, five children and two grandchildren. Before farming sugar Mr Ndlovu worked for TSB and then for the government malaria control programme although he left employment a long time ago. He now receives a pension of R1200 a month although claiming it is difficult as the government feel he is a businessman as he owns the sugarcane farm.

Mr Ndlovu began growing sugarcane in 2001 on a 15.4 hectare plot at Spoons 7B. It was initially profitable and he identified how his standard of living had improved, including building a house and purchasing cars. Sugarcane farming also provided the primary source of income through which he supported his household including paying for his children's education. While Mr Ndlovu only completed school to Standard Four, all five of his children had matriculated.

"Farming is good; without it I wouldn't be able to take care of my children... Now I have two cars and a beautiful house... I did not have all I have now when I had a job so it's all because of farming."

Mr Ndlovu was sold half of his sugarcane farm last year for R200,000 as he had high medical bills resulting from ill health. He says that production levels have remained robust on the remaining 7.7 hectares and if he had the chance he would expand his production again. Mr Ndlovu's yield in 2013 was approximately 91 tons per hectare.⁶⁹

"I recently sold it, the person who bought it is going to harvest for the first time this year... I was very sick and I had medical bills and my children needed financial support because they are not working so I had to sell. I was forced to sell but now I can see I am well and if I could get money I would buy it back. I was hurt very much by selling; if I had the R200,000 I would give it back to him."

It appears that sole reliance on sugarcane farming and government grants contributed to the problems that Mr Ndlovu faced. The lack of alternative sources of income or accessible assets such as cattle resulted in him having to sell productive assets in the form of a portion of his sugarcane farm to fund emergency expenditure, underlining the key role that livelihood diversification plays in the support of rural livelihoods amongst SSGs.

Mr Ndlovu's children are not in employment and he intends to pass the farm to one of them when he feels he is too old to continue farming himself. Two of the children have shown some interest in taking over the farm and they come to work with him on occasion. However, he feels the time is not yet right to give them the farm as he needs the income and now he is well again he sees no reason why he can't continue to farm.

Mr Ndhlala.⁷⁰

Mr Ndhlala is a 54 year old man who lives in Block B. He lives in a household of ten people including his mother and an adopted child from the extended family. He used to work as an engineer for Telkom until he was retrenched a decade earlier. At this point he set up a contracting company

⁶⁸ Interview #15 – 08/10/13.

⁶⁹ Data provided by TSB.

⁷⁰ Interview #11 – 18/03/13.

working on construction jobs whenever possible. However this work is of secondary importance, providing only sporadic income as he sometimes waits months between jobs. The household receives a child grant for the adopted child and a government pension for Mr Ndhala's mother. He is also a claimant with the STT land restitution case (see James and Woodhouse, 2015) although he says he has never received a dividend payment or other form of income from this.

"I'm a jack of all trades. Anything that comes my way I take it. It can be roads, building, water infrastructure or sewage. Anything that comes my way I take it. I don't choose because I consider myself a small contractor. The bigger one I think is the sugar. You can be sure at the end of the year that you will get something. With the construction there have been some times when I get nothing."

Mr Ndhala was allocated a plot of 10 hectares at Walda when the project started around 1995. He is a relatively successful farmer maintaining yields of approximately 100 tons per hectare and winning an award as the best small-scale grower in Mpumalanga in 2011. He believes his success is due to the fact that he invests heavily in the farm, purchasing organic fertiliser in the form of chicken manure alongside chemical fertilisers as he believes this improves the soil. He has also replanted on a regular basis, most recently in 2011. Annual investments in the farm are made from his retention savings while replanting is financed through a loan from Akwandze. On occasion Mr Ndhala uses his retention savings to fund household expenditure.

Mr Ndhala farms on a project that has been beset by problems. In recent years there have been numerous instances of cable theft that have prevented irrigation at the project. Mr Ndhala identifies problems with the communal system of owning infrastructure as a key constraint to the project's progress as it takes a long time to access finance when things go wrong. There have also been governance issues at the project as different sections are serviced by separate balancing dams and pumps. When there has been a problem on one side other farmers have been reluctant to help with the cost of repair as it has not affected their production. At one point two separate committees were set up and the project almost split in two.

"I think all this putting us together is a big problem, even on sugar. The government seem to like us to be together. Sugar is not so bad, though we are farming together as a group each has his own piece of land. This group thing to me it doesn't work... Those people all pull in different directions you see that is a problem. When you are farming together there are certain things that you must share. You share the water, you share the electricity, and you must pay some of the machine operators, the pump operators as a group. Some of the people they don't want to pay so if a pump is broken they just leave it, they don't care. If wishes were roses I'd buy my own farm, a big farm, sugarcane. It is easy to farm."

Mr Ndhala has remained a SSG farming ten hectares for two decades. He claimed that he would like to expand his farming operations but is unwilling to on small-scale projects as he believes they have too many problems and the communal ownership of infrastructure doesn't work well. He believes that the large-scale commercial farms that were claimed under restitution should have been split up into medium scale farms and made available to individual small-scale growers.

The four household histories above are of SSGs who have neither expanded production in sugarcane farming nor used income from farming to pursue paths of accumulation in other sectors. While there is a degree of diversity in the situation of the SSGs, each has been affected in some way by the crisis in small-scale sugarcane farming. The first three cases discussed have experienced a decline in production. While one SSG has ceased production completely, another is experiencing very low yields while the third has reduced the size of their farm by half. In each case this has resulted in material hardship marked by high levels of indebtedness and a reliance on marginal streams of income whether through informal economic activities or the sale of assets. At the onset of the crisis

none of the first three SSGs had diversified livelihoods, a factor that likely increased their individual vulnerability to economic shocks. The fourth SSG discussed was arguably in a stronger position than the preceding three. However, it appears that although his individual farm was not in crisis, it did not generate sufficient income to fund an increase in the scale of operations. The case of Mr Ndhlala highlighted the fact that the crisis need not be experienced on an individual level to affect the prospects of SSGs.

5.5.3 Accumulating SSGs.

Mrs Ngomane.⁷¹

Mrs Ngomane is a 62 year old woman who lives in Driekoppies. She lives in a household of twelve people including her parents, her children, her sister and her sister's children. Some of the younger generation do seasonal work as labourers on commercial farms although no-one in the household has a permanent job. Her parents both receive state pensions and she receives child grants for two of her children. Before being involved in sugarcane farming Mrs Ngomane knitted clothes and sold them locally. She gave this up once she started farming.

Mrs Ngomane took over the family sugarcane farm in 2006. The farm is 12.8 hectares split into two plots at Ngogolo. The plots are registered as a single entity with TSB. The farm was originally 7.8 hectares until her father converted a further 5 hectares that was previously used for Maize farming to sugarcane in the 1990s. Mrs Ngomane has farmed successfully at Ngogolo maintaining high levels of production. She has attempted to expand her sugarcane farming, by buying a 1.9 hectare plot at a nearby project (Nhlangu East) in 2007. At the time of the interview her expansion plans were on hold as Nhlangu East was suffering widespread problems and had not irrigated for a season. However, TSB data indicates that she subsequently replanted the plot and harvested almost 100 tons per hectare in 2014.⁷² Mrs Ngomane has also diversified away from sugarcane farming. She used farm income to purchase two tractors with which she runs a small contracting business delivering sand for the construction industry.

Mrs Ngomane feels that sugarcane farming is still a valuable livelihood for the family and notes that it has allowed her to educate her children and to build a large house for the family. In particular she felt that sugarcane farming compared favourably to the maize farming that the family used to rely on.

"When I compare the time we used to plant maize and now there is a big difference. With maize you had to rely more on rain and if there was no rain it's a loss, but with sugar you can get more money as long as you work hard and give the sugar enough fertilizer so it has remained important for my family because I make something out of it... from when I started I have achieved so much, I built a house for my family and bought a tractor which is also going to generate income."

However, she also noted that farming sugarcane has become less profitable than it was in the past as costs of production have increased. She cited barriers to expansion as a central problem to generating more income in farming.

It was better in their [her parents] time because things were not as expensive as now. Now everything has gone up but the plot has not been increased. Now you must pay extra attention

⁷¹ Interview #13 – 26/08/13.

⁷² Data Provided by TSB.

and monitor every move otherwise you will fail. If you employ people to do a certain job you must make sure they do it properly.

Mrs Ngomane finances investment in her farm through her retention savings and with loans from Akwandze. At the time of the research she was debt free. She noted that the retention system was beneficial to her because “as people we have needs and I will end up using the money for myself instead of the farm and in the end the farm will struggle”.

Mr Shongwe.⁷³

Mr Shongwe is a 60 year old man who lives in Emtfuntini (Langeloo). His parents established a small shop in the village and farmed maize on the dryland plot. He took over their shop in the 1970s as his siblings had left the village and he expanded it into a small supermarket. This formed the basis of the household’s livelihood alongside subsistence agriculture until Mr Shongwe began sugarcane farming. He has a wife and five children, one of whom still lives at home. He was reluctant to define how many people were included in his household as he gives support to many of his children, grandchildren and great-grandchildren whenever they need it. Further, as a man of considerable wealth in relative terms, he supports many other more distant relatives as well as others in the local community. Therefore, while his immediate household numbers three people he feels financially responsible for a significantly larger number.

Mr Shongwe was allocated a seven hectare sugar plot at Langeloo Phase One in 1996. As the plot was located on the side of the project he cleared the nearby bush over the next eight years to expand the plot to approximately fourteen hectares. Mr Shongwe purchased two further plots in 2004 and 2008 totalling approximately eighteen hectares. A fourth plot of seven hectares was purchased in 2012. All of the purchased plots are on Langeloo Phase One while he is also in the process of purchasing a plot that is now being cooperatively farmed on Langeloo Phase Two where he will become a shareholder in the cooperative. All of the purchases have been financed without the use of loans. After starting farming sugar in 1996 Mr Shongwe significantly expanded his herd of cattle until it numbered 551 cows. Mr Shongwe has used the sale of cows alongside the income from his sugar farms to expand his operations. He currently has a herd of 90 cows although is in the process of expanding this again.

“I have 92 cows now... They are on communal grazing. In the past I have had more. It was more than 92; it was 551. That was from 1997 up to 2012. I sold others when I bought the farms and when I did improvements to the water irrigation system when I bought the 10 hectares because the water pressure was low... I spent a lot to improve the quality of the farm. I used my own capital. There is no outside investment from banks... To buy livestock is a good investment. Right now we don’t have an open market; we are waiting to open an abattoir next to Elangeni. It will mean investing in livestock will be good.”

Mr Shongwe has diversified his agricultural production. Unlike the majority of other SSGs he rotates his sugar crop with other production. At the time of fieldwork one of Mr Shongwe’s plots was being used to grow vegetables including okra and beans that he sells to the numerous south Asian store owners in Nkomazi. In the previous season Mr Shongwe had harvested 26 hectares of sugarcane that was delivered to the mill and a further 10 hectares that was sold (at a higher price) as seed cane. He has also cleared a hectare of land on which there are 672 mango trees. He continues to farm maize and groundnuts on the five hectares of dry land that belonged to his father.

⁷³ Interview #17 – 21/05/13.

Alongside the agricultural expansion that Mr Shongwe has undertaken, he has also pursued an expansion (and later transformation) of his retail business. Having taken over his parents' shop in 1976 he has since built another shop in 1990 and purchased two "lounge bars" (bottle stores with drinking areas) in 1998 and 2001. Three of the retail businesses are now leased to migrant south Asian families who have converted them to supermarkets. The expansion of non-farm income has allowed Mr Shongwe to diversify his income sources and hence further reduce his reliance on the success of his sugarcane farm. When asked what the most important incomes are for his household Mr Shongwe indicated that he feels they all make an important contribution for this reason. However, he also noted that the major expansion in his economic activities occurred once he owned his first sugarcane farm. This suggests that it has played an important role in allowing him to develop his livelihood more broadly.

Mr Magagula.⁷⁴

Mr Magagula is a 52 year old man who lives in the village of Hhoyi. He has a wife and three children, one of whom has their own house. His wife works as a school teacher. His mother is still alive and draws an income from her share in the shop that his father owned and which is now owned by his father's five wives. Mr Magagula stated that the number of people dependent on him varied according to their situation and whether or not he had money to give at a particular point.

Mr Magagula farms a 6.2 hectare plot on Figtree A that he took over from his father in 1995. His father had originally grown chillies and maize on the land and Mr Magagula had to seek permission from the chief to grow sugarcane. There was initially resistance to this as the family were considered to be business people and sugar was intended for others. Since farming, he says production has remained good on the sugarcane farm although he has not considered expanding through purchasing other plots as he feels it is too difficult to hold plots on different sites.

Mr Magagula diversified his livelihood strategy significantly in 2000 when he formed a cutting contracting company. The company was initially started with capital from the sugar farm through which he bought two trucks to transport labourers. Mr Magagula says that the company was started as the SSGs at Figtree A were dissatisfied with the way in which cutting was being done on the farm and as he was already bringing in his own labour, he saw the opportunity to expand it. The other SSGs supported him to employ his labourers year round by paying him to cut their fields also. The contracting company has grown significantly and it now represents his primary source of income. He currently employs approximately 200 labourers, almost all of whom are Mozambican or Swazi. He uses a team of South African supervisors to gather labourers from the local villages of Hhoyi, Figtree and Masibikela where they normally live in shared accommodation. While he was unable to say precisely how many SSGs he had cut cane for in the previous season, he noted that he typically cuts one or two fields a day across the cutting season.

Mr Magagula has further diversified his income by building a filling station on the road to Mbuzini. However, despite his diversified livelihood, he retains a connection to sugarcane farming and stated that he prefers it to his other activities:

"Yes, there is no risk there; you wake and go there every day, implement what has to be implemented, and you are OK. Unlike the garage where they can steal the money but in farming my money goes in the bank."

⁷⁴ Interview #18 – 17/10/13.

In line with this, he expressed the desire to buy enough land to farm on a commercial basis but felt that this was very difficult as he did not want to expand in the small-scale sector but could not identify available land in the commercial sector.

“If I could get a bigger farm I would even leave the contracting. If I have enough land. I see that there is money in farming but with cutting you have to pay a lot of people, traffic cops, and fines. If I go to farming and I have 100 hectares I would split the farm in to three categories and harvest three times a year.”

Mr Lubisi.⁷⁵

Mr Lubisi is a 37 year old man who lives in Nelspruit. Mr Lubisi is the son of one of the first generation of sugar farmers at Ngogolo. Despite raising her children as a single parent, Mr Lubisi's mother managed to send eight of her ten children to university. Mr Lubisi noted that before farming sugar his mother was engaged in subsistence agriculture and ran an informal business gathering and selling thatch for roofing of traditional homes. As such, without sugar farming it would not have been possible to send her children to university. Mr Lubisi pursued employment in the private professional sector working as a lawyer in Nelspruit before investing heavily in small-scale sugarcane farming in recent years. He is a partner in a law practice and his wife works in the provincial government and as such the household has significant income from formal employment. The ability to raise capital through income from a job external to the sugar industry was a fundamental aspect of Mr Lubisi's ability to accumulate land rapidly.

The original sugar plot of eight hectares was initially owned by Mr Lubisi's father until he died in 1994 and then by his mother until her death in 2007. At this point Mr Lubisi took over management of the farm alongside his siblings. In 2011 he began a rapid expansion of his ownership of sugarcane farms. To date, he has purchased eight farms totalling approximately 64 hectares while the family farm has been passed to one of his siblings. This makes Mr Lubisi one of the largest small-scale producers in the region. As he did not have a history of personal farm ownership he was unable to access credit from Akwandze who give preference to existing farmers. Therefore he has invested his own money made from his law practice into the farms. Mr Lubisi has limited his acquisitions to available plots at Ngogolo as he believes that as he is known in the community people at this project are more likely to sell to him.

“We know the soil since we have there for a while, we already have a farm there so it's easier to maintain it and also people from other projects don't want to sell to people they don't know they prefer somebody they know because they believe communication will be easy and also they know your family background and if your father has been farming.”

Mr Lubisi identified his family connection with farming as a key reason behind his decision. He also felt that due to his relatively privileged position he was able to assist less wealthy family members by purchasing farms and providing employment for them. He indicated a desire for the younger generations within the family to inherit the farms.

“Maybe it's because of how I grow up, when I did matric I actually wanted to do agriculture but I ended up doing my second option which was law. Later I decided to pursue farming since it was my passion and first love.”

Mr Lubisi has not made a profit on the farms he has purchased, a fact he attributes to the poor condition of the farms at the time he bought them. He has had to replant the sugarcane and as such

⁷⁵ Interview 24 – 03/10/13.

is still paying off planting loans. He has also sought to upgrade the production on the farms by gradually moving the plots to drip irrigation rather than sprinklers as he feels it is a more efficient system. This is an expensive investment and as the farms are not yet profitable, Mr Lubisi is continuing to invest in his farms with external funding that has been made from non-farm incomes.

These four cases illustrate SSGs who have invested in either expanded sugarcane farming or in other economic activities as a result of sugarcane farming. Three of the SSGs have increased the scale of their operation, ranging from a modest increase of 1.8 hectares to an increase of 64 hectares. The other SSG has not increased the scale of his sugarcane farming but has developed a large business connected to the sugar industry. The expansion of sugar farming represented significant investments on behalf of the SSGs involved. Financing of investments was varied. In the case of the SSGs who had expanded the most, finance had been raised privately and externally to the sugar industry. Incomes from farming had also played a role both in the case of Mr Shongwe and of Mr Magagula who had used income from sugarcane farming to develop a contracting business. All four of the SSGs had diversified incomes. It may be argued that, particularly in times of constrained on-farm incomes, this represents an important component in the livelihood patterns of SSGs both in terms of the reproduction of livelihoods and in the increased levels of investment evidenced.

6. Conclusions

The picture that emerges from this study of the impact of small-scale sugarcane farming on livelihoods in Nkomazi may be summarised from at least three perspectives. Firstly, from the perspective of the agricultural workforce, the small-scale sugarcane projects have used a production system that differs little from that used on large-scale commercial farms. That is, the extent of mechanisation (if not its sophistication) is similar on large and small-scale farms. Employment of temporary and permanent agricultural labour is therefore similar, and drawn from the same pool of workers, predominantly migrants from Mozambique and Swaziland. For this workforce, the small-scale sugarcane projects may be said to have expanded the quantity of work available, in the sense that they demand labour for an additional 10,000 ha of sugarcane, but not the quality, since wages paid by SSGs appear markedly lower than those on large-scale sugarcane farms operated by TSB.

Secondly, and retrospectively, state investment provided access to income from commercial sugarcane production for a group of perhaps 1500 households, who benefitted in terms of a marked rise in living standards as a result. Most significantly, the children of these households emerge as having gained higher standards of education, including to university level, paid for by earnings from sugarcane. Many farmers identified their ability to educate their children (or indeed to be educated in the case of second generation farmers) as a key improvement to their livelihoods that had been facilitated by sugar farming. Higher education remains expensive in South Africa and is inaccessible to many poorer families from areas such as Nkomazi. Of the SSGs interviewed, six had sent at least one of their children to university while a further four said that all of their children had matriculated. Two SSGs were too young to have sent children to university but had been educated there themselves alongside eleven of their siblings while their parents were SSGs. Two SSGs who have progressed to medium scale farming had also sent their children to university.

The evidence concerning the impact that improved access to education has had on small-scale sugarcane farming is mixed. Improved levels of education have created new opportunities for the children of SSGs. However, these opportunities lie primarily away from their parents' farm. For some this might include administrative and managerial roles in the local sugar industry (TSB's public relations manager is the son of an SSG), or in other local private or public sector employment. For many, employment in the booming service economy of Nelspruit is more likely. For few of this

educated younger generation is their parents' sugarcane farm an attractive proposition, particularly in a context of falling productivity and rising debt. The lack of young people becoming involved in farming was often cited as both an indicator of the problems within the sector and as a factor contributing to those problems. In a dissemination meeting held with SSGs in August 2014 it was claimed that small-scale sugarcane farms would need to be generating an income of at least R15,000 a month to persuade the younger generation to take them over. While R15,000 a month (R180,000 a year) is a figure far beyond what most small-scale sugarcane farms are generating, it does not appear to be excessive in terms of what a graduate may expect to earn in formal employment. Median entry level salaries for civil engineers, mechanical engineers and accountants are all in excess of this figure earning R263,860,⁷⁶ R286,002⁷⁷ and R183,837⁷⁸ annually respectively. For many, therefore, the impact of small-scale sugarcane will be seen as a transient phase in their family history, albeit one that marked a step-change in the prospects of the next generation.

For the minority of SSGs who look set to continue and expand their sugarcane interests, the life histories in the previous section suggest that, while initial differences in the size of plots allocated played some role in the extent to which SSGs were able to benefit from sugarcane production, a diversified livelihood portfolio is a common factor associated with success. Investment of sugarcane earnings in other enterprises, such as cattle, labour contracting, retail trading and even other crop production, have all featured in livelihood strategies that have enabled SSGs to accumulate capital and both withstand declining sugarcane income and also re-invest to sustain production. More recently it is apparent that sources of non-farm income, including salaried professional employment in the private or public sectors, have provided the means by which new entrants (including some highly-educated children of the first generation of SSGs) to purchase land and establish sugarcane holdings of a size (> 30 ha) capable of generating incomes at a level comparable with the expectations identified above. For this group, which we have identified as constituting, at most, a third of current SSGs (Woodhouse and James, 2015), sugarcane is likely to be pursued as a commercial activity alongside a number of other economic activities. Whether this leads to a further increase in scale of sugarcane production, remains to be seen.

⁷⁶ http://www.payscale.com/research/ZA/Job=Civil_Engineer/Salary/abfb5000/Entry-Level

⁷⁷ http://www.payscale.com/research/ZA/Job=Mechanical_Engineer/Salary/fab3a851/Entry-Level

⁷⁸ <http://www.payscale.com/research/ZA/Job=Accountant/Salary/ce7d1c90/Entry-Level>

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Appendix.

Interview List.

Interview #	Interviewee Description	Date
#1	Group Interview with Committee of Ngogolo Project	15/05/13
#2	Interview with Chairman of a Tobacco Farming Cooperative	23/03/13
#3	"Mrs Mhlaba" – Medium Scale Farmer and Land Reform Beneficiary	20/06/13
#4	"Mr Maseko" – SSG at Boschfontein II Project	12/04/13
#5	"Mr Khoza" – SSG at Boschfontein II Project	12/04/13
#6	"Mrs Mnisi" – SSG at Boschfontein II Project	15/04/13
#7	Employee/Manager at Industry NGO	17/04/13
#8	Employee/Manager at Canegrowers	19/11/13
#9	(Former) Chairperson at Langelooop Phase II Project	16/05/13
#10	Manager at TSB	26/06/13
#11	"Mr Ndhlala" – SSG at Walda Project	18/03/13
#12	Two Employees at Canegrowers	11/04/13
#13	"Mrs Ngomane" – SSG at Ngogolo and Nhlangu East Projects	26/08/13
#14	Chairperson at Walda Project	16/05/13
#15	"Mr Ndlovu" – SSG at Spoons 7B	08/10/13
#16	SSG at Ngogolo	26/08/13
#17	"Mr Shongwe" – SSG and Langelooop Phase I and II Projects	21/05/13
#18	"Mr Magagula" – SSG at Figtree A and Labour Contractor	17/10/13
#19	Manager of SSG Business Incubation Organisation	13/09/13
#20	Employee/Manager at Akwandze Agricultural Finance	12/08/14
#21	Group Interview with SSGs from Langelooop Phase II	21/11/13
#22	Manager at TsGro	22/08/14
#23	Employee/Manager at TSB	27/11/13
#24	"Mr Lubisi" – SSG at Ngogolo Project	03/10/13
#25	"Mr Nkosi" – SSG at Madadeni Project	19/03/13

