DYNAMICS OF SOCIAL REPRODUCTION AND DIFFERENTIATION AMONG SMALL-SCALE SUGARCANE FARMERS IN TWO RURAL WARDS OF KWAZULU-NATAL

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A thesis submitted in partial fulfilment of the requirements for the degree of

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Abstract

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Outgrower or contract-farming schemes have long been considered an important 'pro-poor' method of incorporating small-scale farmers into agro-commodity chains, oft defined by their capital intensity and consequent high barriers of entry. Nonetheless, critics have observed that such schemes often operate under highly imbalanced relations of power between farmers and processors, generate substantial inequality, and negatively impact on household food security. In the province of KwaZulu-Natal, home to much of South Africa's sugar industry, the number of small-scale sugarcane outgrowers increased rapidly from near nothing in the late 1960s to around 50,000 in the early 2000s; an increase born out of industry-subsidized miller initiatives, disguised as micro-credit, to bring commercially inalienable Bantustan land under cane production. However, in the past decade small-scale sugarcane growers have faced a precipitous decline following the restructuring of the sugar industry in the 1990s and the onset of drought in the 2000s. This study seeks to trace the origins and shifting structural foundations of small-scale sugarcane production and investigate its impacts on dynamics of social reproduction and accumulation in two rural wards of the Umfolozi region, in the wake of the sale of the central mill by the multinational corporation Illovo to a consortium of large-scale white sugarcane growers. Utilizing survey data from 74 small-scale grower homesteads and life-history interviews, it is argued that regulatory restructuring resulted in deteriorating terms of exchange and the retraction of miller oversight in production, cane-haulage and ploughing operations, hence devolved to commercially unstable local contractors. Growers have subsequently struggled to compensate for consequent capital inefficiencies through intensified exploitation, largely due to the successful impact of social grants in mitigating the desperation of family and hired labour, and further face considerable barriers to expansion in land. While proceeds from sugarcane continue to represent an additional source of coveted cash-income, sparse off-farm income opportunities have gained prominence as a basis for

stabilizing consumption and some re-investment in cane. The centrality of income-diversification for simple reproduction and limited accumulation has rendered the dynamics of social differentiation to be both unstable and reversible, and has closely tied sustained cane production to the labour content of non-cane income sources. Meanwhile, with less direct oversight in production, millers face the challenge of retaining their implicit 'grab' on customary land, throwing into relief the contradictions inherent in attempts 'from above' to foster a nominal 'peasant' class 'from below'.

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List of Acronyms

ACP	Africa-Caribbean-Pacific countries
ACDIS	Africa Centre Demographic Information System
AQ	Agrarian Question
BIC	Bantu Investment Corporation
BTI	Board of Trade and Industry
CED	Corporation for Economic Development
CF	Contract Farming
CMO	Common Market Organization
CSG	Child Support Grant
CTS	Cane Transport System
DoA	Department of Agriculture
DoP	Division of Proceeds
DSG	Disability Grant
DTI	Department of Trade and Industry
ERS	Estimated Recoverable Sugar
FAF/UAF	Financial Aid Fund/Umthombo Agricultural Finance
FCG	Foster Care Grant
GATT	General Agreement on Trade and Tariffs
GSO	Grower Support Officer
ISA	International Sugar Agreement
KFC	KwaZulu Finance Corporation
LDC	Least Developed Country
LED	Local Economic Development
LA	Local Association
LSCF	Large Scale Commercial Farmer
LZ	Loading Zone
MAFISA	Micro Agriculture Finance Institute of South Africa
MCC	Mill Cane Committee
MSCo	Mhlume Sugar Company
MPA	Miller-Planter Agreement
NAD	Native Affairs Department
NFG	New Freehold Grower

NIE	New Institutional Economics
PCP	Petty Commodity Producer
PSF	Price Stabilization Fund
RPE	Radical Political Economy
ROC(E)	Return on Capital (Employed)
RV	Recoverable Value
SACGA	South African Cane Growers' Association
SACU	Southern African Customs Union
SADC	Southern African Development Community
SAMA	South African Millers' Association
SASA	South African Sugar Association
SASRI	South African Sugar Research Institute
SGDT	Small Grower Development Trust
SGE	Small Grower Entitlement
SIA	Sugar Industry Agreement
SPF	Supplementary Payment Fund
SSG	Small-Scale Sugarcane Growers
Tsb	Traansvaalse Suikerkorporasie Beperk
TCA	Transaction Cost Analysis
UCOSP	Umfolozi Sugar Planters Ltd
USAID	The United States Agency for International Development
USM	Umfolozi Sugar Mill
UVS	Umhlathuzi Valley Sugar Company
WTO	World Trade Organization

Chapter One: Introduction

While the post-apartheid ANC government inherited a (white) commercial agricultural sector defined by high levels of concentration and capital intensity, further exposure to global competition in the wake of widespread deregulation has seen the emergence of an agrarian structure and agro-food complexes increasingly integrated and industrial in character. Meanwhile, government has been frustrated in attempts to incorporate black farmers into this regime, and has been heavily criticised for the failure of land reform. Seemingly apart from these trends, the South African sugar industry not only remains subject to tariff protection and a complex, privately administered, regulatory regime, but also features a large number of black, small-scale sugarcane growers (SSGs) farming on 'communal' land. Since the late 1990s, however, the number of small growers has declined precipitously, a trend attributed by many to enduring drought. Simultaneously, South Africa's largest sugar millers have been investing heavily in countries to the north. As calls for increased government support to the industry increase, from struggling growers and from millers eager to stabilize and expand their cane supply, a re-appraisal of the structural character of the industry and the role of small growers within it is overdue.

This study argues that both the development of small-scale sugarcane production and its current decline must be historically located within a changing structural relationship with miller-processors, in turn conditioned by shifts in the industry's regulatory framework. Critically, the emergence of small-scale sugarcane production in the late-1970s-80s can be traced to industry-subsidized initiatives disguised as micro-creditwhich brought commercially inalienable Bantustan land into cane production with strong miller oversight. From the early 1990s, however, the elimination of these subsidies encouraged millers to withdraw from direct oversight and to subcontract support to farmers, while simultaneously instigating an increase in small grower numbers by loosening and then removing restrictions on grower registration. Enduring drought must certainly be understood as a central proximal factor in the rapid decline of small grower numbers, but their rapid increase in the first place was contingent and structurally fragile. This paper further strives to provide insight into the shifting class dynamics of small growers under constrained conditions of production, utilizing survey data and life-history interviews in two rural wards of Madwaleni and Shikishela in the Umfolozi region. Although proceeds from sugarcane have represented an important source of cash income for homesteads, deteriorating terms of exchange and barriers to expansion in

land and capital have placed a greater emphasis on sparse off-farm income opportunities for stabilizing consumption and enabling limited re-investment in production. The centrality of income-diversification for simple reproduction and limited accumulation has rendered the dynamics of social differentiation both unstable and reversible.

1.1Background and Rationale

Sugar represents one of South Africa's most prominent agro-industries. Located primarily in the province of KwaZulu-Natal but stretching into Mpumalanga, the R12 billion industry is the sixth largest agricultural sub-sector, accounting alone for between 0.6% and 0.7% of the national Gross Domestic Product, 79,000 direct jobs and indirectly supports an estimated 350,000 jobs (SASA, 2012, p. 4; Department of Agriculture Forestry and Fisheries, 2010, p. 1). But the South African sugar industry is also distinctive aside from such impressive quantitative measures. One core distinguishing feature is that while the bulk of South Africa's agro-industries underwent an aggressive process of liberalization in the 1990s, the South African sugar industry remains subject to statutory self-regulation under the Sugar Act (1978) and further enjoys a protective tariff. The sugar industry also stands out in the composition of its sugarcane supply base and contributions to land reform. While government has struggled to meet its market-based land reform target of transferring 30% of white agricultural land to black South Africans, the sugar industry has proactively facilitated the transfer of 21% of land under cane, proportionately far ahead of the government's general transfer of around 8% to date (SASA, 2012, p. 5; Kleinbooi, 2011, p. 1).

Yet perhaps most remarkable is that, of the industry's 27,036 sugarcane growers, 25,200 are accounted for by small-scale sugarcane growers farming predominantly under customary tenure in South Africa's former Bantustans. Though accounting for only about 9.31% of overall cane supply, the integration of small black farmers into the circuits of 'formal' agro-commodity markets remains a fairly uncommon phenomenon in South Africa, with landed production in customary areas typically characterised as being limited to subsistence or 'informal' markets. Although the economic contribution of crop and livestock production and sale in South Africa's customary areas is regarded by many to be chronically underrepresented in many aggregate measures, the approximate R1.21 billion per annum generated in small-scale sugarcane production is considerable (SASA, 2012, p. 17; Cousins & Lahiff, 2005, p. 128; Bembridge, 1986, pp. 24-9; Eweg, Pillay, & Travailleur, 2009, p. 371; Alcock, 2013).

The sugar industry generally attributes its achievement in fostering small-scale production to its provision of a range of financial and agronomic support services. Historically prominent in this success story has been Umthombo Agricultural Finance (UAF, formerly the Financial Aid Fund (FAF)), a self-described industry 'development agency' which extended small-scale loans for sugarcane production (Vaughan & McIntosh, 1993, p. 446; Bates & Sokhela, 2003, p. 107). In tandem with providing a range of agricultural extension and training services, the sugar industry is often presented as exemplary of the beneficial potential for private-sector led development. In its own terms then, a critical investigation of the material basis and content of this success would certainly have relevance for the poor landed denizens of South Africa's customary areas more broadly.

However, in recent years the numbers of small-scale sugarcane growers have indeed decreased precipitously. Since their peak at around 50,000 in the early 2000s, only 16,280 delivered cane in 2009 and 14,445 in 2010 (Bates & Sokhela, 2003, p. 107; SASA, 2010, p. 13; SASA, 2009, p. 13). While generally attributed to several successive years of poor rainfall, the decline has also witnessed the closure of the UAF's credit facilities amidst high incidence of grower default and fraud. Though this decline has been an issue of great concern to the industry, its impacts and causes are not well understood beyond the proximal issue of drought. Early meetings with the South African Cane Growers Association (SACGA) revealed that while the industry was pursuing new institutional economic mechanisms to arrest the decline, there was a general dearth of research on the social circumstances of small growers, which tended to be of a general, technical/agronomic or institutional economic variety. Indeed, while certainly a productive concern, small grower drop-out further represents a threat to the industry's legitimacy as a developmental agent; a reputation it has also fostered in its proactive approach to land redistribution. For a multi-billion rand industry exceptionally enjoying tariff protection and powers of statutory self-regulation, and operating within a country with notoriously persistent patterns of racialized income and land inequality, a fall in such legitimacy could indeed have severe material consequences.

In addition to helping me fathom these framing circumstances, SACGA was also instrumental in aiding my selection of and entry into my field sites. As small-scale sugarcane growers universally supply centralized miller processors, the first step was to select a broad mill-supply area, a decision which was informed by SACGA's provision of small grower supply statistics for each area. My ultimate choice of Umfolozi was firstly premised on it not only being one of the largest small grower supply areas, but also featuring one of the highest rates of drop out. In 2010 Umfolozi Sugar Mill (USM) was supplied with 100,984 tons of

cane by only 37% of its 7,494 registered growers, close behind Tongaat-Huletts' Amatikulu mill (which in 2010 had 8,357 registered small growers, 46% of whom produced 203,012 tons), and just ahead of the Tongaat Huletts' Felixton mill (which in 2010 had 6,055 registered small growers, 50% of whom produced 198,424 tons of cane) (SACGA, 2010, personal communication).

Secondly, as one of the more 'rural' supply regions, I presumed that landed production in the USM supply area would play a more significant role in grower livelihoods than in peri-urban areas, and that the impacts of sugarcane and its relative decline would be more pronounced and revealing. Finally, the Umfolozi mill has been bought and sold several times within the past five years, passing from sugar giant Illovo to Patrick Sokhela[1] and ultimately to a consortium of large-scale growers (LSGs), which I thought might illuminate the social and commercial tensions of contemporary sugar production.

This thesis hence seeks to interrogate the underlying social circumstances and impact of small-scale grower production under conditions of generalized decline with new empirical research in two adjacent rural communities of Madwaleni and Shikishela in the Umfolozi supply region of northern KwaZulu-Natal. It focuses on four core inter-locking questions:

1. How are small-scale growers structurally incorporated into the sugar industry and how has this position shifted over time?

2. What is the nature of sugarcane's differential contribution to small-scale grower livelihoods and dynamics of social reproduction?

3. How has sugarcane production impacted on on-going processes of social differentiation?

4. How have different grower segments managed relative decline and how has this in turn impacted on the above dynamics?

[1] More specifically, USM was sold to Umvoti Transport (Pty), owned by Patrick Sokhela. One year earlier the Sokhela Family Trust similarly benefitted from Illovo's sale of the Gledhow Sugar Mill in 2004, and together with USM constituted the first black-owned sugar milling company, Ushukela Milling (Pty) Ltd. While USM has since been sold, Ushukela retains a the largest 34.9% share in the Gledhow mill (USM, 2012b; Gledhow Sugar Company, 2012).

1.2 Research Methodology

This section will focus on explicating the methodology pursued in the empirical portion of my research. The research design was heavily influenced by Sayer's (2010) explication of the distinction between the object and methods of 'extensive' and 'intensive' research. 'Extensive' research, according to Sayer, is "concerned with discovering some of the common properties and general patterns of a population as a whole", often through the use of 'quantitative' instruments for descriptive or inferential statistical analysis, while 'intensive' research concerns "how some processes work out in a particular case or a limited number of cases" often by use of 'qualitative' methods of causal and structural analysis, participant observation and structured and/or casual interviews (Sayer, 2010, pp. 242-3). More than just a distinction between 'breadth and depth', each method operates within distinctive conceptual terms. Extensive research focuses on *formal relations* of similarity, establishing *taxonomic* groups through a process of *replication*. Intensive research, by contrast, investigates *substantial* relations of connection, establishing *causal* groups by a process of *corroboration*. But despite the conceptual tension between such methods, robust research presupposes some engagement with both methods, at the very least to clearly understand the limitations of each. Intensive research for example may identify *causal* mechanisms and structures, but runs the risk of inaccurate generalization. Similarly, extensive methods may produce generalizable patterns of *formal similarity* but be left without any non-speculative means by which to evaluate *substantive causality* (Sayer, 2010, pp. 242-51).

I attempted to engage with this tension by dividing the empirical portion of my research into three overlapping phases. The first 'exploratory' phase was concerned with orientating myself with the concrete circumstances of my particular sites; to develop a 'sense' of context to inform the operational assumptions in the design of subsequent phases. As put by Murray (2002), the focus of this phase was *circumspective* ('looking around') in its concentration on "the empirical investigation of combinations of modes of livelihood at one moment of time [in order to] open up questions about the relationships between different socio-economic activities" (Murray, 2002, p. 490). The second phase concentrated on the administration of a survey of 74 homesteads, and thus had an 'extensive' focus, but largely alongside more 'intensive' forms of inquiry, particularly attendance of grower meetings. The final 'intensive' phase continued meeting attendance, but focused on unravelling substantive dynamics underlying empirical patterns revealed in the survey. This included conducting semi-structured interviews with miller representatives and life-history interviews with a select

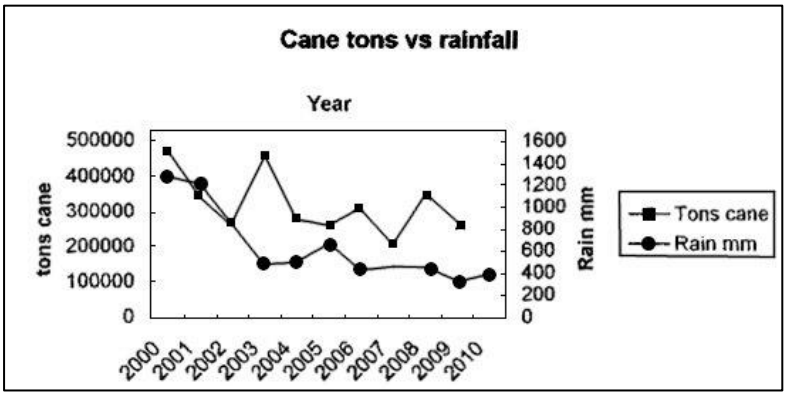
23 growers, as well as an extended review of secondary materials following the completion of my empirical investigation.

1.2.1 Exploratory phase

My first trip to KwaZulu-Natal was made in in July 2010, accompanied by my supervisor who had helped to arrange a meeting with the South African Cane Growers' Association (SACGA) at Mount Edgecombe before visiting his own field sites at Tugela Ferry. In the weeks prior to this initial trip I had been pursuing a basic literature review of the South African sugar industry and its small-scale sugarcane growers, but this would be the first time I would have any contact with industry officials.

As noted, SACGA officials proved greatly helpful and eager to provide support for any research into circumstances of small growers, and in the first instance was instrumental in aiding my selection of USM based on available statistics. In the second stage, SACGA once again proved particularly helpful, arranging and accompanying me to an introductory meeting with Umfolozi's Mill Cane Committee (MCC) the highest tier in small grower representative structures and chaired by a large-scale grower. It was here that I was also first introduced to the local Grower Support Officer (GSO), whose involvement in support of small-scale sugarcane grower affairs was seemingly tireless, and upon whom I would often depend for liaison with growers, a role she adopted with great patience and efficiency. In addition, SACGA had also arranged interviews for me with a local Department of Agriculture extension officer; an official of local government's office of Local Economic Development (LED), and with the Umfolozi Sugar Mill's (USM) outgoing CEO and acting consultant. These initial briefings provided a very useful overview of both the broad constraints faced by small growers, as well as the structure of their representative incorporation within the sugar supply chain. Costs of production and transport, poor agronomic conditions exacerbated by inadequate extension capacity, and communication problems loomed large in these discussions, though a muted tension between small and large grower representatives was also palpable. Reduced and erratic rainfall was cited as the main reason for a drastic fall in small grower production in recent years, as depicted in figure 1.1 below, provided by the mill.

Figure 1.1: Total annual cane production of small-scale growers in the Umfolozi region plotted alongside annual rainfall for the same region from 2000 to 2010.



Source: (USM, 2010, personal communication)

While challenges to small grower production were largely discussed in general terms, however, it was also clear that the relative weight of such constraints were different for different areas. Different sub-wards or *isigodi*[2] for instance carried different soil endowments, were of varying distances from the mill, and had supplied sugarcane for different periods of time. The question of selecting field sites was thus beset by a certain tension between potential representivity, that is, whether or not conditions in one area were reflective of the wider small grower supply area, and the depth of exposure of a particular issue, for instance the influence of distance and transport costs. This was complicated further by the simple pragmatic constraints of there being few disaggregated data on different small grower supply areas and my being a single researcher working largely on foot.

My ultimate choice of the two adjacent wards of Madwaleni and Shikishela was thus premised on six main considerations. In the first place, according to the Department of Agriculture's extension officer, Madwaleni and Shikishela had high potential soils relative to many other more coastal wards such as Qakwini and Mfekayi, although Madwaleni's red loam soils were generally regarded as superior to Shikishela's black, sandier soils. As I have neither any agronomic training, nor the resources to have soil quality tested, I thought it would be preferable to choose sites where variable soil quality was likely to have less influence. Similarly, while being situated around 30 km from the mill, and just a few

[2] Often directly translated as 'neighbourhood' Vilakazi identifies the *isigodi* as a territorial delineation "physically delimited by hills or rivers so that its boundaries can be clearly defined [consisting] of a number of lineages (*imindeni*) boundaries…all under the control of a tribal functionary…Beyond the *isigodi* is a larger territorial unit, known as the *isifunda* (ward)…an aggregation of several *izigodi*…and under the control of the *induna"* (Vilakazi, 1965, pp. 79, 82). However, while Madwaleni and Shikishela all fall in a single municipal 'ward' each has their own *induna*, and when enquired about all respondents referred to Madwaleni and Shikishela as *isigodi*. In this case, then, it would appear that the *isifunda* as a *customary* jurisdictional territory has been eclipsed by the *isigodi* as 'sub-wards' within the *municipal* delineation.

It would be this grower, along with her two resident sons and daughter, upon whom I would come to impose myself over the successive rounds of my research. In addition to being a gracious host, as a diligent secretary of the Mill Cane Committee she was also a critical and patient facilitator of my research. This was made clear in the final stage of the exploratory phase, when I stayed with her for the first time for two weeks. During this period she assisted me in a general tour of Madwaleni's immediate surrounds, gained permission for my stay and research from the local *induna*, assisted me in administering the first operational draft questionnaire and assured my entry into my first grower 'Development Committee' meeting at Riverview, adjacent to the mill. Moreover, she consistently defended my research; vouching for its independence, refuting rumours that I was spying on the mill's behalf, and openly acknowledging that it would not be tied to any direct material assistance. Along with the grower support officer, it was clear that I had been very fortunate to have fallen in with such knowledgeable and supportive guides.

In addition to the pragmatic consideration of a well-supported entry, however, Madwaleni and Shikishela certainly appeared to be appropriate and potentially revealing sites for my research. On the one hand the two wards seemed relatively well serviced. Madwaleni in particular had seemingly well-maintained primary and secondary schools, a clinic which included a 'community' garden, and power lines providing electricity connections. Notably, such infrastructure seemed to be keenly supported by non-state institutions: the clinic's placard proudly included the local Africa Centre[3] and USAID among its sponsors, and I was informed that the high school was the beneficiary of an Oprah Winfrey-hosted charity programme which would occasionally send out mobile trailer units stocked with computer equipment for basic computer literacy training (indeed I would witness this convoy of trailer units during one of my stays). Furthermore, the infrastructure of cane production was evident: local contractor tractors intermittently grumbled along, hauling and depositing cane to local loading zones (LZs), to be later picked up by a haulier service company. At night, from the vantage of hilly Madwaleni, the blaze of cane-fires started in preparation for harvest marked the Shikishela vale.

Nonetheless, the area was certainly not without its woes. Although the sub-tropical climate was not as dry as most of the country, the relative drought had certainly appeared to

[3] The Africa Centre for Health and Population Studies is institutionally located within the College of Health Sciences of the University of KwaZulu-Natal and physically located in Somkhele. It has conducted extensive medical and demographic research in its Demographic Surveillance Area (DSA) (within which Madwaleni and Shikishela are located) for decades, and since 2000 has compiled longitudinal data in its Demographic Information System (DIS) (Muhwava, 2008, p. 4).

have had a serious impact on cane production. Cane, I was informed, had once covered the landscape and alternative crops and grazing had been a marginal feature of landed production. Though fields of sugarcane still littered the area, my attention was attracted by large stretches of grass and bush that had once been under cane but now only offered grazing for relatively few remaining cattle. Moreover, the effects of drought were not limited to crop production: scattered taps were running dry as their aquifers depleted, and residents were either compelled to carry water from fewer functional taps, pay a neighbour with a bakkie to fetch water if the distance was too far, impose on a neighbour with a rain tank, or wait for a municipal water-tanker.

More pertinent to my research, however, was the materially variegated social terrain. To some extent, this was explained and made sense to me in terms of two categories of community residents vs. 'outsiders'. Indeed, many of the teachers and medical professionals who staffed the schools and clinic, for instance, commuted with personal cars, generally recent models. Similarly, 'drop-in' visits from other institutions such as SACGA, the Africa Centre, government, and Oprah's charity were also reminders of a different calibre of wealth beyond the field sites, evident in the new cars and clothes of their representatives. Certainly, though a 'student' with no car of my own nor adorned in expensive clothes, I was treading the beaten path of outsiders professing benevolent interest in Madwaleni/Shikishela's development. Nonetheless, differences within the community were also palpable. Some homesteads had access to electricity, water tankers and tractors, while others did not. Some had cattle, some not, some had access to considerably more land than others, and most pertinently to my research, some still cultivated cane, while others did not. Though the obstacles to successful sugarcane production in Madwaleni/Shikishela certainly had general impact, whether commercial, institutional, climatic or agronomic, it was clear that they were felt and managed unevenly within the ranks of small growers.

1.2.2 Extensive/Quantitative phase

After I had settled on my field sites, the focus of the subsequent phase would be to capture broad, albeit static, descriptive information about the two communities by way of a homestead survey. While the thrust of this phase of the research would be 'quantitative' in character insofar that the main purpose of the survey was to gather largely enumerated data for the purposes of statistical analysis, 'qualitative' information was an unavoidable and welcome consequence of treading Madwaleni/Shikishela. In doing so I engaged in informal discussions with growers, the grower support officer and others, though these were almost

universally mediated by the translations of one of my local research assistants. Additionally, during each trip I would sacrifice my survey duties in favour of attending relevant small grower meetings wherever possible. These included one 'Mill Cane Committee' meeting and a 'Pest and Disease Committee' meeting but generally were either at the level of the Local Association (LA) within Madwaleni/Shikishela, conducted exclusively by small growers themselves, or 'Development Committee' meetings attended by both small and large grower representatives. Thus the sequencing of the extensive/quantitative and intensive/qualitative phases of my research was not absolutely discrete.

The design of my questionnaire was largely informed by other rural homestead surveys that I adapted and extended for my particular research. In order to ensure some measure of comparability between studies, many of the sections are either functionally identical or very similar to those of my peers within in the NRF programme[4], particularly those whose research is based on poor homesteads living under customary tenure. This is particularly true in regard to the sections on basic homestead demographics, income sources, income ranking, asset profile, land access and tenure, crops grown and sold, and livestock owned and sold, which were largely co-adapted over the course of a workshop hosted by our supervisor and given individual permutations. I also attempted to include several sections of my own design which focused on data particular to cane production, specifically: labour employed in cane, modes of transport, input costs and procurement, major constraints, extension support; grower representative structures; savings and credit, and request for grower respondents to provide me their production code with which they submit their cane. Where growers agreed to divulge their codes SACGA would hence be able to provide me with individuated cane production data. The final questionnaire was therefore very long, taking between one-and-a-half to three hours to administer to a single grower.

The unit of enumeration in the questionnaire was the 'homestead', with questions posed largely to the 'main' (typically meaning 'registered') grower. Here, 'homesteads' refer to distinct physically-bounded residential sites, typically housing a particular patrilineal subset, largely under the authority of the most senior male, and with rights to particular areas

[4] My research falls within a wider five-year research programme on Land Reform, Food Systems and Agrarian Change in South Africa funded by the Department of Science & Technology/National Research Foundation. The Research Group is comprised of 12 post-graduate students (including myself) and post-doctoral fellows, established and coordinated by Prof. B Cousins, the Chair in Poverty, Land and Agrarian Studies and our joint supervisor. The Group's research is spread across a variety of contexts, including large scale commercial farming which dominates South African agriculture, emerging successful small and medium scale black farmers in communal areas, on private land, land reform projects, and rural households in commercial farming districts and communal areas living in chronic poverty. Together our research seeks to collectively elucidate what processes of socio-economic change underway in the South African countryside, how are these likely to influence the outcomes and impacts of land and agrarian reform and what are the impacts of land and agrarian reform policies and programmes on agricultural productivity, agrarian structure and rural poverty (Institute for Poverty, Land and Agrarian Studies, 2013).

of land (see section 4.3 for an elaboration this issue). The survey was administered over the course of five field trips ranging from one to two weeks long. As noted, the first six questionnaires were administered with translation services from my host. However I feared that her position as Mill Cane Committee secretary might threaten the confidentiality of the interviews, or that respondents might alter their responses to appease her expectations. Furthermore, as willing as she was, being 60 years old and generally fully occupied in temporary work, her position as MCC secretary and domestic responsibilities, I did not want to take up any more of her time. Consequently, for translation services I relied on one of three unemployed local matriculants as per their availability.

The sample I drew was purposive insofar as it was directed exclusively to homesteads which had grown sugarcane in the last five years, but to ensure a relatively even geographical spread, respondent homesteads were randomly selected within *clusters* (Durrheim & Painter, 2006, p. 138), structured around the use of local loading zone clearings where cane is deposited from short-haul contractors for pick-up by long distance hauliers and around which the lowest tier of grower representative structures are formed. I attempted to randomly select five initial small grower homesteads for interview from each loading zone area, and then to spread supplementary interviews fairly evenly. This sampling method resulted in a final random sample of 66 growers, with an abridged version of my survey also conducted with eight additional contracting and labouring grower homesteads non-randomly selected for life-history interview. The geographic spread of my sample is shown below in tables 1.1 and 1.2.

Table 1.1: Questionnaires administered by subward

		Frequency	Percent	Valid %	Cumulative %
Valid	Madwaleni	55	74.3	74.3	74.3
	Shikishela	19	25.7	25.7	100
	Total	74	100	100	

Table 1.2: Questionnaires administered by loading zone 2010

		Frequency	Percent	Valid %	Cumulative %
Valid	Lubisana A	6	8.1	8.8	8.8
	Madwaleni A	4	5.4	5.9	23.5
	Madwaleni B	5	6.8	7.4	88.2
	Madwaleni C	7	9.5	10.3	33.8
	Madwaleni D	5	6.8	7.4	58.8
	Madwaleni E	6	8.1	8.8	51.5
	Quarry A	5	6.8	7.4	66.2
	Quarry B	6	8.1	8.8	42.6
	Shikishela A	7	9.5	10.3	76.5
	Shikishela B	6	8.1	8.8	17.6
	Shikishela C	3	4.1	4.4	80.9
	N/A	8	10.8	11.8	100
	Total	68	91.9	100	
Missing	99	6	8.1		
Total		74	100		

As can be seen, Madwaleni (Lubisana A to Quarry B) accounted for the bulk of interviews, mainly owing to the much larger number of loading zones and hence supplying growers within it. It is worth noting that no interviews were given at Mdondeni in Shikishela, due to rumours that it was a dangerous location and the severe anxiety the idea of my being there caused my host and research assistants. Shikishela C is also under-represented as only four homesteads were ever both available and willing to do the interview. The six 'missing' loading zones include homesteads non-randomly selected for administration of the abridged questionnaire where questions pertaining to representative structures and affiliations were not asked. Similarly the eight non-applicable (N/A) responses refer to growers who had dropped out of production for some time, and could not remember which zone they had supplied in the past.

The approach to statistical analysis taken is primarily of a descriptive nature, focusing on absolute frequencies and measures of central tendency of largely independent variables. Such findings are used primarily in their own terms i.e. to describe the actual distribution of different variables within the sample to build an orientating sense of the socioeconomic and demographic context. Where possible, some comparisons are made with wider quantitative data, provided mainly by the 2011 Census and some published findings released by the Africa Centre. In such instances distinctive differences and similarities in the data are highlighted, though in some instances subtle distinctions in the terms of reference of compared variables apply, and hence are duly noted or adjusted where possible. Nonetheless, in some cases, contingency tables are used to explore distributional shifts of one or more dependant variables against one or more independent variables to establish, for instance, a gendered frequency of different marriage types among self-identified homestead heads.

In one instance a grouping procedure was followed whereby homesteads were segmented into asset quartiles.[5] 'Asset' ownership was chosen as a proxy for wealth in lieu of accurate income data due to its strong bivariate correlation with other important independent socioeconomic variables, such as land and jobs. Thus established, contingency tables based on asset ownership were used to examine differences in absolute distributions

[5] Homestead 'asset' profiles were enumerated as the sum of a range of key productive and consumptive items owned by the homestead according to a pre-defined list. These included: 'domestic assets' including various kinds of stoves, sewing and washing machines, and fridge/freezers; 'electronic assets' including radios, CD players, TV/DVD players and computers; 'transport assets' including motorcycles, bicycles, and motor vehicles, and 'agricultural assets' including tractors, ploughs, wheelbarrows, knapsack-sprayers, donkey/ox carts, garden spades, garden forks, hoes and rakes. In every case respondents were able to cite the presence of these items, with the only problem found in choosing whether a 'broken' item was to be counted. In most cases, broken items were excluded, though in some cases, where it seemed that repair was likely, they were included.

and measures of central tendency to describe the extent, range and other salient features of material inequality within the sample.

The results of the survey will be reported later, but some reflection on its efficacy is perhaps appropriate here. I regard the implementation of the survey as a qualified success. The first adapted half of the questionnaire was most successful; the questions were both easily understood and for the most part yielded reliable data. Two exceptions included *income figures*, with respondents often unable (or perhaps unwilling) to provide even rough estimates of a member's monthly or annual earnings and *crop records*, again with estimates of non-cane production tentative at best, if attempted at all. *Land size* estimates also proved difficult for many growers, however, the common practice of using contractual ploughing services priced in meters, the use of hectare measurements by mill authorities, and general knowledge of the relative size of one's own plot against neighbours, warrants the use of these estimates as useful relational/proportional guides to area under cane. Perhaps most disappointing was the failure of my sections on costs of production to yield reliable data from which to measure profit (see section 5.5.3 in Chapter Five for an elaboration of these issues). The labour section of the questionnaire, however, was revealing of the work regimes of different growers, and the transport section yielded data on both the considerable delays faced by growers and relative cost in cases where transport payment receipts were furnished. Other sections that posed simple questions, such as membership and involvement in representative structures, contact with extension support, and use of financial services, were also quick, useful and reliable. Perhaps most useful among these, however, were the more open-ended questions, which provided an opportunity for growers to consider and explain their experiences and constraints. These questions provided two closely related benefits.

In the first place, it goes almost without saying that even as respondents, growers were not simply passive, and would also evaluate me, who I was, and what my intentions were. While suspicious growers would decline to be interviewed (in one case I was accused of being a spy working on the mill's behalf), those who accepted my self-introduction as an independent student and/or its corroboration by my host/assistants and the grower support officer, would still continually assess why I was asking the kinds of questions I was and how their responses might be used. Though I attempted to explain the purpose of each section, many growers still found it difficult to understand why I was asking such detailed demographic and economic information and remained quietly sceptical of my intentions and/or methods. This suspicion was not much assuaged by the difficult and detailed cost information I was requesting, which tested growers' memory and patience. The more open-

ended interspersed inquiries into their constraints, however, provided something of a break from the preceding array of staccato and alienating questions, allowing growers more space to actively inform/explain *to* me or converse *with* me rather than simply have information extracted *by* me. Growers typically responded well to whatever space was made for their voice, rather than just their answers, and this helped to inspire more active participation and interest in the survey.

Secondly, such questions were also an important investigative tool. Although not always yielding discrete quantifiable data, such questions were also an important means by which I could gain some insight into growers' constraints, modify my operating assumptions, and implicitly compare and evaluate growers own understanding (or at least public presentation) of their circumstances. These questions thus provided the survey with something of a 'qualitative' dimension and ensured that the interrogation of substantive relations was not clinically separated from this extensive phase. This would prove valuable not only in informing data analysis but also in framing the final 'intensive' phase of my research.

1.2.3 Intensive/Qualitative phase

As already noted, my 'qualitative' inquiry to some extent occurred in parallel with prior phases and cannot be considered altogether discrete. Nonetheless, whereas the emphasis in my homestead survey was to yield 'extensive' data and information about the small grower population, the intensive phase was focused on investigating the substantive social dynamics of small-scale sugarcane production. As the starkest empirical trend across the industry as a whole as well as in the Umfolozi area has been the relative decline of small grower production, the question of the underlying processes driving varying small grower trajectories received the most focus. The four main methods which I used in this phase were firstly the administration of semi-structured life-history interviews conducted with selected small grower homesteads; continued attendance of grower meetings; semi-structured interviews with USM's commercial manager and cane-procurement officer; and a deeper examination of the historical origins of the structure of the sugar industry and the emergence of small-scale sugarcane production within it, largely via a review of available secondary sources on the industry.

Selecting grower homesteads for semi-structured interviews was premised largely on the aforementioned asset-grouping procedure. I initially selected 17 homesteads for interview, four from the richest quartile, six from the middle two quartiles, four from the

poorest still growing cane, and three from the poorest who had dropped out altogether. Selection of individuals within asset groups was guided by an attempt to interview homesteads broadly representative of quantitative patterns, in order to yield some insight into the causal processes driving these apparent trends and then select some statistical 'mavericks', or outliers, as counter examples. Homesteads considered to be open to interviewing were selected wherever possible, but in practice four homesteads were either consistently unavailable or outright refused a second round of interviews. In a subsequent field trip I interviewed eight more homesteads, including four contractors, and four confirmed labouring homesteads, two of which still grew cane. Some deviation from the original symmetry was thus necessitated, and ultimately 23 interviews were administered: seven from quartile four, seven from combined quartiles two and three, and nine from quartile one.

The interviews themselves took between one-and-a-half to three hours to complete depending on the availability and willingness of growers as well as the natural course of the conversation. Most interviews were unhurried except in the case of the final eight interviews, which were preceded by the administration of an abridged version of my questionnaire. While the interviews were mainly 'life-histories', as the interviews focused primarily on growers' shifting material circumstances and trajectory, they are better understood as 'accumulation histories'. The interviews followed a fairly chronological format both for ease of memory and to guard against significant gaps in the narrative, highlighting by what means and under what conditions the grower and their immediate family survived, how these changed over time, and why. The questions asked were typically little more than points of clarification, requests for more detail or simple prompts (e.g. "what happened then?" or "how did you do that?" or "why did you do this?") to spur on or give body to the narrative. As many of the questions 'rolled' along with a grower's unfolding story, the questions I carried were used primarily as personal guides or cues rather than as explicit questions requiring direct answers.

Although no general set of questions were universally applicable, the interviews were 'semi-structured' insofar as I placed emphasis on or requested elaboration of particular periods and junctures in a growers life. These included the place and material conditions of their natal homestead; when they first left home, where they went and why, how and why they first came to settle in Madwaleni/Shikishela and how they survived there, when, how and why did they first start sugarcane production, what was the extent of sugarcane's contribution to their material well-being, what they think has underpinned their relative

expansion or decline, what their plans for the future are, and whether or not they think cane will play a role, and how.

I also engaged in more formal semi-structured interviews with two key mill officials, the commercial manager and the cane procurement officer. The interviews were centred on the mill's commercial operation and strategy, the historical and current extent of miller interventions in small-scale production, and perceived constraints. I had additionally arranged an interview with the chairperson of the Mill Cane Committee, but he was unable to meet an arranged appointment, and has been unable to return answers to my written questions.

The final stage of my research entailed a return to secondary material, but with a new emphasis. In an effort to better understand the wider industry's regulatory and commercial history, I reviewed all available government reports and commissions of inquiry into the sugar industry from 1920 onwards, as well as the sugar industry's own annual yearbooks. Although small-scale growers are rarely mentioned, the government reports were particularly insightful in revealing not only the historical development of the industry, but also the terrain of struggle between white-settler growers, millers, government and fractions thereof.

1.3 Structure of the thesis

Having here provided the background, rationale and methodology behind my research, the thesis proceeds in six remaining chapters. The second chapter provides a critical conceptual overview of out-grower or contract farming in general. The bulk of the chapter is devoted to exploring differing perspectives from within the radical political economy tradition in which my work has been theoretically grounded. The third chapter provides a broad overview of the history of the political economy of the South African sugar industry in general, with a particular focus on locating the emergence, growth, and decline of small-scale sugarcane growers under shifting structural conditions. Specific attention is given to the evolution of the industry's regulatory structure, drawn primarily from a review of the various government commissions of inquiry that punctuated the industry's history. Though often overlooked, struggles over the regulatory structure are revealing of the contours of power and crisis which shaped the industry, and in which small-scale production has played an important role.

Chapter Four introduces the results of my empirical research by providing an orientating, descriptive 'snap-shot' of the key socio-economic characteristics of small-scale sugarcane growers in Madwaleni and Shikishela garnered primarily from data from my own survey. Though sometimes relying on different measures or units of analysis, comparison with wider available census data is nonetheless made wherever possible. Chapter Five then

seeks to focus on the structure of 'vertical' relations between small-scale growers, millers and contractor intermediaries providing haulage and ploughing services, both in terms of production/supply and representative politics. A mix of 'extensive' survey data and 'intensive' interview material are used to locate Umfolozi within the broader structural shifts discussed in Chapter Three and outlines the contemporary constraints in small-scale sugarcane production.

Chapter Six then shifts to a 'horizontal' focus on how sugarcane production has influenced on-going dynamics of social differentiation. First, a statistical grouping procedure is used to segment growers into 'asset groups' in order to provide an overview of general patterns of material inequality amongst growers. Secondly, the 23 growers selected for life history interview are then grouped and analysed according to an adapted typology of livelihood pathways, drawn from Scoones et al. (2011) but first developed by Dorward et al. (2009). The final section is then devoted to a discussion of the key historical determinations and productive dynamics underlying these pathways. Finally, Chapter Seven attempts to provide the analytical implications of these different threads of investigation, and provide some space to discuss policy implications.

1.4 Conclusion

This chapter has sought to provide the background and rationale for my research, set out the research questions I have endeavoured to answer, the methods I employed to do so and outline the structure of the thesis. The choice to undertake my research in the Umfolozi supply area was based, firstly, on the fact that it included a large number of small growers, many of whom have dropped out of production, and secondly, on its characterization as a 'more rural' region where sugarcane could be expected to play a more prominent role in grower livelihoods. Madwaleni and Shikishela in particular were chosen as field sites to partially control for the negative influence of poor soil and particularly onerous transport costs (based on their relatively good soil endowments and close proximity to the mill); because the form of production (under customary tenure on individual homestead plots) was broadly representative of small-scale sugarcane production more generally; and because of the relative ease of access to grower homesteads offered by a voluntary host from the community. The research design was broadly divided into three overlapping phases. The first 'exploratory' phase was primarily concerned with orientating myself to the particular context of Madwaleni/Shikishela and testing the first iteration of my questionnaire. The second phase was concerned primarily in gathering 'extensive' data by way of a survey of 74 grower-

homesteads, with questions directed principally to the resident registered sugarcane grower. Respondent homesteads were in turn randomly selected within clusters centred around local loading zones in order to ensure a relatively even geographic dispersion. Small grower meetings in Madwaleni/Shikishela and at Riverview were attended whenever possible. The final ‘intensive’ phase was focused conducting more substantive semi-structured life-history interviews with 23 growers selected based on their consistency with the quantitative patterns found, and supplemented with some ‘outliers’ as counter-examples. The end of the primary research phase was then supplemented with secondary-research into the structure and history of the sugar industry, drawn largely from government commissions of inquiry and the sugar industry’s annual yearbooks.

Chapter Two: The Political Economy of Contract Farming: theories, concepts, and debates

> *"As a legal form with appearance of neutrality and universality, the contract between farmer and processor is much like the wage contract between 'free' labourer and employer described and analyzed by Marx: the legal form [of the contract] conceals (and yet, on analysis, reveals) the system of social relations beneath it, its very abstractness providing a powerful strategy for capital accumulation and exploitation"* (Wilson, 1986, p. 47)

2.1 Introduction

The theoretical framework that informed this thesis is drawn from two distinct though sometimes overlapping literatures. The first is rooted in the analytical tradition of *political economy*, or more specifically, the *political economy of agrarian change*. The Journal of Agrarian Change summarizes the core focus of this approach as "the social relations and dynamics of production and reproduction, property and power in agrarian formations and their processes of change, both historical and contemporary" (Bernstein, 2010, p. 1). Typically, political economy gives particular attention to dynamics of agrarian class formation and social differentiation and their relation to wider processes of capitalist transformation and development. The second literature concerns the particular productive form of *outgrower or contract farming* (CF) arrangements, which has attracted interest from within the analytical tradition of political economy, but also from without; most commonly from neo-classical and new institutional economics, but also including a wider 'grey' literature from business, NGO/NPO, donor and international development institutions (Oya, 2008, p. 5). As the political economy literature and its numerous debates are far more extensive than can be done justice here, I think it would be more germane to use debates around contract farming to explore the political economy approach and its relation to these other frameworks.

Perhaps unsurprisingly, different theoretical approaches to contract farming imply both distinctive methodologies and often divergent politics. However, a striking commonality of these different literatures is a tension between acknowledging contract farming's incredible diversity on the one hand, and an apparent drive to produce generalizable or stylized 'lessons' about its facets on the other. Descriptively, there is often a consonance across theoretical divides that borders on consensus. Little and Watts (1994) for instance provide one of the most comprehensive and widely cited definitions of contract farming as:

> *"forms of vertical coordination between growers and buyers-processors that directly shape production decisions through contractually specifying market obligations (by volume, value, quantity, and, at times, advanced price*

determination); provide specific inputs; and exercise some control at the point of production (i.e., a division of management functions between contractor and contractee)" (Little & Watts, 1994, p. 9)

As is evident from this broad definition, the sheer variety of even basic structural variables have made attempts to create typologies of contract farming very difficult: should one be guided by the array of particular contract specifications; the institutional mechanisms which mediate them; the technical requirements of the crop; the structure of the wider supply chain; the operating market environment; the social/productive conditions of contracted farmers; wider political conditions on investment etc.? The wide number of pertinent variables and their multifarious configurations are made more challenging by the dearth of quantitative and longitudinal material with which to evaluate contract farming's relative prevalence or its long term impacts (Oya, 2008, p. 10). As a result of this methodological challenge, broad analyses of the nature and impact of contract farming tend to be premised on extrapolation from case-study material.

Though often rich in detail over the period of study, this reliance on case-study material renders generalizing about contract farming as a productive form a highly fraught affair. In response to these challenges, analyses of contract farming thus tend to either seek some form of empirical consonance across a wide range of case studies and/or attempt to reveal its 'deep' function through an analytical process of abstraction. In this process, initial descriptive similarities between theoretical schools incline once again toward polarization as each comes to rely on its own distinctive foundational concepts. Theoretically divergent studies of contract farming thus show some level of descriptive similarity and some complementarity between different focal terms of investigation, but ultimately chafe considerably in their objectives and methodologies, not unlike different approaches to smallholder agriculture more broadly (Cousins & Scoones, 2009, pp. 8-18).

In this chapter I will attempt to summarize two broad approaches to contract farming, specifically a 'mainstream' economic school informed by neoclassical and institutional approaches, and 'radical' approaches founded in political economy. As my research is situated closer to the latter framework, I give it a disproportionate amount of attention.

2.2 Neo-classical and new institutional economic perspectives on contract farming

Mainstream economic perspectives tend to evaluate contract farming as an institutional mechanism adjusted to particular market circumstances or failures. For some, contract farming is little more than a technical adaptation, particularly in cases where economies of

scale can be found in processing and coordinated supply arrangements, or where the biological characteristics of a crop demand long maturity periods and high maintenance costs (Binswanger, 1986). For New Institutional Economics (NIE) approaches, technical explanations are supplemented by readings of contract farming as a novel institutional form mediating a number of imperfect micro-economic considerations. A typical list of such considerations would include risk/uncertainty and trust, market imperfections (in capital, land and labour), coordination failures and monopsony rents. Often the explication of these variables is undertaken in terms of 'transaction costs', founded largely on Coase's (1937) influential identification of these as a chief determinant of a firm's boundaries. Within this understanding, firms arise primarily to lower various transaction costs encountered in procuring from the market (such as search and information costs, enforcement costs, bargaining costs etc.) and will efficiently grow until contained by high overhead costs, inhibitions to entrepreneurial action and administrative complications result in decreasing returns. NIE thus tends to be concerned with understanding contract farming as a rational and economically efficient institutional form, focusing largely on explaining why firms choose to engage in contract farming, and how to organize various contract farming arrangements most efficiently. The strong emphasis on 'rational' economic efficiency also tends to give new institutional economic analyses a strongly prescriptive character; to determine when, whether, and why contract farming would be an appropriate choice in an economically 'imperfect' world.

Indeed, findings from new institutional and neo-classical economic research into contract farming has become something of a staple in the wider 'grey' literature, particularly from international 'development' institutions such as the World Bank, Department for International Development and the Food and Agriculture Organization (Eaton & Shepard, 2001; Coulter et al., 1999; Olomola, 2010). Often targeting donor or corporate investors, policy documents abound with stylized 'lessons' concerning the design of contract farming schemes, such as the importance of 'strong' producer organizations and the difficulties of contract enforceability in the absence of monopsony power. Such prescriptions are reflective of an analytical method which tends to treat contract farming arrangements as something of a sum of diverse and variable but ultimately distinct and observable mechanisms. For Grosh (1994), this is a distinct advantage; where case study approaches have "led to a neglect of the variation in contracting practices as a variable to be explored and explained", new institutional economics offers a means to "compare the advantages of alternative forms of

governance (e.g. spot markets, contracting and vertically integrated plantation agriculture)" (Grosh, 1994, p. 236 quoted by Oya, 2008 p. 8).

Rather than neglecting 'political' or 'social' aspects altogether, new institutional economics implicitly treats these either as incidental or immutable factors which micro-institutions must respond to, or as derivative of an inadequate institutional design. In addition to being anti-political (rather than presumably apolitical) such a stance ultimately retreats into something of a narrow empiricism where questions of power, structure, and complex social dynamics are either skirted, or reduced to discreet quantifiable variables.

In Masuku (2009), for example, investigation of relations of 'trust' between Swazi supplier-farmers and millers utilize a notion of trust as an 'asset' to be 'maximized' in order to "economize on information search and transaction costs" (Masuku, 2009, p. 185). Using an attitudinal survey, the author compares a ranking of levels of farmers' trust against the length of time engaged in contract farming and an undisclosed method of measuring 'profitability' to find that "farmers who trusted their millers complied with the contract specifications because they do not anticipate cheating by the millers…[and] farmers who do not trust their millers are outperformed by those whose do" (Masuku, 2009, p. 197). To draw such a conclusion without evaluating the nature of the relationship between farmers and millers, differentiating between farmers, or presenting empirical evidence of what farmers were suspicious of and whether or not these were justified, of course, rests on a number of presumptions. It would have to be shown for instance that millers' and farmers interests' are basically compatible, that *all* farmers suspicions are unjustified, that *all* farmers receive equal treatment, that *all* farmers are functionally undifferentiated, and that greater profitability/durability is a function of greater trust rather than vice versa, to name a few possibilities. But new institutional economics offers few instruments to investigate such complicating dynamics.

While it might be considered somewhat specious to criticize new institutional economics for failing to incorporate political and social concerns if this is explicitly not its intention, the question then remains whether it is capable of elucidating contract farming on its own terms. But the task of measuring and evaluating (often by some means of enumeration) even narrowly-defined staple concepts such as 'efficiency' or 'transaction costs' (let alone more ambiguous ones such as 'trust') is a highly fraught affair. For instance, in Sartorius and Kirsten (2004), the authors evaluate a small-scale sugarcane outgrower scheme centred on the Mhlume Sugar Company (MSCo). A key finding of this study was that small-scale growers display marginally greater overhead cost efficiency than their estate

counterparts, but also generate higher start-up transaction costs and many more 'transactions' per hectare (implying higher administrational/managerial costs). This evidence leads them to conclude:

> *"that smaller growers can effectively compete with larger growers and company estates on a long term basis. These findings…can be used as a basis to convince agribusiness that small-scale growers can operate as viable business partners or, alternatively, as a basis to persuade state-donor bodies that the economic wealth of agricultural supply chains is not adversely influenced by the presence of smallholder production*." (Sartorius & Kirsten, 2004, p. 103)

In a subsequent article the authors follow a ranking procedure of 'subjectively' evaluating small-scale sugarcane supply according to the stylized characteristics of a spectrum of supply-chain governance forms, ranging from spot market to full vertical coordination (Sartorius & Kirsten, 2005, p. 86). However, though published only a year later, the authors conclude from this method that MSCo's:

> *"decision to unbundle its own sugarcane supply activities by way of outsourcing these activities to small farmers is questionable and the company should continue to self-produce the maximum possible volume of sugarcane on its own company estates"* (Sartorius & Kirsten, 2005, p. 94).

Sartorius and Kirsten avoid outright contradiction of their earlier support for small-scale sugarcane grower 'unbundling' by suggesting that MSCo's error was in choosing a 'specification' rather than 'relational' contract form within their governance continuum. In their conclusion, however, the authors elaborate what might have motivated MSCo to make this incorrect decision: that it wished to divest itself of its non-core activities, that it faces governmental pressure to contribute to the transformation of the agricultural sector, and that it had benefitted from small-holders being 'locked in' to sugarcane production in the absence of other crops or economic activities yielding equal or higher returns. This judgement to outsource was now maintained to be incorrect due to higher risks in cane production more generally, particularly owing to the loss of high preferentially priced European markets and differential regulation of domestic industries internationally (Sartorius & Kirsten, 2005, p. 94). Far from being an analysis of 'transactions' and costing procedures (the authors themselves suggest that MSCo's costing mechanisms are inadequate), it is an appreciation of wider national and international politics and social conditions of production which ultimately decide the matter. Indeed, despite insisting that transaction cost analysis brought them to this this conclusion, it would seem only tangentially useful as a framing device for the authors' own "subjective" assessments of "risk".

This is not to necessarily condemn new institutional economic or transaction cost analyses outright. Transactions and their costs remain an important factor in understanding a firm's choice of supply arrangements. Nor are analyses of risk inappropriate, particularly when attempting to understand the mechanics of such arrangements or the motivations and strategies of the purchasing firm. Institutions are clearly also critical. The point, however, is that a focus solely on micro-economic institutional factors lacks sufficient explanatory powers, and throws some doubt on the validity of 'lessons' drawn from such analyses as well as their wider applicability.

2.3 Between discipline and exploitation*:* radical political economy perspectives in contract farming

In contrast to neo-classical and new institutional economic perspectives on contract farming as an efficient institutional form, Radical Political Economy (RPE) perspectives tend to view contract farming as a mechanism for exploitation and control over production. In NIE the contract's explicit role is to ensure fair and predictable engagement between otherwise unpredictable or unequal parties by setting out pre-defined and agreed rules of participation and engagement. Inequality in contractual relations tends to be understood as a problem of inadequate design or enforcement, and unsurprisingly such analysts place a strong emphasis on 'strengthening' either representative producer organizations and/or more developed/appropriate legal enforcement mechanisms. Radical political economy approaches, by contrast, focus on how the contractual form operates to *entrench* unequal relations as a powerful, though sometimes subtle, coercive mechanism. Though market contexts remain an important factor, it is the political and social content of contract farming which is emphasized in understanding its origins and operation.

Though the radical political economic literature evaluating particular contract farming schemes is abundant, its contemporary theorization is rooted in the seminal works of Glover & Kursterer (1990) and Little & Watts (1994) in their respective collections of case studies; a notable article by Wilson (1986)*;* and the widely cited articles by Porter & Phillips-Howard (1997). To some extent, a general characterization of contract farming schemes is precluded by their diversity; not only of their technical variety but also in the prevailing socio-political conditions of their implementation and impact. Coupled with the aforementioned limitations to case-study research, this great variance has created a tension within radical political economy analyses in theoretically characterising contract farming. Though often largely descriptive in character, subtle theoretical distinctions do arise within such analyses.

Nonetheless, across these analyses there are four key thematic areas which are of prime concern:

- How contract farming schemes directly function within company or corporate strategies of accumulation through various mechanisms of producer discipline and/or exploitation;

- How contract schemes indirectly function within company or corporate strategies of accumulation through wider political legitimation or facilitating access to varying types of effective subsidy;

- How commodity relations under contract farming promote (or inhibit) social differentiation and particular patterns of social reproduction and accumulation amongst different classes of producers;

- How contract schemes relate to wider circuits and processes of capitalist accumulation.

2.3.1 Understanding contractual subordination: between discipline and exploitation

For Glover and Kusterer (1990), the contract is fundamentally about differentially allocating risk, with the purchasing firm enjoying a greater measure of supply certainty than on the open market while carrying the risks of marketing, and farmers enjoying a guaranteed buyer and input/service provisions while carrying the risks of production. The satisfaction of each party's mutual obligation occurs at the point of exchange via a predetermined pricing arrangement, which itself is instrumental in structuring the relative risks borne by each party. Although pricing arrangements are variable, they are frequently of two types:

- *Fixed-price arrangements:* a price floor stabilizes grower income, but possibly at the expense of average income levels. This enhances the relative risk to variations in terms-of-trade, downstream marketing for the company, and upstream input purchases for the grower, if applicable.

- *Formula-price arrangements:* These tend to calculate prices by dividing total proceeds after processing costs are deducted from revenues obtained, ensuring that the

company does not make losses, but neither can it make large profits. (Glover & Kusterer, 1990, p. 4; Watts M. , 1994, p. 61)

Glover and Kusterer are nonetheless ambivalent about characterising the contract as a solely technical institution. Certainly, they do not reject the importance of variable commercial imperatives, but these are intimately bound up with the exercise of social and political power.

> *"Contracts allow the company a degree of control over the production process that is often comparable to that obtained on company plantations. On the other hand, the company does not have to invest in land, hire labour or manage large-scale farming operations which may tax the managerial capacity and technical expertise of a primarily industrial firm. Of the broader motives for contracting, avoiding conflicts over landownership and labour issues is probably more significant. Cost advantages may also be possible."* (Glover & Kusterer, 1990, p. 7)

The means by which contracting companies are able to exert control over production despite their formal organizational independence are manifold, and form one of the key analytical issues for RPE analyses of contract farming. Perhaps most basically, "a systemic link exists between product and factor markets", with particular productive practices implied by the specific agronomic requirements of the crop (Watts, 1994, p. 28). Final crop requirements might be further influenced by onerous quality standards set by the contracting company, third-party rating agencies, or downstream retailers, and thus imply or prescribe particularly intensive or stringent production practices. Often the company will formally prescribe the use of particular production practices or technologies, but control over productive practice might also function informally by virtue of farmers' lack of alternatives or implicit trust in a company's agronomic expertise and varying levels of extension support. In cases where farmers do not have the means to purchase the necessary services, technology or inputs to initiate growing themselves, external influence over production may be particularly powerful. Costly capital/inputs/services might be provided by the company *gratis*, but are typically financed by credit administered (though not necessarily sourced) by the contracting company. Typically such debt is amortized via deduction from farmers' ultimate payment after delivery, and they therefore tend to more resemble forward-purchase arrangements.

While the actual mechanisms of control over production vary in intensity, for Watts (1994), citing Braverman (1974), the critical implication is that the contract is fundamentally alienating; separating the *conception* of production (by the company) from its *execution* (by farmers) (Watts, 1994, p. 64). This separation remains the focal concern for RPE analysts because it forms the pivot by which contract farming renders farmers' land as "sham property" subsumed to downstream capital. In the case of small-holder production where

farming households also contribute labour, contracting socially operates as a sort of 'proletarianization without dispossession' (Wilson, 1986, p. 55; Watts, 1994, p. 64). As clearly stated by Watts:

> *"where the smallholder grower is paid for quantity and quality and where family members share in the profits, there is less incentive to shirk…peasants work as de facto pieceworkers, often labouring more intensively (i.e. longer hours) and extensively (i.e. using children and other nonpaid household labour) to increase output or quality. The basis of peasant contracting is, in other words, self-exploitation…A Tanzanian tea grower put it more succinctly: contract work, she said, is like 'the big slavery! Work has no boundaries, it is endless'"* (Watts, 1994, p. 64)

However, it is important to be clear that exploitation, in the strict Marxist sense of 'appropriation of surplus product', is not technically formed in the contract relationship between grower and processor, nor confined to it. The nominal 'contracting' farmer may in fact not be very much involved in direct production at all, preferring to apportion the bulk or even all of the labour process to other family members, frequently younger and/or female members via culturally infused idioms of patriarchy and seniority. In these cases, the aforementioned separation of the conception and execution of production is replicated within the farming homestead. Similarly, if the contracted farmer pays his/her family for their work, or even hires labour from without, frequently such wages are even below the 'social average' paid on large-scale commercial farms. While this may be premised more on the grower's own meagre revenues than any particular antagonism towards workers, the rate of exploitation can thus be even *greater* on small-holder farms than on capitalist farms (Sender & Johnston, 2004, pp. 153-4; Porter & Phillips-Howard, 1997, p. 234).

The distinction between the subjugation of the farming enterprise to downstream capital and effective exploitation is not merely a technical point, but key to relations under contract-farming. Understanding their operation, however, requires an abandonment of essentialist characterizations of small-holder farmers as 'peasants' or 'family farmers' otherwise constituted outside of, or 'articulating' with capital.[6] A more analytically coherent

[6] 'Articulation' refers specifically to the idea that the capitalist mode of production is able to integrate, penetrate, subsume and draw on non- or pre-capitalist 'modes' of production in a variety of uneven ways, particularly in understanding transitions to capitalism. In South Africa, Wolpe's (1980) "Capitalism and cheap labour-power in South Africa", for instance, contended that traditional subsistence forms of production in the reserves 'articulated' with South African capitalism by enabling employers to pay wages below labours' social-reproductive requirements. Although the cheap-labour thesis remains powerful, however, the notion that different modes of production exist alongside one another, i.e. that subsistence production operated by a logic somewhere 'outside' capitalism is theoretically questionable. Banaji has convincingly argued to the contrary: "how simplistic it is to read relations of production off some imagined register of labour-types" and that the historical unevenness of capitalist transitions instead reflects "articulation of *forms of capitalism* more than a combination of modes of production" (Banaji, 2010, p. 360). Such a reading certainly seems more consistent with Marx's own writing, for example in relation to the slave plantations in the United States:

"But as soon as people, whose production still moves within the lower forms of slave-labour, corvée-labour, etc.. are drawn into the whirlpool of an international market dominated by the capitalistic mode of production, the sale of their products for export becoming their principal interest, the civilised horrors of over-work are grafted on the barbaric horrors of slavery, serfdom, etc. Hence the Negro [sic] labour in the Southern States of the American Union preserved something of a patriarchal character, so long as production was chiefly

conceptualization is found in the characterization of small-holders as 'petty commodity producers' (PCP) operating within and constituted by capitalist relations. Critically for conceptualizations of petty commodity production, and what distinguishes it from somewhat rarefied characterizations of 'peasant' production *and* from other capitalist enterprises more broadly, is its constitution as a unit internalizing the contradictory relations of capital and labour. As first expounded by Marx:

> *"the independent peasant or handicraftsman is cut up into two persons. As owner of the means of production he is capitalist, as labourer he is his own wage labourer. As capitalist he therefore pays himself his wages and draws his profit on his capital; that is he exploits himself as wage-labourer, and pays himself in the surplus-value, the tribute that labour owes to capital…the handicraftsman or peasant who produces with his own means of production will either gradually be transformed into a small capitalist who also exploits the labour of others, or he will suffer the loss of his means of production…and be transformed into a wage-labourer. This is the tendency in the form of society in which the capitalist form of production predominates"* (Marx, K., 1969, p. 408; quoted in Gibbon & Neocosmos, 1985, p. 177)

Indeed, while for purposes of exposition Marx utilizes an example where this contradiction is encapsulated in the 'individual handicraftsman' or 'peasant', the critical point is that PCP represents more an analytical dynamic ('tendency') than a static descriptor of individual units of production. Drawing on this conceptualization, Bernstein (1988) elaborates three general conditions for the existence of such a dynamic:

1) "Exchange value production within conditions of generalized commodity production;
2) Private vs. collective production, and relative specialization;
3) Regulation by the same laws of competition and accumulation as all commodity-producing enterprises under capitalism." (Bernstein, 1988, p. 262)

For petty commodity producers the imperatives of capital for expanded reproduction (features 1 & 3) thus exist alongside and contest with labour's requirements for social reproduction within various internal configurations of actual work obligations/responsibilities (feature 2). This is most commonly evident in the tension between apportioning surplus between competing 'funds', perhaps most basically between reinvestment in the enterprise for maintenance or expanded reproduction (replacement and accumulation fund); basic or expanded consumption (consumption fund); or social relations (ceremonial fund) (Bernstein,

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directed to immediate local consumption. But in proportion, as the export of cotton became of vital interest to these states, the over-working of the Negro [sic] and sometimes the using up of his life in 7 years of labour became a factor in a calculated and calculating system. It was no longer a question of obtaining from him a certain quantity of useful products. It was now a question of production of surplus-labour itself" (Marx K. , 1976, p. 345)

2010, pp. 18-20). The navigation of these tensions will thus form the engine of differentiation amongst particular petty-commodity producing individuals/households, as some are drawn closer to capital and others to the labour side of the spectrum, or continue to sit somewhere uncomfortably 'in between'. These features are evident in a variety of different concrete circumstances, as diverse as capitalist production itself. The different possible configurations of labour mentioned above may for instance be complemented by varying levels of capitalization, productive intensity, technology etc. and are not confined to the agricultural sector. As observed by Bernstein "'farmers' cannot be 'exploited' by the corporations they contract with or the banks they borrow from (even though they often claim that they are!); rather they exploit the workers they employ" (Bernstein, 2010, p. 94).

While 'exploitation' cannot occur in relation to the contracting enterprise as such, this does not mean that petty commodity producers may or may not be subject to "various (sometimes severe) forms of extortion and "squeezing" – often accompanied by political oppression – by different kinds of capital" (Bernstein, 1988, p. 265). Turning to Wilson (1986) we can see how an incomplete analysis of contracted farmers as petty-commodity producers might be salvaged to reflect this important point. He writes:

> *"Often encouraged by the processing firm, the farmer technifies the production process and invests heavily in capital equipment but, since the processor appropriates the surplus value [sic]* ***through mercantile control, the transformation of the farm into a capitalist firm is blocked****…Of course…subcontracting is not the only 'detour' around the obstacles to capitalization. Debt peonage, sharecropping, tenancy and part-time farming are other methods whereby capital penetrates [sic] farming indirectly.''* (Wilson, 1986, p. 56) *[emphasis added]*

Here we can see residual essentialist and articulationist contentions that it is processing capital which 'appropriates' surplus value and 'penetrates' farming. If the paragraph is however recast to reflect the aforementioned dynamics of petty-commodity-production, we can see that the dominance of the purchasing company acts as a *barrier to accumulation* (say into processing or retailing); puts it in a stronger position in regards to a struggle over *relative* claims to *surplus value*; and thus provides sufficient pressure that exploitation by the farmer may be intensified.[7] That there is 'excess surplus' to 'squeeze' out of petty commodity producers, who are effectively in competition with the higher average rates of productivity of

[7] This should not be confused with the concept of 'relative surplus value'. In the relation of workers to capital, Marx described the two means by which surplus value can be appropriated in terms of *absolute* surplus value and *relative* surplus value. The former is appropriated by increasing the working time of the labourer for a given wage at a given level of productivity, i.e. increasing the amount of surplus unpaid labour-power expended by the worker. The latter is gained by reducing the value of labour-power itself (i.e. necessary labour-time), either in a direct reduction of the cost of wage goods or by raising the productivity of labour through the introduction of new technology or divisions of labour (i.e. increasing the surplus labour-time extracted) (Marx K. , 1976, p. 645). Here the point is simply that stringent conditions of production and exchange may augment a processor/retailer's claim over the surplus that is already extracted from the worker by the farmer through either/both these methods. Nonetheless, these mechanisms may indeed both create intensified pressures to further exploitation by the farmer, and ensure that such gains are captured by the processor/retailer.

more capitalised farmers, comes as a direct consequence of their differential capacity to sustain a lower rate of profit through a greater rate of self-exploitation. This point too was first elucidated by Marx in reference to ground-rent:

> *"For the peasant owning a parcel, the limit of exploitation is not set by the average profit of capital, in so far as he is a small capitalist; nor on the other hand by the necessity of rent, in so far as he is a landowner. The absolute limit for him as a small capitalist is no more than the wages he pays to himself, after deducting his actual costs. So long as the price of the product covers his wages, he will cultivate his land, and often at wages down to a physical minimum…The rent anticipated in a price of land and in the interest paid for it can therefore be nothing but a portion of the peasant's capitalised surplus-labour over and above the labour indispensible for his subsistence, without this surplus-labour being realised in a part of the commodity-value equal to the entire average profit, and still less a fixed excess above this average profit in the form of rent...One portion of the surplus-labour of the peasants, who work under the least favourable conditions, is bestowed* gratis *upon society and does not enter at all into the creation of value in general. This lower price is consequently a result of the producers' poverty and by no means of their labour productivity"* (Marx K. , 1977, pp. 805-6)

Rather than being captured wholly by the landlord, this surplus 'bestowed *gratis* upon society' may thus be captured by the contractor, at the very least at a level consonant with wider average levels of productivity. Crucially, the reason why the processor/retailer is in such a position of strength, however, is its *monopsonist* position. This fact is tacitly acknowledged even in mainstream economic literatures where the 'weakest' contract schemes identified are those where legal-judicial systems of enforcement are insufficiently 'advanced' or where farmers have access to multiple marketing outlets or income opportunities. As observed by Oya (2008) this is a notable tension for advocates of contract-farming as a form of market-led development as it "implies that CF schemes are sustainable with less or no market competition and that private agribusiness dislike free markets, particularly because of the risk they face in losing the advances given to thousands of hard-to-monitor outgrowers" (Oya, 2008, p. 8).

2.3.2 Contracts, concentration, and market power

This then begs the question of what causes or drives contracting in particular, and what its advantages are in relation to other monopsonic relations. For Wilson (1986), market structures are key. In the first place, the contract may initiate a 'vicious' circle whereby in 'locking-in' erstwhile independent suppliers, the contractor diminishes the open market. This diminishment may operate to reduce the number of producers available to competitors (both within and without the market of the particular crop) and/or encourage a greater dependence of producers compelled to invest in land and/or specialized capital in fulfilment of the contract. In this sense, contracting operates simultaneously as an outcome and driver of a concentrated market structure (Wilson, 1986, p. 58).

Secondly, the dual imperatives of relinquishing risk while maintaining control may be read as a response to over-production and correlating imperatives to sufficiently differentiate the product and/or meet stringent supply requirements. Where undifferentiated markets are saturated, processors may be compelled to foster vertical integration to secure enough supplies in efforts to differentiate their product. Indeed, agricultural markets in particular have long been acknowledged by mainstream economists to exhibit a low price elasticity of demand, sometimes referred to as 'Engel's Law'. As noted by Wilson however, without horizontal control, full vertical integration can fail to bring a substantial decline in output or price volatility, resulting rather in a duplication of facilities (Wilson, 1986, pp. 53, 59). Contract farming, by contrast, not only shares the cost of constant/fixed capital with the producer, but similarly allows the contracting party a greater degree of quantitative control over the supply of raw materials. Indeed, processors tend to draw raw materials from a variety of supply arrangements, often founded in own estate production, and an outgrower complement adjustable to demand fluctuations (Wilson, 1986, p. 56; Watts, 1994, p. 54). While in a stylized formulation the division of risk between grower/contractor is often characterized as one between production and marketing, in reality contracts may also be utilized as means by which to transmit marketing risks to producers who may bear the brunt of a shortfall. In this formulation, then, contract farming may emerge in particular market structures as a means of subordination by fractions of vertically aligned (if not integrated) *capital*, rather than labour per se, though this pressure may very well be sufficient to compel the severe intensification of exploitation in both capitalist and petty commodity producing farms (of both hired workers and unpaid household labour).

Indeed, while studies of contracting have focused largely on relations between capital and petty commodity producers, it is worth observing that these phenomena have also been recognized in relations between capitals. Gibbon and Ponte (2005), for example have observed similar tendencies driven by corporate financialization and concentration in retailing sectors. In the first instance, the rise in market value of equities and market capitalization of listed companies (often leveraged by credit) and increasing scope, turnover, and inflation within financial markets has "led to a reorientation of quoted corporations away from competition on the basis of productivity-improving innovations and increasing product market share" (Gibbon & Ponte, 2005, p. 12). Rather, financial markets assess companies largely on their financial performance, often by the standard of Return on Capital Employed (ROCE), and further leading many companies to outsource or downsize particular operations deemed to have a low ROCE. Unsurprisingly in a context of overproduction, under this

'doctrine of shareholder value', operations with higher ROCE tend to be associated with product differentiation (i.e. product definition, design, branding, marketing, retailing and lending for consumption) and low ROCE tends to be associated with direct production (i.e. manufacturing, assembly, and distribution). In these instances there are often "subtexts concerning employment, wage levels, and employment rights such as reduction or casualization of employees, pegging of rewards at all levels of performance [i.e. piece-work], and weakening of rights" (Gibbon & Ponte, 2005, p. 12).

In the second instance, Gibbon and Ponte suggest that retailer responses to over-production and saturated markets have represented attempts to gain market leadership to achieve economies of scale and hence gain oligopolistic rents. This 'cash-cow' strategy may involve competitive or oligopolistic pricing, aggressive mergers and acquisitions, no-name brand development, diversification of product-lines and importantly, the exertion of buyer-power in relation to suppliers largely through aggressive contracts. Such contracts provided by high levels of retail concentration in turn involve a number of mechanisms which transfer risks and costs onto suppliers, including: compelling suppliers to absorb transport costs, volume discounts, costs of reduced price sales, various warehousing and shelf-space rents, the duty of generating their own sales-based order inventories, and of bearing the costs of overstocking/unsold products.[8] For processors and manufacturers, navigating these pressures has led many to outsource much of their own production in favour of focusing on product differentiation through research and brand development, and/or the manufacture of generic components applicable to a wide range of downstream buyers or brands (Gibbon & Ponte, 2005, pp. 16-27).

Starosta (2010), however, has offered an important critique of value-chain analyses which explain the dominance of particular firms in terms of direct expressions of 'power' through various mechanisms of monopoly/monpsony rents. For Starosta, global commodity chain analyses such as those provided by Gibbon and Ponte, though rich in case specific detail, essentially mistake the outcomes of relative concentration and enhanced profitability as their cause. Despite apparently 'high' profits, 'lead' or 'core' firms in a given value chain in fact do compete with one another (ultimately in terms of productivity) and operate as 'normal' capitals subject to the 'law of value' i.e. they tend to operate at a general rate of profit (Starosta, 2010, pp. 439-443; 2007, pp. 8-18). Rather than accounting for the position

[8] This has critical implications for readings which position the origin of contracting in relation to the relative onerousness of transaction cost on the open market. Rather, the evidence presented by Gibbon and Ponte suggests that where market structures are concentrated, rather than contracts emerging *because* of onerous transaction costs, they may emerge from dominant firms *in order to* transmit such costs up or down the commodity chain.

of ‘lead’ firms, Starosta turns the question on its head, suggesting that the real challenge is accounting for the existence of ‘small’ capitals unable to meet the socially average levels of productivity as ‘normal’ capitals.

Drawing on Marx’s explication of the source of ground-rent in the passage above, Starosta posits that, like ‘peasants’, small capitals are able to valorise their operations below the general rate of profit set by the average levels of productivity of ‘normal’ capitals. Understood as any capital which valorises below the average level, ‘small’ capitals may, in reality, ‘look’ fairly large. The limit on their lower valorisation is regulated by the cost price plus interest rate on the liquidation value of their productive assets i.e. by the rate of interest that those capitals of restricted magnitude could yield if they closed down and were turned into interest-bearing capitals. In addition to sometimes resorting to intensified exploitation in ‘cheap labour areas’, so long as the productivity increases of ‘normal capitals’ do not push the price of production below this rate, ‘small capitals’ can prolong the agony of their survival, and even accumulate (Starosta, 2010, pp. 443-7; 2007, pp. 21-6).

Some capitals will indeed not even enter into particular productive areas due to this low level of profitability. Rather, like the surplus ‘bestowed *gratis*’ unto society by the small peasant, the excess surplus garnered by small capitals will be released in the process of circulation and captured by downstream, otherwise ‘normal’ capitals hence ‘enhanced’ by a lower ‘pseudo’ price of production. This is precisely the logic of waves of rationalisation, which are nonetheless competitive as ‘normal’ capitals all vie to capture the surplus released by erstwhile ‘small’ capitals. In the long run, however, ‘small’ capitals will nonetheless either be forced out of production or raise productivity in the process of accumulation to approach and hence reach the general rate of profit set by ‘normal’ capitals (Starosta, 2010, pp. 447-8; Starosta, 2007, pp. 27-8). Such an analysis thus finds it unsurprising that previously decentralised ‘captured’ producers in the apparel, footwear, automotive and electronics industries have come to take over many of the pre- and post-productive functions usually held by big buyers, and indeed negotiate better prices (in the realm of circulation) (Starosta, 2010, p. 453). Starosta therefore contends:

> *“Thus, the power relations among individual capitals are not the cause of their differential valorisation capacities. It is the other way round: because the law regulating the competition process – the formation of the general rate of profit - takes concrete shape through the differentiation of the concrete valorisation capacities of each kind of individual capital, the indirect social nexus among the latter is expressed through unequal or hierarchical relations (i.e. direct social relations). In this sense, the differentiation of capitals is a more mediated form in which individual capitals assert their unity as aliquot parts of the concrete subject of the accumulation process: the total social capital. This means that although the establishment of the concrete rate of profit of each capital in the chain is mediated by their respective possession of power in the sphere of circulation (thereby appearing as the*

immediate outcome of those unequal market relations), it is actually strictly determined in accordance to the laws of movement of capital as whole." (Starosta, 2007, p. 29)

Though Starosta's analysis focuses largely on 'industry' rather than 'agriculture', the implications for contract farming are significant. In this perspective, the onerous conditions set by processor/retailers are *not* necessarily the consequence of a general amorphous 'power' applied arbitrarily. Nor is the intensified exploitation of the petty-commodity producer merely a consequence of the contractual relationship. Rather, this is a necessary outcome of the lower levels of productivity they exhibit as a result of their smaller magnitude. The power of such a perspective lies in the fact that it enables a theoretically informed analysis of processes of accumulation and differentiation of erstwhile 'captured' contracted growers. While intensified exploitation remains a critical factor for understanding the survival of petty-commodity producers, it also highlights the importance of locating the constitution of growers as *capital*. Constrained by the competitive pressures of the general rate of profit more broadly, the varying relations of command/co-operation/co-ordination through which the contractor extends and incorporates grower capital will be a central conditioning factor in *both* raising the productivity of differentiated grower segments *and* determining the relative capture of 'excess' surplus by the contractor in the sphere of circulation.

2.3.3 Power relations within contract farming

In mainstream and new institutional economic, and indeed some RPE analyses, farmer 'bargaining associations' are often touted as a prime way to reconcile the profound inequalities of power between contracting firms and their contracted supplier farmers (Glover & Kusterer, 1990, p. 160; Sartorius & Kirsten, 2004, p. 105; World Bank, 2007, pp. 153-7). But in addition to many such representative structures excluding important non-grower elements (particularly labour), such structures may have severely circumscribed powers and accomplish little to reduce the severe imbalance in power between processor and growers. Wilson notes of potato farmers in the US, for example, that bargaining associations were voluntary, did not command collective title to the crop, did not influence production, and, in contrast to oligopolistic processors, lacked horizontal coordination across productive regions (Wilson, 1986, p. 64). Similarly, in New Brunswick leaders of the National Farmers Union observed that, faced with a common visible adversary, contract farmers were initially amongst the easiest to recruit to a broad-based potato farmers' organization, but due to their reliance on a single supplier for income were also the first to back out of collective action (Glover & Kusterer, 1990, p. 144).

Schisms between grower segments may further present significant differences of interest, and not just from explicitly differential deals. Glover and Kusterer note that in the case of Honduras sugar outgrowers, a number of large largely absentee growers planted sugarcane simply to keep land under production to pre-empt expropriation, and had little interest in collective action to increase prices in return for productivity increases. They further note that such schisms often provide the company opportunity to cultivate personalistic (paternalistic?) relations (Glover & Kusterer, 1990, p. 143). The ultimate dependence upon the contractor, together with divisions of interest amongst producers, is perhaps most disabling to smaller producers, who remain at a legal and technical as well as economic disadvantage and thus lack both the power and expertise to contest the company's judgement.

Clapp notes of Peruvian farmers contracted by the Guanchias barley brewery, for instance that producers for whom quality was experientially evident neither accepted nor understood the company's testing procedures, which constituted something of a "mystification designed to intimidate them, imposing scientific fiction in place of intuitive fact" (Clapp, 1994, p. 89). In the face of such general obfuscation, Clapp observes that the politics of small producers becomes centred far less on the legal strictures of the contract so much as 'informal' relations of clientism and patronage in efforts to socially and ideologically reconcile farmers to the material circumstances of their existence. In the same instance, Clapp observed that Guanchias dominated public discourse with avowals of their legitimacy, particularly of workers ascribing their relative material success to 'hard work'. Small farmers were careful not to publically voice suspicion or resentment for fear of attracting the disfavour of the company, and rather turned to small deviations from the terms of the contract, such as using inputs for non-contracted crops or retaining a portion of the harvest. The company in turn would turn a 'winking' eye to such practices, fashioning what Clapp describes as a 'moral economy', whereby the company 'informally' rewards observance and overlooks minor transgression whilst maintaining a monopoly on public discourse backed by its structural monopsony (Clapp, 1994, pp. 88-92).

Indeed, while typically presented as organizations representing farmers' collective interests, bargaining associations may operate primarily to inculcate a collective self-discipline. Despite their monopsony position, contracting processor/retailers often have great difficulty in monitoring outgrowers prone to petty individualised forms of resistance and cheating, often through side-selling, evading debt payments, and misallocating inputs (Smalley, 2013, p. 33). Bargaining organizations thus may provide one means of disarming

these "weapons of the weak" (Scott, 1986, p. 6) , the company being provided with a forum to offer minor concessions or threaten group penalties in return for greater self-monitoring amongst growers themselves, often by 'enlightened' farmers close to the company (Porter & Phillips-Howard, 1997, p. 231). Rather than a site of collective class action, bargaining associations run the risk of being rendered as little more than a mechanism of decentralised governance.

Critically, however, contract farming may also be founded in attempts to secure differential social, political or ecological benefits rather than in the subversion of the accumulatory dynamics of capitalist or petty-commodity producing farmers, though this may come as a corollary. The use of contract farming may provide corporate processor/retailers with differential access to state subsidy protection; access to new export markets through a particular state's (sometimes preferential) trade relations; the purchase of ailing state enterprises at reduced rates; or grant preferential access to premium land with good or better soil or rainfall endowments. These benefits will often come with the promise that contract farming will help to meet national 'development' or 'anti-poverty' objectives and improve the incomes of producers by offering access to new markets, technology and expertise; contribute to supply of cheap raw materials for downstream industries; and/or generate foreign exchange (Little, 1994, p. 220; Eaton & Shepard, 2001, p. 19; Rehber, 2007, pp. 50-1; Glover & Kusterer, 1990, p. 98). In this sense the contract may operate as a means by which to directly incorporate often small, conservative, agriculturalists into the firm's own production network without having to engage in socially or politically unfeasible alternatives of direct expropriation, by either force or purchase.

2.3.4 Contract farming and agro-industrial restructuring: new regimes, new contracts?

For Watts (1994), contemporary forms of contract farming must be related to a wider agro-industrial restructuring underpinned by technological advances in transportation and storage and concerted efforts towards the liberalization and de-regulation of agriculture across the globe. In making this point, Watts draws on the concept of the 'food regime' developed by Friedmann and McMichael (1989), a blend of world-systems and regulation theory which attempts to historically punctuate the most salient structural characteristics and shifts in the international food economy.[9] [10] While it has already been observed that there exists a great

[9] For Friedmann, the 'food regime' could broadly be encapsulated as a "rule-governed structure of production and consumption of food on a world-scale" (Friedmann, 1993, p. 30). The governing 'rules' of the regime however are not confined to formal legislation and international agreement, but include implicit rules "evolved through practical experiences and negotiations among states, ministries, corporations, farm lobbies, consumer lobbies and others, in response to immediate problems of production, distribution and trade" which both underpin and

diversity in the form of contract schemes, the relevance of the food regime concept lies in helping to historically position contract farming in relation to wider shifting circuits of capitalist agro-commodity production. Indeed, though often presented as a 'novel' or 'innovative' institution by development agencies, contract farming is not a new productive form. As observed by Oya (2008) in relation to the World Bank's support for contract farming:

> *"The historical memory of the WB, in particular, seems lacking, as this was one of the core donors supporting state-led outgrower schemes since the 1960s (in Kenya, Cameroon, Ghana among other countries)…In fact, the World Bank's current stance is revealing for the contradictions and incoherence that this support to CF presents. Before the structural adjustment era of donor-driven economic reforms, the World Bank had supported a number of CF projects with strong state intervention where parastatals were created in a similar way as state marketing boards had dominated the African landscape before the onset of reforms in the 1980s. Despite this support, the WB was quick to severely criticise the ineffectiveness and failure of state-sponsored agricultural modernisation programmes and especially the marketing boards, which were often engaged in 'CF-like' vertical integration with a mass of farmers of different classes. At the same time, the WB suggested that private CF schemes would be a solution to government failures and would supposedly improve the bargaining power of farmers hitherto exposed to the over-taxation of agricultural price policies. While CF was again supported, the main tenet of SAPs was the liberalization of agricultural markets. A clear contradiction emerged insofar as the rationale for private CF schemes was the underdevelopment of markets and the need for coordination between private sector and growers through forms of vertical integration. Precisely the marketing boards had attempted this."* (Oya, 2008, p. 8)

In these contexts, contract farming thus represents one of many means by which states (in addition to or together with domestic or international capital) have sought to *replicate* agro-industrial methods and advance the social and technical basis of food production by *integrating* socially diverse petty commodity producers as part of national 'modernization' programmes. The incoherence of the World Bank's position lies particularly in the fact that the Bank's support for market liberalization undermined contract farming's aforementioned reliance on a lack of competition to function.

The contemporary advance of the tension between replication and integration has thus prompted McMichael (2009) to raise the question of whether a third 'corporate' food regime is emergent. Most conspicuously, global market liberalization, particularly under the

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reflect "changing balances of power among states, organised national lobbies, classes – farmers, workers, peasants –and capital" (Friedmann, 1993, p. 31)

[10] Friedmann and McMichael periodize the 'first' food regime from around 1870-1914, characterized by two key food circuits; namely the European import of tropical and exotic commodities from colonies of *occupation* and imports of wheat and meat from temperate *settler* colonies, thus posing both a destination and base of production of cheap wage goods for a swelling proletariat. (Friedmann & McMichael, 1989, pp. 96-101). The second food regime beginning in 1945 would be defined by a mixture of technological innovation and state policy interventions which allowed specialised agriculture to grow beyond its ecological endowments and encouraged a deepening integration of farming into vertically integrated industrial 'through-flow' systems. The pivot of this new system would be the chronic maize-soya surpluses produced in the United States; first in providing a cheap raw material for a deepening industrial integration; secondly, in the dispersal of chronic surpluses in the form of food aid; and thirdly in the dispersion of industrial green-revolution technologies together with 'developmental' programmes of the Bretton Woods institutions. As such, Friedmann and McMichael characterize the second food regime as being beset by a tension between the replication and integration of national-industrial farming systems around the world (Friedmann H. , 1993, p. 36; Weis, 2007, p. 65). The effective navigation of these tendencies in the so-called 'third' or developing world would be highly uneven, but were particularly disastrous for highly indebted countries compelled to adopt waves of deregulation and liberalisation measures according to structural adjustment programmes (SAPs) tied to IMF and World Bank loans (Weis, 2007, pp. 120-4; Friedmann & McMichael, 1989, p. 109).

multilateral regulatory auspices of the World Trade Organization (WTO), has overseen a process of integration amongst increasingly transnational forms of capital. In the case of fresh produce, for instance, high perishability had historically confined its production to areas of close proximity with its site of consumption in accordance with the season. But with the development of integrated refrigeration systems, or 'cool chains', and freer mobility of capital, fresh produce can now be sourced counter-seasonally from a number of different climes, making possible the phenomenon of supermarkets offering a variety of produce year-round (Friedland, 1994, p. 223). Moreover, integration has not only promoted the commoditization and sourcing of new products, but also the exchange of agricultural systems. Van Der Ploeg (2010) notes for instance that while asparagus was once unknown in Peru, it is now its largest exporter, a system that is moreover being relocated to 'better' conditions in China (Van Der Ploeg, 2010, p. 101). Writing in the 1990s, Watts suggested that it is within this 'third' food regime that contract farming is best understood: i.e. as a 'post-fordist' form of 'flexible accumulation' largely by trans- and multinational capital to take advantage of shifting markets; conditions of profitability and international divisions of labour (Watts, 1994, p. 42).

However, it is not clear that the core dynamics of the second food regime as originally defined by Friedmann and McMichael have been altogether supplanted. Though corporate integration has certainly heightened, its composition is not a forgone conclusion, and remains embroiled in a somewhat tense relationship with the aforementioned dynamics of replication. In the first place, many extensive corporate food systems remain embedded in national agricultures. This is true not only of intensive integrated agro-industries such as the maize-livestock complex in the US. In Brazil for instance over 8.4 million hectares of land is under sugarcane cultivation for sugar and ethanol production, which benefits from government-mandated ethanol fuel-blending quotas, indirect price-setting, loans and subsidy (Mendonca, Pitta, & Xavier, 2012, pp. 3-4). This is not to deny the central and certainly enhanced role of transnational corporations in the circuits of contemporary food production and distribution, but simply to assert that the tension between the integration and replication of agro-industrial systems remains at the core of the current food regime (even if less centred on the hegemony of the United States than before).

Indeed, for Wallerstein and Hopkins (1994), 'flexible' (supposedly 'post-fordist') systems are not novel, but a cyclical function of capitalist development:

> *"Cyclical shifts are thus one of the key considerations in the construction of commodity chains. They are basically the direct reflection of the organizing contradictions of the capitalist development of productive forces. For example, two system-imposed concerns of entrepreneurs – the reduction of transaction costs and the reduction of labour costs – commonly require quite opposite changes in social organization and geographical location. In general, transaction costs are reduced through the vertical integration and geographical convergence of boxes of a chain (both worldwide concentration and local urbanization). Labour costs, however, are generally reduced through subcontracting (adding boxes, the opposite of vertical integration) and geographical dispersion of a chain's boxes (both worldwide, and locally ruralisation). So far, it would seem, reduction of transaction costs has taken priority over the reduction of labour costs in A-periods [of expansion], while in B-periods [of contraction] the converse has been true."* (Wallerstein & Hopkins, 1994, pp. 19-20)

Through this lens, the difficulty of understanding the diversity of contract farming schemes is made clear. For each of the authors reviewed, the acknowledgement of contract farming's diversity nonetheless is accompanied by attempts to 'pin down' specifically what sort of productive form it *is* and what it is reflective *of*, i.e. what drives it. The central tension in these works, based largely on analyses of case study material, is understanding contract farming schemes as both a mechanism of vertical and industrial *dispersion* (by shedding costs and risk) or one of *integration* (through productive and technological specifications, narrowing markets and 'locking in' producers). Rarely, however, is this tension made explicit. The result is that for some the diversity of contract farming schemes is unfathomable, and is ultimately cast as simply a 'technical' institution. For others, even deep analyses of particular historical moments result in questionable or premature generalizations about contract farming's social content; i.e. as a form of 'proletarianization without dispossession' or reflective of new 'post-fordist' forms of capitalist development.

The insufficiently explored possibility is that the seeming paradoxical contours of similarity and difference amongst varying contract farming schemes may be comprehended as expressions of relative phases of expansion or contraction within the commodity chain in whch they are embroiled (i.e. as reflections of integration vs. dispersion). Although not explicated by Wallerstein and Hopkins as such, the emphasis on 'dispersion' under contractionary conditions might be read as a means to augment *relative claims on surplus value*, while 'integration' under conditions of expansion might be understood as an attempt to augment *absolute surplus value* through expanded output.

This further raises the possibility that the dynamics underpinning any particular scheme may shift historically *over time,* as well as space, according to the shifting 'organizing contradiction of the capitalist development of productive forces' within the commodity chain. The social content of these dynamics is then contingent on the mediation and agency of the prevailing (and shifting) balance of class forces, a matter as open as the historical and uneven development of capitalism itself.

2.3.5 Contract farming and social differentiation: A new path of accumulation; a tool of differentiation?

A central component of radical political economy perspectives on contract farming is its impact on dynamics of class formation and inequality, or social differentiation, and linking the theory of its social content to empirical realities. Using evidence primarily from the USA, perhaps the strongest assertion is Wilson's contention that contract farming represents a distinct "tool of differentiation" as a structural consequence of the monopsonic position of the contractor: as the contracting firm blocks accumulation vertically, expansionary pressures must consequently be met *horizontally*. Effectively, the company is thus able to 'squeeze' the bulk of farmers "into proletarian status and a few into the status equivalent of branch manager under conditions close to complete vertical integration" (Wilson, 1986, p. 62). This dynamic may further be directly exacerbated in the offer of explicitly more favourable contractual terms and prices for larger farmers; "a contract for a very large enterprise is not the same as a contract for a petty commodity producer, which is rather like saying that a 'salary agreement' for the chief executive officer is not exactly the same as the wage contract of the operative in the same firm" (Wilson, 1986, p. 62).

Writing on Latin America in 1981, De Janvry reached a similar conclusion albeit from something of a different angle, suggesting that contract farming represents a distinctive 'path' or 'road' to agrarian capitalism, particular in its incorporation of primarily large and middle farmers by multinational capital (Oya, 2008, p. 29).[11] Watts (2010) most recently locates contemporary contract farming as a component of 'new agricultures' within emergent post-fordist forms of corporate organization; contending that it is by the imposition of divisions of labour inimical to peasant forms of production that differentiation occurs:

> *"The rise of contracted high-value food through agribusiness has had the effect of integrating peasants juridicially as much as economically into the both the global market and the transnational firm. It is rarely the poorest of the peasants but Lenin's middle and rich peasants, who became part of increasingly mechanized and highly regimented work regimes…[where] the household economy resembles a piecework system in which one of the tenants of 'peasantness' – the autonomy of the labour process – is radically compromised by the demands of the contract…the subsumation of peasants directly into the firm as growers represents a distinctive, if not totally original, way in which peasants may persist, producing low-cost commodities in the midst of advanced global capitalism"* (Watts, 2010, p. 277)

[11] The notion of a 'road' to agrarian capitalism is drawn from debates regarding the 'Agrarian Question', which are largely concerned with the historical processes through which capitalist social relations are established in agriculture, with resulting transformations of production and productivity, and the mechanisms by which these contribute to the formation and development of industry (Bernstein, 1996, p. 29). The spectrum of different transition possibilities can be conceptually delineated by two stylized poles, captured by Lenin's characterization of 'Prussian' vs. 'American' paths of accumulation. In the first case, the transition occurs 'from above' by the 'internal metamorphosis of (pre-capitalist) landed property into agrarian capital; in the second, accumulation occurs 'from below' in the social differentiation of petty-commodity-producers. (Bernstein, 2005, p. 30). There is a rich field of debate regarding whether or not the agrarian question has been 'resolved' in a world-historical sense, and what the implications are. For an overview of the contemporary terrain of debate see (2010) *Peasants and Globalization: Political economy, rural transformation and the agrarian question* (eds.) Akram-Lodhi, H, and Kay C. Routledge: London.

By contrast with both Watts and Wilson, however, Glover and Kusterer present a more agnostic position, holding that most evidence from their case-studies suggests that contract farming "is at least as likely to prevent social differentiation as to enhance it" (Glover & Kusterer, 1990, p. 140). In reducing risk and improving access to credit and inputs contract farming may reduce the competitive benefits of being large, with original land distributions being the only chief differential, a factor itself which may be mitigated by shortages of labour in peak periods as smaller growers spend more time on their own fields. While social differentiation may indeed take place in the long term, with smaller growers spending a higher proportion of their income on consumption, Glover and Kusterer maintain that contract farming may be the *slowest* route of social differentiation in the transition from 'traditional' local markets to highly commercial capitalist agriculture (Glover & Kusterer, 1990, p. 141).

A partial reconciliation of these divergent conclusions is presented by Little's (1994) crucial observation that contract farming is more likely to emerge where commercial agriculture is *already entrenched* and processes of social differentiation *are already underway*. Isolating contract farming as the origin or cause of social differentiation is near impossible, and this suggests that it is simply likely to exacerbate these existing tendencies. Like Wilson, Little observes that wealthier farmers with differential access to capital, land and non-farm investments are usually the only segment to exhibit accumulatory (rather than simply income) benefits from contract farming schemes, which is consistent with Glover and Kusterer's suspicion that smaller 'middle' and 'poor' farmers covering only a portion of their subsistence requirements may be pushed deeper into the ranks of the proletariat over time. Furthermore, differentiation is likely to be more pronounced between contracted and non-contracted growers who may not have fewer income opportunities, but may find their food-security comprimised as local markets and relations of reciprocity in food are undermined by the conversion to contracted cash-crops (Watts, 1994, p. 57; Little, 1994, p. 222).

The importance of Little's observation is three-fold. Firstly, rather than conceptualizing contract farming as a method by which capital 'penetrates' erstwhile non-commodified 'traditional' or 'peasant' spaces, the suggestion is that rather that it draws upon existent processes of social differentiation. Oya draws upon this point to note that, contra De Janvry, there is little systemic evidence to suggest that contract farming represents a distinct path or road of accumulation; even if it does act as a catalytic for social change, it would be reductionist to attribute to such an unsystematically developed marketing institution complex

and uneven manifestations of social change which have historically required generations (or even centuries) to unfold (Oya, 2008, p. 30).

Secondly, a long observed trend is that few small farmers are able to survive from agricultural production alone. The effective devaluation of labour-power by highly productive capitalist agriculture more frequently compels landed families to rely on various combinations of (often casual) employment, agricultural production for own consumption, and petty production of both agricultural and non-agricultural commodities (variously referred to in empirical studies as 'straddling' 'portfolios' of 'multiple livelihood strategies') (Rigg, 2005; Bryceson, 1999). Whether such combinations by 'fragmented classes of labour' are a matter of basic survival or accumulation (i.e. diversification for survival vs. accumulation) will be contingent on various and uneven concrete circumstances (Bernstein, 2007, p. 8), but are not confined to the contractual relationship and cannot be deduced by it.

The third related point is that Wilson and Watts' description of contract farming's social impact is essentially unilinear, i.e. as a disguised imposition of commercialization and proletarianization. This is particularly true of the latter in his attempt to retrieve a 'peasant' discourse, consequently facing (avoiding?) the uneasy analytical question of accounting for the existence of a differentiated peasantry while supposing that contract farming is responsible for their differentiation in undermining their 'peasantness'. Lenin, an early analyst of class differentiation in agriculture, of course did not subscribe to such a unilinear view noting:

> *"Capitalism arose and is constantly arising out of small production. A number of 'new middle strata' are inevitably brought into existence again and again by capitalism (appendages to the factory, work at home, small workshops scattered all over the country to meet the requirements of big industries, such as the bicycle and automotive industries, et.)…It is quite natural that this should be so and will always be so, right up to the changes in fortune that will take place in proletarian revolution"* (Lenin, 1972, p. 39; quoted in Gibbon & Neocosmos, 1985, p. 176)

This is not to discount Watt's important observations regarding contract farming's role in subsuming small producers into severe divisions of labour, its use in integrating producers in new or more disparate markets and commodity chains, or that contract farming often brings differentially greater benefits to larger producers. Nor is this to question Wilson's acute analytical point regarding the structural inhibition on accumulation presented by the monopsony position of the processor. Rather it is to note that contract farming is not *necessarily* the source of processes of differentiation, though it very well may act as its medium and transmit various market pressures. Indeed, the combination of such transmission with more stringent production strictures and the monoposony position of the processor, may

inhibit the accumulatory potential of larger producers and/or seemingly 'proletarianize without dispossessing' smaller producers. Nonetheless, the social content of any given contract farming scheme cannot be deduced from its *general* features, and demands investigation of the concrete social and political formations in which it is constituted.

2.4 Conclusion

This chapter has attempted to provide a broad overview of debates regarding the content and dynamics of contract-farming, with emphasis on perspectives drawn from radical political economy. It has been argued that the contractual form operates largely as a tool of subordination and discipline between capitals, a mechanism by which costs and risks can be shed while varying measures of effective control over production is maintained. Conceptualising small-holder farmers as petty-commodity-producers, the rigours of the contract and pressures of competitive commodity production tend to result in the intensified exploitation of family or hired labour, and position downstream monopsonic processor/retailers to capture any excess surplus released by virtue of their effective control over the terms of circulation. Such onerous terms are nonetheless a function of capitalist competition, rather than a deviation from it (i.e. as a form of 'monopoly rent'). It was further suggested that the relative emphasis of the contract as a means of dispersion of costs and risk vs. one of productive integration and reduction of transaction costs will be conditioned by relative circumstances of expansion or contraction in any given commodity chain. Finally, it was argued that contract farming may substantially influence on-going dynamics of differentiation, capitalist development and class formation globally, nationally, and locally but cannot be definitively isolated from them. The social content of contract farming thus cannot deduced by its technical form, but requires investigation of the particular socio-political circumstances in which it is deployed.

Chapter Three: A History of the Political Economy of the South African Sugar Industry

3.1 Introduction

A core argument of the previous chapter was that contract farming operates primarily as a form of subordination by monopsonic 'large' capitals of smaller petty commodity-producers (PCP), which were understood as internalizing the contradictory dynamics of capital and labour. It was argued that contract farming serves to subordinate the capital 'portion' of petty commodity-production, resulting in pressures which may indirectly intensify imperatives to exploitation within farming enterprises, but which do not necessarily occur as a direct consequence of the supply relationship. These pressures may manifest either (but more likely both) as a consequence of imperatives to raise average levels of productivity consonant with those demanded by the wider market, and/or from the enhanced claims on surplus value by the downstream processor governing the terms of exchange. It was further argued that contract farming arrangements present themselves as flexible mechanisms of both integration and dispersion, the relative emphasis of which is generally contingent on wider conditions of relative expansion or contraction.

In this formulation then, the motives driving the form and content of any given contract farming scheme will be intimately linked to wider processes, not just of the immediate social circumstances of production faced by the contracted farmer, but also of the wider accumulatory pressures of the contracting enterprise. A problem of analytical scope thus inevitably emerges, since the relations between company and farmer cannot be understood outside of ever-extending and intersecting analytical spheres, encompassing patterns and trends in the broader industry, domestic and international markets, state politics and interventions etc. The problem is further compounded by the fact that information and data required to evaluate such wider spheres is often simply unavailable or jealously guarded. In order to understand an observable 'atom', it seems one must necessarily explain an entire unfathomable 'universe'. Such difficulties confine many empirical investigations and analyses of contract farming schemes to investigations of immediate realities at farm-level, or where resources permit, extended to up and downstream 'networks' and 'linkages'.

This study certainly does not claim to have met this challenge. But the particularities of the South African sugar industry and its brand of organization and regulation provide some tools to begin to do so. Of particular interest are the Commissions of Inquiry into the

regulatory structure of the South African sugar industry (launched variously by the Board of Trade and Industry and subsequent Department of Commerce and Industry and Department of Trade and Industries). Initiated largely in response to various economic crises of over-production, the underlying processes revealed in these investigations help elucidate the terrain of struggle implicit in a shifting and arcane regulatory structure, and allow insight into the broader and shifting contradictions which prompted their adoption.

This chapter thus seeks to chart a broad overview of the industry's history. Particular emphasis is placed on unraveling the most salient aspects and shifts in the regulatory system forged in the struggle between milling and planter/grower capitals as mediated by the colonial, union, apartheid and democratic governments. Specific attention, is of course, further given to the origin and shifting structural foundations of small-scale sugarcane production in relation to these struggles and crises, first as 'landed renters/proletarians' within effective extensions of millers' own-supply base, and then reconstituted under new terms of incorporation as 'independent' petty-commodity producers.

3.2 Towards an incipient national regime: Natal origins, Zululand Expansion, and the Sugar Act (1848-1948)

Although there is not enough space here to detail the early history of the sugar industry, it is worthwhile to provide a brief sketch of its Natal origins and key moments leading up to the emergence of the national regime. The initiation of South African sugar production in late-19th century Natal was somewhat peculiar insofar as the conventional patterns of colonial trade to the metropole were being disrupted by the end of the slave trade and the rapid proliferation of the production of sugar beet in Europe. Nonetheless, early experiments in plantation production took hold during a brief period of reasonably high world market prices, and were quickly consolidated by the Natal government's erection of import duties and the importation of over 150,000 indentured Indian labourers between 1860 and 1911 (Richardson, 1982, pp. 518-20; Halpern, 2004, p. 26; Richardson, 2009, pp. 50-4).

The plantation form itself was not an inevitability, but conditioned primarily by high land prices and the relative dominance of rentier capital (Richardson, 1982, p. 520; Atmore, 1985, p. 89). As in Europe's tropical colonies, the logic of plantation-style sugarcane production carried something of an intrinsically industrial-capitalist logic. This was not least of all due to the peculiar labour cycle imposed by the crop's requirement for immediate processing, thus defined by long growing periods punctuated by hurried harvests, harried by

the necessity of grinding the cane and extracting the juice before oxidization and fermentation. As observed by Sidney Mintz (1986) in his seminal *Sweetness and Power*:

> *"The combination of field and factory, of skilled workers with unskilled, and the strictness of scheduling together gave an industrial cast to plantation enterprises, even though the use of coercion to extract labor might have seemed somewhat unfamiliar to latter-day capitalists"* (Mintz, 1986, pp. 51-2)

Nonetheless, as limitations to expansion in the domestic market failed to compensate for low world prices, by the dawn of the 20th century many Natal plantations had consolidated, taking an increasingly corporate character as struggling planters were forced into the hands of merchant banks (Richardson, 1982, pp. 522-6; Graves & Richardson, 1980, p. 226).

Together with the gradual consolidation of the domestic market, the opening of Zululand in 1904 would provide a boon to sugar capital and fundamentally alter the form of sugar production in South Africa. With an explicit focus on establishing a class of independent white commercial farmers, state surveyors demarcated plots to supply new centralized milling facilities established by consolidated capital on loans largely guaranteed by government (Minaar, 1992, pp. 19-20; Richardson, 1982, p. 527; Lincoln, 1995, p. 52). The Zululand expansion would thus mark the first formal separation of cane and sugar production that would come to eclipse plantation production in the years to come. But while supplying cane to the new mills would come as a condition of settlement, white planters chafed considerably from the unequal terms of exchange governed by the Miller-Planter Agreements (MPA) to which they were bound as a condition of their 99-year leases. The MPAs essentially required the 'settlers' to plant a minimum of 15% of their land to sugarcane and exclusively supply a centralized mill at fixed price per ton of cane, established as a bound ratio to the government-fixed Durban price of sugar. This method ensured millers would capture all improvements in processing efficiency, and created perverse incentives to scale for planters, i.e. to produce cane of greater weight rather than sucrose value, a fact exacerbated by the stipulation that millers were required to process only two-thirds of any planters' cane and enjoyed exclusive rights to proceeds from exports (Minaar, 1992, p. 3; BTI, 1927, pp. 7, 13-4, 19).

But concern over their relationship to milling capital was not the only class front that the planter's organisations had been formed against. A chief concern of the early Zululand planter's unions had indeed revolved around the difficulty of disciplining labour. In the aftermath of the 1906 Bambatha rebellion and the imposition of a £1 poll tax, followed by a succession of poor seasons, the early labour requirements of Zululand planters had largely

been met by Zulu men compelled to seek work, supplemented by two-three indentured Indians (Minaar, 1992, p. 87). As more planters arrived, fields extended, and agricultural conditions improved, however, field labour became increasingly dear. Moreover, by 1911, the prospect of attracting Indian labour had ended following the prohibition of indentured immigration and the Natal Estates, the 1913 Indian workers' strike further drove production to a halt and precipitated wage increases and the steady exit of many Indian labourers from the estates (Beinart, 1990, p. 6).

With the Zululand planters having largely missed the opportunity of exploiting a servile indentured Indian workforce, and the Natal Estates facing unprecedented wage competition, both looked to the African reserves both sought to bring African labour in the surrounding reserves to heel. However, in addition to retaining some land for subsistence production, the planters and estates faced formidable wage competition from other industries, particularly mining. Not only had Mozambican Africans largely sought employment on the Transvaal gold mines by the 1890s, where they formed the largest underground labour force, but Africans in the neighbouring reserves were largely attracted by better paid employment in the Rand and Durban (Beinart, 1990, p. 6; BTI, 1927, p. 4).

Furthermore, despite attempts by early Zululand planters' unions to fix maximum wages, wage competition amongst planters was similarly rife, and as a consequence labour recruitment in the reserves became a defining feature of sugarcane labour systems. The Natal Estates, considerably more capitalised and organised established the Native Recruiting Corporation to this end. Despite the low wages offered, prospects for aboveground work and a relatively short six-month contract period offered some enticement to African labour, but sourcing would frequently stretch to Pondoland. Zululand planters by contrast, came to rely on individual recruitment agents seeking largely Zulu workers for their perceived hardiness and resistance to malaria. Faced with fewer resources to mobilize labour than the Natal estates, however, Zululand planters became particularly reliant on enticing workers with advanced wages, despite its tendency to facilitate desertion. Nonetheless, into the 1920s, various planter recruitment syndicates were formed largely with the express purpose of recruiting Mozambican labour near border 'trading stores' (Minaar, 1992, pp. 92, 96; Beinart, 1990).

A further preoccupation of the early unions were attempts to 'capture' neighbouring reserves for sugarcane interests by precluding recruitment for other employment, particularly mining. In 1911, for instance, the Zululand Planters Union had managed to negotiate with the Minister of Lands and Minister of Native Affairs to close Mtunzini and Lower Umfolozi to

recruitment by the mines (Minaar, 1992, p. 88). However, Native Affairs secretaries with liberal inclinations tended to oppose planter proposals to segment particular sections of the coastal reserves for sugar interests, largely arguing for a free market in labour, and citing substandard wage, housing, feeding, and health provisions as the source of planter's labour sourcing problems. Similarly, planters and estates also came into loggerheads with the Department of Health, which prohibited the importation of Mozambican labour for fears of malarial infection, and generally for poor health standards on farms and estates. Nonetheless, despite failures to secure exclusive segments of the African reserves, politically mobilized sugar interests were able to prevent the extension of minimum labour standards, particularly the Native Labour Regulation Act of 1911 and its requisite conditions of housing and health (BTI, 1927, p. 11; Beinart, 1990, p. 16). As observed by Beinart:

> *"The NAD was having to become more attuned to the demands of agrarian interests in the country and in Parliament. As an official in Pretoria in 1934 despairingly commented they 'frequently urged legislation' but 'the opposition of the sugar planters has always defeated us'"* (Beinart, 1990, p. 14)

From the 1920s to 1940s, however, embryonic planters' unions successfully exerted a growing political influence. Although the Department of Native Affairs (NAD) was loathe to secure and discipline African labour for planters at the effective expense of mining interests, the Board of Trade and Industry (BTI) ultimately proved far more sympathetic in reviewing the terms of the MPA. The first concession came at the Cape Town Conference of 1920, where millers agreed to split half of all proceeds above the Durban price garnered by high export proceeds as a result of the general sugar scarcity engendered by WWI. However, when prices fell later that year, the terms of agreement effectively permitted planters to successfully resist sharing in precipitous export losses (BTI, 1947, pp. 11-12). While millers attempted to stem the rising tide of imports by collective agreement to pool exports and absorb freight charges and manufacturing rebates, cooperation ultimately broke down in the ensuing period of contraction. With millers hence forced to the negotiating table, and government armed with authority over domestic prices and the power to enact the stricter import duties millers coveted, a new compact was forged at the Fahey Conference in 1928.

The political importance of planters to government as a class project is evident in the Board of Trade and Industry's consequent Report No 66. The BTI exclaimed that "no other branch of agriculture in South Africa has in recent years put such large areas of virgin land under cultivation", by "men drawn from urban centres" with "slender capital resources", who now faced low prices and heavy interest burdens (BTI, 1927, p. 6). The BTI was further

clearly aware of its potential power of influence in effecting the coveted import duties proposed by millers in "representations that have so persistently been made to Government", but made clear that it was not willing to do so without concessions to stabilize the planters' position, noting:

> *"Even though it is now agreed that under prevailing conditions, the industry has reached a stage of economic over-production, there does not appear to be the prospect of satisfactorily deflecting the energy of large numbers of planters into other channels…The only alternative to a readjustment of the relations of the planting and milling interests on a basis that will permit the average planter to carry on cane cultivation would seem to lie in the abandonment of the land by many small planters. The Board is therefore of the opinion that every effort should be made to retain in an industry of national importance, hard-working men who have already done much for its advancement"* (BTI, 1927, p. 6)

Millers hence agreed to continue to absorb freight charges, offer special concessions to manufacturers and pool exports pro-rata to their share of national production. But perhaps most critically for planters, the agreement further established a new formula to divide total industry proceeds between the two sections based on their respective *average* costs (after a 'first charge' to refiners), with planters further receiving payment in terms of sucrose content rather than tons of cane (BTI, 1931, p. 25; BTI, 1947, p. 10).

The Great Depression however sent shudders throughout the emergent order as export prices plummeted still further. Millers nonetheless continued to expand production in competition over the local market, and expanded their own estate production to compensate for growers dropping out due to the stress of low export prices that they now shared. With a scheduled review of the Fahey Agreement pending, government pressed further measures to refine the new system. In pricing, a new 'marginal' formula was devised, effectively increasing sucrose returns by its premise on the average costs of 'marginal' Zululand planters and exclusion of particularly low-cost Durban mills. Moreover, in order to offset future crises of overproduction due to export fluctuations, a system of sugar quotas was instituted for millers, which in turn had to be translated into a system of cane quotas proportional to each growers' highest average delivery in the previous two years. 'Small' planters would further enjoy supplementary payments based on a sliding scale, while small planters and millers would further be granted special quota concessions (BTI, 1947, pp. 32-4).

The most significant outcome, however, would be drafting of the Sugar Act (1936), replacing the Sugar Prices Act and constituting sugar outside of other agricultural commodities governed by the Marketing Act of 1947. In terms of the Act, the Minister retained powers to set maximum retail prices as well as the maximum quantity of white sugar to be sold in the local market, including a new cheap quality known as 'grade 2 sugar'. More

importantly, however, the Minister was to publish under his authority an agreement binding on the entire industry, stipulating the basis of determining prices for cane, the regulation and restriction of production, marketing and export of cane and sugar and the respective obligations of millers and growers, and the establishment of an industry board to administer the agreement, effectively granting the industry statutory powers of self-regulation. Although a condition of the agreement was that parties representing 90% of output agree on the terms, if no such concurrence was forthcoming, the Minister would be empowered to enact a binding agreement himself (BTI, 1947, p. 30).

A newly constituted corporatist South African Sugar Association (SASA) was thus established to govern the industry's new powers of statutory self-regulation, and take responsibility for matters of setting levies, determining base-prices for cane payments, setting export contracts, researching costs, and establishing experiment stations. Administratively independent, the executive Council comprised seven delegates and rotating chair and vice-chairmanship from both the South African Canegrowers Association (SACGA) and the South African Miller's Association (SAMA). The 'Board' advocated by planters took the form of the Sugar Industry Central Board, including an independent chairman appointed by SASA, and one delegate from both the millers and growers organizations (BTI, 1947, pp. 32-6). As a quasi-independent and judicial institution, the Board was entrusted with the implementing control over production through quota management; oversee cane-testing services; and provide oversight over all cane transport and crop estimates at every mill area via local Mill-Group Board branches, again comprising both planter and miller representatives (Van Biljon, 1970, p. 3).

Nonetheless, despite the focus of the agreement on limiting production, towards the end of 1937 it was clear that national production would outstrip the quotas conferred on the industry. This was generally attributed to the uptake of new higher-yielding 'soft' cane varieties, smaller planters' uptake of their extended quotas, and cane's long life-cycle (BTI, 1947, p. 35; Tinley & Mirkowich, 1941, p. 544). The problem of the excess crop was further compounded by South Africa's signing of the 1937 International Sugar Agreement (ISA), where the Union agreed not to export more than 209,000 tons. Government's initial aim to limit production, however, would be rendered moot by the onset of WWII as war-time scarcity saw export prices rise steadily. Such improved market conditions made clear that the quota system would need to be overhauled, with a new emphasis on expanding rather than limiting production. To this end, an industrial conference to review the prevailing Sugar Agreement was called, but unlike prior conferences convened under the chairmanship of the

BTI, it would be SACGA and SAMA within a newly consolidated SASA which would produce recommendations, in consultation with the Department of Commerce and Industries (BTI, 1947, p. 44).

The resulting Sugar Agreement published by government in 1943 attempted to bring nuance to the existing quota formulations with new layers of complication. Planters' quotas were henceforth categorically segregated into Miller-Cum-Planter, white ("European"), black ("Bantu"), Indian and coloured ("Mangete"), and subsumed within mill groups. Each sectional quota would be divided into a local market and export portion, now flexibly predicated on estimates of local demand rather than a fixed national quota. Any shortfall from a section would thus be carried as a shortfall in export production first, while if an excess of production over local market pertained, non-quota sugar would be placed in a special 'B' pool for export only, not accounted in the national quota, and not impinging on other planters' quotas. Moreover, planters unable to meet minimum quota requirements received the highest sucrose prices in the industry (particularly smaller white and black planters) with small white planters granted an additional contingency quota to establish what was considered a 'minimum scale' including some 83 soldiers returning from the war (BTI, 1947, pp. 43-9).

The emergence of SASA and its effective powers of statutory self-regulation was indeed exemplary of the structural shifts set in motion both by the manner of sugar's expansion into Zululand and changes in wider international circuits of trade and exchange. To some extent the central conditioning factor was the new form of production undertaken in Zululand. Whereas in Natal the division of labour in cane and sugar production was integrated within a single enterprise, i.e. between the miller-cum-planter estates and indentured Indian cane labour and skilled mill labour, in Zululand this division was amplified in the formal separation of cane and sugar production. The centralized milling model was attractive to a government eager to consolidate the annexation of Zululand with white settlement and also to merchant capital buttressed by guaranteed monopsony, government support and a growing domestic market. But while early settlers benefitted from land allocated by conquest and a guaranteed market for their cane, it soon became apparent that planting capital had been firmly subsumed to milling capital by particularly uneven conditions of exchange. Moreover, whereas government had purposely intervened to subject Indian labour to the authority of the Natal plantations, it was far less inclined to capture African labour on behalf of the Zululand planters at the expense of mining capital. Planting

capital thus found itself caught between the 'squeeze' of milling capital, but constrained from responding with intensified exploitation.

The opportunity for planters to expand their relative share of the national sugar surplus would come as result of their heightened political profile during a burgeoning crisis of over-production. The volatile nature of the world market reflected a much broader (if gradual) transition away from the traditional flow of agricultural commodities from the colony to metropole that characterised the first 'food regime' (Friedmann & McMichael, 1989, p. 96). However, a longer term trend towards expanded European production and the increasingly residual nature of the world market was disguised by short-term booms in the world market which came as a result of war-time scarcity. The ultimate 'busts' which occurred as post-WWI production resumed and later with the onset of the Great Depression indeed wrought havoc throughout the industry. For government, the preservation of the industry rested on inculcating stability through regulation. Whilst the dual measures of price controls and import tariff protection insulated the industry from international competition while maintaining reasonably cheap sugar for domestic consumers (including preferential rebates for manufacturers), government's vision went further. Perhaps most markedly, the comprehensive regulations governing the terms of exchange between millers and planters effectively sought to augment planters' claims on the industry's relative surplus with the explicit intention of ensuring the economic survival of planters as a political class. Furthermore, while maintaining incentives to efficiency with payment mechanisms based on socially average levels of productivity, further redistributive mechanisms were instituted to maintain small-millers and small-planters. Secondly, in order to temper the deleterious tendency towards over-production, a comprehensive system of quantitative controls on production was instituted to ensure a better match between supply and domestic demand.

The resultant national compact, delicately balancing the myriad of countervailing interests, certainly appeared to satisfy governments' vision of a rational, efficient and equitable industry. With the class interests of millers and planters distilled at a national level of negotiation, antagonistic short-term interests could be subordinated to the long term interests of both. Future crises, moreover, could be offset by adjusting and fine-tuning the comprehensive controls which had been put in place. But the system's apparent rationality veiled the reality that even allowing for some measure of anticipation, regulatory responses were almost categorically reactive, and though proactive changes were possible, their full impacts remained fundamentally unpredictable. Moreover, though the contradictory interests

among and between millers, growers, and consumers had been apparently dampened, they had not been resolved so much as elevated to a national and increasingly arcane level.

3.3 Consolidating a corporate-national regime: Expansion and the Van Biljon Commission of Inquiry (1945-1970)

3.3.1 The golden years of growth

Despite the latest attempt to add nuance to quantitative control with new flexible quota arrangements, the end of World War II signaled a full reversal of efforts to restrain production in favour of expansion. In the first place, the devastation of the war precipitated a significant drop in world-wide sugar production, and like in the aftermath of WWI, international prices consequently rose steadily. But while the crisis of over-production following WWI was triggered by the resumption of international sugar production, incredible growth in the South African market promised a more durable basis for expansion. Indeed, whereas in 1936 40% of a total production of 446,409 tons of sugar had been exported, by 1945, only 71,585 tons were exported of a total production of 553, 074 tons (BTI, 1947, p. 61). The bulk of this increase was generally attributed to the introduction of grade-2 sugar and steady growth in the sugar consumption by manufacturers, each of which constituted around 33,000 tons in 1936, but which by 1945 accounted for 155,000 and 100,000 tons of production respectively (BTI, 1947, p. 92). Thus in 1947, in the midst of a wider government campaign to expand food production (and one year before the ascension of the National Party), the BTI chaired another review of the industry to assess the industry's obligations and potential for expansion.

Despite certain reservations about the industry's regulatory mechanisms[12], the most concrete outcomes of the review were explicitly intended to enhance the industry's capitalisation to meet rising demand. While the BTI rejected the notion of extending any kind of government relief to millers, it summarily recommended that the domestic price of sugar be raised, and that millers be absolved of their rebate obligations so long as high international prices put manufactures at a 'natural' competitive advantage. Planters were also encouraged

[12] In particular, the BTI was openly suspicious of the efficacy of the structural measures designed to ensure a fair division of surplus. Misgivings regarding the accounting and costing measures made by millers existed since report No. 66, which as we have seen, established average costs as a central pillar informing the marginal formula. Without accurate data, the BTI now openly rejected the formula as arbitrary and unscientific. Furthermore, the assumptions which underpinned the formula in regards to the efficiency of extraction were not only out-dated, but sure to remain in flux. This was similarly true of the £4 refining charge, to which an attempt to establish marginal cost was not even attempted, and further exacerbated by the small differential in price between refined and mill-white sugars, yielding unknown profits to both. That some millers were further extending their operations into manufacture of sugar by-products, such as Illovo's golden syrup, further raised the question of how such monies should be accounted for (BTI, 1947, p. 120).

to expand production, with SASA's central board granted authority to relax existing grower quotas and issue new ones to new growers (Van Biljon, 1970, p. 8). While the BTI recognized that these changes might exacerbate the on-going trend towards concentration, it was openly ambivalent insofar that the price of sugar was fixed by legislation, and the price of cane by agreement (BTI, 1947, pp. 120-8). Production quickly rose to a record 685,000 tons, hindered only briefly by a drought in 1951.[13] Moreover, the prospect for expansion was further bolstered by the commencement of the 1951 Commonwealth Sugar Agreement, allowing members of the British Commonwealth preferential access to the UK's domestic market at negotiated prices. South Africa further gained a 175,000 ton quota in 1954 in addition to its virtual monopoly access to the neighbouring Rhodesian and Swazi markets (Van Biljon, 1970, p. 8). As a result South Africa's sugar exports almost doubled their pre-drought levels, reaching 200,000 tons by 1955.

It is also worth noting that over the course of the post-war expansion, the nature of sugar production itself was in a state of flux. Firstly, the uptake of new imported varieties received by the Durban Experiment station in the late 1930s had a marked effect, increasing yields dramatically from around 19-20 to 27-30 tons per acre (Van Biljon, 1970, p. 70). By 1935, the industry abandoned its reliance on the increasingly inadequate resources of the Department of Agriculture in favour of an enlarged experiment station and throughout the 1960s research received ever-greater prominence: whereas in 1963 SASA provided R517, 600 for cane research, by 1968 this had more than doubled to R1,146,300 (Van Biljon, 1970, pp. 6, 70-1). Similarly, a joint venture between SAMA and the CSIR launched in 1947 received an added annual contribution of more than R250,000 by 1969.

Perhaps one of the most socially pronounced agricultural processes of the 1950-60s however, was the advance in the mechanization of sugarcane farming. With the industrial boom of the 1940s-60s diverting increasing amounts of labour to urban manufacturing and mining, along with enduring tussles with the state over the recruitment of Mozambican workers, many planters were receptive to the prospects of advancing labour-saving technology. SASA was particularly active in the promotion of mechanization, with field demonstrations in 1948 given at Empangeni, and further sending overseas delegations to investigate further advances in 1963 (Minaar, 1992, pp. 137-8). Perhaps one of the most revolutionary advances was the self-loading trailer, which divorced the work of loading from

[13] During this period it is also notable small millers' exemption from export obligations were replaced with a supplementary payment and that the array of 'equalisation funds' developed in the 1930s to introduce some element of redistribution to small growers and millers were centralized into a 'development levy', which was at times also used to facilitate capital expansion, including leveraging loan capital for the relocation of Reynold Brothers' Esperanza mill to Pongola (Van Biljon, F.J, 1970, pp. 14, 19, 28).

cutting, enabling cutters to harvest and load 8-10 instead of 3-4 tons of cane a day (Van Biljon, 1970, p. 105). Along with increasing fertilizer and chemical usage further reducing the need for weeding labour, the Department of Industries in 1970 estimated that the average number of labour 'units' (presumably 'workers') per 1,000 tons of cane decreased from 12.25 in 1951 to 6.01 by 1968 (Van Biljon, 1970, p. 6). Nonetheless, despite planter complaints regarding the difficulties of sourcing labour, it is interesting to note that the South African growers never ventured into mechanised cane harvesting, despite demonstrations of Australian reapers. Though complaints abounded about losses engendered by the deterioration of mechanically-cut cane, the Department of Industries euphemistically noted the heart of the issue:

> "*Because of the high rate of population increase of the Bantu [sic] and the slow diversification of the economies of their Reserves, some of which are close to cane-growing areas of White farmers, the labour supply in the South African sugar industry is far larger than in the Australian which has no Aboriginal [sic] labour supply''* (Van Biljon, 1970, p. 7)

Despite the fact that the referred 'population increase' makes no mention of expanded state policies of dispossession crowding increasing numbers of the black population into reserves and then Bantustans, the point is instructive. Indeed, although by 1968 labour costs still remained higher than those of fuel, maintenance, and fertilisers combined (Van Biljon, 1970, p. 34), and though urban manufacturing did introduce an element of relative upward wage competition, farmers' near universal reluctance to introduce harvesting machines which could multiply human labour-power several-fold indicates that cheap black labour remained a pivot point of sugarcane growing in South Africa.

By the late 1950s/early 1960s, however, the new productive peaks reached in the planned expansion began to pass the thresholds of both the domestic market and Commonwealth quotas. The limits on domestic consumption were further accentuated by the removal of the industry's obligation to produce cheap grade-2 sugar in favour of 'golden' brown sugar at prices nearly equal to that of refined. When in 1960 world prices dropped below the domestic price, manufacturers' rebates were also reinstated and in 1962 further extended from canners to other sugar containing products (Van Biljon, 1970, p. 25). Pressures on the security of South Africa's export markets also loomed. Firstly, the commencement of sugar production by Umbombo in Swaziland and Triangle Ltd (a Huletts subsidiary) in Rhodesia saw the closing of these two regional outlets, necessitating a 23% reduction in sugar quotas (Nedbank, 1976, p. 95). Secondly, a corollary of South Africa's declaration as an independent Republic was abandoning its Commonwealth privileges,

including a forfeit of its preferential sugar quotas. While a bi-lateral agreement with the UK was arranged for 150,000 tons at reduced prices, South Africa was compelled to turn to the world market with a re-negotiatiated 250,000 ton quota under the International Sugar Agreement (ISA), reducible by 20% under particular price and supply conditions (Van Biljon, 1970, p. 9).

Despite South Africa's loss of preferential access to the British market, however, the world market looked favourable. Following the 1960 US embargo of Cuban sugar in the wake of its revolution, Cuba diverted its 5.63 million tons of sugar to the USSR while the US turned to the world market to supplement the resulting shortfall, thus causing the price of sugar to more than double (Richardson, 2009, pp. 70-1). With the consequent rise in prices, the ISA floundered and by 1962 was compelled to temporarily suspend all quotas until a new agreement could be made. Though lacking a regulating structure, the high world prices and freedom to export was encouraging for South Africa, a confidence accentuated by finding new preferential export partners in Japan and the U.S.

Concurrently, in 1962 the ownership structure of the industry underwent a fundamental shift. Huletts bid for Natal Estates, which though for sale was viewed as push for dominance by other sugar companies, which in turn placed their own bids. While Huletts was ultimately successful in its purchase of Natal Estates, it soon found itself in a bitter struggle for control over its own corporate holdings as a consortium of sugar companies including Tongaat, C.G Smith, Reynolds, Gledhow and Crookes bid for Huletts itself. In the aftermath of the take-over, Reynolds, Crookes and Gledhow exchanged their stake in Huletts for shares in C.G Smith, and Smith and Tongaat's own holdings in Huletts were placed in a new holding company called S&T Investments Ltd (Nedbank, 1976, p. 61). Before the takeover, Huletts and Smith accounted for four and five of the 17 mills in South Africa respectively. Following the takeover, they together accounted for 11 mills, a level of concentration further heightened by the complex web of cross-cutting share-holdings at the centre of which was C.G Smith. (Van Biljon, 1970, p. 12; Lincoln, 1980, p. 40).

The emergent concentration in ownership further accentuated a trend towards the centralization of physical capacity, perhaps best exemplified by packing and sales. In the first instance, refining capacity had previously been divided between Huletts' central Hulsar refinery in Durban, Gledhow, and Pongola, and from 1958 five millers had begun packing sugar in smaller consumer-friendly packets with a price premium. Now with refining effectively incorporated within the C.G Smith Group all packing operations became centralized at the Durban refinery (Van Biljon, 1970, p. 23). A similar centralization occurred

in sales and marketing: though Huletts and C.G Smith had each maintained their own sales divisions, post-merger these were amalgamated into SA Sugar Distributers, and effectively utilized by all mills except that at Ntumeni (Van Biljon, 1970, p. 21). More generally, while the mutual pro-rata sharing of the export and local markets between millers was originally designed to ensure the equal sharing of sugar proceeds, it also effectively de-incentivised millers from attempting to outsell one another. Now, however, with a majority of South Africa's sugar milling, refining sales, and marketing effectively within the ambit of a single albeit complex web of corporate ownership, the overlap between a 'national' and 'corporate' regime became increasingly pronounced.

By 1964, however, the newly concentrated industry sought to expand further. Once again new quotas were issued and existing growers were permitted to enlarge their quotas by expanding acreage and delivering as much cane as possible. This resulted in 237,820 new acres put into production, about half of which came from 1,217 new growers. (Van Biljon, 1970, p. 9) The decision to expand carried several dimensions. Firstly, following the diversion of Cuban sugar to the USSR and temporary suspension of the ISA, in 1963 the UN declared that the old ISA would continue in operation until 1965 whereupon a review of existing quota arrangements would be reviewed. Expansion thus formed part of a 'calculated risk' to increase production in order to garner a larger share of the international quota. Furthermore, while South Africa still enjoyed a degree of preferential access in to the UK, it prematurely ended its bi-lateral agreement in 1964, two years before its scheduled termination. This decision was ostensibly taken to "allow the sugar industry of Swaziland to secure its own negotiated price quota in the United Kingdom. It thereupon ceased to have access to the South African domestic market" (Van Biljon, 1970, p. 9). However, as the infant industries in Swaziland and Rhodesia were largely comprised of South African capital[14], there is little doubt that this move formed part of an increasingly regional strategy by the recently integrated corporate sugar regime in South Africa.

Indeed, accompanying the increase in cane acreage was a vast drive to increase capital capacity. A central feature of the proposed expansion was the construction of three new mills. Most conspicuous among these would be the entry of Afrikaans capital with the new Traansvaalse Suikerkorporasie Beperk (Tsb) mill in the Malelane area of the Traansvaal. The product of a joint venture between Volkskas and the General Mining Group, the mill boasted a total output capacity of 120,000 tons of sugar, supplied by irrigated cane fields and

[14] Including Crookes brothers (Nedbank, 1976, p. 84).

equipped with its own refinery (Nedbank, 1976, p. 133).[15] Established mills also pursued a considerable expansion, particularly the Amatikulu mill, which was completely rebuilt, and the Umzimkulu and Sezela South Coast mills, which were almost doubled in size. Just over R100 million was spent by individual mills on the expansion, nearly half of which was loan financed. Indeed, as a result of the considerable investment, milling capacity was doubled between 1958 and 1968, two-thirds of which could be attributed to the expansion of established mills (Van Biljon, 1970, p. 11). To deal with this increased output, SASA further commissioned two bulk export silos, adding 480,000 tons of storage capacity.

The expansion gamble, however, did not pay off to the extent envisioned by the industry. South Africa did succeed in attracting the fourth highest export quota of 625,000 tons under a renegotiated ISA in 1968 (Nedbank, 1976, p. 28). However, while the planned expansion predicted an increase of 300,000 tons, the effected increase was more in the region of 5-700,000 tons, bringing total production up to a massive level of 2 million tons by 1968 (Van Biljon, 1970, p. 93). The unexpected surplus was aggravated by the fact that the high world prices enjoyed in 1964, when expansion commenced, dropped the following year as the US's other preferential suppliers increased production and the USSR began re-exporting Cuban sugar (Richardson , 2009, p. 71). While a drought in 1966 saw exports drop from 6,000,000 tons down to 200,000 tons (requiring South Africa to import sugar for re-export under its ISA and preferential obligations), by 1967 940,000 tons were exported. With only a small preferential export agreement with the US, the bulk of exports were thus headed for a depressed open market.

With much of the expanded capitalization founded on loan finance, the lower than expected world prices upon which credit had been premised placed significant pressure on the industry. The new mills particularly floundered: Tsb for example only came into production three years after its construction, incurring considerable losses of over R3 million in the interim, and then failing to reach full capacity (Nedbank, 1976, p. 135). Similarly, Illovo's Jaagbaan mill failed to secure throughput as its cane quotas were either not taken up or lapsed, incurring over R1 million in losses and 60% takeover by British sugar giant Tate & Lyle in 1969 (Nedbank, 1976, p. 103). Similarly, the two remaining independent miller companies, the Entumeni Sugar Milling, and the Indian-owned Glendale Sugar Millers also

[15] The others included a small sugar and timber mill constructed by the Union Co-op Bark and Sugar Company in the Natal Midlands, an exception the policy that no new mills would be authorised with an output below 60,000 tons following the elimination of small mill subsidies in 1966. The second was a 100,000 ton mill constructed by Illovo at Jaagbaan following its purchase of both the Doornkop mill and the Noodsberg Sugar Corporation.

succumbed to purchase the same year, by Premier Milling and Lonrho Ltd respectively (Van Biljon, 1970, p. 12).

3.3.2 The spectre of 'rationalization'

The crisis engendered by depressed market prices compelled the industry to seek assistance from government, which as an emergency measure extended a five-year R16 million loan and further granted two price rises in 1966 and 1967, forcing South Africa to lose its position among the world's cheapest sugar producers (Van Biljon, 1970, pp. 24- 27). As with prior crises of overproduction, government's intervention was accompanied by a Commission of Inquiry to assess the industry, and as with prior inquiries the looming threat of over-production once again prompted the Commission to recommend a number of structural adaptations. In addition to the loan, the most substantial outcome of the inquiry would be the establishment of a 'Price Stabilization Fund' through which proceeds from peak export years could be pooled to offset decreases of price in lean years. The Commission estimated that the fund be sufficiently constituted at around R30 million, and that the 'development levy' should hence be altogether recast as a price stabilisation levy following the repayment of government's loan (Van Biljon, 1970, p. 88). However, in contrast to prior investigations which laid an emphasis on controlling production and ensuring the economic survival of smaller millers and growers, the new inquiry was marked by an emphasis on accommodating capital expansion through 'rationalization' and marketing.

In terms of marketing, while the Commission remained confident in SASA's Export Committee's active search for new markets and regular 'goodwill' missions to established partners, it held that local marketing had been relatively neglected. The post-war boom saw aggregate sugar consumption rise from 47 lb. per head in 1940 to 75 lb. in 1950, but had largely levelled out thereafter. Consumption was also heavily skewed by racialized income inequity: whites accounted for 26.6% of consumption while black South Africans accounted for 68.9%, but with white consumption increasingly comprised of sugar in manufactures, at a ratio of 1.2:1 to direct consumption, while black consumption remained premised in direct sales, and rising more directly with overall income and the supply of cheap grade-2 sugar. The failure of consumption to increase at the same rates as aggregate population and income led the Commission to bemoan 'Engel's Law'; "the demand for sugar in the republic has a distinctly low responsiveness to changes in income or price" (Van Biljon, 1970, p. 62).

Perhaps blinkered by the focus on direct sales, however, it appears that the Commission failed to fully appreciate two significant trends in its own data, namely that

consumption by manufactures had near doubled since 1950, and that the abolition of cheap grade-2 sugar resulted in a switch to white refined rather than a decrease in consumption (Van Biljon, 1970, p. 94). The evidence hence suggested that while an upper threshold for *direct* sugar consumption might exist, this was not similarly true of *manufactures*, and moreover that once incorporated into individual diets, consumers were resistant to decrease sugar consumption *despite* price increases. Despite sugar's addictive qualities and growing importance as an additive in manufactured foodstuffs, the Commission nonetheless recommended intensifying local marketing by the establishment of a dedicated Sugar Marketing Corporation to handle all sales contracts, oversee logistics, quality and packaging arrangements, engage in perpetual market research and promotions, and make recommendations of price levies and sales to the Minister (Van Biljon, 1970, p. 67).[16]

The Commission's emphasis on growing sugar's national 'pie' was similarly accompanied by recommendations to shift the distribution of its benefit. In terms of transport, the prime stated concern regarded obstacles to the development of more 'efficient' and flexible road transport systems inaugurated in the 1950s. With South African Railway tariffs more than doubling from the 1950s, road hauling had since grown to encompass 44.1% of cane transport, but still faced impediments. Though in some instances this was due to miller reluctance to invest in necessary infrastructure, more pernicious in the eyes of the Commission was the system of divergent subsidies that characterised the industry. Since the 1943 sugar agreement had pegged mill transport charges, with the added stipulation that growers would not be liable for any additional transport costs incurred in cane diversions to other mills in the event of mill breakdown or premature processing due to frost or fire. However, diversions had become an increasingly permanent feature of cane-supply as mill amalgamations and closure/relocations accentuated variations in cane-processing capacity, costing millers an estimated R2,331,000. The distribution of subsidy also varied, with competition for cane by North Coast and Zululand millers conditioning high transport subsidies for growers against the newer and relatively isolated growing areas of Pongola, Umzimkulu, Malelane and Jaagbaan-Dalton where growers paid the full cost of transport (Van Biljon, 1970, pp. 15-17; Nedbank, 1976). While the Commission could not recommend that subsidies be simply pulled, it did recommend their phasing out by prohibiting new subsidies; terminating subsidies upon sale, donation or death of the farm/farmer; that growers be given the option of what transport system they prefer, subject to right of appeal; and that

[16] It is also notable that around 1968, SASA began offering a Medical Research Grant of R25,000 at the University of Natal for research into the "physiological and other medical aspects of sugar usage'' (Van Biljon, F.J, 1970, p. 70).

any future expansion be subject to a re-allocation of quotas. The subtext of this proposal for 'rationalisiation' of capacity was of course that any miller payment for transport was treated as a 'subsidy' and the possibility that millers might equally rather than differentially share the burden of transport costs , or that they be made an industry concern, was not seriously considered.[17]

The Commission further made a number of recommendations to improve the position of millers in respect to downstream handlers. In the first place, miller obligations to absorb freight subsidies had already been abolished in 1966. As the subsidy was already calculated into the industry's price requirements, without a corresponding price decrease this bequeathed R2 million in transport 'savings' for millers (Van Biljon, F.J, 1970, p. 23). Secondly, the Commission sought to encourage the transmission of price pressure onto wholesalers by encouraging greater integration between competitive retailers and refiners. Since 1937, government-legislated Sugar Exchanges operated in all South Africa's major cities as the exclusive legal direct purchasers other than industrial sales. For decades the strict entrance criteria enabled collusive wholesalers to push wholesale prices to their limits and withheld supplies if retailers did not follow suit. In the 1960s, however, refiners began to undercut wholesalers' recent 'pre-packing' operations by packaging retailers' own brands directly and placing a surcharge on loose sugar of less than a truck load. Moreover, in 1969 Parliament abolished 'resale price maintenance', thereby allowing retailers to purchase directly from the industry's sales distributors and engage in price competition. The Commission sought to further extend this integration between retailers and refiners by recommending the removal of retail (though not producers') prices to undercut wholesalers and effectively cheapen sugar at no detriment to millers (Van Biljon, 1970, p. 64).

The Division of Proceeds (DoP) was also to be amended in the interest of millers and large growers. The 'arbitrary' first refining charges and polarisation awards were maintained, despite the reservations made by the 1947 Inquiry, and millers were granted exclusive ownership of premiums from sales of new 'factory pack' and specialty sugars hence excluded from the division (Van Biljon, F.J, 1970, p. 33). Similarly, proceeds from molasses, previously distributed to growers of a particular mill in the same ratio as sugar, would now

[17] Rather the Commission constructed a false binary counterfactual, supposing that if mills paid for the full cost, they would be held hostage by growers locating at uneconomic distances. It is hard to see, however, how the Central Board would award a quota to growers at uneconomic distances, or why a standard could not be introduced. A further irony is that several pages later, an instance where growers were established in Melmouth to supply a planned Huletts mill at Bedhlane in 1959 had their cane diverted instead to the expanded Amatikulu mill, with Huletts paying the balance. The report nonetheless recommended that these 'subsidies' be removed compensating growers only with the choice of what form of transport they would like to pay for full in future. (Van Biljon, 1970, p. 56; 58)

simply be averaged and credited as millers' costs.[18] Secondly costing investigations would now include outlier large-scale growers and miller-cum-planters (thus reducing the 'average' cost of growing), though a 60c per ton 'managerial' fee was included in accounting for growers' costs (Van Biljon, 1970, p. 35).

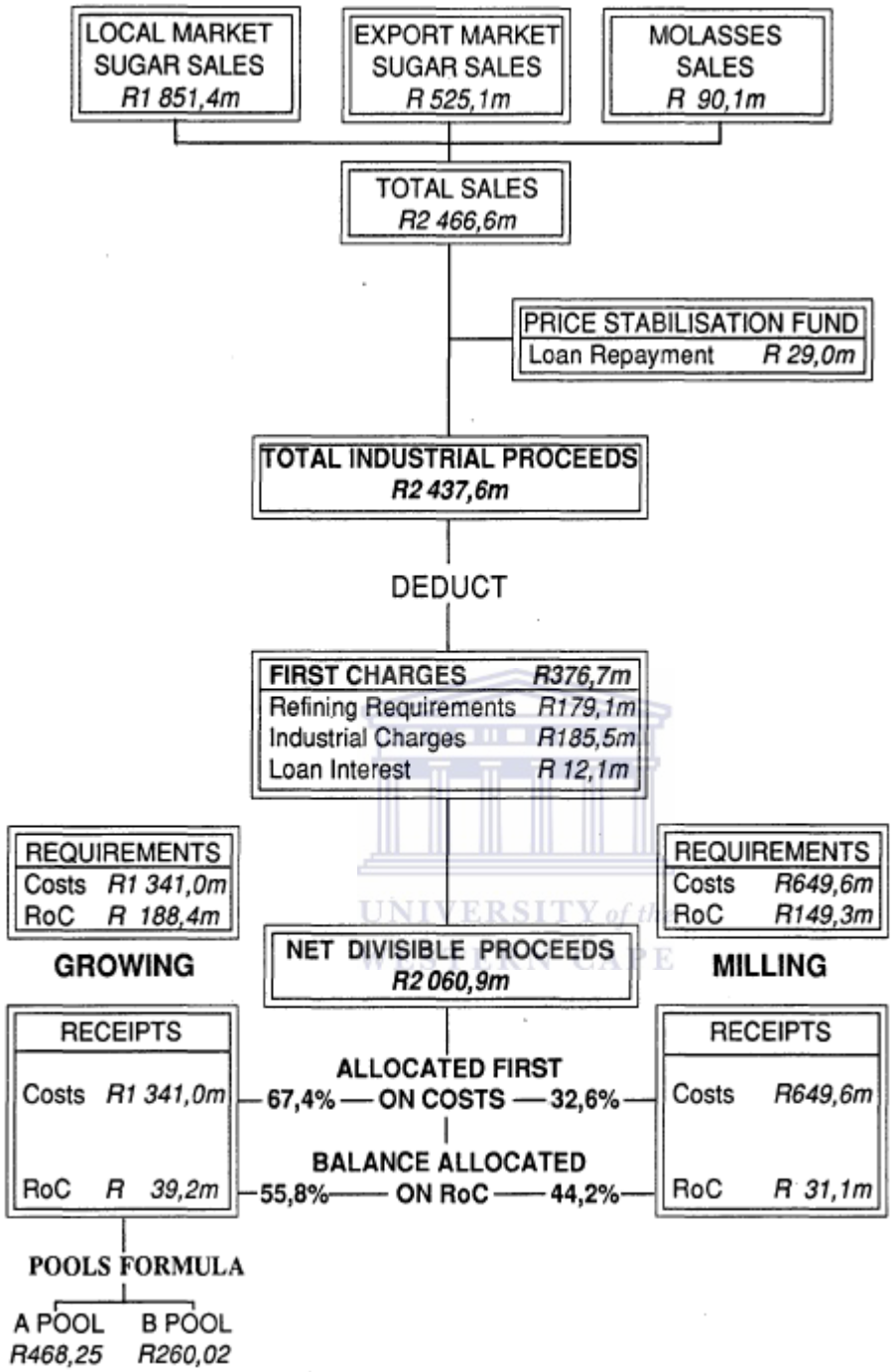
Critically, however, a new second stage was incorporated into the DoP. Previously industry proceeds were divided among millers and growers proportionate to their average costs per ton of sugar. Now the each section's average costs were simply deducted from industry proceeds, leaving a remaining balance, to be distributed according to an estimate of each section's 'return on capital' (ROC) (see figure 3.1 for an illustration of the basic principle as of 1992, keeping in mind this includes some further changes). While SACGA was granted a conservative estimate of an average of 7% based largely on land values, millers received an estimate of 14% on working capital and the depreciated book value of other assets based on the returns to other industries (Van Biljon, 1970, p. 37). The decision to use other industries ROC as a benchmark for millers was ostensibly based on the risk of exports critical to industry's performance, despite the industry's tariff protection and the fact that its reliance on export earnings was itself the product of a deliberate policy of expansion beyond domestic requirements.

The frequency of cost investigations was also shifted towards miller interests. 1967/8 (a year of immense cost) was established as a basis point for cost reviews every five years, with annual reviews of relative fixed and variable costs. As growers' high variable costs were more sensitive to changing productive circumstances than millers' higher fixed costs, growers would be more closely monitored for undue claims on proceeds (Van Biljon, 1970, p. 36). Furthermore, a more stringent method of sucrose measurement known as Estimated Recoverable Sugar (ERS) replaced the existing 'Java Ratio', while grower proposals for establishment of a 'relative' ERS average to offset incentives to deliver at peak seasonal periods and cane testing closer to field to compensate for deterioration in transport were both rejected.[19]

[18] It is worth noting that growers had received variable returns from molasses sales at various mills, some of which simply sold cheaply to subsidiaries, thus lessening grower earnings. Growers also favoured molasses sales to simply be included in the net proceeds, and this final recommendation was closer to miller proposals (Van Biljon, F.J, 1970, p. 48).

[19] The formula ran as :
ERS%= aS-bN-cF
Where a,b,c are constants reflecting sucrose lost in manufacturing; S=% of Sucrose content; F=% of fibre content and N=% soluble non-sucrose content of cane.

Figure 3.1: The cost-based division of proceeds 1991/1992



Source: (Jordan, 1992, p. 216)

Moreover, while payments based on average costs effectively accentuated the losses of growers failing to meet average levels of productivity and economies of scale, government had previously been careful to ensure that mechanisms existed to redistribute surpluses to small growers and millers. With subsidies to small mills eliminated in 1966, the Commission now further sought to phase out subsidies to small growers made by the equalisation funds. While the political cost of eliminating small growers maintained through subsidy were too

great, the commission recommended that additional payments to the equalisation level be pegged at 1970 levels, ensuring that as competitive measures mounted, the proportion of costs covered by the subsidy would diminish, and smaller 'inefficient' producers would be phased out (Van Biljon, 1970, p. 49).

The Van Biljon Commission of inquiry thus marked something of a turning point for the industry. Insofar as government intervention had once again been prompted by a volatile world market and ensuing crisis of overproduction, it reflected continuity with the interventions in the Fahey era. But previously the emphasis had been to police the distribution of surplus between growers and millers, and government tariff and price concessions had been conditional on special protections for manufacturers and small growers and millers. Now, however, the large-scale corporate expansion and consolidation, in which Afrikaans capital now had a stake, was to be targeted for primary support. Despite the fact that the crisis had largely been afforded by the initiative to expanded production by consolidating capital in the first place, large-scale capitalised interests were now characterised as 'efficient'. Less-capitalised millers and growers were deemed less competitive and a burden on the industry as a whole, and the supports that sustained them were to be removed. The division of proceeds had also been altered to encourage capital investment with the institution of the ROC. Additionally, though transport subsidies would not effectively be pulled until the 1980s, growers were now being targeted to absorb the full costs of transport regardless of whether their costs had risen as a result of miller consolidation, relocation and closure. Moreover, while previously overproduction had been accompanied by recommendations to limit production within the bounds of the local market, there was now little faith that the domestic market would expand to significantly absorb surplus production. Indeed, measures such as the Price Stabilization Fund were premised on the expectation of chronic production in great excess over local and world requirements. This realization was further accompanied by a significant albeit subtle political shift as government recognized the necessity to the industry of seeking to actively manage public perception of sugar with an eye to manufacturing demand locally, and place greater emphasis on maintaining good diplomatic relations with increasingly important export partners.

The Van Biljon Commission thus marked a substantive structural shift in the nature of the national regime. As we have seen, its emergence in 1930s-40s seemed to herald a new era of 'order' and 'rationality'. Most optimistically, it seemed to accentuate imperatives to productive efficiency while 'resolving' the contradictory interests of millers and planters and simultaneously restraining the impulse to over-production and export-dependence. Now,

firmly within the second 'integrated' international food regime, the extraordinary domestic growth of the post-WWII era appeared to vindicate this optimism. Productivity-enhancing improvements yielded by new agronomic methods and varietal strains together with innovations in loading, handling, and indeed milling had kept pace with growth in the domestic market. Moreover, despite persistent complaints from farmers, African labour remained sufficiently disciplined to offset uptake of mechanical harvesting.

But the promise of high export prices once again lured the industry into a policy of purposeful expansion, with the particular goal of attaining a high world quota at the re-negotiation of the International Sugar Agreement. The expansion was further preceded by a bitter war amongst milling capital over ownership and control over the industry. But the expansion did not pay off as envisioned. Despite garnering the desired quota, production rose far beyond original predictions, and a subsequent decline in world prices left milling capital (in which Afrikaans capital now had a stake) highly indebted. Despite the fact that preventing export dependence had been an explicit purpose of the quantitative controls on production instituted since the 1930s, the industry once again found itself in a chronic state of over-production from which it would not recover for more than 30 years. After extending a guaranteed loan, government once again stepped in to mediate. But rather than impose stricter output controls and redistribution measures to protect smaller growers and millers, the emphasis had shifted to a policy of consolidating large-scale capital and its apparent productive 'efficiency'. The trick, as far as the commission was concerned, was to lower the overall cost structure of the industry by forcing out 'inefficient' small producers, rationalizing transport and riding-out 'lean' export years with surpluses garnered in 'fat' years by the mechanism of a price-stabilization fund. Productivity was not to be compromised.

But there was a hidden vicious circularity to the commission's logic: while higher levels of capitalization would be required to raise productivity and lower per-unit costs of sugar in order to offset the low returns of the world market, higher levels of low-cost production would similarly increase the industry's proportional reliance on the low-priced world market. In continuity with broader characterizations of the second 'food regime' as defined by the replication of industrially 'integrated' (i.e. highly capitalised) production, chronic surplus production was moreover an increasingly entrenched feature of global sugar production, as the sugar industries of other countries were provided with similar structures of support and often out-right subsidy, particularly in the North. Ironically then, while the origins of the national regime were rooted in defying the logic of export-dependence, expansion had in turn predicated the national regimes' survival on the condition of the world

market, which indeed would be a critical determinant in conditioning the industry's fortunes for the rest of the century.

3.4 Towards deregulation: Export Peaks, Small Growers, and the Rorich Commission of Inquiry (1971-1994)

3.4.1 The politics of boom and bust in the 1970s

While the Van Biljon Commission had been initiated to facilitate structural change in a context of lurching over-production, in its immediate aftermath the industry's fortunes seemed to have changed for the better. While drought in 1971 limited the national crop, both international prices and domestic consumption began to finally rise. In terms of the former, new small 10c and 5c 'coin-packs' hit the market in 1970 and were aggressively marketed towards black South and South West Africans in particular. The campaign would prove incredibly successful, pushing pre-pack sales from 334,000 tons (37.6% of local sales) to 683,000 (60.8% of local sales) (BTI, 1976, p. 42). Moreover, industrial consumption had also continued to rise steadily increasing by about 17,000 tons since 1968 (SASYB, 1970/1, pp. 40, 41, 45).

More promising, however was the strengthening of the new International Sugar Agreement of 1968. Though marred by the refusal of the EC and US to join, the new ISA now sought to complement export quotas for producers with limitations on sugar imports by consumer countries (Richardson, 2009, p. 73). The combination of export and import regulations certainly appeared to bring stability to the world prices upon which South Africa in particular had become dependent. Export quotas were held at 90% in 1970 in order to boost depressed market prices, which climbed into 1971 when quotas were brought back to 100% (Nedbank, 1976, p. 28). The rise in prices saw some question of expansion raised once again by SACGA, with SAMA more tentative, expressing some concern about calls for sanctions against South Africa (SASYB, 1974/5, pp. 61, 56).

It was in 1972-4 however that the industry's fate seemed to change most dramatically. After experiencing particularly poor crop years, both the Soviet Union and European Community began to import unusually large amounts of sugar. The ISA responded by ordering signature countries to reduce their mandatory stocks, but the measure failed to abate the increasing price and quotas were once again effectively suspended. Augmented by speculation, prices boomed to an unprecedented peak: whereas in 1967 prices had stood at R32 per ton, by 1974 they had hit R243.2. (BTI, 1976, p. 7). The subsequent rise in price

came as a windfall for the South African industry. Taking advantage, South Africa commenced exporting 1 million tons in 1972 and 1973 (up by 400,000 tons in 1971), primarily to Japan and Canada, and yielding over R100 million and then R190 million in proceeds (versus an average of R30 million from 1967-70) (BTI, 1976, p. 7). By 1972, the industry was able to fully amortize the balance of R16 million its debt, allow a 0.5c per kg price decrease, and pay R19.6 million into the price stabilization fund, which further reached 94.5 million by 1975 (BTI, 1976, p. 9). In such a positive economic climate, the industry continued to pursue a programme of rationalization and cautious expansion. A new clause to the prevailing Sugar Industry agreement allowed quotas to be transferred without transfer of land, and an additional 13,800 ha were earmarked for expansion for the Jaagbaan, Noodsberg, and Malelane mills (SASYB, 1975/6, p. 51).

Despite its intensity, however, the boom would prove to be short-lived. The windfall international prices abated as quickly as they had spiked, dwindling year on year from a peak of £650 to £98.82 in 1978/9. While the industry's demands to increase domestic prices were met reluctantly by government seven times between 1975 and 1980, rising from R108-R311per ton, by this time the price stabilization fund had been completely depleted, and R50 million worth of industrial loans guaranteed by government had been raised to meet the industry's shortfalls (SASYB, 1983/4, p. 194). While annual production hovered around 2 million tons, around 50% of production still had to be absorbed by the export market annually, and dreams of industrial expansion began to subside as the imperative of increasing higher priced domestic consumption and stabilizing international prices prevailed.

The bulk of exports remained destined for Japan (4-650,000 tons) and Canada (2-300,000) with smaller interim sales to Hong Kong, Lebanon, Korea and Israel as well. Additionally, with the US prematurely dismantling protection of its domestic industry during the peak of in world prices, it also contributed a substantial 150,000 tons of South African export sales. Nonetheless, South Africa's hopes for a stabilized world market once again hinged upon the renegotiation of the ISA in 1978. While South Africa was allocated a greater 946,249 ton quota, the overall efficacy of the new ISA was undermined by the failure of key sugar producers and consumers to ratify it. While the US would ultimately sign in the aftermath of its failed experiment with total deregulation, the two greatest absences were that of Japan and the EC. The EC was a particularly injurious instance, as between a system of subsides enjoyed by its sugar-beet producers within the Common Agricultural Policy (CAP) and network of preferential agreements, the EC was both a major importer and exporter of highly subsidized sugar. Moreover, the increase in domestic consumption also began to

stagnate once again. Despite a flurry of perpetual advertising campaigns, market research, increased funding of medical research, and sports sponsorships, under recessionary conditions and after several price increases, both direct and industrial consumption stubbornly hovered around 1.1 million tons for the second half of the 1970s (SASYB, 1983/4, p. 194).

Over the course of this period the pressures of depressed export prices, rising inflation, and stagnant domestic consumption, tensions both within the industry and with government began to re-emerge. Generally the industry accused government of effectively subsidizing consumers by failing to quickly raise domestic prices, with a difference of around R70 million, now having to come from its dwindling export earnings (SASYB, 1974/5, p. 63). Growers moreover criticized millers for seeking to introduce the more stringent ERS payment system without addressing the long crushing season, mill closures/distance from suppliers and mill breakdowns (SASYB, 1974/5, pp. 57, 64). Two particularly prominent battlegrounds, however, concerned the newly implemented revisions to both the DoP and transport system.

In terms of transport, the Commission's recommendations that subsidies be pulled altogether was regarded to be too severe by the industry, with millers in particular worried that rising transport costs might restrict cane supply from distant growers (Rahman, 1997, p. 21). Instead, the industry opted for a more formalized and extended system of subsidies known as the Cane Transport Scheme (CTS) to take effect from 1973. At its foundation the scheme sought to fix rising transport costs for existing growers by pegging them to 1969/70 levels. Millers would then be responsible for any cost increase over the base rate, including subsidies. Nonetheless, millers could also claim transport costs for the purposes of the DoP, which would be calculated according to standard rates established by 'independent experts' for different classes of transport (Rorich, 1982, p. 26). Any difference between the actual costs and the applicable standard rate would be borne by the grower or miller actually paying for transport directly. New growers however would be compelled to pay the full costs of transport at the standard specified rates. Simultaneously, as some millers obviously paid farm more in transport costs than others, a 'Cane Transport Distribution Scheme' was established in order to redistribute the gains of transport costs inclusion in the DoP amongst them (Rahman, 1997, p. 21).

However, by the late seventies, emergent tensions over the CTS would see it become subject to a series of new revisions. One of the first revisions was an amendment to the stipulation that new growers would have to pay the full cost of transport. This was adjusted

by the stipulation that new growers' transport costs would hence similarly be based on the 1969/70 base prices, unless this exceeded the average cost for other growers at a similar distance, at which point the base-cost would be increased. However, the inclusion of new growers exacerbated tensions over the subsidy enjoyed by particularly distant growers, and hence a new policy was applied whereby subsidies would only apply to the first 76 km. Generally, however, as transport costs continued to rise, by 1978 it was ultimately decided to increase the base year by the same factor as increases in the sucrose price (to ensure that the average proportion of transport to total grower costs remained constant). Similarly, for the millers' pooling scheme it was decided to inflate the base-year costs by 51% of the assessed percentage of increased cane transport costs, and further adjusted by a factor of 52% for any increase or decrease in tonnage (Rorich, 1982, p. 28). The increasingly complex nature of the scheme further exacerbated tensions between millers who had never previously subsidised cane transport, and growers in greater proximity to their mills resentful of the effective erosion of their comparative advantage.

While the system of transport subsidies began to take something of a byzantine character, battles over the new Division of Proceeds similarly became increasingly arcane. The Van Biljon Commission's recommendations regarding the DoP and the equalization fund had come into effect in 1972, the same year that export prices began to climb (SASYB, 1971/2, p. 50). As can be recalled, a fundamental adjustment to the DoP had been the recommendation for a two-tier distribution based firstly on average costs, with the balance divided according to the respective grower and miller's sections' return on capital. While a significant amount of the windfall export earnings were stored in the Price Stabilization Fund, their extent was great enough to garner a further R20.8 million for 'surplus retention' to be divided between growers and millers. While both sections accepted the principle of the new DoP, however, they also both contended that its application was flawed and required adjustment. Most importantly, both sections claimed that costs were escalating above returns in a wider context of rising oil prices, rates of inflation, and a depressed export market. In order to contend with the question of how to divide the surplus, and provide a basis of establishing 'reasonable' returns to the industry as a whole, a consequent investigation was launched by the BTI in 1975 (BTI, 1976, pp. 8-9). With unprecedented earnings at stake, the struggle over the industry's surplus thus reached new terrains of economic obscurity, particularly in how 'capital' 'return on capital' and 'depreciation' could be understood, measured and applied in each section. Although the BTI accepted most of the arguments advanced, to the fury of the sugar industry, the Department of Industries did not accept the

BTI's recommendations beyond adjusting the inflation indices against which the DoP would be measured.[20]

Despite their obscurity, the increasingly complex mechanisms layered over the regulatory system were reflective of deeper structural tensions faced by the industry. At the heart of this tension was the contradiction inherent in the attempt to overcome the increasingly chronic problem of over-production through intensified capitalization. As already noted, the Van Biljon commission sought to off-set low export earnings by encouraging capital consolidation, which it was hoped would increase 'efficiency' and lower the industry's overall cost base. But the peak in export prices suggested that export-based expansion was still plausible: while the local market still accounted for 60% of sales and about 60% of costs, it amounted to only one-third of overall proceeds (BTI, 1976, p. 14). Thus even providing for market troughs, savings garnered from the intense boom could be sufficient to sustain the industry until the next rise and indeed, the BTI's report importantly accepted the proposition that further expansion was advisable and even necessary. At the outset, the CTS signified one means by which to sustain requisite throughput despite such troughs. Struggles over the definition of 'capital' and 'appropriate' returns to its ROC meanwhile represented a struggle, both for the industry as a whole to retain its absolute claim on the inordinately large surplus it had garnered, and over its relative distribution between grower and miller sections.

But with government refusing to acquiesce to the industry's terms, and with export prices receding as rapidly as they had risen, the industry once again found itself burdened by an unsustainable surplus. Perhaps unsurprisingly then it was during this decade of intense price fluctuation that the industry's ownership structure went through another phase of ownership re-shuffling and mill closures. Firstly, while Reynolds Brothers had come to own Umzimkulu Sugar Company, the Gledhow Sugar Company and Crookes Brothers' milling interests, in 1975 it in turn was purchased by C.G Smith. Among the acquisitions was the Doornkop mill, which was sold to Huletts, which in turn immediately closed the mill, having

[20] In terms of 'depreciation', growers and millers argued that the Consumer Price Index was an inaccurate reference to adjust rates of depreciation, with millers further resenting the taxation of depreciation values, and growers arguing that the base-point of measurement was found in out of date land prices (BTI, 1976, pp. 18-20). The importance defining depreciation was that it also formed the basis of calculating the 'rate of return on capital', so far defined as the depreciated historical cost of fixed assets plus the balance of maintenance stocks and the working capital requirements of millers and refiners. Millers contended that historical costs had been distorted by inflationary pressures and changing money values and proffered the use of replacement costs instead. They further contested the estimate of 14% based on other industries, claiming it had not risen with interest rates and that the sugar industry featured much higher ratios of fixed capital with longer life spans. They instead suggested a rate of 20.5%, which they claimed would be necessary to finance further expansion. Growers' meanwhile argued that the 'managerial allowance' did not sufficiently take account of various entrepreneurial activities (though indeed this seems to have been the main argument in favour of instituting a managerial allowance in the first place).The BTI accepted most of these arguments, but instead recommended a rate of return of 12%, based on replacement values, and dismissed growers' argument for entrepreneurial rewards and their accounting of land prices (BTI, 1976, pp. 23-6).

only been interested in its cane quota. Similarly, one year later C.G Smith's own Renishaw mill was shut down. Meanwhile in 1970 British Sugar multinational Tate & Lyle had acquired a 49.25% share in the ailing Illovo Sugar Estates in 1970 while Anglo-American had purchased the Melville mill. But in 1977 and 1978 C.G Smith and Tongaat together purchased both mills, and closed the latter. The series of takeovers and closures was particularly unnerving to growers fearing that mills might be becoming 'too big', particularly in regard to cane transport distances (SASYB, 1974/5, pp. 57, 64). A further dimension, however, revolved around the control of C.G Smith itself, in which Barlow Rand Limited acquired 84% share in 1979 (Lincoln, 1980, p. 41). As observed by Lincoln (1980):

> *''While C G Smith and Tongaat [had] equitable control over Huletts, C G Smith [derived] 2/3 of Hulett's income and 1/3 [went] to Tongaat. Because Anglo American has a one-fifth interest in Tongaat, making it the largest single shareholder, the struggle for ownership of the sugar companies [was], in the final analysis, between Barlows and Anglo American. The influence of pioneer families however [had] not been completely eliminated, but [was] a diminishing force, subordinated to two of southern Africa's primary industrial powers."* (Lincoln, 1980, p. 41)

While reminiscent of the period of corporate consolidation in the early 1960s, however, the round of mill closures that accompanied these takeovers signalled a qualitative difference. Most indicative was that the mergers of the 1960s had largely occurred as a prelude to *expansion.* Anticipation of high-world prices had largely been the driving force behind the acquisitions as milling capital and their corporate parents attempted to gain control over as much productive capital as possible before in turn investing in expansion and hence raising their proportional share of a seemingly lucrative international market. Now however the stream of acquisitions had come as a corollary of *contraction*, as ever consolidated corporate capital attempted to raise the efficiency of their operations by consolidation and hence reduce their proportional exposure to the world market through the closure of 'inefficient' milling enterprises. The delay of dismantling of transport subsidies and the institution of the CTS must be understood in this context, i.e. as to ensure constant throughput to ever-more centralized facilities.

3.4.2 The emergence of small-scale sugarcane production and the return of 'rationalization'

Critically, it was during this phase of export boom/bust and corporate consolidation that a new emphasis towards small-scale sugarcane production emerged. Indeed, while C.G Smith was consolidating its control over the industry, the Apartheid state was simultaneously making efforts to consolidate the Bantustans. For the South African sugar industry, the

establishment and proposed consolidation of an 'independent' KwaZulu was specifically concerning. In addition to a loss of cane land to encroaching urban development, 128 White and 13 Indian cane growers on 17,705 ha of quota land were to be expropriated. African cane growers at the time numbered around 2,000 and accounted for about 7% of cane tonnage with sucrose percentages at around half the industry average (SASYB, 1971/2, p. 36). A year later, amidst plans to increase by some 13,000ha at the Jaagbaan, Malalane and Noodsberg mill areas, however, the industry had already begun formalizing a coordinated response: the industry itself would seek to expand into the new 'Homelands' by about 5,000 ha (SASYB, 1972/3, p. 21).

In 1972, R5 million from the industry's windfall export earnings was thus particularly set aside to assist and 'develop' small black growers. To this end, in 1973 the Small Cane Growers' Financial Aid Fund (FAF) was established, and a central committee formed comprising four members each from SACGA and SAMA, and chaired by a former Bantu Affairs Commissioner, A.L Schaffer. The Committee was further to be 'assisted' by relevant local mill group committees, two extension officers from the SASA experiment station, five officials from the Natal Indian Cane Growers' Association, two from the African Cane Growers Association a representative from the Mangete Cane Growers Association and Chief Sithole, acting Executive Councillor of the KwaZulu Department of Agriculture and Forestry, along with five officials (SASYB, 1972/3, p. 21). As observed by Vaughan (1992a), the objective of shaping black farmers in the ideal image of a self-sufficient 'yeoman' farmer was not an entirely new phenomenon, having been a feature of state-developmental thinking at least since the Tomlinson Commission in 1955. Under the aegis of the Native Affairs Department (NAD), government had established a small assistance program for small-scale growers in the 1950s by providing finance for fertilizer, seedcane and ploughing. As a result of such assistance, a total of 1,060 small growers on 4,409 ha began sugarcane cultivation, increasing the total area under SSG production to 7,616 ha. Indeed, though ultimately not a centre-plank of state-policy, the Tomlinson Commission's ideal black farmer certainly permeated into the construction of such schemes. As said by one such NAD official:

> *"Our whole aim is to make the Bantu self-sufficient, but experience has shown that this is not achieved by giving everything for nothing. At the same time we appreciate that the Bantu lacks capital. For that reason we will help in the initial stages of the scheme. We hope eventually that the tribal authorities for the area will take over complete management."* (Vaughan, Commercial Cane Production in KwaZulu: A Modernising Initiative?, 1992a, p. 3)

In principle, the impetus behind FAF did not differ radically from such a vision. At the outset, the Fund was punted as "not simply a provider of monetary aid [but a] development agency'' and favoured a policy to pursue the "establishment of fulltime farmers on viable land units'' in partnership with the new KwaZulu 'state' (SASYB, 1974/5, p. 50). The centre pivot of the programme was a system of rotating credit extended to 'small' or 'developing' farmers, defined as producing less than 1000 metric tons of cane. Most basically, the Fund planned to advance 10-year loans at low interest rates, (3% for the first four years; 5% for the remaining six) with which farmers could use for a host of input and service purchases. In addition, three 'farmers' centres' would be constructed at a cost of R600,000 for agricultural courses and training, and 50 extension officers appointed by the KwaZulu department of Agriculture (SASYB, 1974/5, p. 34). 'Phase I' of the programme aimed to extend funds for the 'development' of 5,000 new hectares and 12,651 ha of ratoon[21] management at an estimated R200 per ha. To this end, 5,000 ha worth of quotas were allocated by the central board for disbursement and offices of the fund itself were established within supplying mills comprising voluntary committees of grower and miller representatives (SASYB, 1974/5, p. 49). Once levels of productivity had been raised, it was anticipated that the programme could move into 'Phase II', which would aim to establish "agricultural settlements of full-time cane farmers on large, sparsely populated tracts of land in KwaZulu…acceptable to [the KwaZulu] government in principle" (SASYB, 1974/5, p. 50) .

The early implementation of FAF, however, faced a number of significant problems. Perhaps most frustrating for agents of the 'development agency' were the prevailing social conditions of production upon which FAF was to be supplanted. It was a policy of FAF that assistance was only to be extended to "full time farmers on viable land units" and where applicants were found to have only a "small allotment" or cane farming to augment income from employment they were to be turned down. Such viable units and full-time farmers, however, were difficult to come by. FAF further bemoaned the prevailing 'fragmented' and 'uneconomic' distribution of land sizes, where 32.6% of occupied lands did not exceed 1.5 ha, 15.3% varied between 1.6 to 3 ha, 44.8% had between 3.1 and 4 ha, and only 7.3% exceed 4ha. Moreover, the system of migrant labour presented a further "serious obstacle…taking a disproportionate number of the most able bodied men from tribal areas…and the fact that very few young men enter the agricultural sector" (SASYB, 1974/5,

[21] Sugarcane yields multiple harvests from one planting, with each cycle of harvest-regrowth known as a 'ratoon'. Under good agronomic conditions a single planting of cane can yield 5-8 'ratoons' before dwindling yields require re-planting.

p. 50). It is no doubt due to the constrained reality of high population pressure and the system of migrant labour that 'Phase II' of the programme, with its ambition of consolidated farming settlements on large swathes of 'sparsely populated tracts of land' was never ultimately pursued. Although the onset of 'Phase II' reported in the South African Sugar Year Book of 1975-6 as being initiated on approximately 800 ha in Chief Lindelihle Mzimela's ward, reserve 9 in the Ongoye district, nothing else seems to have been written about it. (SASYB, 1975/6, p. 49).

Nonetheless, applications for access to finance from the fund advanced rapidly. By 1976, 1,357 loans totalling R1,460,425 had already been approved, and the KwaZulu government indicated that it intended the program to expand by another 16,050 ha (SASYB, 1975/6, p. 49). However, as export earnings declined and inflationary pressures persisted, the Fund also gradually found itself facing liquidity pressures. From the onset, the original calculations of around R200 for the development of each new hectare proved to be insufficient. By 1975 the figure had been raised to a maximum of R550 and then anticipated to rise further to R630 by 1977, for which the original R5 million was deemed insufficient to finance, and which was consequently raised to R10 million (SASYB, 1975/6, p. 49). As the full recessionary pressures accelerated and average annual lending exceeded R1 million, FAF found it increasingly necessary to seek external assistance. In 1978 the Fund was granted a further R1 million through the industry's development fund, as well as a concessionary loan of R500,000 from Barclays at an interest rate of 3% for five years (SASYB, 1978/9, p. 49). By 1980, the fund had implemented a new policy of augmenting funds through financial markets, and had increased their lending rate to 8% at a flexible level according to prevailing market rates (SASYB, 1980/1).

The prominence of the uptake of FAF afforded by industry, however, obscured several other key aspects to the expansion. One of the most widely-eclipsed features of the initial expansion was how FAF's 'developmental' mission articulated with South African and KwaZulu state 'development' structures within the wider context of the 'homeland' policies. From the outset, one severe problem was weakness of prevailing infrastructure, which compelled FAF to seek 'cooperative action' with the Bantu Investment Corporation (BIC) (SASYB, 1974/5, p. 50). Itself involved in sugar funding for several years, the BIC was replaced by the Corporation for Economic Development (CED) in 1977, but following the recommendations of the 1978 McCrystal Report, it too was to be replaced by individual homeland development agencies, particularly the KwaZulu Development Corporation, and six years later, the KwaZulu Finance Corporation (KFC). The CED had always supported the

establishment of miller-owned 'development companies' to facilitate a 'tripartite alliance' between the KwaZulu Department of Agriculture, millers and small-scale black farmers. In 1976, the first of such companies, Sukumani was established by Tongaat to this end, itself provided with soft loans from the CED and later KFC for the purposes of on-lending to small growers, contractors and capital works such as the building of depots and bases (Rahman, 1997, p. 8). Moreover, in 1980, C.G Smith's own development company Inkanyezi was founded and by 1982 provided 64 extension officers in addition to the KwaZulu government's own 60+. (SASYB, 1984/5, p. 157; SASYB, 1981/2, p. 48). Furthermore, by the time of a crippling drought which swept the industry in the early 1980s, relief emanating from the KwaZulu government was further channelled through the Fund (SASYB, 1980/1, p. 49). The extent of this assistance, however, particularly relative to that provided by FAF, has not been quantified (SASYB, 1984/5). But it is notable that the chairman of SASA in 1982 made a public aside on the nexus of the KwaZulu government and 'development companies':

> *"With regard to the backing that the Fund receives, I must pay tribute to the tremendous role played by the KwaZulu Department of Agriculture and Forestry, which together with millers and growers have provided* ***all the infrastructure and extension services*** *necessary for the development of sugarcane lands in KwaZulu.* ***It is estimated that the infrastructure provided by KwaZulu has to date matched in value the loans advanced by the Fund****."* (SASYB, 1981/2, p. 39) *[emphasis added]*

The nexus between the KwaZulu government and miller 'development' companies such as Sukumani and Inkanyezi, however, is only part of the picture. A further critical component of this relationship regards the position of development companies within the industry itself. Most critically, as miller subsidiaries, development companies were incorporated within the division of proceeds as millers' costs, thus increasing millers' claims on total industry proceeds. As observed by Rahman (1997), development companies hence enjoyed three bonuses:

> *"The first involved political and financial backing by state agencies, the second concerned the operation of the FAF credit system which came tied with their services; the third is the attribution of their overheads and variable costs as milling costs by their miller parents. As milling costs, though they are in reality sugar growing costs, they went towards the cost based division of proceeds! These development companies not only did profitable business with smallholders, they recouped their overheads and variable costs in the division of proceeds"* (Rahman, 1997, p. 23)

The industry's renewed interest in small-scale sugarcane production was thus spurred from the outset by its malleability over two shifting moments. In the first instance, its emergence in the early 1970s was clearly borne out of industry fear of losing cane-supply to 'homeland' consolidation, particularly while export prices boomed. It was moreover precisely

with funds from the export windfall that increased funding for FAF emanated, and the first moment of small-scale sugarcane production might thus be understood as the result of an expansionary impulse. Nonetheless, as recessionary conditions resumed with the fall of world prices, the supply of small-scale sugarcane was not only cheapened through the effective subsidy of the KwaZulu government, but further augmented miller claims on the industry's relative surplus. While borne of a short-lived impulse to expand production, it was as a mechanism to offset the difficulties of *contraction* that the sustained extension of small-scale sugarcane production was premised.

The early 1980s however, had a dramatic impact on the future of the industry and the burgeoning position of small-scale black farmers within it. Jarring the industry from the very start were two aforementioned droughts in 1980/1 and 1983/4, forcing the national crop down to 14 and then 13.4 million tons of cane from 18.9 million tons in 1979/80. The resulting export shortfall was exacerbated by the fact that world prices had shot to 1974 levels, peaking at £410 in 1980. In pricing forward a substantial amount of the 1980 crop for the next year, the industry was still able to garner a slight increase on earnings with R381 million from the two years' export proceeds as compared with R332 million combined earnings from the previous two years (SASYB, 1982/3, p. 194). However, like in the 1970s, the boom receded as quickly as it had appeared, and without headline export prices, export earnings for 1984 dropped to R31.3 million (SASYB, 1983/4, p. 44).

Export concerns indeed heightened throughout the 1980s. More generally, the ineffectiveness of the ISA's quantitative measures in dampening swings in international prices saw its effective collapse by 1985. The concern for South Africa, which had enjoyed an exceptionally large quota, was then further intensified by the onset of international sanctions. By 1987, UK, Lebanon, and Portugal had completely halted imports from South Africa, with the US and Canada reducing their commitments by a combined 150,000 tons. Japan moreover had drastically reduced its import commitments in the development of closer Asian markets. While SASA was able to somewhat offset the severity of these losses by garnering sanction-busting import commitments of around 200,000 tons from Israel, Mozambique and South Korea, the perils of world market dependence remained acute (Lewis, 1990, p. 3). Indeed, despite some attempts to accommodate slow but fairly steady increases in domestic consumption, such as the construction of a sugar depot in Germiston to supply bulk sugar to manufacturers (SASYB, 1979/80, p. 69) the industry had come to depend on exports to absorb almost 50% of its production.

With a high proportion of production accounted by low world prices, total proceeds chronically failed to cover industrial costs. Though by 1985 the industry took in over R1 billion in gross proceeds following a government approved cumulative 23% domestic price increase, the industry retained a shortfall of R162 million and remained beleaguered by a private and government debt burden of R327 million (SASYB, 1984/5, pp. 36, 40). The high cost structure was further accentuated by miller endeavours towards a heightened expansion and consolidation of capital. Perhaps most notable was Tongaat-Hulett's endeavour to consolidate its Empangeni and Felixton mills into 'Felixton II', which at a cost of R150 million would boast an output capacity greater than the previous mills combined, and C.G Smith's similar effort to raise the capacity of its Sezela, Illovo and Noodsburg mills at a cost of R34 million (SASYB, 1980/1, p. 19). While these expansions were anticipated to yield greater economies of scale, both the short-term increase in capital expenditure and boost in output they pre-supposed accentuated the squeeze between high productive costs and low export returns.

Such structural constraints of course called for structural responses, and amidst industry calls for price increases under the strain of their debt burden, from 1982 government launched yet another investigation of the structure of the industry under the Rorich Commission of Inquiry. To some extent, the Van Biljon Commission had already moved away from tightening quantitative controls on production as a response to prior crises of over-production, and miller responses toward capital expansion were largely a reflection of its emphasis on achieving scale economies to cut costs. But while the full extent of rationalization envisioned by the Van Biljon Commission had been evaded with the windfall export earnings garnered during the 1972 price spikes, the industry had now missed its second opportunity. The Rorich Commission largely started where the Van Biljon Commission left off, arguing for greater 'flexibility' through a 'rationalization' of the industry via three key mechanisms.

Perhaps most radically, the Commission set out to completely scrap the cane transport system, eliminating its complex system of subsidies and placing the full burden of transportation costs on to growers. Growers would hence also be able to claim average costs of transportation from the division of proceeds, and a fund devoted to compensating the losses of individual millers and growers would operate for seven years to smooth the transition (Rorich, 1982, p. 33). The reasoning was that growers would be incentivised to switch to more economical means of transportation, and encourage the exit of growers at 'uneconomic' distances. Indeed, as there is no inherent reason why millers should not have

directly shared in hence 'rationalized' transportation costs, the overall logic seemed predicated particularly on *forcing* the exit of distant growers to lower the industry's overall cost structure. Thus while in their original representations, both millers and growers had originally favoured the amendment of the cane transport system to incentivise capital investment in more efficient road systems, both sections ultimately accepted the recommendations. SACGA's ranks were obviously divided; while growers at 'uneconomic' distances would obviously be the big losers of the decision, growers situated closer to mill sites and unsubsidized new growers had much to gain from the full inclusion of transport costs in the division of proceeds. Similarly, the effective 'pooling' of miller subsidies for the purposes of a deduction from the division also masked considerable differences in actual subsidies paid by different miller sections.

While lowering the overall cost-base of the industry, however, for millers a key reason for supporting the cane transport system in the first place was the problem of procuring sufficient cane supply to maximise the throughput requirements of increasingly capital intensive operations. The final but somewhat paradoxical recommendation of the Commission was to issue new quotas to bring 65,683 ha underproduction for estimated 335,000 tons of sugar per year. Two-thirds of this expansion, however, would critically come from small-scale black growers in the Bantustans, 33,200 ha of which was estimated to come under production in KwaZulu, with further 1000 ha, 6000 ha, and 4,000 ha from Mangete, KaNgwane and the Transkei respectively (Rorich, 1982, p. 14). Indeed, in their original depositions SASA had clearly been reticent about any future potential for expansion to new cane areas ('horizontal' growth), arguing that improvement in yield varieties ('vertical' expansion) would more than compensate for projected growth in demand. But with the anticipation of exit of 'uneconomic' white farmers by the Commission's scrapping of the cane transport system, less capital intensive black growers could go some way in filling this gap.

There was moreover, an apparent political dimension to the decision. Representations made by KwaZulu certainly stressed the positive economic impact or 'development' afforded by small-scale cane production by the usual measures of 'success' (numbers of black farmers registered, area under cane etc.). Moreover as small-scale sugarcane growers represented 'new entrants' KwaZulu had also formed part of the lobby arguing for the dismantlement of the cane transport system. But perhaps more cogent to government's ears was the potentially legitimising role of small-scale sugarcane production. KwaZulu representatives for example further argued that a failure to expand would "cause scepticism among the KwaZulu people

regarding statements by leaders of the sugar industry that it is in the interests of the country to ensure positive economic development for Black people" (Rorich, 1982, p. 10). Similar arguments were expounded for the erection of an irrigation project at KaNgwane near Tsb and the expansion of white cane production, emphasising the "gravity of the potential danger to South Africa if border regions should become depopulated" (Rorich, 1982, p. 12).

The encouragement of small-scale sugarcane production thus came largely as a result of an implicit convergence of interest between milling capital and the apartheid state. On the one hand, reliance on volatile export market and a burgeoning crisis of over-production had come as a result of capital expansions. Small-scale sugarcane growers represented a means, however, by which to facilitate a reduction in the overall cost structure of the growing segment without critically threatening the throughput requirements of ever-consolidated milling capital. While it was questionable whether or not small-scale sugarcane growers could be considered more 'efficient' in their own terms, as we have seen they both enjoyed effective subsidy by the KwaZulu 'state' and effectively amplified millers' relative share of total industry proceeds via the cost-based division of proceeds. This claim would be moreover augmented in 1990 with the introduction of the 'two-pools' system of cane pricing. Within this system, returns to growers and millers would hence be subdivided into an 'A' pool representing higher-priced domestic quota and surplus 'B-pool' production would fetch lower world market prices. Small-scale grower production, however, would categorically receive 'A-pool' prices. Thus by increasing the small-scale cane proportion of their supply base, millers would simultaneously further increase their share of returns from the domestic market.

Somewhat paradoxically therefore, the overall expansion of small-scale sugarcane production was in fact symptomatic of deeper pressures to contraction; a means by which to reduce costs, enhance throughput and extend their relative share of proceeds. Indeed, the expansion of small-scale sugarcane production would continue apace. The growth in the number of registered growers had expanded to over 20,000 by 1989 when restrictions on registration were ultimately lifted. This would see the further immediate entry of 7,500 'illegal' growers, bringing the total number of growers well over 30,000 (Vaughan & McIntosh, 1993, p. 447). By the early 1990s, small-scale growers had increased their total share of the national area under cane from 1.3% to 20% (Bates & Sokhela, 2003, p. 117).

Independent studies into the qualitative nature of sugarcane farming in the 1980s, however, complicated the notion of an emergent independent class of sugarcane farmers implied by industry claims to 'development'. One of the earliest, and much cited, studies of

the qualitative nature of small-scale sugarcane farming came from Cobbett in 1980-1, who investigated sugarcane farming in two communities 100km from Pietermaritzburg: Nqunquma supplying the Noodsberg mill, where sugarcane had been farmed since the 1960s, and Newspaper supplying the Glendale mill which had only started in the 1970s. The picture that emerged from Cobbett's study however, differed significantly from the idea of sugarcane producers as independent commercial farmers. Amidst small and unequal land-holdings (particularly at Newspaper), only about 14% of homesteads at Newspaper with more than 4ha under sugarcane were able to meet basic subsistence requirements from sugarcane earnings and none did at Nqunquma (Cobbett, 1984, p. 11). With the widespread displacement of both food cropping and cattle grazing, both communities thus came to become particularly dependant on a mixture of cash-income from sugarcane and migrant labour earnings, a finding replicated by Vaughan (Vaughan, 1991, p. 8).

A significant aspect of the production process itself found by Cobbet was that at Newspaper, a condition of the loan finance was control over its use and application, effectively leaving only the task of weeding to the applicant homestead. Moreover, concerns over trajectory could be inferred by the fact that many sugarcane homesteads in Nqunquma had found themselves in a vicious spiral of decreasing returns, input purchases and yields following the repayment of their loan. Vaughan similarly observed at the Sezela and Maidstone area that a substantial proportion of cane establishment was undertaken by the mill, whereby "teams of labourers employed by the mill weed and fertilize for growers on request" (Vaughan, 1992b, p. 441), a process replicated at the level of ratoon management. The attitude of the Sezela mill staff reflected this attitude, asserting "We must stop trying to make farmers out of growers who own 'postage stamps' [insignificant parcels of land]" (Vaughan, 1992a, p. 13). Rather than inspiring a class of independent farmers, as observed by Vaughan, "the relationship between grower and company may, in these cases, resemble that between lessor and lessee" (Vaughan, 1992b, p. 428). While Vaughan found a difference of attitude at the Felixton and Amatikulu mills, where authorities stressed their "objective is to develop people not land", it was admitted that such attitudes were contingent on an "expanded and refined'' extension system, intensified "to maximize cane supply through very close monitoring of the production process" (Vaughan, 1992b, p. 440).

For Rahman (1997), the differences in such developmental philosophies were by and large conditioned by the relative levels of urbanization, particularly the availability of non-agricultural employment opportunities, and population pressures resulting in residential land-leasing or 'shack-farming' which would compel milling development companies to adopt as

much of the development process as possible. In 'more rural' areas with less population pressure and fewer employment opportunities, Rahman observed that miller intervention was less of a 'military operation' with millers performing little of the physical operations themselves, and much fewer uptake of FAF loans (Rahman, 1997, p. 9).

Moreover, in many sugarcane growing-areas, millers had purposefully sought to introduce a new intermediary class with the encouraged emergence of small black 'contractors'. Within a discourse of benefitting 'entrepreneurs' miller development companies and/or KwaZulu development institutions adopted a policy of extending loans for the purchase of tractors by selected individuals within sugarcane-growing areas to provide short-hauling and land preparation/ploughing services. Though such initiatives pre-date the 'rationalization' of the cane transport system, i.e. the removal of miller transport subsidies and 'transport costs' from miller cost claims on the division of proceeds, that they gained new emphasis afterwards is surely not coincidental. In Cobbet's study, local business elites took up the opportunity at Newspaper, creating cartels to control pricing and to some extent reinforcing existing stratification of wealth, while in Nqunquma a plethora of initial contractors quickly went out of business (Cobbett, 1984, p. 13). Vaughan (1992a) cited similar instances of contractors facing severe difficulties in the sourcing and management of labour, equipment failure, and general disorganization. While the decision to foster this class of black intermediating contractors would often located within a notion of fostering 'employment' opportunities, the empirical evidence suggested that small-scale contracting was at best profitable for a small elite capable of organizing to prevent competition, thus at the expense of small-holders, and at worst a economically volatile and ultimately unprofitable operation (Vaughan, 1992a, p. 7).

Though often characterized as illustrative of the inherent potential of private sector-led 'development', the origins of small-scale sugarcane production were fundamentally rooted in the unfolding contradictions of both the sugar-industry and the apartheid state. In the first instance, the firm base for accumulation the national regime provided had been premised on insulating the industry from international competition, ordering production and closely policing the apportioning of the national surplus. Competition within the industry had thus been premised almost exclusively on raising levels of productivity, largely via increasing levels of capital intensity. While the succour of high world market prices had provided the original impetus for concerted expansion in the 1960s, this was belied by the *replication* of highly productive and industrially *integrated* national sugar regimes internationally, often further bolstered by outright subsidization. While the consequent long-term trend toward

lower world-prices was indicative of a longer-term trend of international over-production, bereft of preferential export arrangements the South African industry had found itself particularly exposed. As an ever-increasing proportion of production was absorbed by the world market, the short-term fortunes of the industry were increasingly premised on the contingent vagaries of the world market, international exchange rates, and a floundering ISA. The export boom of the 1970s had only briefly masked this deepening crisis of chronic overproduction, and the vicious circle whereby capital intensity was raised to increase efficiency in the short-term while simultaneously raising the industry's overall cost structure *and* dependence on the world market in the medium term. The missed opportunity of a second round of windfall export earnings in 1980, along with the onset of sanctions and final dissolution of the ISA in the 1980s heralded perhaps the ultimate end of the shared and ordered growth of the national regime.

Indeed, as the national regime began to shudder ever-more violently, millers pro-actively sought to determine the pace, scope and composition of impending rationalization. While *horizontal* competition between milling capitals was evident in the most recent waves of takeover, shut down and centralization of milling operations, *vertical* competition over relative share of the national surplus was further clear in the increasingly arcane struggles over the division of proceeds and the cane transport system. More subtle, however, was millers' use of small-scale sugarcane production and claims to 'development' to further augment their vertical share of the national surplus. Most directly, the subsidies afforded by the KwaZulu government and millers' claim of small grower costs both cheapened their cane supply and augmented their claim on the division of proceeds. That much of small-scale sugarcane production was little more than a disguised extension of millers' own cane supply was made the more obvious by their intensive interventions at the level of administration, coordination and even production. Moreover, however, small-scale sugarcane production was further instrumental in 'buying time' in anticipation of the ultimate necessity of 'rationalizing' transport subsidies. While the cane transport system effectively ensured a steady stream of throughput as millers consolidated and centralized ever-more capital intensive operations (most graphically represented by 'Felixton II'), it was only after small-scale sugarcane production had been established *and* government sanction for further small-scale sugarcane growth provided that millers were finally prepared to accept the diminishment of large-scale cane-supply which would come as a result the removal of subsidies.

Thus while the origins of the renewed emphasis toward small grower production was initially born out of an *expansionary impulse* or 'moment' owing to the record peak in export prices in the early 1970s and the threat to cane supply posed by consolidation of the 'homelands', it was the structural position of small growers under contractionary conditions which would prove most germane to milling capital. It is here that the general point made by Wallerstein and Hopkins (1994)[22] that 'expansionary' conditions tend to foster imperatives to integration (and reduction of transaction costs) against imperatives to dispersion (to reduce labour costs) under 'contractionary' conditions gains a layer of nuance. The 'reduction of labour costs' vs. 'transaction costs' is essentially a difference of strategic emphasis in regards to the appropriation of greater *relative surplus* (i.e. increasing productivity through coordination) vs. production of greater *absolute surplus* (the appropriation of surplus from others). Framed in this manner, the general rule holds true, as the *prima facie* contradiction of small grower integration under contractionary conditions is revealed by analysis to have been premised, in fact, on augmenting *relative claims* to the *absolute* industry surplus provided by the regulatory regime.

Moreover, it would be together with its *political* importance that the instrumentality of small-scale sugarcane production to milling interests would be most profound. While the social foundations of apartheid shuddered as 'homeland' government and 'influx controls' failed to contain the growing unrest amongst the black population, small-scale sugarcane production seemed an attractive tool of legitimization through 're-peasantization'. Firstly, however marginal in its own terms, the income to landed production cane provided certainly enhanced the power of 'homeland' and 'traditional' authorities controlling the terms of land access. But furthermore, cane production (in addition to cotton) might further help stem the growing radicalization of the black proletariat and the growing trade union movement by providing an economic base for the social reproduction of conservative black agriculturalists. The aforementioned representations submitted by the KwaZulu and KaNgwane 'governments' to the Rorich Commission made little effort to veil these interests. Indeed, while the origins of government's interest in regulating the sugar industry was perhaps first born in the class project of creating and sustaining white capitalist farmers, the political import of sustaining black petty-commodity-producers was now becoming increasingly central. Indeed, to the extent that white growers were aware of the economic leverage small-scale sugarcane production had afforded milling capital in particular, their importance to

[22] See Chapter Two, section 2.3.4 for an explication of this idea.

sustained government support for the industry as a whole was too critical to contest. But while such support was born from the politics of late-apartheid, it would be in political transition that small-scale sugarcane production would become truly critical.

3.5 Beyond the boundaries of a 'new' national regime: 're-regulation', small-scale sugarcane growers and regional expansion (1994-present)

3.5.1 Re-regulation in a new political terrain

As intensive government support to agriculture under apartheid was generally linked to sustaining a class of white capitalist farmers, in 1994 the incoming ANC government had been strongly influenced by liberal arguments that the complete dismantlement of these structures would not only create new levels of competition and lower food costs, but would further pave the way for new black entrants freed from the imposed restrictions of apartheid. While the Rorich Commission had clearly endeavoured to introduce new measures of 'flexibility' in its rationalization programme however, clearly there existed a formidable risk that the new democratic administration would extend this logic to sugar and potentially dismantle the regulatory structure completely. The 1990-2000s however have been something of a testament to the industry's political foresight and savvy in resisting such an outcome and its continued powers of statutory self-regulation. The core strategy pursued by the industry can largely be understood in terms of three inter-locking arguments/ strategies.

The first, perhaps most basic argument was that sugar was a 'special' case. While agricultural liberalization proceeding apace in the aftermath of the GATT and subsequent WTO negotiations, sugar industries worldwide remained both protected and enjoyed substantial subsidy. In the context of internationally 'distorted' world market, de-regulation would certainly lead to a 'dumping' of subsidized sugar on the domestic market and ensure the collapse of the domestic industry. The second interlocking aspect to this argument was critical: while de-regulation might thus ensure a steady supply of cheap sugar to consumers and downstream manufacturers, this would ensure the termination of around 85,000 permanent and casual jobs on mills and farms in addition to 350,000 more indirect jobs linked to sugar (Godfrey et al., 2003, p. 11). Moreover, unlike the vested racialized interests of other farming sectors, the thousands of small-scale black cane farmers garnering an income from cane were testament to the industry's progressive dispensation. Although neglected in this paper, it also deserves mentioning that the industry would further consolidate this position by pro-actively facilitating the transfer of large-scale white farms

and estate lands to black 'New Freehold Growers' with the Ithala Development Finance Corporation, and later establish the Inkezo Land Company to further facilitate land reform transactions within the industry.[23] The final stratagem would be the most subtle: the industry would pre-empt government by undertaking its own measures of limited de-regulation; first by amendment to the existing Sugar Industry Agreement (SIA) in 1994, on the verge of South Africa's first democratic elections, and subsequently in its ultimate replacement in 2000. Although overall the measures were carefully designed to preserve the essence of the overall structure of the industry, the changes would have a dramatic impact on the structural position of small-scale growers within it.

Among the most notable changes in the first phase was the effectual termination of quantitative control measures which had been instituted since the 1940s. While since the Van Biljon Commission quantitative control had clearly not been a favoured response to crises of over-production, the industry now effectively terminated these controls completely. Henceforth all quota-based restrictions on the production of cane were removed, including the registration of cane lands, or obligation to deliver to particular mills. A new measure of price competition was also introduced. However, rather than remove restrictions on the industrial price of sugar, price controls were simply removed in retail and wholesale divisions on sugar packed in 25kgs or less (Department of Trade and Industry, 2003?, p. 7).

Perhaps the most dramatic prelude to the current regulatory environment however was the reform of the Division of Proceeds. Part of the initiative had clearly come from SACGA, which had become increasingly concerned about the 'cost' basis of the division. Though the purpose of the Rorich Commission of Inquiry had been to rationalise the industry and lower its overall cost base, by 1992 SACGA had grown increasingly concerned about the increase in costs claimed by millers. Though a key outcome of the Inquiry had been to place the full burden of transportation costs on the grower section, the rise of millers' costs had far outpaced that of the growing section. Indeed, by 1992 whereas growers costs had increased around 4.5 fold from 1976 levels, millers costs had risen near 7-fold, and refiners (which enjoyed first-charge) had risen 6-fold (Rahman, 1997, p. 22). Indeed, effectively competing against one another to maintain socially average cost–structures, growers had indeed been

[23] The NFG programme began in 1995 and Inkezo was established in 2004. By 2006, 358 farmers had benefitted from the purchase or transfer of 42,397 ha of land, representing about 10% of land under cane. The industry further argued then that if combined with the estimated 74,226 ha under small-scale sugarcane production the total cane land area under black hands would be augmented to 28%; well ahead of government's own land reform target of 30%. The performance of NFGs has been mixed, but on average sustained lower yields in that period (Armitage, Hurley, & Gillit, 2009, pp. 355-7; Kleinbooi, 2009, pp. 197-8). Although not disaggregated in these terms, according to SASA's 2012 industry directory, 21% of land under cane is now in the hands of NFGs, but to what extent this is a consequence of the transfer of more cane-lands against a total decrease in the area under cane from 412,979 in 2008 ha to 378,307 ha in 2012 is unclear (SASA, 2012, pp. 5, 27).

garnering transport savings. But as observed by SACGA's chairman Brian Sugden, whatever savings were being made, growers were "giving those up, and the millers picked them up in terms of the division" (Rahman, 1997, p. 22). Moreover, SACGA grew concerned that millers were further manipulating costs by postponing savings, maintaining uneconomic mills to increase their cost base (such as the Mt Edgecombe mill), enjoying refinery first charges, and moreover claiming small grower 'development' costs. But with South Africa on the verge of political transition both miller and grower sections were loath to invoke yet another government inquiry, and sought to find an 'in-house' resolution.

The ultimate decision was thus to dismantle the cost-based division of proceeds, agreeing to simply apportion proceeds henceforth by a fixed 64/36 proportional split between grower and miller sections respectively. Moreover, four years later in 1998 the two-pool system was consolidated, an effective removal of this further incentive to miller small-scale production systems. The impact of the new DoP would have immediate reverberations. The mill at Mt Edgecombe was closed within a year, and the mill at Eston was subsequently relocated. Moreover, 'development' companies no longer enjoying the cost claim on total industry proceeds were prompted to take a

> *"'hard look' at their small growers, their circumstances (especially grower debt levels and bad debts) and their importance to the mill concerned…the costs of development (establishment), re-planting and ratoon management…a procedure to manage withdrawal… [and] whether there is local capacity to provide the services formerly provided by the development companies…mills may need to subsidise contractors, transport costs etc."* (Rahman, 1997, p. 23)

But while the 'development companies' were faced with closure and miller support services similarly set to dwindle, small-scale grower registration nonetheless continued to grow, particularly in the 'more rural' areas of Sezela and Umfolozi. Indeed, anticipation of changes to cane supply following the removal mill-site rights and reform of the division of proceeds would certainly seem to have been the motivation behind C.G Smith's sale of its Glendale mill and the purchase of the more rural Umfolozi mill, and Tongaat-Hulett's attempt to purchase the ailing Ntumeni mill, both in 1992.[24]

Indeed, with the effectual removal of the foundation of miller-subsidies promising to undermine the basis of small growers' incorporation, the industry looked for new measures to sustain small-scale production. While the supposed 'developmental' impacts of sugarcane

[24] Ultimately Tongaat-Huletts did not purchase the Ntumeni mill, which subsequently closed down after filing for bankruptcy. However, Ntumeni had become largely dependent on its small grower supply base with the refusal of Tongaat-Hulett to surrender any mill-site rights to some white-commercial farmers situated close to Ntumeni, but nonetheless compelled to supply the more distant Amatikulu mill. That what was left of Ntumeni's supply base would effectively be absorbed into Amatikulu would appear to have nonetheless suited Tongaat-Hulett. Indeed, according to Minaar (1992) there furthermore were "accusations that SASA was colluding with Tongaat Huletts to block the scrapping of the registered quota land (RQL) regulation which ties cane production to specific mills" (Minaar, 1992, p. 163).

production had always been contradicted by the strong productive interventions undertaken by millers, the industry now sought to live up to its own publicity. A new impetus was given to establish small growers as self-sufficient independent farmers. Though constrained by small parcels of land, with the right arsenal of institutional supports, it was hoped that small-scale growers could overcome the barriers to scale and productivity that defined the large-scale farming section.

One early such institution was the Small Grower Development Trust (SGDT), established in 1992 to "promote economic empowerment of SSGs and…develop viable and independent cane growing communities". More concretely, with the impending end of apartheid, an explicit focus would be to aid the consolidation of previously separate KwaZulu Cane Growers Association into SACGA. With an initial R21.6 million provided by the industry, its main focus was on the training of elected small-scale grower representatives, particularly in the highest Mill Cane Committee tier, and the funding of their operational activities. In addition, the trust would also sponsor small grower and contractor training. It was hoped that ultimately the subsidy could be phased out, and ultimately be sustained by growers' own contributions (Bates & Sokhela, 2003, p. 116).

Similarly, in 1996 a new 'partnership' or 'joint-venture' was launched between the South African Sugar Research Institute (SASRI) and the Department of Agriculture and Environment Affairs (DAEA) (Eweg, 2009, p. 7). Additionally, following the formal subsumation of small growers within its organizational structure, SACGA adopted a number of new administrational and advisory functions aimed at supporting their capacity to engage in new representative structures. Notable among these has been the institution of the 'Grower Support Officer' (GSO), tasked with institutional and technical support for small growers by facilitating the functioning of their representative organisations, coordinating cane supply logistics in communal areas and conducting cane husbandry training (Armitage, Hurley, & Gillit, 2009, p. 359).

Furthermore, in 2001 FAF was re-launched as Umthombo Agricultural Finance (UAF). While remaining committed to extending small-scale loans for inputs, establishment, equipment and ratoon management to applicants deemed 'credit worthy', Umthombo was also compelled to adjust to new operational conditions. Most importantly, the administration of loans and oversight over their productive application could no-longer be entrusted to teams of mill field staff since rescinded. Instead, UAF was compelled to rely on a total staff of 35, 18 of which would be stationed in mill areas, and 8 who operated as loan officers. Together with Mill Area Loans Committee, complimented by a mill and grower facilitator, Loan

Officers were thus compelled to take a pre-emptive attitude, through a more stringent screening process (Bates & Sokhela, 2003, p. 113).

The new complex of small grower support structures, however, inevitably represented a net decrease in productive interventions previously carried out by millers. While largely lauded for its work in relaying varietal and agronomic lessons, the SASRI-DoA joint-venture has not been able to commit similar levels of personnel nor extend the same level of organizational oversight previously made by mill, and there is little evidence to suggest that the man-power to do so exists under the new regulatory dispensation. The GSOs tied to SACGA have thus often been faced with the unenviable position of adopting responsibility for a wide range of tasks previously accomplished by entire teams of section managers, field officers, and mill and government extension officers for a larger number of growers. Moreover, though the SGDT would ultimately train more than 20,000 small growers by 2007, it has not been able to attain financial self-sufficiency: indeed, by 2002 small-scale sugarcane growers contributed only R2 million of the R27.2 million in costs incurred (Bates & Sokhela, 2003, p. 113; Armitage, Hurley, & Gillit, 2009, p. 359).

Nonetheless, small-scale sugarcane production continued to rise rapidly. 10 years after the removal of restrictions on registration, the numbers of small growers now hovered at around 50,000, and small growers' share of national production doubled from 7% in 1992 to 14% in 2002 (Bates & Sokhela, 2003, p. 107). Hence fully incorporated into SACGA and granted equal representation with that of large-scale growers, the expansion moreover appeared to have a 'democratic' flavour. Although only around 8,000 small growers were estimated to survive solely off of cane-production by 1997, for perhaps the first time in the industry's history, small growers indeed appeared to be emerging as 'developing' independent growers, and by 2003 SSGs were no-longer internally registered as 'employees' of the mill (Godfrey et al., 2003, p. 11).

The political clout afforded by claiming such a large number of black emerging farmers would indeed prove critical to legitimating the new regulatory regime. Indeed the 'de-regulatory' gestures the industry had imposed upon itself in the 1990s would be further augmented and consolidated with the publishing of an altogether new SIA in 2000. While this has proved to be the final regulatory shift to date, government has nonetheless remained suspicious of the measures' supposed enhancement of competition. The changes are defined by 3 interlocking pillars:

1. **The abolition of government price control and implementation of a 'notional' price**

While retail and wholesale sugar prices were effectively deregulated from 1994, a maximum industrial sugar-price had remained in effect until 2000. While previously a maximum free-on-rail Durban industrial price had been published by government as stipulated in the Sugar Act, government effectively rescinded this obligation. Sugar would now be priced on an ex-mill basis and the maximum price was henceforth replaced with 'notional' price established by SASA. Based on the average prices received in actual sales and long-term average world prices, the 'notional' price would form the basis of calculation of total proceeds for division by the new fixed-DoP. The grower portion hence divided amongst actual production would thus establish cane prices. After cane prices had thus been paid, the remaining amount would hence equal millers' share of sugar sales in terms of the DoP. It is further worth noting that the pricing of production according to sucrose values was itself further replaced with a new stricter system of measurement known as Recoverable Value (RV) (Department of Trade and Industry, 2003?, p. 8).

It is worth observing that the DTI has expressed reservations about the use of the effect of 'notional' price. As grower proceeds are reflected according to notional price, and RV payments reflect the major variable cost of all mills, any difference in sale between the notional price and actual sales is for the account of the miller, thus dissuading price competition. (Department of Trade and Industry, 2003?, p. 4)

2. 'Flexible market shares' within the fixed-division of proceeds

While the dismantlement of the former quantitative quotas was abolished, the industry did not surrender all control over production, replacing them instead with a system of 'flexible market shares'. Along with keeping track of pricing trends for the purposes of the average price, SASA also maintains close monitoring of domestic consumption from which a rolling estimate of local market demand is premised. Each miller's proportional share of national production hence entitles it to a corresponding share of the domestic market, with the balance being demarcated for export. Thus if a miller produces 10% of national production, they are entitled to the value of 10% of the domestic market, and 10% of proceeds of domestic sales in terms of SASA's average 'notional' price. Should a miller over-sell, however, they would be bound to redistribute proceeds in excess of their 'market share', minus a manufacturing allowance, to 'under-sellers'.

Thus implemented, the system of 'flexible market shares' allows SASA to retain a measure of quantitative control and effectively prevent predatory pricing or other strategies to increase local market share. However, as the redistributed proceeds are

priced in terms of the averaged 'notional' price, an element of competition is introduced to over-sellers seeking to maximise the difference between actual sales and predicted income based on sales at the notional price, particularly in terms of storage and transport-cost advantages. This is accentuated by the elimination of the system of pricing sugar nationally as a free-on-rail Durban price, introducing a level of geographical competition for sales on an ex-mill basis. The DTI, has further considered adjusting mill-to-mill redistributions to occur on an annual rather than current quarterly basis to encourage competition in these terms (Department of Trade and Industry, 2003?, p. 14).

3. Single channel export and 'flexible' tariff protection

With domestic market requirements determined by SASA all remaining production would hence be due for export. While export obligations were previously determined on a quota basis, as the flexible market share system prevents competition for the domestic market, it similarly thus ensures a continued shared export obligation. Close monitoring of both production and sales is effected throughout the season, and adjustments made accordingly. Effectively, however, a given mill may not physically export any of its production, and rather pursue correction via the inter-mill redistribution of proceeds. A further notable change to system was that the 'single channel' system would now only apply to bulk raw sugar, with individual millers responsible for marketing their own refined sugar for export.

The domestic market itself would also remain protected by a 'flexible' tariff. Before the Sugar Industry Agreement of 2000 the formula determining the tariff was designed to achieve import parity for refined sugar f.o.r Durban for refined sugar. The London Futures Market No. 5 contract for refined white sugar was used as a reference, with $33 added for freight and insurance. Adjustment to the tariff level would be triggered when the world price or the domestic price changed by 4%. The new tariff no longer caters for domestic price increases, but rather is derived from the long-term average world price of sugar. The reference price of $330 is adjusted up by $60 to compensate for "distortions" in the world market. The only limit to tariff increases is set by the WTO, whereby South Africa committed itself to a maximum *ad valorem* duty of 105%. The trigger to adjustment occurs when the difference between the 20-day moving average of the London No. 5 world price for refined sugar and that of the previous trigger amounts to more than $20 for 20 consecutive trading days, and hence adjusted accordingly in rands. The tariff reference price was further adjusted upwards to $358 in 2009 (International Trade

Administration Commisiion of South Africa, 2009). With aforementioned market-sharing arrangements in effect, sugar in South Africa can thus be consistently priced at a maximum of import parity: being the sum of the world price, the tariff and various other transport and transaction costs involved in import (Competition Tribunal, 2000, p. 8).

The DTI has expressed some reservations that SASA might effectively manipulate domestic prices by artificially increasing the proportion of production exported (and thus the supply and actual price of sugar on the domestic market). The sugar industry strongly disagrees, stating that the domestic market is already lucrative and is subject to competitive discipline from SADC imports (Department of Trade and Industry, 2003?, p. 11).

Indeed, despite government's clear desire to encourage greater competition through de-regulation, the industry has effectively pre-empted government intervention with its own brand of 're-regulation'.[25] Though effectively maintaining a shared and protected domestic market free from intensive competition in pricing or output, the industry has argued that with world-referencing and sales on an ex-mill basis has introduced a sufficient level of competition in the context of a distorted world market. Further tampering could inculcate a cannibalizing competition which would force prices to low world market levels and undermine the industry's commercial viability, particularly for its 50,000 'developing' small-scale sugarcane growers.

Nonetheless, its relationship with government remained tense. This was made most forcefully clear by the Competition Tribunal's rejection of a planned merger between Tongaat Huletts and Tsb in 2000, soon after the new Sugar Industry Agreement had been passed. The Tribunal clearly viewed the merger as an attempt to "pre-empt efforts to intensify competition through progressive deregulation" (Competition Tribunal, 2000, p. 15) via increased concentration. The Tribunal argued firstly that the industry remained palpably defined by oligopolistic practices of collusion and market segmentation far beyond, but facilitated by, the regulatory structure:

> *"However, as already mentioned, even within the limits of the equitable proceeds agreement, the extent to which competition has been comprehensively eliminated remains striking. In particular we are struck by the extent to which each of the producers has specialized in particular regions of the country. As striking is the division*

[25] Bernstein (1996) incisively noted of the 'deregulation' of the maize commodity chain or 'filière' in South Africa that the demise of the statutory Maize Board and abolition of state control over domestic maize facilitated the effective private regulation of the chain, particularly by large concentrated grain-cooperatives (Bernstein, 1996 pp. 137-40). In the case of sugar the situation may hence be considered even more extreme, insofar that the state has abandoned its powers of price-regulation but provisions for privately managed oligopoly remain formally and legally codified under conditions of tariff protection.

> *between THS and Illovo of the retail and industrial markets. The proposed merger strengthens each of these sub-market specializations. The parties have offered several unconvincing explanations for this – a long history in a particular market giving rise to efficient distribution systems is one explanation offered, transport costs are another. No evidence has been presented in support of the claim that the absence of distributions facilities accounts for market segmentation. Nor are we persuaded that transport costs are prohibitive. This division of the geographic and product markets does not appear to be an inevitable consequence of the equitable proceeds arrangement. Nor is it accounted for the alternative explanations offered by the parties. Rather it smacks of the exercise of private market power facilitated by the unusual freedom that the industry has been given to regulate itself."* (Competition Tribunal, 2000, p. 17)

Indeed, while the Tribunal accepted that the 'distortions' in the international market were sufficient reason to maintain protections against imports, the equitable division of proceeds had gone further. Far from signifying a move towards enhanced competition, import-parity pricing was in fact a form of monopoly pricing which encouraged persistent and uncompetitive structural over-production. Thus rather than protecting 'small fish' in an ocean of subsidised production, the regulatory structure was in fact shoring-up 'big fish' in a small pond:

> *"We repeat: the manner in which the equitable proceeds arrangement is operated provides no incentive for producers to reduce excess supply. They will always be able to sell their excess production on the international market at a more or less attractive price; and they will, because of the operation of the equitable proceeds arrangement (including single channel marketing), always be able to maintain the domestic market price at import parity. Hence even when prices are low internationally they will have the cushion of the domestic market and when prices increase internationally they will earn a windfall. Hence there is no incentive to reduce excess supply – on the contrary there is every incentive to expand supply ad infinitum while continuing to deny domestic consumers any advantage from this expansion in output. Whenever domestic regulators question the equitable proceeds arrangement they will be met with the same refrain: 'if we divert our excess supply to the local market it will cause a catastrophic drop in price' - the likelihood is that this excess supply will continue to expand thus rendering this argument increasingly powerful. But it is a self-fulfilling prophecy"* (Competition Tribunal, 2000, p. 20)

More than a decade on from the Tribunal's acute criticism, the industry has nonetheless managed to resist further de-regulatory measures. The Sugar Act indeed has now been under 'review' by the DTI for almost two decades, the terms of which have largely been withheld from the public domain. The latest rumours at the time of writing posit a new deadline of 2015 and will revolve around 'vertical slicing'. The precise terms of this concept are unclear, but it has been suggested to me that 'horizontal' forms of coordination and regulation will be de-emphasized in favour of terms negotiated at mill-level, and will reserve a special focus on the conditions by which biofuel and electricity co-generation will be incorporated into cane-pricing.[26] However, a renewed progress towards the review has been rendered more likely by other fundamental shifts in the political economy of sugar.

[26] Personal communication with industry official. 2013. The name and position of the official in question and the date of the correspondence have been reserved to protect their identity in the context of the apparent confidentiality and ultimately unknown status, progress and terms of the negotiations.

3.5.2 Pushing north, the regionalization of milling capital

Indeed, while the industry contended with navigating a new general hostility towards its regulatory structure and further corporate consolidation domestically, new regional opportunities were also being provided by the new political dispensation. In addition to the end of sanctions, the democratic transition augured a new era of good geo-political relations. More pertinently, while the South African industry resisted liberalisation and de-regulation at home, the industry had much to gain from South Africa's promotion of economic integration with the relatively weak economies of its regional neighbours.

South Africa's post-1994 entry into SADC and the re-negotiation of SACU represented an early signal of the benefits to be gained from regional integration. In the first place, the re-negotiation of SACU together with the special treatment of sugar in the new SADC Protocol in essence broadened South Africa's 'domestic' market while protecting it from cheap imported sugar. Effectively, all SADC surplus producers were hence afforded a quota of non-reciprocal, duty-free access to the SACU market based on the market's actual growth on top of a 20,000 ton allowance, but only *after* meeting domestic and other preferential market requirements.[27] While most countries did not have significant surplus-producing sugar industries in the first place, South Africa would further be protected via bi-lateral arrangements from sugar imported by SACU states (particularly from Zimbabwe) and directly limited access to Swaziland's (the specific quantities of which remained confidential) (Competition Tribunal, 2000, p. 6; Lincoln, 2006, p. 125).

More critically, however, the 1990s and early 2000s marked the beginning of a re-shuffling of corporate ownership and increasing 'regionalization' of South Africa's milling capital. C.G Smith, hence re-branded as Illovo from 1994, embarked early and aggressively on a regional expansion. Emerging as an independent corporation after being 'unbundled' from Barlow's in the 1990s, Illovo initiated an aggressive series of acquisitions in Southern African sugar interests, purchasing a 50% stake in Mozambique's Maragra Açúcar in 1996, a 55% stake in Tanzania's Kilombero Sugar Company in 1998, and completely acquiring the Lonrho Sugar Corporation, which held subsidiaries in Mauritius, Malawi and Swaziland, as well as South Africa's Glendale mill. After selling the Glendale and three Mauritian mills, however, Illovo proceeded to purchase Zambian Sugar in 2001 (following its 1996 privatization), while still retaining majority ownership of its Malawian and Swazi

[27] The precise formula according to Lincoln (2006): "SACU's sugar market growth was regarded as 45,000 tonnes in the first year of the agreement, 91,000 tonnes in the second year, 138,000 tonnes in the third, with subsequent growth to be determined according to a review of actual growth. Additional proportionate duty-free access to SACU for a non-SACU producer = ([individual non-SACU state's net surplus production + total non-SACU net surplus production] x 20,000)".

subsidiaries. During this period it is also worth noting that the state pension fund, the Public Investment Corporation, had quietly purchased a controlling 17.5% ownership share in Illovo, in addition to smaller shares in TSB and Tongaat-Huletts (Richardson, 2010a, p. 927; Lincoln, 2006, p. 120). For its part, Tongaat-Huletts and its parent Anglo-American already dominated Zimbabwe's sugar operations 'Triangle Ltd' and Hippo Valley Estate, but by 1999 had similarly initiated a further expansion with the purchase of a 75% interest in Mozambque's Mafambisse mill and estate and an effective 49% shareholding in the mill and estate at Xinavane.

Moreover, just as small growers proved to be useful tool in resisting more thorough de-regulation measures in South Africa, so was the prospect of small-scale production a useful wedge in their regional acquisitions. In addition to the conventional benefits of direct employment, capital-investment and the promise of future foreign exchange earnings, both Illovo and Tongaat-Huletts promised that outgrower supply compliments would form a key part of their rehabilitation strategies. Pointing to their experience and success in raising small-scale sugarcane production in South Africa, outgrower production would not only introduce much coveted income benefits but could be largely supplanted on existing patterns of settlement and circumvent politically distasteful questions of forced removal. Indeed, the developmental promise proffered by Illovo and Tongaat-Huletts has facilitated notably preferential terms of investment, including considerable (or sometimes total) tax-breaks and the securing of donor funds for smallholder 'development' (Richardson, 2010b; Oxfam 2004; Action Aid, 2013). While South Africa's lucrative domestic market would remain the 'base' of sugar production, the preferential terms of investment being garnered in the northern expansion marked a stark contrast to the ambivalence of the DTI and hostility of the Competition Tribunal. Tongaat-Hullets' 2000 annual report, made one such explicit 'dig', noting "In view of the Tribunal's finding that further expansion in the domestic market is barred to Tongaat-Hulett Sugar, the SADC countries and other international arenas will be pursued to provide appropriate avenues for investment" (Tongaat Hulett Group Ltd, 1999, p. 14).

But two other factors have also been critical, namely the restructuring of EU sugar regime and its co-incidence with the investment rush for biofuels. In terms of the former, as detailed by Richardson (2009), one of the original motivations behind expansion had been based in garnering preferential access to the high and protected prices afforded by the European market. Since the 1970s the EC/EU had granted former colonies in Africa-Caribbean-Pacific (ACP) a combined 1.3 mt duty-free quota under the Lome and then

Contonou conventions, an agreement that enjoyed the temporary protection of the WTO's Sugar Protocol until review in 2007. While South Africa had been denied preferential access to the EU's quota protected market since abandoning the British Commonwealth, South African *capital* was poised to benefit from the preferential access and prices afforded to the ACP countries in which they were now investing, particularly Swaziland's 120,000 ton quota.

But ironically, it would be ultimate dismantlement of the EU sugar regime in the 2000s that presented greater opportunity. Within the EU's Common Market Organization (CMO) on sugar, ACP imports would be largely marked for re-export with subsidy from the EU's Development Budget as a form of 'development aid'. However, following a WTO ruling against the EU's export of extra-quota sugar, the CMO was set to be completely dismantled in 2005, and although the ruling did not address the issue of non-reciprocal preferential access, the EU nonetheless unilaterally denounced the Sugar Protocol two years later. Though the EU sugar price was effectively slashed, LDC's beyond the ACP were now set to negotiate quota-free, duty-free preferential access to the EU market through the 'Everything But Arms' (EBA) initiative. For LDCs which had not been part of Lome or Contonou convention such as Mozambique, or countries which enjoyed small quotas such as Tanzania, the collapse of the CMO and Sugar Protocol heralded new possibilities for European market access. For countries which had formerly enjoyed substantial quotas, however, the loss would be substantial, and re-negotiation of new bi-lateral agreement would nonetheless remain necessary to avoid total collapse. Indeed, Richardson (2009) has persuasively argued that the combined dismantlement of the CMO was a sacrifice made to ensure the EU was WTO-compatible and hence strengthen its hand in concluding wider Economic Partnership Agreements (EPA) with ACPs (Richardson, 2009, pp. 92-115).

Concurrent with these shifts has been a new emphasis on the potential for sugar to be used as a low-cost feedstock in the production of biofuel from ethanol. For its part, the EU's Climate Change Package in 2008 mandated each member state to utilize renewable energy for a minimum of 10% of transport energy by 2020. While previously largely understood as an undifferentiated commodity, the emerging potential of using sugar as a 'flec crop' (Borras et al., 2012) for both food and fuel has thus rendered it as something of a safe hedge against the notoriously volatile world sugar market. Together with large increases in demand from EU as a result of the termination of the CMO as well as rising consumption in developing countries (most notably with India moving from a net-exporter to a net importer of sugar),

world sugar prices indeed hit a 30-year high in 2009 (Richardson, 2010a, p. 919; Hall, 2011, p. 10).

The impact of these changes has given new force to the investments of Southern Africa, with Tongaat-Huletts and Illovo now together accounting for around two-thirds of sugar production in the region. Moreover, as a direct result of the dismantlement of the CMO, British Sugar (a subsidiary of Associated British Foods) purchased a 51% controlling share of Illovo for £317 million, £100 million of which has been channelled for the construction of a mill and ethanol plant in Mali (though this did not ultimately transpire) (Richardson, 2009, p. 104). Although as a result of the CMO non-LDCs like Zimbabwe and Swaziland have lost their considerable Contonou quotas at preferential prices, for LDC countries such as Malawi, Zambia, Tanzania and Mozambique, the loss of previously marginal quotas pales in contrast to gains they will receive under the EBA. After further shedding its Umfolozi and Gledhow

Table 3.1: Comparison of regional sugar production by Illovo and Tongaat-Huletts in 2002 and 2012

				2002				2012			
	Country	Company	Mills	Total Production (tons)	Export (%)	Production (national %)	Production (company %)	Total Production (tons)	Export (%)	Production (national %)	Production (company %)
Non-LDC	South Africa (total)			2,403,243	48.0%	100.0%	-	1,822,488	7.50%	100	
		Illovo		1,110,420	38.5%	46.5%	57%	441,000	5.00%	24%	29%
		THS		860,000	?	36.0%	70%	486,000	?	26%	44%
		TSB		431,000	?	17.9%	100%	615,046	?	34%	100%
	Swaziland	Illovo	Umbombo	179,000	0.0%	36.0%	9%	224,000	?	35%	15%
	Zimbabwe	THS	Triangle and Hippo Valley (acquired 2006)	296,000	?	100.0%	24%	372,000	?	100%	34%
LDC	Malawi	Illovo	Dwangwa and Nchalo	215,000	46.5%	100.0%	11%	283,000	42%	100%	19%
	Zambia	Illovo	Nakambala	199,000	51.7%	99.0%	10%	374,000		93%	25%
	Tanzania	Illovo	Ruembe and Msolwa	72,499	0.0%	42.0%	4%	113,000	0%	38%	7%
	Mozambique										
		Illovo	Maragra	15,000	0.0%	22.0%	1%	91,000	?	23%	6%
		THS	Xinavane and Mafambisse	71,000	?	?	6%	233,000	?	?	21%
	USA	Illovo	Monitor Sugar	162,000	0.0%	36.0%	8%	-	-	-	

Compiled from: (Tongaar-Huletts, 2012, pp. 18-20; Tongaat-Huletts, 2002, p. 26; Illovo, 2012, pp. 2, 28-30; Illovo, 2002, pp. 18-23; Remgro, 2012, p. 52; Remgro, 2003, p. 8; Remgro 2004, p. 19; SASA 2012/13, p. 26)

mills in South Africa to pursue its northern expansion, Illovo's presence is particularly commanding, claiming 100%, 93%, 38% and 23% of market share in each of these countries respectively (compared to 35% and 24% in South Africa and Swaziland), and which now account for 80% of Illovo's profits and around 20-30% of sugar imported into the EU (Illovo, 2012, p. 2; Richardson B. , 2010, p. 925). Indeed, as can be seen in table 3.1 above, the production profile for both sugar groups has shifted dramatically: whereas in 2002 the South African market accounted for 57% and 70% of Illovo and Tongaat-Hulett's production respectively, it now accounts for only 29% and 44%, with Tsb now surpassing both companies' share of the South African market.

Yet the shift has not just been one of *proportional* production. *Absolute* production in South Africa has also dramatically declined, from a peak production of 2.75 million tons in 2003 to 1.82 million tons in 2012. Moreover, of this amount only 1.68 million tons was absorbed by domestic market, 44.9% from industrial sales, leaving only 137,176 tons necessary for export compared to the 1.47 million tons exported in 2003 (SASA, 2012, p. 26). Moreover, with the world price at an all-time high and the moving tariff at zero, 144,000 tons of imported sugar from Brazil has made its way onto the local market (Phillips, 2012). While the northward expansion of South Africa's milling companies has financially sheltered them from the risk of this downward turn, much of the responsibility has been directed towards a decrease in cane production. Largely attributed to drought, cane production has in turn declined from 21mt on 430,000 ha in 2005 to 16mt on 378,307 ha in 2011 (though regaining somewhat to 16.8mt in 2012). This has further been accompanied by a decrease in the number of large scale commercial farmers, from 2,000 in 2003 to around 1,730 (including 323 black farmers) in 2012 (Germishuis, 2007, p. 3; Esterhuizen, 2012, p. 4; SASA, 2012, pp. 17, 26).

3.5.3 The bursting of the small-scale grower 'bubble'

Perhaps more disturbing has been the rapid rise and subsequent tremendous decline in small-scale sugarcane production in South Africa. Though by the early 2000s the number of small growers had risen to around 50,000, by 2012 only 13,871 registered small-scale sugarcane growers delivered cane, producing 8.59% of the total crop. Much of this decline has been attributed to deteriorating agronomic conditions, not least of the all the aforementioned drought. While certainly a crucial proximal factor, however, it is notable that similar if not

more severe droughts in the 1980s were met with only a brief dip in small-scale grower production.

Central to the chronic nature of small grower decline, rather, has been their shifting structural position within the industry. While industry authorities hoped that the unfolding new 'flexible' regime of open registration and less overt oversight and support in production would engender a more democratic developmental role for sugarcane production, adaption proved difficult. One disquieting trend was the uneven spread of production, Sokhela and Bates (2003) estimated that more than 50% of total production originated from only 20% of growers (Bates & Sokhela, 2003, p. 109). This was clearly closely related to a tendency of under-resourced/capacitated/willing growers to enter into a number of, often ultimately conflictual, lease-hold arrangements with other better-resourced growers seeking to exceed their customary allocations (Munro, 1996, p. 11).[28] Of particular concern to Umthombo, however was the growing tendency for fraud, whereby after receiving a loan a grower would submit his/her cane under a neighbour's production code and enjoy the returns effectively without amortizing his/her debt (Bates & Sokhela, 2003, p. 114). Despite a low default rate in the early 2000s, the growing prevalence of such activities eventually compelled Umthombo to close its credit facilities and write off millions in unrecovered loans.

By the time drought had begun to afflict KwaZulu-Natal, small growers had found themselves without credit and embroiled in a general cost-price squeeze. In support, the SASRI-DoA joint venture successfully acted to distribute over R60 million worth of 'free' fertilizer in 8 weeks. SACGA furthermore ensured some effective redistribution of proceeds through a Supplementary Payment Fund (SPF), 64% of which is effectively contributed by large-scale growers and 36% by the milling companies, along with a flat VAT and diesel rebate. SACGA estimates that this has more than quadrupled growers' net operating income, though with few hectares at their disposal, the effective returns remain small, ranging from R367 to R1,654 per ha (Armitage, Hurley, & Gillit, 2009, p. 363).

While certainly helping to arrest the rate of decline in small-scale sugarcane production, however, it has been insufficient to spur substantial growth. SACGA has nonetheless continued to seek new institutional methods to encourage small grower independence under the new regulatory dispensation. One attempt has been to re-introduce credit services with funding from government's Micro Agriculture Finance Institute of South

[28] Such arrangements would often take the form of multi-year arrangements whereby the lessee would agree to cover the expense of establishing and maintaining the crop for a pre-agreed number of years, during which she/he would enjoy the proceeds and after which the lessor would enjoy the returns from the remaining ratoons.

Africa (MAFISA), for which approximately R50 million has been earmarked for sugarcane and of which approximately R7 million has been disbursed. In order to evade prior fraudulent borrowing practices, potential beneficiaries are now required to register as a cooperative, in line with government's Cooperatives Bill and present thorough business plans in order to gain access to allocated funds. As production and payment may be individuated, in effect the thrust of the cooperative prescription has been to ensure mutual debt monitoring. Funds are to be dispersed at 8% interest, 7% of which is notably to be retained by 'intermediaries', in this instance SASA, and thus may represent a net transfer from government to the industry (Dept. of Agriculture, Forestry and Fisheries, 2012).

But although Umthombo still offers savings/retention services, the ultimate closure of its credit facilities in the wake of deregulation stands in opposition to the conventional narrative of the growth of small growers as 'independent' producers borne of small-scale credit facilities. Without the extensive intervention and oversight of millers in production, and the nexus of industry and state subsidy which supported it, FAF/UAF was suddenly exposed to both the economic vulnerability and commercial opportunism of its targeted beneficiaries. Attempts to institute more open and 'democratic' representative institutions, while in many ways important and laudable moments in their own right, however, were not a sufficient replacement for the material structural underpinnings of the previous regulatory dispensation, patrimonial as it was. The massive growth of small-scale sugarcane production in the 1990s-2000s following the de-regulation of registration, itself characterised in part by prevalence of leasing agreements and fraudulent credit practices, was thus something of a 'bubble' not altogether different from those in financial markets, ultimately 'popped' by the harsh circumstances of drought which afflicted KwaZulu-Natal in the mid-2000s. In this sense, the critical question is less one of what were the proximal causes of the decline in small-scale sugarcane production, as what underpinned their rapid growth in the first place.

Nonetheless, into the democratic era, small growers have retained their political importance to the industry. This has been particularly critical in regard to tempering the application of wider processes of deregulation and liberalization to sugar. On the one hand, the actual content of the pre-emptive 're-regulation' pursued by the industry has largely maintained the core pillars of a shared domestic market, import protection, and a stable domestic price of sugar. On the other, however, the removal of the 'cost-based' division of proceeds has undermined the foundation of small-scale sugarcane production as originally constituted within intensive complexes of miller productive interventions and administrative/co-ordinating oversight. With the institutional basis of claims on relative

surplus that small-scale sugarcane production once provided to millers removed, the logic of small-scale sugarcane production to miller valorisation has done something of a semi-inversion. The retraction of miller interventions indeed was nonetheless accompanied by a rapid expansion of small grower production following an earlier removal of restriction on registration, indicating something of a compensatory gain in 'absolute surplus value' for the loss on the relative claims to surplus value small growers garnered at the expense of large-scale growers. But now forced to directly contend with the high socially-average levels of productivity set by large-scale growers, the structural position of small growers has proved to be fragile as newly 'independent' growers struggle to valorise their operations.

Moreover, despite the relative decline of small-scale sugarcane production in South Africa, the supposed experience of South African capital in fostering its growth in the first place has clearly been critical to negotiating the purchase and supply of milling enterprises in other SADC states. The access to European markets and the subsequent 'flexible' (Borras et al., 2012) joining of sugar and fuel which has accompanied (driven?) this 'regionalization' has certainly appeared to help sugar capital overcome (or at the very least, forestall) the deepening pressures of over-production it has contended with for nearly half a century. But despite the considerable attention and resources that have attended the bio-fuels 'rush', South Africa's long history of dependence on volatile world sugar prices illustrates the potentially disastrous short-term dangers of miscalculation and the perilous longer-term consequences of chronic export dependence. Indeed, questions of the durability of productive investments premised on the shifting global political economy of sugar have indeed been raised by the ultimate termination of Illovo's plans to invest in a Mali biofuels facility and the lack of actual production accompanying large-scale land acquisitions for sugarcane production in Tanzania (Locher & Sulle, 2013; Kumwenda, 2012). Certainly the experience of South African small growers cannot be simply extended *in toto* to that of sugar outgrowers operating under different social conditions of production in the SADC. But the trajectory of South Africa's small-scale growers raises similar analytical questions regarding the actual content of the 'agro-industrial linkages' (Akram-Lodhi & Kay, 2010) upon which these new schemes are premised.

Indeed, drought notwithstanding, the question thus emerges as to what the prospects are for small-scale sugarcane production under such shifting structural conditions and the politics they imply. In the vein of Watts (1994) and Wilson (1986), the intensive levels of miller intervention under the previous regulatory regime reported by Vaughan (1991, 1992, 1993) Rahman (1997) and Cobbett (1984) certainly appeared to render small growers as little

more than landed proletarians/renters. But the boom and subsequent bust of small-scale sugarcane production in the wake of their reconstitution as nominally 'independent' producers similarly demands a renewed material analysis of the structural position of small growers as petty-commodity-producers facing accentuated pressure to valorise their 'small capitals' by application of ever-devalued human labour-power. This imperative is made all the more cogent by the rapidly unfolding 'regionalization' of sugar production, the ever-impending 'review' of the Sugar Act and the critical role conjured images of small-scale sugarcane production have played in the politics of its negotiation. But to the extent the necessary relation of cane to sugar production represents something of a 'relief case' of the agro-industrial integration, their dynamics may similarly yield deeper insights into the analytical content of smallholder production to contemporary 'agrarian questions' more broadly.

3.6 Conclusion

Though somewhat lengthy, this historical exposition and analysis of the South African sugar industry has been something of a necessary prelude to understanding the contemporary position of small-scale growers and the hidden contours of power and politics that are imbued within its arcane regulatory structure. The exercise of tracing the evolution of the most salient features of regulatory system in particular has perhaps been most instructive. Far from a neutral technical system of rules, the regulatory structure has been historically marked as a central site of struggle, throwing into relief the myriad contradictory interests and shifting political and economic circumstances that it mutually conditioned and was conditioned by. Of central concern has been its role in apportioning the industry's total surplus between grower and miller capitals by stipulating the terms of exchange and circulation, most frequently in response to various crises of overproduction and increasing dependence on the world market. Further palpable was the historical shift in the focus of government's political interest between the two sections: first in its concern to support an emergent class of white settler-farmers, and then in protecting the highly productive capital investments of millers, and hence assuring a steady supply of cheap sugar; an important wage-good in both direct consumption and indirectly through manufactures.

While the national regime was thus originally predicated in 'rationally' ordering these countervailing interests, the stable base for accumulation it provided accentuated the underlying contradictions of chronic surplus production as the industry grew ever further beyond the threshold of an insulated domestic market. The slow and contested process of

'rationalization' that developed over the course of the 1970s-90s was somewhat palliative. But it would only be in diversification to new regional 'frontiers' in the democratic era that milling capital has more durably exceeded these national limits. Whether the combination of new regional-national terrains of production, the biofuels rush, and enhanced European market access represents a 'transcendence' of these constraints or merely a replication, however, remains to be seen.

For this study, any attempt to understand the origins and subsequent arc of small-scale sugar production in South Africa would be sorely lacking without situating it within these broader structural shifts. The origins of a renewed emphasis on small-scale grower production can be traced to the founding of FAF in the 1970s, when 'homeland consolidation' threatened cane-supply while an ultimately brief but tremendous peak in export prices re-awakened hopes for industry expansion. Together with effective subsidy by KwaZulu development corporations, funding for small-scale credit provided by the windfall earnings, and teams of extension and administrative officials, commercially inalienable Bantustan land was gradually brought to cane production. But while this 'moment' might have been borne of an expansionary impulse, it was the structural and political position of small growers under contractionary conditions that would prove most germane to milling capital. As world export prices once again fell, and battles over the division of proceeds stretched into the esoteric, small grower supply not only represented an effectively subsidized source of cane supply but with the average costs of small grower 'development' registered as 'milling costs', further augmented milers' claims to the total industry surplus.

The 'contractionary' relevance of small-scale growers to millers would become even more pronounced in the 1980s. While chronically low export earnings prevented the industry from further resisting the 'rationalization' of transport, a government inquiry, seemingly paradoxically, went to pains to authorise an aggressive extension of small-scale production. Explicit in these recommendations was the role of cane in bolstering the Bantustan authorities that effectively controlled the terms of land access and the political legitimation that came attendant with small grower 'development'. As in some sense little more than an extension of millers' own cane-supply, small-scale sugarcane production was thus largely constituted by capital as a response to shudders reverberating throughout the national regime, both in terms of chronic surplus production and export dependence and the growing failure of apartheid to contain classes of African labour.

Nonetheless, into the democratic era, small-scale growers have retained their political importance to the industry. This has been particularly critical in regard to tempering the

application of wider processes of deregulation and liberalization to sugar. However, while the pre-emptive ‘re-regulation’ pursued by the industry largely maintained the core pillars of a shared domestic market, import protection, and a stable domestic price of sugar, the removal of the ‘cost-based’ division of proceeds undermined the structural foundation of small-scale sugarcane production as an effective extension of millers’ own-supply. The co-incident lifting of restrictions on registration in 1990s in tandem with the removal of the intensive supports upon which small-scale sugarcane production had been predicated thus positioned the second wave of SSG growth as structurally unsound. In many ways this rapid growth in SSG production resembled a ‘bubble’ not altogether different from those in financial markets, summarily ‘popped’ by the harsh circumstances of drought.

Chapter Four: A Socio-economic Profile of Small-Scale Sugarcane Grower Homesteads in Madwaleni and Shikishela

4.1 Introduction

In the previous chapter, after having provided a broad historical overview of the sugar industry, I argued that the history and dynamics of small-scale sugarcane production were inextricably linked to, and in fact constituted by, milling interests. This chapter seeks to take one analytical step backwards to introduce the empirical portion of my research with a broad sketch of the socioeconomic context of Madwaleni/Shikishela provide and a socio-economic profile of small-scale sugarcane growers in particular. Although the structural position of small-scale sugarcane growers can be gathered from the kinds of aggregate data already presented, the significant differences in the treatment of 'rural' and 'peri-urban' growers highlights the necessity of locating the growers in my sample in their particular context. Much of the chapter is based on pertinent descriptive statistics garnered from my survey, and compared with ward and municipal statistics provided by the 2011 Census wherever possible. As such, the inevitably somewhat static picture it provides may prove unsatisfying to both the econometrician and anthropologist, but provides a necessary point of orientation for the analyses in the subsequent two chapters.

4.2 Socio-political context

Most foundationally, the adjacent communities of Madwaleni and Shikishela ('Ward 12') are located within the Mpukonyoni tribal authority in the Umkhanyakude District near the western boundary of the Mtubatuba municipality and about 30 km from the central town of the same name. The history of Mtubatuba is intrinsically tied to that of sugar. White settlement followed largely after the 1910 surveyance of land for sugarcane production and the planned establishment of the Umfolozi sugar mill, with further lands of 55-115 ha allocated to returning soldiers by the Department of Lands following World War Two (Minaar, 1992, pp. 39, 52). A notable impact of these early settlements is that today Mtubatuba is marked by having the highest concentration of whites in the entire district.

The municipality is further flanked by two protected areas: on the eastern coast lies the iSimagaliso Wetland Park within which lies St Lucia town, while to the west is the Hluhluwe game reserve situated in the centre of the wider Mpukunyoni areas. Both of these areas were established via waves of forced removal of black residents in the 1960s, but continued apace throughout the 1970s, most notably in the clearing of the Western bank of St

Lucia for commercial forestry interests and the establishment of a missile testing range. Many of the residents were relocated to the KwaMsane township east of Mtubatuba, established in 1963 by the apartheid government, and Khula Village, established in 1986 by the KwaZulu government. However a contentious politics of removal and re-settlement has persisted into the post-apartheid era, largely centred on the incorporation of Dukuduku state forest as a World Heritage Site in 1998. Subsequently government has made similar attempts to relocate residents of the forest into an expanded Khula Village and a new settlement site Ezwenelisha amidst protracted negotiations with often rival interests of restitution claimants, current occupants, tribal authorities, and others (Mtubatuba Local Municipality, 2011; AFRA, 2003).

Generally, Umkhanyakude accounts for 4% of KwaZulu-Natal's population but only 2.7% of economic activity, most of which is constituted by agriculture (32%) and tourism-dominated trade (23%) (Umkhanyakude District Municipality, 2011, p. 53). Similarly, in Mtubatuba municipality 24% of jobs are accounted for by agriculture, 20% by social services, and 11% by manufacturing. The balance of trade (8%), private household (7%), construction (3%), transport (3%), and 'business services' (3%) are centred largely in Mtubatuba town and St Lucia (the final 21% not accounted for in the municipal IDP) (Mtubatuba Local Municipality, 2011, p. 51). Indeed, Mtubatuba itself, somewhat characteristic of rural towns near formal Bantustans, is marked by the domineering presence of South Africa's major retail chains and bank branches, along with a taxi rank and array of African informal trading and minor Asian retailers.

The southern section of the town, known as Riverview, however is an altogether different social terrain, and is defined by gated communities, guest houses, the Umfolozi country club, and the imposing Umfolozi Sugar Mill (USM). Together with the Sappi, Mondi and SiyaQhubeka timber mills, forestry and sugar milling together accounts for about 2000 direct jobs, around 15% of 'formal' employment in the area (Mtubatuba Local Municipality, 2011, p. 51). Although precise proportional figures were not provided, from the municipality's map of simplified land cover (Map 4.2, see below) it can be seen that other than land under tribal authorities and protected wildlife and conservation areas that plantations (deep green; predominately under timber) and commercial agriculture (orange; predominately sugarcane) account for the vast amount of remaining land use.

The tribal authority areas, however, quite starkly serve as a boundary to the further expansion of the 'blocks' of large-scale capitalist agriculture; though the scattered pockets of 'orange' in the tribal authority similarly provides some indication of the degree to which sugarcane has extended into the customary lands. It is perhaps no surprise then that the

sugarcane and timber industries routinely bemoan the persistence of customary tenure as an obstacle to 'development', particularly in the consolidation of 'uneconomic' units and supposed incentive to investment implied in titled ownership (Maloa, 2001; Eweg, 2005; Nothard & Meyer, 2005), or that many poor black Africans appear to find refuge in its resistance to (if not prohibition of) commercial alienability (Cousins, 2009). The confluence of land and ethnic identity are also almost certainly a key reason for the persistence of electoral support for the IFP (as can be seen in table 4.1), the self-proclaimed political expression of Zulu 'traditional' identity and way of life.

Table 4.1: Results of the 2011 local government elections for Ward 12 and Mtubatuba

	Ward 12			Mtubatuba		
	Ward	Provincial	Total	Wards (all)	Provincial	Total
ANC	959 (35.6%)	954 (35.7%)	1,913 (35.6%)	17476 (40.5%)	17718 (41.1%)	35,194 (40.8%)
NFP	433 (16%)	448 (16.7%)	881 (16.4%)	7,544 (17.5%)	7204 (16.7%)	14,758 (17.1%)
IFP	1,292 (47.9%)	1,251 (46.8%)	2,543 (47.4%)	17,290 (40.1%)	17057 (39.6%)	34,347 (39.8%)
Other	9 (0.3%)	15 (0.5%)	24 (0.4%)	739 (1.7%)	1090 (2.5%)	1,829 (2.11%)

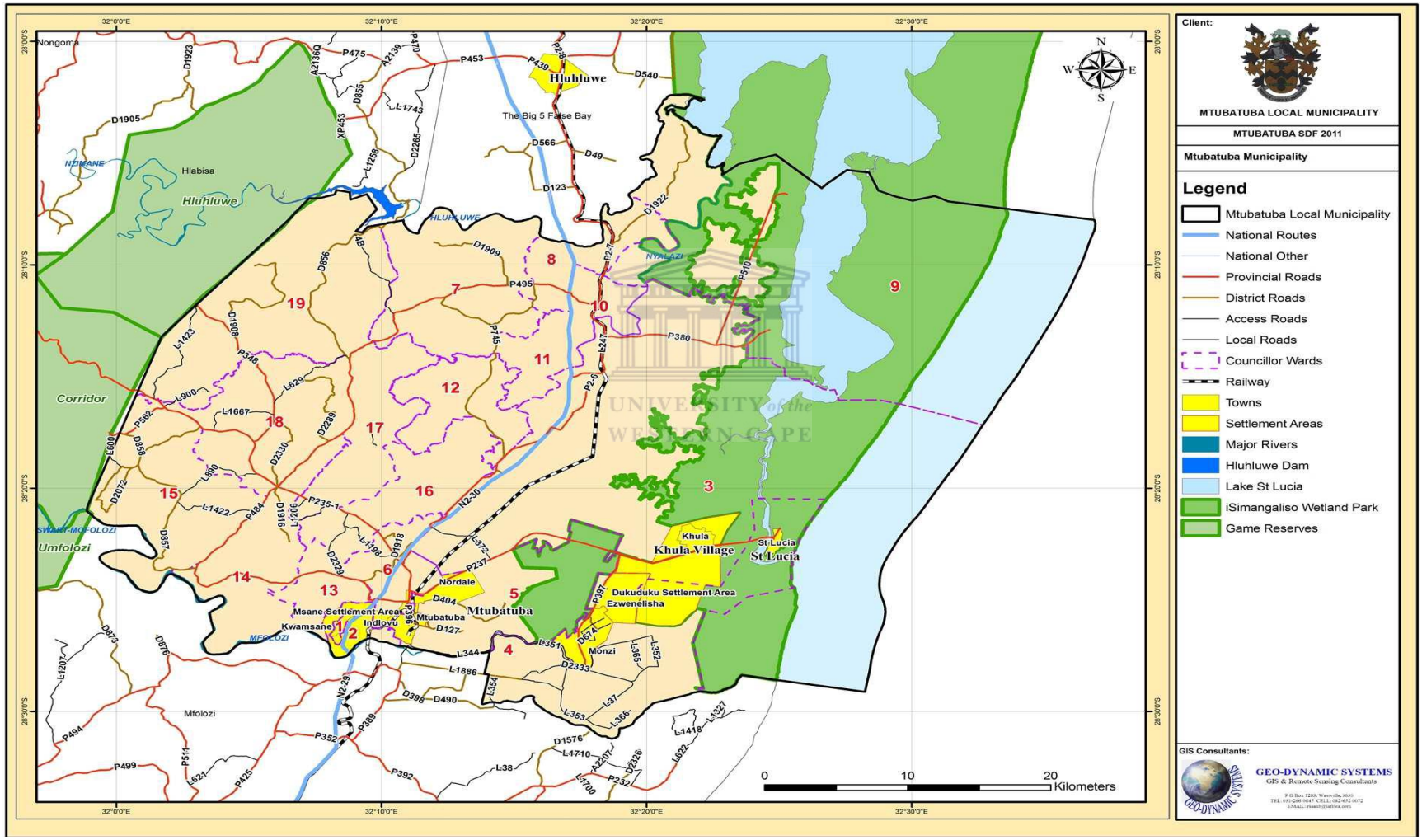
Source: (Independant Electoral Commission, 2013)

At first glance, then Mtubatuba is marked by an apparently stark segmentation of social universes. In the dominant South African sociological lexicon, this apparent 'dualism' is one between a 'formal' world, 'large', wealthy, heavily capitalized, resourced, civilly-registered and legally-incorporated and an 'informal' small, poor, under-capitalized and resourced, 'traditional' and legally opaque world. Such analysis of discretely counterpoised social worlds has led many policy makers and the development planners in government (particularly since the Mbeki era), to largely conceive of the wealth of the 'formal' and poverty of the 'informal' as something of a divide which must be 'bridged' (The Presidency, 2007; Policy Coordination and Advisory Services in The Presidency, 2007).[29] However, though providing some insights, this perspective is ultimately undermined by the reality that despite their apparent social divergence, both of these worlds are mutually constituted and dynamically conditioned by one another (Du Toit, 2009; Philip, 2010). They are in fact one universe, and reflect each other. To the extent that 'development' seeks to 'bridge' this social divide, small-scale sugarcane growers are perhaps an excellent illustration of the tensions inherent in such a characterisation. But before exploring the relational basis of small-

[29] A discourse of 'dualism' has similarly present in analyses by South African Marxist works, most notably Wolpe's (1980) seminal "Capitalism and cheap labour-power in South Africa" as well as anthropological pieces such as Sansom (1974). However, despite dubious descriptions of 'traditional' systems 'articulating' with or being 'penetrated' by capitalism, these works nonetheless sought to locate dynamic relations between the apparently separate worlds. In the case of the former, Wolpe contended that subsistence production in the reserves and later Bantustans effectively cheapened migrant African labour and was thus integral to the particular development of South African capitalism (Wolpe, 1980, p. 299). Sansom meanwhile observed that the gradual generalization of market relations was similarly altering relations of production and exchange within the reserves. (Sansom, 1974, p. 171)

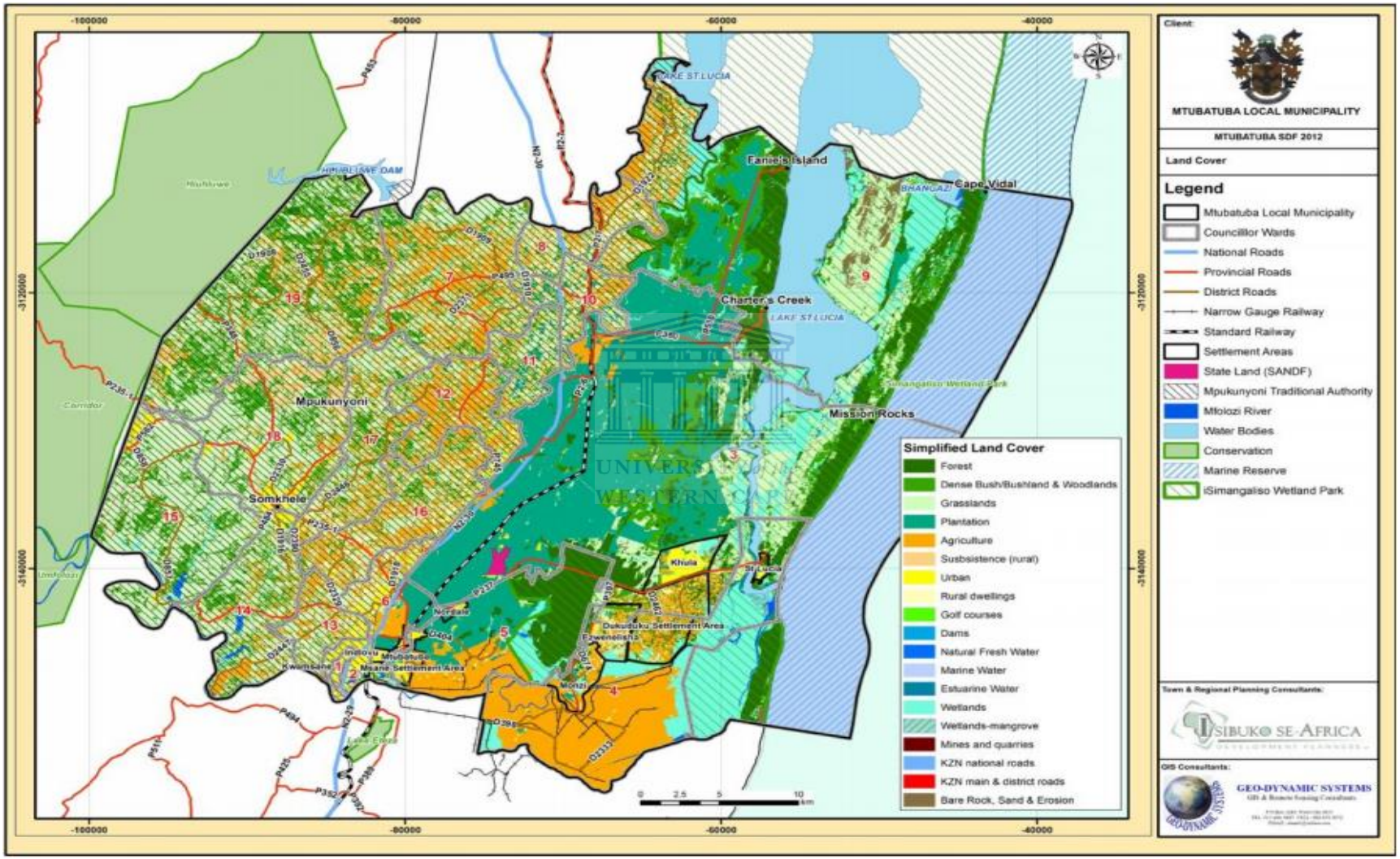
sugarcane production in Madwaleni and Shikishela in particular, it is first necessary to examine some of the more pertinent descriptive foundations of their reality.

Map 4.1: Mtubatuba local municipality



Source: (Mtubatuba Local Municipality, 2011, p. 6)

Map 4.2: Simplified land cover of Mtubatuba local municipality



Source: (Mtubatuba Municipality, 2012, p. 41)

4.3 The homestead as a unit of analysis

Like much of the communal areas in rural South Africa, one of the most basic residential, consumptive and indeed productive units in Madwaleni/Shikishela is the 'homestead' (*umuzi).* Though discretely bounded by fencing or foliage, homesteads are typically something of a compound unit, comprising multiple 'households' (*izindlu*) organized in terms of Zulu idioms of patriarchy, patrilocality, patrilineality, and seniority. Typically, the authoritive centre of the homestead is located in the most senior (and often original) conjugal household, particularly in the eldest living male, and other households may be variously comprised by other wives of the patriarch, unmarried sisters and daughters, married or unmarried brothers and sons etc. (Vilakazi, 1965, p. 23; Sansom, 1974, p. 59). The actual composition, configuration and relations within and between households are variable and multiple, but frequently understood (or at least explained) by appeal to normative imperatives of local variants of 'Zulu culture'. Obviously, such culturally infused 'ideals' may often not be realized in practice, the ideals themselves changed or mitigated, and/or practices themselves re-evaluated in terms of whether they fulfil/reflect the ideal. However, while the capacity to manipulate discourses of 'culture' is an important source of flexibility, normative structures delineate boundaries of authority, responsibility and obligation in terms of age and gender in a largely hierarchical manner.

It is worth noting that my use of the 'homestead' as the focal social 'unit' of investigation was not an inevitability, but a choice. The two most obvious competing alternatives would have included either focusing on the homestead's constitutive households, or following lineal groups across homesteads. Strong anthropological arguments can be made for using either of these as the focal 'unit', particularly in their being better adapted to African patterns of familial organization more broadly and hence in interrogating more nuanced and complex interrelations of identity and authority (Peters, 2004). Of course, lineal relations, the homestead, and households are all relevant, but as a single researcher it would be unlikely that I would be able to provide the amount of 'depth' required to substantively untangle these webs of relations, particularly for the purpose of a survey.

The ultimate choice of 'homestead' was thus made on the guiding principle that homesteads were generally the unit upon which day-to-day production and consumption is largely premised (Crehan, 1995, p. 90; Vilakazi, 1965, p. 112; Sansom, 1974, p. 160). This is similarly true in regard to sugarcane cultivation, which is pursued fairly discretely on fields 'owned'/allocated to a particular homestead. Such a stylization is, however, not a hard and

fast rule, and exceptions sometimes had to be made, largely in two kinds of circumstances. The first set included some instances where spatially discrete homestead compounds centred on a polyganous patriarch either in his authority over matters of production and/or reliance on his disbursement of income. Even if additional income was ultimately generated independently, such homesteads were deemed to be sufficiently interrelated as to be considered as a whole 'unit' for the purpose of the survey. Likewise erstwhile composite households were counted as separate homesteads where it appeared they had sufficiently fractured from one another. This judgement was typically made in cases where respondents considered themselves predominantly independent from other households insofar as they drew from and paid into separate consumptive funds from different productive activities, even if punctuated by relations of reciprocity. This was true mainly of female-headed households within polyganous homesteads in which the patriarch had died, but also in one case where a living polyganous husband had permanently cut-off all material contributions to all of his wives, leaving each household functionally independent.

4.4 Homestead composition

Average measures of the basic composition of grower homesteads show them to be fairly large and multigenerational, though within the bounds of a substantial range of configurations. For discursive brevity median numbers will be referred to here, but as is evident in table 4.2 below, average measures were very similar regardless of whether they were expressed in terms of arithmetic mean or median terms. Most basically, the median number of homestead members was ten, spanning three generations, nine of whom were described as being present most or all nights. Of these, a median of six members were adults and three children defined as under 18 years old, with the median composition of adults evenly split between men and women at three each. The range of homestead size and composition was nonetheless very wide, with the smallest homestead comprising only two members and the largest 29. In terms of the total population ('sum') of adults, it is notable that there is almost an exact split between men and women, with women representing 50.4% of the absolute adult population. Grower homesteads thus tend to be large, multigenerational, and fairly evenly comprised of men and women, almost all of whom are present most nights.

Table 4.2: Summary measures of homestead composition

		Homestead size	Members present all or most nights	Generations	Adults	Adult Men	Adult Women	Children <18
N	Valid	74	69 [30]	74	74	74	74	74
	Missing	0	5	0	0	0	0	0
Mean		11.34	10.39	2.88	6.81	3.38	3.43	4.41
Median		10	9	3	6	3	3	3
Mode		10	7	3	5	2[a]	4	3
Range		27	27	3	16	9	10	16
Minimum		2	2	1	2	0	0	0
Maximum		29	29	4	18	9	10	16
Sum		840	717		504	250	254	326

a. Multiple modes exist. The smallest value is shown

Comparison with wider census data (table 4.3) at municipality, district and province levels is rendered somewhat difficult due to the use of slightly different units of analysis. This is perhaps most clear in StatsSA use of 'household' as a primary statistical unit, defined as "a group of persons who live together and provide themselves jointly with food or other essentials for living, or a single person who lives alone" (StatsSA, 2011c, p. 79). However, while the Census' 'households' are similarly defined as discrete consumptive/productive units, it is clear that my use of homesteads yields significantly different distributions. For example, though average 'homestead' size (10) amongst growers is much higher than average 'household' size (5) in Ward 12 (the municipal delineation for Madwaleni/Shikishela) Census data reveals that 1,529 'households' account for a total population of 9,074, whereas the mere 74 'homesteads' of my sample account for 830 individuals; nearly 9% of the entire population. It is further worth noting that my definition of a 'child' to be any persons under 18 years old differs from StatsSA's definition as anyone under 15 years old, though this has been adjusted to my definition in the table below. Similarly, as I have grouped children of both genders together, my data does not reveal the overall distribution of males against females, though it is notable that total numbers of men and women are far more even amongst the sample of grower homesteads than Ward 12 or wider jurisdictional boundaries.

Table 4.3: Comparison of sample population with wider census data

	Total Population	Households	Average Household Size	Total Adult Men	Total Adult Women	Children (<18)	Males per 100 Females	Adult men per 100 women
KwaZulu-Natal	10,267,300	2,117,274	4	2,882,770	3,527,802	3,856,728	90.5	74.7
Umkhanyakude	625,846	128,195	4.9	135,308	187,841	302,697	85.6	72
Mtubatuba	175,425	34,905	5	39,482	53,328	82,615	86.4	74
Ward 12	9,074	1,529	5[31]	1,891	2,589	4,594	87	73
SSG Survey	830	74	10	250	254	326	-	98

Source: (StatsSA, 2011a; StatsSA, 2011b, pp. 5-7; Hlabisa Municipality, 2010, p.11)

[30] The 'missing' cases here are accounted for by the first six homesteads interviewed in the earliest draft of my survey before I had included this question

[31] This particular datum was taken from Community Survey 2007 as displayed in Hlabisa Municipality (2010). The datum was taken from the Hlabisa rather than Mtubatuba Integrated Development Plan because Ward 12 had fallen within the Hlabisa municipality prior to 2011.

4.5 Marriage, small-scale sugarcane growers, and homestead 'heads'

As homesteads are typically composite units founded by marriage, marital status forms an important descriptor of small-scale sugarcane grower homesteads. Key to this importance is the normative premise of marriage on the aforementioned Zulu customs of patriarchy, patrilineality and patrilocality, which though not immutable, are useful in framing descriptions of homestead structures and divisions of authority, and provide some insight into the alignment of these ideals with demographic realities. Locating individual growers within these contours is also essential, but rendered difficult by the nuance of ideal vs. lived patterns of authority. Drawing on a number of empirical studies, Claassens (2013) for instance notes that in a context of declining rates of marriage and a gradual penetrating discourse centred on democratic rights, unmarried women in some areas have been reported to have received customary allocations of land (Claassens, 2013, pp. 77-81). A partial aide in overcoming this statistical obstacle was my survey's request that respondents identify the homestead's most internally authoritative figure, or 'head'. Even if in reality the powers and control of the 'head' are variable and circumscribed, indicating the extensive frequencies of differing relations between growers, 'heads' and marriage goes some way in framing the social position of growers within their homesteads.

Table 4.4: Frequency of marriage amongst men and women in survey, ward and municipality

	SSG Survey					Ward 12 (StatsSA, 2011a)	Mtubatuba (StatsSA, 2011a)
	Mean	Median	Max	Min	Sum	Sum	Sum
Adult males never married	3	2	8	0	187(74.8%)	1,214 (74.3%)	24,751 (70%)
Adult males married, spouse alive	1	1	3	0	57 (22.8%)	386 (23.6%)	9,964 (28.2%)
Adult males, widower	0	0	1	0	6 (2.4%)	23 (1.4%)	288 (0.8%)
Adult males divorced/separated	0	0	0	0	0 (0.0%)	11 (0.6%)	328 (0.9%)
Total Men					250	1634	35331
Adult females never married	2	2	7	0	178 (70%)	1,535 (65.5%)	31,559 (64.4%)
Adult females married, spouse alive	1	1	3	0	64 (25.1%)	602 (25.7%)	14,373 (29.3%)
Adult females, widowed	0	0	1	0	12 (4.7%)	192 (8.2%)	2,593 (5.3%)
Adult females divorced/separated	0	0	0	0	0 (0.0%)	14 (0.6%)	467 (0.9%)
Total Women					254	2343	48992

Table 4.5: Comparing rates of marriage of surveyed men and women with ACDIS

		ACDIS (Hosegood, McGrath, & Moultrie, 2009, p. 291)				SSG Survey	
		2000		2006		2012	
		N	%	N	%	N	%
Men	Never married	15370	72%	16919	77%	187	74.8%
	Ever married, *of which*:	5783	28%	5054	23%	63	25.2%
	Currently married	5357	93%	4680	93%	57	90.5%
	Widowed	296	5%	307	6%	6	9.5%
	Divorced	31	1%	11	0%	0	0.0%
	Separated	99	2%	56	1%	0	0.0%
Women	Never married	16544	65%	18328	69%	178	70.1%
	Ever married, *of which*:	8919	35%	8086	31%	76	29.9%
	Currently married	5240	59%	4502	56%	64	84.2%
	Widowed	3297	37%	3362	42%	12	15.8%
	Divorced	104	1%	67	1%	0	0.0%
	Separated	278	3%	155	2%	0	0.0%

At the general level, it can be seen from table 4.4 that about 27.5% (n=139) of the total adult population had been married at some point, 24% (n=121) to a currently living partner. 54.7% of all married individuals are women (n=76), a higher proportion of whom have deceased partners (15.8%) than their male counterparts (10.5%). In both mean and median terms, homesteads on average have only one married man and woman (the 'average' married man and woman not necessarily partnered). Thus while on average homesteads hold at least one marriage, bearing in mind the average of 6 adults per homestead, the average number of adults married within the homestead is relatively low. Whether or not this is due to homesteads being unable to afford the considerable ceremonial costs associated with *lobola*, or whether once individuals are married they are simply more likely to found their own discrete homestead is not entirely clear, but may have been fathomable if a lineage approach was taken. It is further clear that rates of marriage among growers are very similar to those found by the 2011 Census in Ward 12 and Mtubatuba respectively. Table 4.5 similarly shows the low rates of marriage to be consonant with the low marriage rates registered in the Africa Centre's Demographic Information System (see section 4.6), with the notable exception that far more married women have living partners.

Table 4.6: Comparison of homestead heads' gender and marital status

Homestead head's marital status[32]	Homestead/household head's gender					
	SSG Survey		Ward 12 (StatsSA, 2011a)		Mtubatuba (StatsSA, 2011b, p. 31)	
	Male	Female	Male	Female	Male	Female
	Count	Count	Count	Count	Count	Count
Never Married	4	10	315	413	8,355	9,640
Married (partner alive)	40	6	335	287	8,082	6,385
Married (partner deceased)	5	9	19	177	229	2,300
Divorced/separated	0	0	0	4	107	219
Subtotal	49	25	669	882	16,773	18,543
%	(66.3%)	(33.7%)	(43.2%)	(56.8%)	(47.5%)	(52.5%)

In comparison to the marriage status of household 'heads' in table 4.6, we can see that the total number of married heads across genders (n=60) account not only for 81% of 'heads' in general, but also 43% of total marriages (n=139). Identified homestead heads unsurprisingly tended to be relatively old, at an average (median, mean and mode) of 63, suggesting that a high proportion of all marriages are constituted by the senior-most conjugal relationship in the homestead. In keeping with Zulu customs of patriarchy and seniority, nearly exactly two-thirds of heads are male, with three-fourths of women identified as homestead heads either widows or having never been married. Typically, women with living husbands assuming the status of homestead head were considered the main decision makers and family coordinators due to a husband's prolonged physical absence or decrepitude. In total, female-headed homesteads thus represented a significant 33.78% of all homesteads.

However, though significant in itself, 2011 Census data show female-headed households as the majority in both wider ward and municipality levels, and far more commonly among women with living male spouses. Three possibilities are thus immediately suggested. The first and most likely possibility is that female 'heads' have been over-represented due to the use of 'household' rather than 'homestead' as a statistical unit; that is as female 'heads' of households constitutive but nonetheless subordinated to a male 'homestead head'. The second possibility is that grower homesteads have been less inclined to fracture than those at ward and municipality level, a point somewhat supported by the far more even distributions of adult men and women amongst my sample. This may be due to the influence of sugarcane production in providing greater motivation for homesteads to retain members as labour who might otherwise attempt to seek work elsewhere and/or providing an

[32] A wide variety of partnership possibilities were allowed by the questionnaire, including divorce, separation, partnership etc. as well as new iterations of customary marriage found in other areas of KwaZulu-Natal but were never expressed in terms other than customary marriage or non-marriage, a common problem in empirical research (Budlender, 2004). Respondents were likely loathe to admit to customarily unorthodox coupling practices and avoid 'scandalous' topics of indiscretion. Though the latter was sometimes self-evident, I have maintained the broad marriage or non-marriage categorization as more accurate even if less insightful due to my inability to ensure consistent admissions or observation.

enhanced income by which to support more members and retain a conjugal form. Finally it is possible that male headed homesteads are simply more likely to get involved in or sustain sugarcane production, a possibility somewhat supported by the aforementioned finding that there are far fewer widow-headed homesteads in my homestead sample than widow-households in the wider ACDIS. This may indeed be due to the greater normative authority held by men in customary settings, both in land and family labour.

Table 4.7: Comparison of growers' relation to homestead head by gender and marital status

SSG's relation to household head	SSG's marital status	SSG's gender	
		Male	Female
		Count	Count
Self	Never Married	2	9
	Married (partner alive)	25	6
	Married (partner deceased)	4	8
Spouse/partner	Married (partner alive)	1	14
Child	Never Married	0	2
Child-in-law	Never Married	0	1
Parent	Married (partner alive)	1	0
Total		33	40

Certainly, of growers themselves, nearly all were represented in the homestead's senior-most conjugal relationship. As shown in table 4.7 above, 74% (n=54) of all growers were homestead heads themselves and 20% (n=15) married to the homestead head. Average grower age was thus unsurprisingly only slightly older than that of homestead heads, with a median of 63, but a mean of 74. The small-scale grower population is however decidedly feminized, with female growers comprising over half of growers. 75% (n=25) of male growers were married homestead heads with living partners compared to 15% (n=6) of females, who tended to either be married to a living homestead head (35%; n=14) or were themselves homestead heads in the absence of a living male partner (43%; n=17). Overall, growers thus tended to be either male homestead heads (41.9%; n=31), women married to a male homestead head (19%; n=14), or women homestead heads in the absence of a living male partner (31%; n=23).

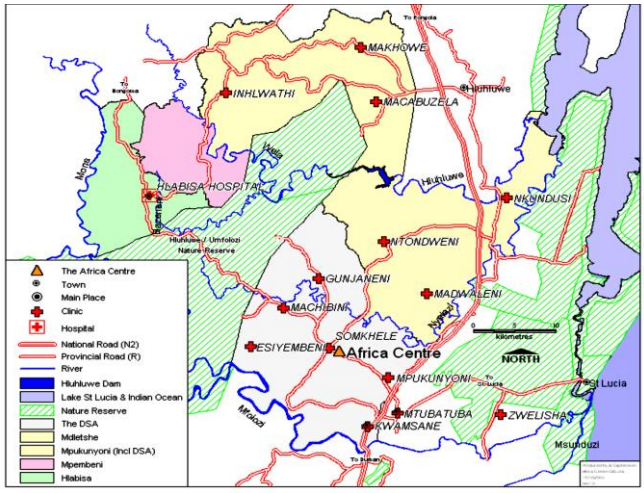
Basic grower homestead demographics are thus somewhat distinctive both historically and in terms of the wider population. In the first place it is worth observing that historically the demographic composition of South Africa's former Bantustans were highly skewed by the small distributions of land and migrant labour which structurally defined them (Wolpe, 1980). With male members frequently seeking migrant employment in the mines or urban areas, Bantustan homestead populations tended to be feminized to varying degrees (Sansom,

1974, p. 171; Hosegood, McGrath, & Moultrie, 2009, p. 281). As the question of homestead 'membership' was framed in terms of whether or not an individual had established their own 'home' or homestead 'somewhere else', conjugal or otherwise, there are several possible implications. Firstly, it is possible that grower homesteads always tended to differ from such stylised patterns of rural-urban migrancy, or at least do so now, and there is some evidence that enhanced incomes from cane provided incentive for migration into sugar-growing areas in the late 1990s to early 2000s (Posel, 2002, p. 7). However, while widespread sugarcane cultivation in Madwaleni/Shikishela only emerged in the 1990s-2000s, this trend is likely to be a less pertinent historical factor compared to the end of restrictions on settlement imposed by apartheid and high levels of current structural unemployment. With these two factors in mind, it is thus more likely that either rural-urban migrancy among grower homesteads has decreased overall, has become less cyclical as members establish permanent homes elsewhere, or has become less gendered. Although there is little reliable macro-level data on migration in South Africa, this seems more consistent with the wider literature on migration and livelihoods in South Africa, from which Posel (2002) for instance notes that in the post-apartheid era the tendency for women to migrate was increasing, that migration was often made between rural or per-urban areas rather than necessarily towards urban centres, and that motivations are often premised on differentials in service provision and infrastructure and the strength of varying social networks rather than simply employment. It is unclear however whether grower homesteads are larger by dint of their being able to support a larger number of individuals, or rather due to overall higher rates of unemployment inhibiting the establishment of independent single or conjugal households.

4.6 Infrastructure

As a point of orientation, it is worth making some preliminary points about Madwaleni/Shikishela's infrastructure. Perhaps most distinctively, Madwaleni/Shikishela is relatively well-resourced in terms of both health and educational infrastructure. In terms of the former, it falls within the Demographic Surveillance Area (DSA) of the Africa Centre, which focuses largely on medical research. In addition to being relatively well-monitored, Madwaleni also features one of nine primary clinics in the DSA (funded in part by USAID), as can be seen from map 4.3 below.

Map 4.3: Healthcare infrastructure within the Africa Centre Demographic Surveillance Area



Source: (Herbst, Hosegood, Muhwava, Mutevedzi, & Nyirenda, 2008, p. 9)

Moreover, despite its rural context Madwaleni/Shikishela has a reasonably good educational infrastructure, with both communities featuring their own local primary and secondary school buildings in decent condition. Madwaleni residents are particularly proud of the local high school which they helped to build and paint, and is typically in excellent cosmetic condition. Madwaleni High also receives computer training modules every few months for basic computer literacy training (funded by an Oprah Winfrey initiative). Consequently, as can be seen from table 4.8, the highest educational qualification within homesteads is reasonably high: 82.4% of homesteads are home to a member who has completed secondary education and 16.2% are home to a resident with a tertiary qualification. Although not strictly comparable, this seems to be largely in keeping with Census data on the highest educational level of individuals in Ward 12 and Mtubatuba, which show only about 11.1% and 10.7% of individuals lacking any education, and 28.5% and 30.5% having achieved at least a matric qualification. This is somewhat in contrast to older grower and homestead heads in my own sample, shown in table 4.9 to feature much lower levels of education, with 47.3% and 51.4% respectively having never received any education at all, and with women featuring slightly higher levels of education than their male counterparts.

Table 4.8: Distribution of homesteads by highest level of education

	SSG Survey (Homestead)		Ward 12 (individuals) (StatsSA, 2011a)		Mtubatuba (individuals) (StatsSA, 2011a)	
	N	%	N	%	N	%
None	1	1.4%	1,007	11.1%	18,707	10.7%
Gr R-4	1	1.4%	2,117	23.3%	36,558	20.8%
Gr 5-8	1	1.4%	1,615	17.8%	31,425	17.9%
Gr 9-11	10	13.5%	1,674	18.5%	30,770	17.5%
Gr 12	47	63.5%	1,105	12.2%	26,217	14.9%
Tertiary	12	16.2%	41	0.5%	2,730	1.6%
NTC I- NTC 6	-	-	19	0.2%	706	0.4%
Certificate or diploma without matric	2	2.7%	2	0.0%	248	0.1%
Certificate or diploma with matric	-	-	57	0.6%	1,646	0.9%
N/A	-	-	1,435	15.8%	2,6315	15.0%
Other	-	-	1	0.0%	103	0.1%
Total	74	100.0%	9,073	100.0%	175,425	100.0%

Table 4.9: Distribution of small-scale growers and homestead heads by education groups

Education Groups	Sugarcane grower's gender			Homestead head's gender		
	Male	Female	Subtotal	Male	Female	Subtotal
None-Grade R	23	12	35	32	6	38
Gr 1 - Gr 4	4	10	14	6	9	15
Gr 5 - Gr 8	5	7	12	9	4	13
Gr 9 - Gr 11	0	6	6	1	4	5
Gr 12	1	4	5	1	2	3
Tertiary	0	2	2	0	0	0

In terms of electricity, power lines stretch along the ward's dominant road, and access to electricity is conditioned by both the homestead's proximity to these lines as well as their ability to afford the cost of instalment and monthly payments. Table 4.10 shows few homesteads fall into both of these categories, and less than half (43%) are electrified. Though this initially appears significantly greater than the proportion of electrified households in the ward more generally (33.6%), as power lines did not necessarily extend to all households within an electrified homestead compound, these proportions are not strictly comparable. Though I was told that the municipality is seeking to extend these lines generally, the dominant difficulties are said to relate to problems associated with establishing on whose land pylons should be established, and destruction/theft of infrastructure.

Access to water however presents greater difficulties, particularly in a context of drought. Though aquifer taps are scattered across Madwaleni/Shikishela, dropping water tables have seen these become increasingly unreliable, and though table 4.10 shows 33.7% of respondents reported having a tap in/very near their property not all were functional all of the time. As with electricity, though the number of water taps appears much lower in the ward more generally at 10.4% of households, as with electricity the distinction between household and homestead has almost certainly skewed the distribution downwards. According to casual

conversation with local residents, the original installation of these taps were premised on a sort of 'cost-recovery' system whereby residents would be required to pay into a municipal account via local residents closest to the tap, a system which nonetheless disintegrated rapidly due to the great difficulty in both monitoring taps consistently and obeying the apparently unethical logic of denying water to neighbours unable to pay. Nonetheless, while the municipality supposedly plans to pipe water in from a northern Jozini dam, in the meantime residents are compelled to either rely on rainwater containers or walk up to several kilometres to the closest functional tap to fill smaller containers, a task frequently done by women and/or children. Other opportunities include purchasing water from bakkie owners capable of retrieving water from wards further afield, or imposing on a neighbour with a rainwater container.

On the whole, however, transport beyond the ward is premised largely on intermittent mini-bus taxis servicing the main gravel road or on lifts from passing neighbours with vehicles, itself almost always contingent on a monetary contribution for petrol. Indeed, table 4.10 shows motorcar ownership amongst my sample is confined to only about 27% of homesteads, and if explicated in terms of individuals to control for differences between the homestead/household unit, amounts to 2.6%, only slightly higher than the 1.8% distribution in the ward more generally. Indeed, in a context of such low levels of reliable transport, the importance of the aforementioned proximity of Madwaleni clinic and the local schools is all the more evident.

Table 4.10: Homestead access to water, electricity, and motor vehicles

	SSG Survey		Ward 12 (StatsSA, 2011a)		Mtubatuba (StatsSA, 2011a)	
	Yes	No	Yes	No	Yes	No
Electricity	32 (43%)	42 (57%)	514 (33.6%)	1,015 (66.4%)	19,375 (55.5%)	15,530 (44.5%)
Water Tap	25 (33.9%)	49 (66.1%)	158 (10.4%)	1,371 (89.6%)	17,713 (51%)	17,192 (49%)
Motor Car Ownership	20 (27%)	54 (73%)	163 (10.6%)	1366 (89%)	6296 (18%)	28609 (82%)
Among individuals	(2.6%)	(97.4%)	(1.8%)	(98.2%)	(3.5%)	(96.5%)

Despite the relatively-decent health and educational infrastructure enjoyed by residents of Madwaleni/Shikishela, the relative enjoyment of most services necessary for day-to-day survival remains highly contingent on the resources of individuated homesteads. This is most evident in the cases of electricity but also extends to water and transport.

Undoubtedly, and perhaps unsurprisingly, relative living standards and welfare are highly dependent on income.[33]

4.7 Income sources

Despite the apparent centrality of the relative weight and availability of income sources to framing dynamics of social reproduction amongst growers, within my own survey respondents did/could not provide consistently reliable estimates of absolute income of all homestead members, and as such the proportional monetary contributions of different income sources could not be established. Nonetheless some sense of the basic socioeconomic context can be garnered from absolute frequency of different types of income sources.

Significantly, as seen in table 4.11, most homesteads draw upon multiple source of income, with both mean and medians of six per homestead. In absolute terms, more than half (54.8%) of all income sources are critically accounted by social grants, with each homestead on average claiming three grants in both mean and median terms. In my own survey, these grants comprised the old-age pension and Disability Grant (DSG) which qualifies recipients for a monthly income of R1,260, the Child Support Grant (CSG) garnering R290, and the Foster Care Grant (FCG) at R800. Non-grant income sources make up the balance, and similarly are distributed on average with a mean of three and median of two. Both grant and non-grant income sources are accounted for by three adult homestead members on average, with a further average of three adults not earning an income of any kind, and who comprise 48.4% of the adult population (n=244). Together with children under 18, homesteads on average are thus resident to seven income dependants, which if expressed as a ratio to adults earning an income registers as a homestead mean of 0.59, a median of 0.41 and 0.45 for the population as a whole.

Table 4.11: Homestead income sources, earners & dependants

	Income sources total	Non-grant income sources total	Social grants received	Adults earning income	Adults not earning Income	Adults not earning + children	Dependency Ratio[34]
Mean	6	3	3	3	3	7.9	.59
Median	6	2	3	3	3	7	.41
Maximum	24	15	12	11	14	25	3.00
Minimum	2	1	0	1	0	0	.11
Sum	461	208	253	258	246	570	0.45
% Total	100%	45.1%	54.9%	51.2%	48.8%	68.7%	

[33] Although not systemically investigated, monetary relations of reciprocity also appeared to be fairly common. Some, particularly older, residents seemed to feel that the monetization of reciprocal relations was a deepening trend, and something of a caustic influence.

[34] Expressed as a ratio of adults with at least one income source ('productive') to adults without any income sources + children <18 ('dependent'). This is distinct from conventional dependency ratios defined purely in terms of age i.e. anyone <15 + >64 as 'dependant' and anyone 16-63 as 'productive'.

The importance of social grants in providing a consumptive foundation is of course conditioned by the reality that non-grant forms of income are decidedly sparse. Table 4.12 shows sugarcane was the only source to feature frequently enough to make an impact on the average, and accounts for 36% of all non-grant income sources. Recalling the total adult population (n=504), we can see that the total number of permanent jobs (n=32) and temporary jobs (n=26) account for only 6% and 5% of adults respectively. Though in some cases multiple non-grant income sources are held by a single person, even if evenly distributed across the adult population, own-income generating activities including rentals of land would account for only 6% of adults, with income from non-sugarcane landed production accounting for only 2%, and sugarcane itself accounting for 14%. Maintaining the assumption of even distribution across the adult population, rates of 'formal employment' comprising permanent and temporary jobs do not exceed 12.5%, while if an expanded definition is used to include all forms of non-grant income generating activity, 'employment' is still however only raised to 40.1% of adults. Cash remittances also remained very low.[35]

Table 4.12: Total and average homestead income sources

		Sum	% Total	% Type	Mean	Median	Min	Max
Non-Grant Sources of Income	Permanent job	32	7.0%	15.5%	0	0	0	4
	Temporary, contract job	26	5.7%	12.6%	0	0	0	2
	Casual agricultural work	20	4.4%	9.7%	0	0	0	7
	Farming activities on homestead's land (of sugarcane)	74	16.1%	35.9%	1	1	0	4
	Farming on homestead land (of other crops for sale)	4	0.9%	1.9%	0	0	0	1
	Non-agri own/family income activity w/out employees	18	3.9%	8.7%	0	0	0	2
	Non-agri own/family income activity with employees	4	0.9%	1.9%	0	0	0	1
	Pension from private employer	4	0.9%	1.9%	0	0	0	2
	Remittances in cash	5	1.1%	2.4%	0	0	0	1
	Raising livestock (for sale)	11	2.4%	5.3%	0	0	0	2
	Renting land or equipment	8	1.7%	3.9%	0	0	0	1
Social Grants	Old-age grants	77	16.8%	30.4%	1	1	0	3
	Child support grants	151	32.9%	59.7%	2	1	0	10
	Disability grants	14	3.1%	5.5%	0	0	0	2
	Foster-care grants	11	2.4%	4.3%	0	0	0	4

While 'low' in and of themselves, both the limited 12.5% and expanded 40.1% are however substantial in comparison to wider Census data at ward and municipal levels, which as table 4.13 shows exhibit limited formal employment of 6.8% and 14.4%, and expanded employment of 11.7% and 21.7% respectively. Some qualifications are, however, necessary. Firstly, data from my survey presented here simply represents calculated instances of economic activity against numbers of individuals and adults. Though no individual had more than one 'permanent' form of employment, some individuals claimed more than one type of

[35] Remittances may however also been under-represented. Although allowances was made for 'remittances in kind' in the questionnaire, it may be possible that contributions from migrant relatives are simply of a non-recurrent nature, perhaps in once-off purchases of assets or covering various ceremonial costs. Nonetheless, the low incidence of homestead absenteeism suggests that income from migrant relatives does not play a substantial role in day-to-day consumption.

non-grant income, and it is thus likely that the incidence of individuals claiming 'informal employment' is inflated. Secondly, StatsSA's database appears to have categorically labelled individuals aged 65+ as beyond the age of economic activity, though in reality many such older individuals are involved in economic activities, including but not limited to planting sugarcane (accounting for 37.8% of grower in my own sample). As such, it is likely that StatsSA's own register of economic activity also under-represents the extent of 'informal' economic activity. Nonetheless, even if 'formal' employment is taken by itself the data is striking: though my sample accounts for only 11.2% of Ward 12's 4,483-strong adult population, it alone accounts for 20.7% of formal jobs.

Table 4.13: Comparative rates of employment in survey, Ward 12, and Mtubatuba

	SSG Survey			Ward 12 (StatsSA, 2011a)			Mtubatuba (StatsSA, 2011a)		
	N	% Total	% Adults	N	% Total	% Adults	N	% Total	% Adults
Employed	202	24.3%	40.1%	525	5.8%	11.7%	20,213	11.5%	21.7%
Formal Sector*	63	7.6%	12.5%	304	3.4%	6.8%	13,403	7.6%	14.4%
Informal Sector**	65	7.8%	12.9%	124	1.4%	2.7%	3,864	2.2%	4.1%
Private Household	-	-	-	80	0.9%	1.8%	2,030	1.2%	2.2%
Sugarcane***	74	8.9%	14.7%	-	-	-	-	-	-
Don't know	-	-	-	17	0.2%	0.4%	916	0.5%	1%
Unemployed	-	-	-	501	5.5%	11.2%	12,196	6.9%	13.1%
Discouraged work seeker	-	-	-	460	5.1%	10.3%	7,094	4.0%	7.6%
Other not economically active****	302	36.4%	59.9%	2,997	33.0%	66.8%	53,725	30.6%	57.6%
Sum of three above	302	36.4%	59.9%	3,958	43.6%	88.3%	73,015	41.6%	78.3%
N/A (<18 years old)****	326	39.3%		4,591	50.6%		82,193	46.8%	
Total	830	100%	100%	9,074	100%	100%	175,425	100%	100%

* In SSG Survey includes: 'Permanent Jobs'; 'Temporary Jobs', and; 'Remittances'
** In SSG Survey includes all other non-grant forms of income besides 'Pension from private employer'
***Agricultural activities are distributed within 'formal' and 'informal' sectors in StatsSA's data, but it is not clear which one sugarcane production would fall under, and is thus treated here separately in my survey.
**** To ensure comparability with my survey, individuals in the StatsSA data listed as 65+ (and hence 'N/A' by their own definitions) were moved to 'economically inactive' and all respondents <18 years old moved to 'N/A'.

It is further notable, as shown in table 4.14, that homestead heads often account for a significant amount of total homestead income sources, claiming on average two of the homestead's average of six. Unsurprisingly this average is maintained for growers, who as we have seen are often heads themselves. For both heads and growers, table 4.15 shows that the bulk of income sources are accounted for by sugarcane (31% and 38%) and the old age grant in particular (31% and 43%). Nonetheless, as can be seen, grower and homestead head income sources also feature a gendered dimension, with no women from either categories holding permanent jobs, and women holding fewer old age grants while accounting for nearly all CSG, FCG and DSGs. In a context of high unemployment, the significantly higher monthly disbursements provided by the old-age grant thus simultaneously provides a

consumptive base for recipient homesteads, while reinforcing the authority of the senior members to whom they accrue.

Table 4.14: Small-scale grower and homestead head income sources

	Total Income Sources for SSG	Total Income Sources for Household Head
Mean	2	2
Median	2	2
Maximum	4	4
Minimum	1	0
Sum	172	150
% Total Income sources	37.5%	32.7%

Table 4.15: Distribution of homestead head and small-scale grower income sources by gender

Household Head Income Types	Homestead head's gender		SSG's gender	
	Male	Female	Male	Female
Employee in permanent job	5	0	1	0
Employee in temporary, contract job	1	2	0	4
Do casual agricultural work	0	2	0	3
Farming activities on homestead's land (of sugarcane)	31	18	33	30
Farming activities on homestead's land (of other crops for sale)	0	3	0	3
Raising livestock (for sale)	3	2	3	2
Self-employed in non-agri income activity w/out employees	1	2	2	6
Self-employed in non-agri income activity w/ employees	1	1	1	1
Pension from private employer	2	0	0	0
Old age grant from government	35	11	25	18
Disability grant	1	5	1	6
Child support grant	0	15	1	21
Foster care grant	0	3	0	3
Remittances in cash	0	1	0	2
Renting tractor	2	1	2	3
Other - please specify	0	0	0	1

Certainly, the systemic underdevelopment indicated here is characteristic of the reserves/Bantustans as reservoirs of migrant labour. However, as suggested by the previous indicators of high presence of homestead members, low levels of remittances, and fairly equitable distributions of men and women, the cycles of migrant labour which defined apartheid have been disrupted not simply because of the removal of restrictions of movement and settlement, but by an overall dearth of employment opportunities. The ocean of unemployment in which Madwaleni/Shikishela floats is thus evidently of a structural nature: with few employment opportunities available to absorb individuals of even reasonably high educational levels, or at the very least non-'desperate' opportunities offering payments which significantly enhance the basic consumptive foundation occupied all but exclusively by social grants.

Indeed, in a given context of extreme inequality and unemployment in South Africa more broadly, the data presented here suggests that the survivalist income provided by social

grants forms the consumptive centre of homestead social life, not least of all in the concentration of the higher earning old-age pensions in senior homestead heads and smaller CSG among resident mothers. This analysis appears consonant with the socioeconomic modelling used by Ardington et al. (2009) in the Africa Centre DSA, which suggested that the presence of a pension enhanced migrant employment seeking by prime-aged family members. Furthermore, in Madwaleni/Shikishela sugarcane appears to have reinforced this tendency somewhat with most registered growers coincident with self-proclaimed homestead heads, and comparison with Census data revealing formal sector jobs in the Ward to be disproportionately concentrated amongst the grower homesteads in my sample. It is unclear where the causal basis lies in this correlation: whether sugarcane proceeds support homestead members' search for employment, or whether wages forms the basis for investment in sugarcane. Whatever the causal directionality, this highlights an enduring link between land, employment and survival for the denizens of South Africa's former-Bantustans, but also suggests that the content of these relations is nonetheless shifting.

4.8 Land ownership and use

The most obvious prerequisite for sugarcane production is of course land, to which all small-scale sugarcane growers have access as a categorical necessity. As per the Ngonyama Trust Act, all communal land in KwaZulu is officially held by the Ingonyama Trust, upon which the Zulu king sits as permanent chairman. Officially, allocations and delineation of particular rights in land are then executed and administrated by or under the sanction of local chiefs and their headmen (*indunas)* in line with dominant interpretations of Zulu custom (Munro, 1996, p. 9). As formally all land in the communal areas is thus held under customary authority, homesteads do not have formal title or 'own' the land upon which they reside or produce. Insofar as customary land remains officially outside of formal land markets, Munro (1996) has characterized grower land as 'uncommodified', regarded by many within and without the sugar industry as a source of insecure tenure, clientism and an impediment to grower development. A similar viewpoint is taken of customary authorities considered to be extractors of rent, for instance in the practice of new residents paying *khonza* fees to the *induna*. Growers themselves by contrast tend to adopt a public discourse of 'community' cohesion bound by mutual investment in 'traditional' mores and culture. For many, customary tenure is thus a source of security, whereby rights to land are governed by cultural and ethical imperatives conditioned by a shared heritage rather than by bloodless market forces. Locals insist, for example. that *khonza* payments are once-off fees for food and drink

used in the introduction with new neighbours, and thus are far more personal and less onerous than the rents paid by city-dwellers.

Empirical investigations into customary forms of African tenure, suggest a more nuanced picture somewhere in-between, with 'socially embedded' rights to land at once both providing a measure of protection from commercial alienation but also closely aligning security with social standing within dominant interpretations of 'tradition', frequently attended by hierarchies of seniority and gender (Cousins, 2007). Yet even within the context of such hierarchies, rights to occupy and use land remain perpetually contested and adjusted, as the earlier instance cited by Claassens (2013) of unmarried women achieving customary sanction to claim land attests. Cousins and Hall (2011) hence emphasize that the appearance of rigidly construed traditional rights disguises a far more dynamic reality:

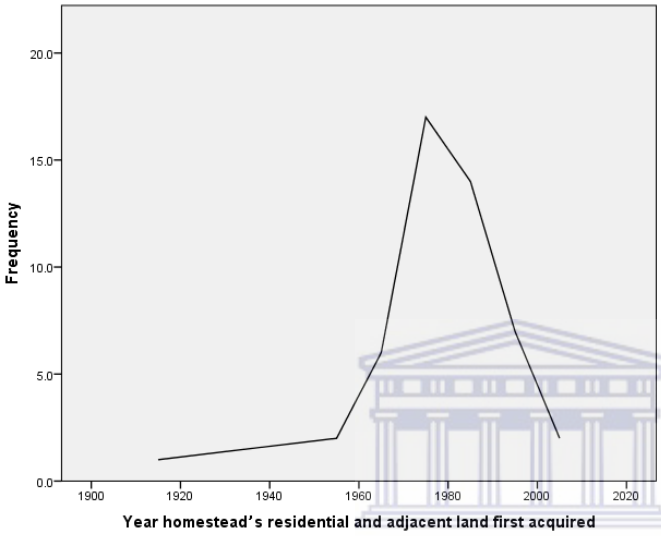
> *"In contrast to the national policy engagement terrain, in everyday contexts people sometimes appeal to rights, but often invoke customary norms and values — no doubt because land rights are deeply embedded in various social identities, networks and relationships. But 'custom' is not rigid and unvarying — it tends to evolve over time, its underlying principles being re-interpreted and adapted to fit altered conditions and circumstances…[this] 'living law', is an inherently flexible and dynamic hybrid of different ideas, identities and resources available to those who seek to secure their interests"* (Cousins & Hall, 2011, p. 18)

Moreover, rather than being entirely separate from or 'articulating' with more formal commercial dynamics, customary forms of tenure and social hierarchy mediate such processes in highly contingent and uneven ways. Markets in the lease and sale of land may for instance be arbitrated by customary structures, and patterns of production and exchange veiled by a 'vernacular' character (Chimhowu & Woodhouse, 2006). Indeed, several instances of my own study emerged whereby customary land was purchased by a neighbouring resident with the approval of the *induna*, though perhaps at a lower price than may have prevailed on the open market.

In South Africa more generally, the distribution of customary land was heavily defined by a process (rather than a moment) of extraordinary African dispossession under colonial and then apartheid auspices. Figure 4.1 below illustrates the frequency of original residential land acquisition in Madwaleni/Shikishela by small-scale sugarcane growers and tables the method of acquisition. Despite the air of traditional permanence cultivated by residents, it is notable that only a third of growers acquired land via inheritance, with almost two-thirds being allocated land from the *induna* within their life-time. As can be seen from the stark peak in the graph below, a vast majority of respondents acquired land between the 1960s and 1990s i.e. during intensified periods of apartheid-era dispossession and the relegation of black citizenship to rapidly crowded Bantustans. The paths by which

individuals and families sought refuge in Madwaleni/Shikishela, are however heterogeneous. Most growers cited moving most proximally from other customary areas or as former farm dwellers on white commercial farms, with the 1950-1970s relocation from St. Lucia/Isimangaliso reserve perhaps the most prominent form of widespread direct dispossession cited by some residents.

Figure 4.1: Year and methods of original acquisition of residential land



How homestead's residential land first acquired	Count	%
Inherited from parent	22	29.7%
Inherited from grandparent	3	4%
Allocated through induna	46	62.1%
Acquired from neighbour	1	1.4%
Purchased	1	1.4%
Gift	1	1.4%

The impact of sugarcane on land use patterns has undoubtedly been substantial, as displayed in the table 4.16 below[36]. While most homesteads own (73%) and use (58%) gardens on ≤0.5 ha for home consumption, only about a third (31%) devote fields to crops other than cane. Sugarcane thus accounts for 78% of total field crops and 48% of all non-residential land. Median land ownership as a whole stands at four hectares, but displays a significant range from 0.5 ha to 25 ha. Similarly, the median size of all different types of field is two hectares amongst those who own them, though mean sizes show greater diversity reflecting the wide range of absolute difference in land sizes. Average land sizes thus remain small compared to larger commercial producers but fairly substantial compared to agriculturalists in other regions considered 'small', while the range reveals that the size of land owned remains unequal.[37] This is further confirmed by the histogram in figure 4.2

[36] It is important to note here that land sizes were not actually measured, but premised on small growers' own estimates of hectares under cane. Respondents generally tend to struggle somewhat with enumerating the area of homestead land, but due to the need to register sizes with mill and the denomination of ploughing rates by local contractors in meters, homesteads were not altogether unfamiliar with 'hectare' measurements as such and are generally aware of the relative difference in size of their own land against those of neighbours. As such the figures presented here are likely not perfectly precise, but are more accurate in terms of their relational character to one another.

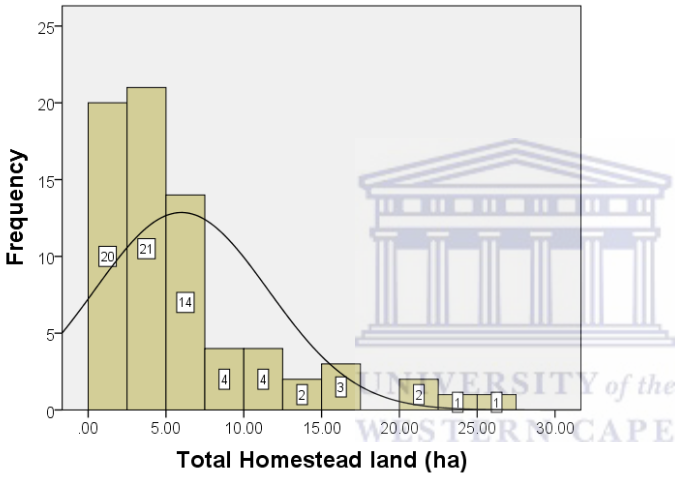
[37] Indeed, amongst vast differences in climate, soil, water and other agronomic endowments in addition to varying technical requirements of different crops/livestock and real values in different local, national and international markets, there is no common standard as to what

below, revealing substantial divergence in total land ownership from a statistically normal distribution.

Table 4.16: Aggregate and average measures of land ownership and use

	Owns (cropped in last year)	Average Size (ha)		Range (ha)		Total (ha)
	Yes	Median	Mean	Min	Max	Sum
Garden plot	54 (43)					
Adjacent sugarcane fields[38]	61 (56)	2	2.97	0.25	20	172.08
Distant sugarcane fields[39]	10 (10)	2.3	4	1	20	40
Other agricultural land1	55(19)	2	2.62	0.25	14	136.05
Other agricultural land2[40]	14 (4)	2	3.64	0.5	20	51
Total homestead land		4	5.99	0.5	25	431.38
Area under cane		2	2.9	0	20	209.08
Total cropped land		2.25	3.73	0	20	268.38

Figure 4.2: Distribution of total homestead land



In terms of use, table 4.17 shows maize cropping and grazing are the most dominant form of non-cane forms of field production. While homesteads might pursue a variety of crops in smaller vegetable gardens, only 16 homesteads had committed fields to maize, with eight other homesteads citing other individual crops. Notably, however, these figures underestimate the full variety of crops used in fields as the questionnaire failed to take account of intercropping with sugarcane (particularly of beans), which I noticed only subsequent to my survey's completion.

constitutes a 'small' farmer. A common range of 1 – 10 ha is commonly considered 'small', though in China many small holders operate on plots of a fraction of a hectare while in particularly arid regions definitions of 'small' can reach hundreds of hectares. Nonetheless, the 'average' size of landholdings in Africa and Asia was estimated to be 1.5 ha as of 1990. (Cousins & Scoones, 2009, p. 28; FAO, 2012, p. 1; Conway, 2011, p. 1).

[38] Cases here include 13 homesteads which had since stopped growing sugarcane at the time of survey

[39] Cases with distant sugarcane fields may also have adjacent sugarcane fields

[40] Implies ownership of 'agricultural land 1'

Table 4.17: Frequency of non-sugarcane field cropping

Crops	Count
maize	16
sweet potato	1
banana	1
beans	1
other	4
goundnuts	1

Cattle and goats were the only significant form of livestock production found among grower homesteads. As shown in table 4.18, nearly half (46%) of the sample homesteads kept cattle and around a third kept goats (34%), with nearly every homestead also having significant numbers of chickens primarily for slaughter and eggs. Amongst those who owned them, the mean number of cattle owned was five, and median eight. Based on homestead reports, it would also appear that aggregate numbers of livestock are in substantial decline, with annual deaths, theft and slaughter vastly outpacing births. Declining livestock numbers might be interpreted as something of a necessary consequence of committing land to sugarcane and thus lowering available grazing land, in addition to general drought conditions impairing the quality of remaining land. It is further worth noting that many livestock-owning residents claim there to be insufficient numbers of 'herd-boys', erstwhile in school or seeking employment opportunities elsewhere, to manage and guide cattle to various grazing fields. However, a possibility neglected by my survey is the degree to which growers' homestead livestock might emanate firstly from local non-growers and other producers further afield via ceremonial, barter and reciprocal relations in addition to commercial exchange, as has been observed of chronic under-representation of goat production in Msinga (Alcock, 2013). Although estimates of chicken ownership tended to be fairly rough, growers were more confident in estimates of their monthly (or in some cases weekly) slaughter and consumption, which on aggregate tended to be fairly high at 1,633.

Table 4.18: Livestock ownership and production

	Count	Mean	Median	Range	Sum	Born	Purchased	Deaths	Slaughter	Stolen	Sold	Net Change
Cattle	34	5	8	33	336	48	17	71	27	25	8	-66
Goats	25	8	6	20	183	41	9	111	39	55	11	-166
Chickens	70	26	15	440	1,845	518	69	443	1,633	50	99	-1,638

Nonetheless, as cane be seen in table 4.19, in nearly all cases livestock and non-cane cropping were utilized for own-consumptive (food or ceremonial) purposes, with very few instances of sales. Where sales did occur, they almost universally were made to local residents, with only one sale to a large-scale commercial farmer. While on the one hand

drought is a substantial factor in reducing homestead incentives to crop and livestock production, the persistence of sugarcane production (albeit at lower levels) militates against use of this as the only relevant factor. Indeed, comparison with data provided by the Africa Centre from 2008 (table 4.20) show the incidence (if not scale) of livestock ownership (excluding chickens) and sale to be almost identical to that found in Madwaleni/Shikishela, but conversely, though frequencies of non-cane crop sales remained very low, the incidence of non-cane cropping (including garden and field cropping) to be substantially *higher* in Madwaleni/Shikishela,

Table 4.19: Frequency of non-cane crop and livestock sales

Purchaser/ market	Cattle	Goats	Chickens	Maize	Bananas	Assort Veg	Sweet Potato
Local pension market	0	0	1	0	0	0	0
Neighbours	4	6	6	2	1	1	1
Commercial farmers	1	0	0	0	0	0	0
Family	1	0	0	0	0	0	0

Table 4.20: Comparison of livestock/crop frequencies with ACDIS

	DSA		SSG Survey	
	Livestock	Crops	Livestock	Non-cane Crops
Own consumption only	46.10%	44.20%	45%	74%
For profit	0.60%	2.50%	-	-
For both	9.40%	8.60%	12%	7%
Total with crops/livestock	56%	55.20%	57%	81%
No crops/livestock	44%	44.80%	43%	19%
Total households	10,728		74	

Source: (Muhwava, 2008, pp. 12-13)

While it is likely that the commitment of land to sugarcane cultivation has 'crowded out' other land-use possibilities to some extent, particularly in the scale of livestock production, comparative data provided by the Africa Centre suggests more of a 'crowding-in' effect premised upon the prevalent existing social, physical and economic infrastructure directed towards sugarcane production. Generally, in a context where wider homestead food purchases are made predominately at large chain-retailers in Mtubatuba with money from social grants, sellers of primary food crops effectively compete with cheaper processed versions of the same items supplied by wider agro-industrial food systems. The widespread presence of both such intractable competitive barriers and a widespread minimum purchasing power obviously militate against commercial production for local markets, and limits food cropping even as a subsistence compliment.

For small-scale sugarcane growers by contrast, the Umfolozi Sugar Mill (USM) provides a guaranteed, centralized and relatively accessible market, and

Madwaleni/Shikishela is certainly marked by the attendant gains of functional representative structures, local channels to funnel limited agronomic support, and an existing transport infrastructure. Despite the (considerable) difficulties inherent to all of these systems, their pervasive existence acts as something of a 'second nature' (Greenberg, 2011) and places commercial sugarcane production as not only a less risky proposition but also less costly. For instance, in the phenomena of 'split-loading' growers producing less than a full truck-load of cane may load onto the same truck and share the overall cost of long-haulage. The very fact that sugarcane is a widespread productive form thus lowers the risk and in some cases costs of choosing sugarcane over other forms of commercial landed production. Furthermore, comparison with DSA data further suggests that rather than coming at the expense of subsistence cropping, that sugarcane production may have *encouraged* the incidence (if not necessarily scale) of food cropping. Although the reasons for this are not clear, some possibilities may include the reservation of portions of fertilizer and chemical inputs and/or the simple extension in application of tools/labour already employed in sugarcane production to homestead gardens.

Indeed, even in Madwaleni/Shikishela the animation of petty-agricultural-commodity-production through integrated infrastructure and capital has not historically been limited to sugarcane production. Five of my respondents reported having had been involved in cotton production for a Jozini processor before its closure in the 1990s, which provided small-scale credit for inputs by the KwaZulu Finance Corporation and immediate cash-in-hand payment upon delivery to Mtubatuba. One grower (VM) illustrated a typical reported account of the experience:

> *"In 1982, VM returned to Nseleni for a two year work contract building bridges. When he returned in Madwaleni, he then entered a cotton growing scheme initiated by the KwaZulu Finance Corporation (KFC). Under this scheme he was given a loan, premised on the security of his crop, to purchase seed, chemicals and fertilizer. He consequently planted around 2ha to cotton with his family, though he also sometimes paid neighbours to help. Despite high input costs and stringent quality pricing, based on the size of the crop and its dryness, VM averaged around R3 per kg of cotton. For the most part, this money was only sufficient to feed the family, but after a particularly good crop in 1988, VM yielded R3000 worth of cotton, which he used to purchase a tractor. After 1988, however VM stopped growing cotton, and began experimenting with growing more lucrative sugarcane."*(Mr VM, 2011, pers.comm., Nov 11)

Nonetheless, the ultimate drop in small-scale dryland cotton production in KwaZulu outlined by Patel et al. (2006) and the closure of KFC's credit provisions for highly indebted small cotton producers raises serious concerns over the ultimate scope and durability of small grower supply of capital intensive agro-processors. Locating the structural position of small-scale sugarcane growers thus remains essential to understanding how and why small-scale

sugarcane production has persisted thus far, and the nature of the opportunities and constraints presented by cane.

4.9 Conclusion

The descriptive demographic and socio-economic evidence presented here highlights some of the continuities and divergences in the social reproduction of residents in the customary areas of rural South Africa, as well as some fairly distinctive trends among small-scale sugarcane growers. On the one hand, the trappings of customary life in Madwaleni/Shikishela appear upon first impression to be relatively stable: as in the apartheid era the population reside on small but unequal portions of land, the contours of tenure and social life more broadly defined under the dictums of custom. To the extent that the 'traditional' has collided with the 'modern', the impacts would overall seem to be slow but progressive, not the least in extending state educational, health and electricity infrastructure, and of course the circuits of gravel roads and loading zones linking Madwaleni/Shikishela to USM. However, just as the reserves/Bantustans were constituted by a unified albeit shifting economic mode and political regimes in the colonial and then apartheid eras, so has the basis of reproduction in the reserves undergone substantial shifts in the post-apartheid era.

Such a shifting basis is palpable even at aggregate and average levels. Perhaps most suggestive are demographic indicators which suggest a disruption of the patterns of largely male migrant labour which previously defined familial survival: almost all homestead members were listed as present most of the time, ratios of men to women were almost equal, and income from remittances marginal. However, on the other hand the reasons for this shift would appear to be far from the progressive result of more even or 'inclusive' economic development or a considerable redistribution of resources, but rather the stubborn advancement of unemployment, the structural nature of which is partially suggested by its persistence in the face of relatively higher levels of education. The 'classic' basis of Bantustan survival (a combination of subsistence agriculture and migrant labour – see Wolpe, 1980) has, so it appears, to have largely been replaced by basic subsistence allowance provided by social grants. While some analyses located the prolonged absence of male labour as a potentially critical reason for the 'under-utilization' of agricultural land, persistently low levels of cropping and livestock production (though perhaps under-enumerated) have continued under these more even demographic conditions. This suggests the main reasons behind 'under-cultivation' to be the inability of small farmers to raise landed production to levels of competitive productivity in South Africa's heavily capitalized agriculture more

broadly, and the mitigation of the subsistence imperative by the guarantee of consumptive day-to-day survival by social grants. It has similarly been suggested that the focus of the most remunerative old-age pension in senior homestead members has reinforced customary idioms of seniority among relatively aged homestead 'heads' as the locus of homestead consumption. For most homesteads, both structurally constrained in relation to accumulation but guaranteed a minimum level of subsistence, it would appear that hopes of social mobility are premised largely on the chance of employment, the probability of which increasingly requires, but is far from guaranteed by education.

Nonetheless, though bound by similar dynamics, small-scale sugarcane growing homesteads would appear on aggregate to have mitigated some of these trends. This is perhaps most evident in the overall higher levels of employment (particularly of 'formal' jobs not including sugarcane itself) and non-cane agricultural cultivation. While the causal connection underlying these patterns is not explicated by the patterns themselves, the recent decline in grower production and volatility of other previously 'successful' attempts to incorporate small-scale producers into capital intensive agro-commodity chains more broadly accentuates the need for a deeper and more considered analysis of the character of integration. Before taking a closer look at the indeed uneven impact of sugarcane production on its small-scale suppliers, it is thus first necessary to establish growers' structural position, and their relationship to the Umfolozi Sugar Mill.

Chapter Five: Small-scale growers and the Umfolozi Sugar Mill (USM)

5.1 Introduction

The most distinctive feature of contract farming and outgrower schemes is the governance regime that organizes relations between farmers (i.e. suppliers) and processor and retailers (i.e. purchasers). In Chapter Two I argued that this governance regime is constituted by a monopsonic market structure, the key enabling condition for purchaser control of production processes and enhanced claims on the relative surplus value of petty commodity producing and capitalist farmers. I also suggested that the relative importance of these two core characteristics in any particular contract farming scheme is strongly influenced by current market conditions in the relevant subsector – and in particular by whether the sub-sector is stable, expanding, or contracting. This in turn influences the way in which production is integrated, the degree to which costs are shed or dispersed, and the relative balance between these two mechanisms for maximizing profits. In Chapter Three I argued that the nature of outgrower sugar cane production in South Africa has changed significantly over time. Originally established by milling companies as an effective way to 'chase cane', to ensure an expanded supply for their capital-intensive operations, outgrower production was highly integrated and subsidized. In the wake of the restructuring of the regulatory framework of the sugar industry, subsidies were removed, production became less integrated, and costs were dispersed. The socioeconomic characteristics of the sample of Umfolozi small-scale sugarcane grower homesteads were then introduced in Chapter Four, which while suggestive, comprise largely static statistical descriptors.

This chapter thus seeks to deepen this initial descriptive introduction by interrogating the distinctive relations that constitute small-scale sugarcane production, the supply relationship with the Umfolozi Sugar Mill (USM), and how these have shifted within the wider history of the industry. Using a combination of sugarcane-specific data from my homestead survey, selected testimonies from accumulation history interviews, interviews with mill officials, transcripts of various grower meetings I attended and some secondary material, the relative decline of small-scale sugarcane production and tensions apparent in grower representative politics are located within the contours of a shifting set of contradictory relations. After providing a basic introduction to the ownership and commercial operations of USM and the representative structures formally governing the terms of small growers'

incorporation, fault-lines in the nominal 'partnerships' between small growers, large growers and millers are illustrated by a case-study of a failed project to introduce micro-finance. The next section seeks to re-construct the origins of small-scale sugarcane production in Umfolozi and its particular experience of the structural shifts reviewed in Chapter Three, which fundamentally altered initially highly integrated relations of production, marked by miller interventions in logistics and production, to far more dispersed supply relations.

The devolution of cane haulage logistics to contractors and greater responsibility over production to small-scale sugarcane growers has been framed as empowering. However, using evidence of dysfunction in transport, here I argue that 'dispersion' has simply heightened growers' exposure to the integrated commercial pressures and industrial rhythms of monoposonic USM, and deflected immediate tensions in the supply relationship to more socially proximate but commercially unstable local contractors. I further argue that this effective fracturing of *capital* in cane establishment and procurement has not been met with a corresponding 'flexible' intensification of the exploitation of *labour* from within and without the homestead, largely due to the enhanced consumptive foundation provided by social grants and hence mitigation of 'desperate' compulsions to cane labour for survival. Finally, rough costing data is provided to illustrate the scope of the resultant cost-price squeeze faced by small-scale sugarcane growers. Though flawed in some respects, this data is nonetheless effective in illustrating the limited average returns provided by cane, and hence its supplementary (even if important) role in the simple reproduction of small-scale sugarcane growers on average.

5.2 The basic structure and commercial operations of USM

USM and its supply area are somewhat unique, both in relation to the wider history of sugar production sketched in the previous section, and in terms of its contemporary position in the industry. Perhaps most distinctively, USM is not currently owned by any of South Africa's 'big 3' sugar producers (Illovo, Tongaat-Huletts and Tsb), nor has it for the bulk of its history. Incorporated in London on the strength of a government concessionaire as the St Lucia Sugar Co, the first Umfolozi mill was erected in 1916, though ultimately relocated after being devastated by floods twice in 1918 and 1925. From its initial establishment the mill was distinguished by its own rail supply system utilized by planters cultivating largely in the Monzi wetlands, but its most notable precedent was its ultimate purchase in 1923 by Umfolozi Co-operative Sugar Planters Ltd (UCOSP) spear-headed by planter and parliamentarian Sir Heaton Nicholls. As a consequence, the UCOSP mill was considered

largely an agent of its supplier-planters and further operationally distinguished from other mills as the first to adopt a sucrose-based system of payment, with planters thus receiving the price of sugar sold from their cane less the cost of manufacture, interest and redemption charges. The cooperative mill grew steadily after being rebuilt in 1925, expanding its capacity from 7,000 tons of sugar to 30,000 in 1937, purchasing a refinery in 1959, and reaching a capacity of 138,350 tons of sugar in 1988 (Minaar, 1992, pp. 40-46).

Critically, USM was purchased by C.G Smith/Illovo in 1992, but subsequently sold to Ushukela Milling under the Sokhela family trust in 2005; close on the heels of their purchase of the Gledhow mill from Illovo one year earlier. Framed largely as BEE motivated transfers, the two sales were something of a precursor to Illovo's ultimate pursuit of intensifying its continental expansion strategy, but by 2009 Illovo was compelled to reluctantly re-acquire the Umfolozi mill. The precise reasons for the re-purchase are not entirely clear, though mill officials typically invoke 'mismanagement' and suggestions that the Sokhelas had been unable to fulfil the terms of the original sale. Nonetheless, in 2010 Illovo shed the asset (sans refinery) once more, this time to a consortium of cane interests, and the mills' current owners. Of this group, the most dominant share block at 75% is held by GrowerCo equally owned by the local large-scale growers of UCOSP, the Umhlathuzi Valley Sugar Company (UVS)[41] and Charl Senekal, the single largest cane grower in the country[42]. The final 25% is held by NCP Alcohols[43], who also form the sole purchaser of USM's molasses by-product. Similar to the bulk of its history, USM is thus consequently once again predominately owned by cane interests responsible for 90% of its supply.[44]

[41] UVS core sugarcane interests include 3,100 ha of irrigated and dryland sugarcane lands in Empangeni, KwaZulu-Natal, and 1 000 ha of irrigated sugarcane in Komatipoort, Mpumalanga (Farmers' Weekly, 2011).

[42] Charl Senekals' holdings include 3,500 ha of irrigated sugarcane land and a further 16,500 ha farm in Mkuze in Northern KwaZulu-Natal (Farmer's Weekly, 2010). He also is notably an associate of President Jacob Zuma, was able to quell a 20,000 hectare restitution claim with the aid of hired ethnologists, and has since facilitated a deal to acquire 1 million hectares of land for South African farmers in Mozambique (Mail & Guardian, 2011; Mail & Guardian, 2010).

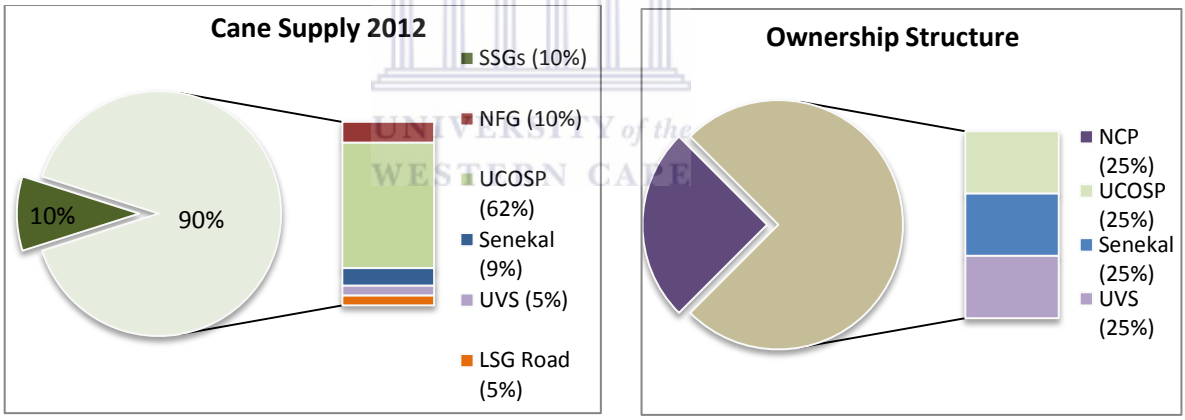
[43] NCP Alcohols produces a range of products including ethanol from maze and fertilizer from molasses. Its holdings notably include what was formerly Umgeni Distilleries Ltd, one of South Africa's first rum distilleries, acquired by National Chemical Products in 1944. NCP Alcohols was acquired by Alcofinance SA in 2001, a Belgian company part of the AlcoGroup, one of the largest alcohol trading and distribution organisations in the global ethanol market (NCP Alcohols, 2012).

[44] Although not systematically reviewed, casual conversations with growers on their perception of these ownership changes were somewhat equivocal. On the one hand, small-scale growers felt something of a social affinity to Sokhela as a black South African, a feeling encouraged by gestures of inclusivity such as offering tours of the mill's factory to small grower representatives who had never witnessed the mill's operations. Though Sokhela thus somewhat represented a narrowing of the social divide between black small-scale growers and previously white owners, the acute increase in mill breakdowns which occurred during his tenure raised doubt as to his capacity and willingness to run the mill, and growers certainly have welcomed the reduction in breakdowns since.

44 Sunshine Sugars originated as a Swazi sugar market quota-holder and was most notably responsible for spearheading the introduction of its 'Private Label' no-name brand sugar into South African retailers and supermarkets nationally. Following the introduction of limits on imported Swazi sugar and the removal of a 7% rebate for export into South Africa, Sunshine's Swazi quota and packing operations were sold to TSB in 2005 (Competition Tribunal RSA, 2005). Its current alliance with USM signals its effort to "establish and re-position the Sunshine Sugar brand and sugar products in the [South African] market" (Sunshine Sugar, 2013).

However, in contrast to its historical structure of ownership, the necessity of quickly leveraging sufficient capital for purchase has conditioned an ownership structure disproportionate with the scale of actual cane supply. As reflected in the tables below, though accounting for equal portions of 25% of shares each, UCOSP together with local New Freehold Growers (NFGs) account for 72% of supply, while UVS and Charl Senekal account for 5% and 9% respectively, with much of their actual submissions often 'diverted' to closer mills (USM, 2012a, pp. 23, 37). Nonetheless, to some extent, original capital contributions and sheer cane supply breakdowns underplay the extent of supply involvement; with Senekal's transport service Sentrans for instance accounting for 83% of all road deliveries to USM. Notably, although small-scale sugarcane growers are not currently represented in the ownership structure, a scheme is underway to facilitate small growers' own R10 million purchase of a target of around 10% of GrowerCo (and hence 7% of USM as a whole). A nominal condition of this scheme, however, is that small growers sustain their contributions of >100,000 tons of cane per annum.

Figure 5.1: USM's disaggregated cane supply 2012 and ownership structure



Source: (USM, 2012a, pp. 23, 37)

Since its cooperative purchase, USM's core foci have been amortizing the debt leveraged in its purchase, diversifying its marketing arrangements, investing in the maintenance of its capital operations, and expanding cane supply. In the first instance, around R30 million was contributed by each of the four shareholders' purchase of USM, whose reimbursement remains a top priority, and is expected to be completed around 2015 (UCOSP, 2012a). In terms of marketing, historically USM's two packing houses supplied bulk sugar in measures of one ton and 25/50kg primarily to SASA's shared export terminal while effectively recouping proceeds through the industry's shared market structure. By this mechanism, USM's production of around 7% of South Africa's sugar entitles it to a pro-rata

7% share of overall miller domestic and export proceeds, despite the actual export of the bulk of its production. Since the restructuring of the industry, however, USM has expanded its local client base and markets the bulk of its production directly. Most of its sugar is directed to other millers and industrial clients, with a smaller amount sold and repacked in its business alliance with Sunshine Sugars.[45] Though downward pressure from industrial and wholesale clients operating with 'just-in-time' buying systems prevents any miller from stockpiling product, a relative dearth of local sugar and prohibitive transport, exchange rate, and import conditions have conditioned reasonably favourable expansionary/competitive market conditions.

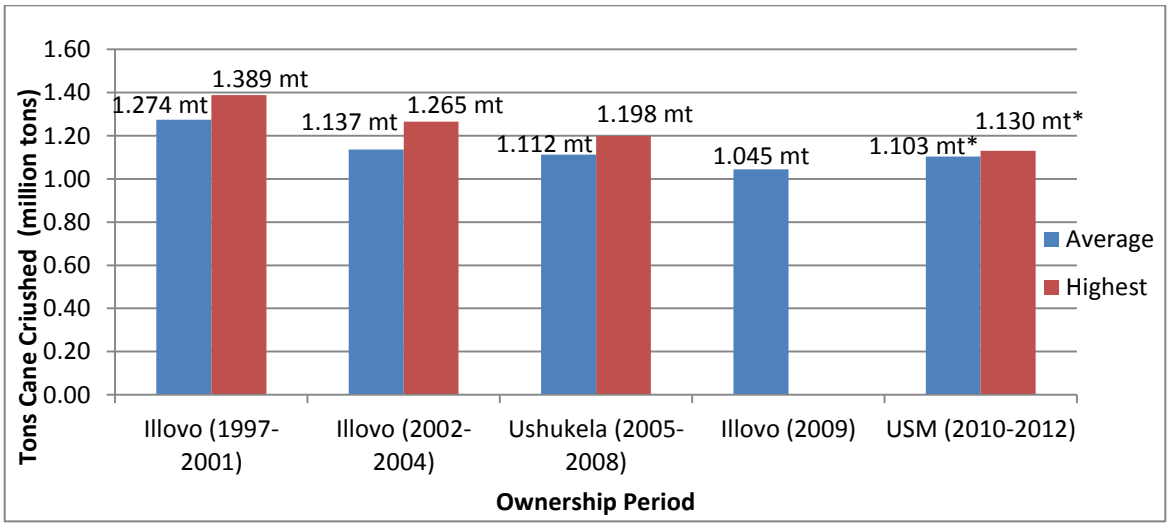
Nonetheless, in the context of a shared national market, conditions of commercial success are centred largely on maximising throughput. As elucidated by USM's commercial manager:

> *"There is a big push to increase cane supply industry wide. So it's not so much about percentage [of market share] as throughput. You got an 80-85% breakeven; you add another 5% of cane supply, that's an obscene amount of profit. This is well known throughout the industry. Let's work on a R100 marginal contribution. Marginal contribution refers to selling price per unit minus variable costs per unit. So once you have enough marginal contribution to pay your fixed costs, the next ton coming is pure bottom-line, obviously after you pay your grower etc. So if you have 800-million tons paying for your fixed costs [and] you can get another 50,000 or 100,000 tons at R100 a ton, well, do the numbers…"*(USM Commercial Manager, 2012, pers.comm., 20 April)

To this end, USM has focused on revitalizing the mill's core prerequisites for commercial success; maximising throughput in terms of crushing capacity and cane supply. As shown in figure 5.2 below, the total amount of cane crushed by the Umfolozi declined considerably since the late 1990s, largely as a result of a) drought-induced reductions in cane supply and b) lack of investment in the maintenance of the mill by Ushukela and Illovo. In terms of the later, though rain-stoppages remain considerable, re-investment in maintenance has substantially reduced the amount of crushing time lost to breakdowns, somewhat demonstrated by USM's slight reversal of the decline in total cane crushed in the graph below.

[45] Sunshine Sugars originated as a Swazi sugar market quota-holder and was most notably responsible for spearheading the introduction of its 'Private Label' no-name brand sugar into South African retailers and supermarkets nationally. Following the introduction of limits on imported Swazi sugar and the removal of a 7% rebate for export into South Africa, Sunshine's Swazi quota and packing operations were sold to TSB in 2005 (Competition Tribunal RSA, 2005). Its current alliance with USM signals its effort to "establish and re-position the Sunshine Sugar brand and sugar products in the [South African] market" (Sunshine Sugar, 2013).

Figure 5.2: Average and highest tons of cane crushed per annum by ownership period



*Does not include cane diversions to/from other mills.

Source: (UCOSP, 2012b)

Nonetheless, with steadily improving capital maintenance and crushing output, USM is now directing more attention to the potential of expanding its 'home' cane supply base (with an ambition of a 100,000 ton increase), both to reduce its reliance on more costly road deliveries and diversions and augmenting a greater area upon which to 'hedge' the risks of climate/drought. It is notable to recall that a significant portion of the decrease in USM's overall cane supply has come from the dramatic reduction in small-scale sugarcane production: in 2001 small growers accounted for around 400,000 tons of cane or approximately 25% of overall supply, but by 2010 only 101,000 tons were delivered by 36% of its 7,494 registered growers.[46] Thus, while at first glance small-scale sugarcane growers' contributions to USM appear relatively marginal, they are in fact a potentially critical component to boosting the USM's overall throughput, and hence its profitability. As observed by the commercial manager

> *"We are 1.3-1.5 million tons capacity. This year our target is 1.2 million tons. So we need to grow our cane supply by 150-200,000 tons. The reason we go above that is that in times of drought/issues you have surplus cane. Hopefully, around 80,000 tons of that should come from SSGs…Look at our history as a company. The first two years we had a surplus cane supply, and being a new company, we were focused exclusively on cash-flow, making sure we can pay our creditor, it was rough ride, but after we passed that initial hurdle, we started focussing on how to spend money on the factory so that it performs well and we get our throughput. So now our focus is on cane-supply. In hindsight, the cane-supply strategy should have led the way, because it's a 2-3 year plan to get there. But being a small organization you can't do everything at once."* (USM Commercial Manager, 2012, pers.comm., 20 April)

[46] Notably, in 2010 USM had the second highest number of registered small-scale sugarcane growers in South Africa, close behind Tongaat-Huletts' Amatikulu mill (which in 2010 had 8,357 registered small growers, 46% of whom produced 203,012 tons), and just ahead of the Tongaat Huletts' Felixton mill (which in 2010 had 6,055 registered small growers, 50% of whom produced 198,424 tons of cane) (SACGA, 2010, personal communication).

Indeed, despite the apparent lower performance of existing small-scale grower suppliers, and in addition to the various schemes embarked on by the Development Committee, USM has sought to expand its small grower supply base with new entrants in new areas as far North as Pongola. Yet though the gains from revitalising existing small-scale grower production and attracting/facilitating new entrants has the potential to be substantial, the challenge of monitoring and successfully coordinating existing large numbers of outgrowers is a great difficulty. As put by USM's cane procurement officer:

> *"So now you get USM coming in saying 80% of our cane comes from the Monzi growers, and 20% from the small growers, where is the big push [to improve cane supply]? But now they have re-looked at that and said 'hey we actually need that 20%', we need to grow it'. And I have been talking to [the commercial manager] and saying, 'hey, you need cane supply, you need to grow it out there'. But it takes people, and you now need to go to the Board of Directors to say you need a guy and a van…and they say "wait a minute, we are still a new company, still feeling our way…"*(USM Cane Procurement Officer, 2012, pers.comm., 20 April)

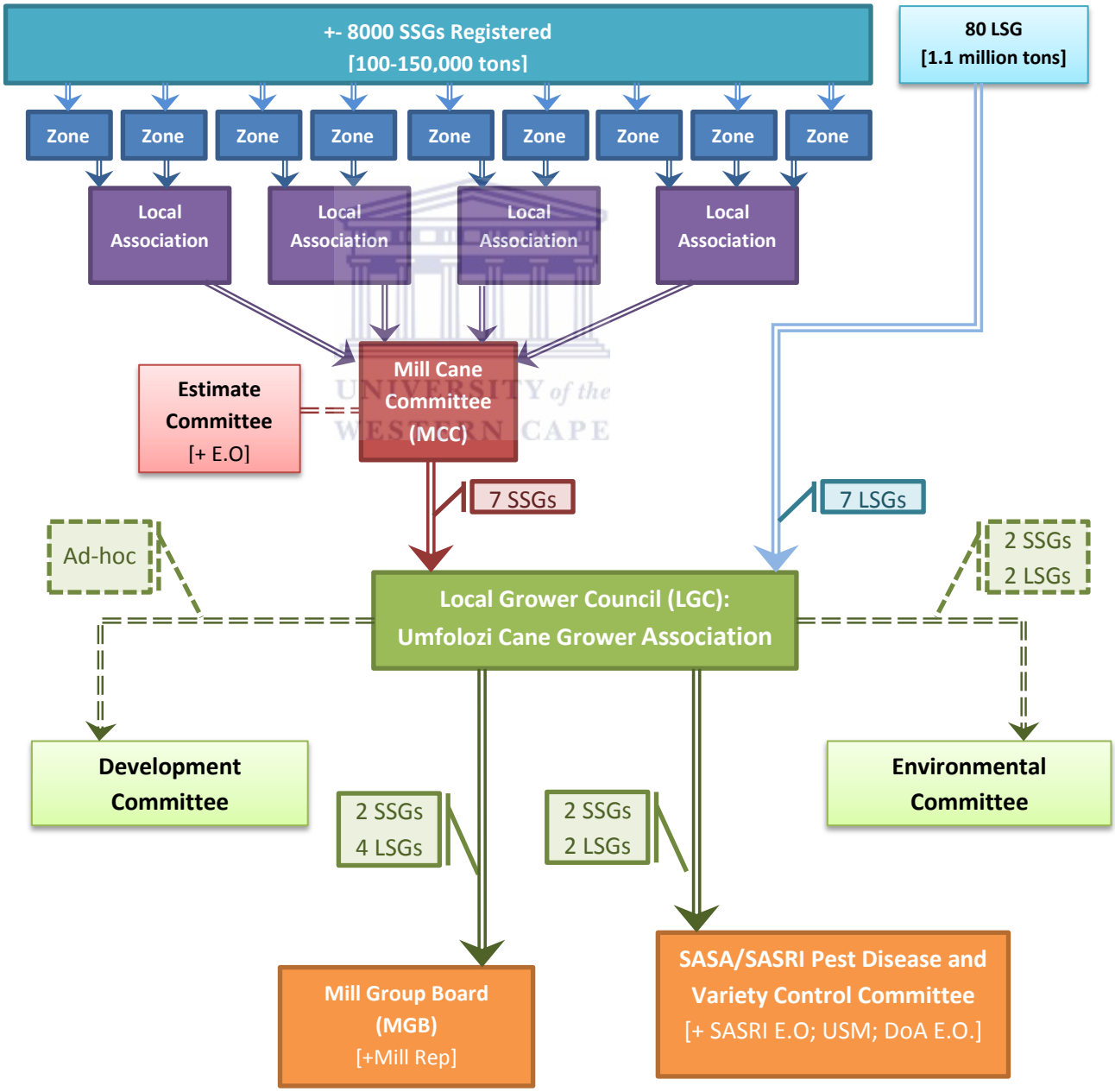
Without legally-binding contracts to enforce small-scale production, or the organizational capacity to oversee production in customary areas, the task of encouraging and coordinating small-scale growers is left largely to mediated engagement with small growers through an integrated representative structure. For USM, as for the industry as a whole, this fairly sophisticated edifice is reflective of a democratic 'partnership' between millers seeking to enhance throughput by augmenting their cane supply base and the landed-poor in need of scarce income opportunities. Yet despite such 'win-win' characterisations, tensions manifest at even this high stratum of engagement disguise a deeper complex of strained, and oft contradictory relations.

5.3 Representative structure

Since the formal amalgamation of small-scale sugarcane growers into SACGA, the highest local and perhaps most central tier of grower representative structures is formed by Local Grower Councils (LGCs) (see figure 5.3). Comprised of equal numbers of small and large-scale growers and a rotating chairmanship between the two, Local Grower Councils constitute both a local node of SACGA's national structures and the prime point of formal interface with millers. Despite the blurred line distinguishing 'millers' and effective large-scale grower owners, Umfolozi's LGCs (the Umfolozi Cane Growers Association (UGCA)) is thus itself comprised primarily by seven small-scale and seven large-scale grower representatives, as well as a Grower Support Officer (GSO) employed by SACGA, tasked with a variety of ad-hoc administrative and technical support tasks. The seven sitting small grower representatives are chosen from the ranks of the highest small grower representative

tier, the Mill Cane Committee (MCC). The MCC in turn is comprised of representatives from small grower Local Associations (LAs), themselves constituted by elected representatives from the membership of the lowest and most basic small grower organizational tier, local loading zones (LZs). For SACGA, in design the 'bottom-up' electoral process by which small grower representatives are chosen, and the equal powers and representation afforded them on the Local Grower Council not only militates against large-scale grower domination, but constitute the core features of a transparent, democratic and legitimate representative structure.

Figure 5.3: Grower representative structure



So democratically comprised, from within UGCA three key portfolio committees sit. The first, the Environmental Committee is comprised of two large-scale and two small-scale growers and deals with general issues of environmental 'sustainability' in regards to production (as opposed to wider ecological definitions).[47] Much of the committee's work for example, concerns flood control for large growers rather than ecological preservation. Similarly, UGCA further joins a Pest, Disease and Variety Control Committee (PDVC) with two large-scale and two small-scale grower representatives together with mill representatives and extension officers from both South African Sugar Research Institute and the Department of Agriculture, and is concerned primarily with communicating agronomic techniques and information about the most suitable varieties for different grower areas. The third 'Development Committee' is constituted ad-hoc on a project-by-project basis. The five most notable projects that were underway during my study included:

1. *SSG Seedcane[48] Scheme:* Most small-scale growers acquire seedcane by purchase from neighbouring large-scale growers and neighbours, which can prove to be costly and/or of an inappropriate variety. The seedcane scheme seeks to acquire several stretches of two hectares within small grower supply areas devoted to the continual production of seedcane of varieties adapted to local agronomic conditions. Seedcane will then be sold to small growers at subsidized rate, made cheaper by savings on transport offered by the close proximity to growers.

2. SSG Fertilizer Scheme:

   From March 2011 a rollout of 1,458 tons of fertilizer sourced from the Department of Agriculture was distributed together with SASRI to 2,378 small growers who delivered <200 tons of cane in 2010, at a rate of 1 x 50kg bag for every 3 tons delivered, and at a total cost of R8 million including subsidies for grower pick-up. Offers for surrender of the pick-up subsidy in return for delivery and application by contractors were universally denied.

3. *SSG Shareholding Scheme:* The committee was active in seeking to explore the possibility of small growers purchasing a 7-10% non-transferable shareholding in USM,

[47] Indeed, cane itself is an alien plant species, and LSG cultivation occurs predominately in ecologically sensitive wetland conditions

[48] Unlike most crops, which develop from seeds needing replanting, cane grows from stems yielding multiple harvests per planting. Under optimum conditions a single planting can yield 8-10 'ratoons' or harvest crops. The number of ratoons yielded from a single planting will vary according to a number of conditions, most basically: soil, rainfall, pests, disease, seedcane variety and maintenance.

mobilized by deductions from agreeing supplier grower's cane submissions. A condition of purchase however will be that small growers maintain a level of production of ≥100,000 tons under 'normal' conditions.

4. Micro Agriculture Finance Institute of South Africa (MAFISA): Following the end of UAF/FAF, UCGA was pursuing business-plan pilots conditional for the disbursement of government funds for micro-finance. Whereas in most supply areas millers had taken most responsibility, USM lacked sufficient personnel and had appealed to SACGA for support in taking the lead in design. The business plans were unsuccessful at the time of writing.

5. *Land Reform:* The Development Committee acted as a liaison in the 2009 purchase of 11 commercial farms by New Freehold Growers (NFGs), primarily by large-scale growers monitoring and mentoring the process with technical advice.

Notwithstanding these programs, perhaps the most fundamental point of interface for small grower representative structures is with the Mill Group Board (MGB), the explicit focus of which is on managing the logistics of cane procurement and hence ensuring a constant supply of throughput. At the centre of the Mill Group Board's governance responsibilities is the operational principle of daily 'rateable' delivery, by which the mill seeks to ensure a constant supply of cane throughout the crushing season without prejudicing different grower sections. To this end, at the beginning of every year each section submits an estimate of what it is likely to harvest for the year, and which is updated throughout.[49] Small growers are treated as a single 'section' and it is the responsibility of loading zone chairmen to collect estimates of individual small growers within his/her loading zone, and ultimately forward these to the Mill Cane Committee. From this estimate, each section is assigned a submission quota based on their proportional contribution of overall supply, which ultimately are made manifest in 'tickets' representing permission to submit and issued each Friday. For small growers, the tickets are issued to loading zones and fetched by loading zone chairmen which have placed a request to submit within the bounds of the sectional quota. The ticket system is further premised on a pre-arranged cession agreement between Local Associations

[49] Similarly, however, seasonal variations in cutting have an impact on cane quality and thus on an individual grower's ultimate payment, with winter months being the most optimal. In order to ensure evenly scheduled or 'rateable' deliveries throughout the year, the quality of any single grower's delivered cane is weighted against a monthly average, which is then used as a factor on all subsequent deliveries. If only one delivery is made, for payment purposes the delivery is nominally 'split-up' across the moths of the entire crushing season, weighted by the factor used in the delivered month.

and truck hauliers for transport from zone-to-mill, and who are then also informed of the zones requiring transport for the week. Small growers are then responsible for arranging timely harvest and transport from field-to-zone from local contractors, who call the hauliers once the cane has arrived in the zone.

Generally, growers retain a reasonably high level of participation in their local representative structures and high regard for their representatives, at least publically. Table 5.1 shows 82% of respondents reported voting in the most recent loading zone election at the time of survey, while 76% said they also voted for their local association representatives. Additionally, grower participation in election also seems to indicate a gradual increase in involvement over time, with greater numbers of growers not participating in previous years.

Table 5.1: Small grower participation in elections for local representative structures

Vote in LZ elections	LZ			LA			
	Yes	No	N/A	Yes	No	N/A	Don't Recall
2009	48	10	8	44	14	8	
2007	43	17	6	39	21	6	
2005	32	22	11	21	18	8	19

Similarly, for each of a select number of duties, table 5.2 shows well over 75% of growers said they regarded their representatives as operating in a competent and transparent manner. The only exception to this pattern was in regard to rates negotiated by local association representatives for truck-haulier contractors, to which only 54% regarded as open. This was not to say, however, that growers did not experience significant problems themselves in regard to any of the tasks listed, or that they were satisfactorily resolved. Rather, it simply notes that in growers' own view, any failings encountered were not as a consequence of the capabilities of the representative or their actions.

Table 5.2: Small growers' assessment of transparency of representatives

	Yes	No	Don't Know
Zone committee transparent in attending to grievances	47	14	2
Zone committee transparent in allocating delivery tickets	48	13	2
Zone committee transparent in allocating contractors	50	10	3
Zone committee transparent in mediating disputes with contractors	49	12	2
Local Association transparent in attending to grievances	46	11	6
Local Association transparent in mediating disputes with contractors	46	15	2
Local Association transparent in negotiating rates with contractors	34	25	4
Local Association transparent in informing on mill developments	44	17	2

Nonetheless, the nominally inclusive and democratic structure of small grower incorporation and their overall positive evaluation of their representatives disguise a far more paternalistic terrain of relations. To some extent these tensions are palpable even in the

perfunctory conduct of the meetings I attended, which were conducted predominantly in English and led and constituted primarily by the inputs of large-scale growers. The Mill Cane Committee's sense of institutional inferiority was moreover compounded by a number of other circumstances and events, including not being included in decisions in hiring administrational staff at local SACGA offices, not having access to notices which were emailed to members, the basing of special small grower events in the socially and physically distant Riverview country club, the shabby condition of the vehicle allocated to the Mill Cane Committee, and having little to no actual input or control over meeting agendas or the authorisation of funds. Indeed, though Umfolozi Cane Growers Association has a constitutional 50/50 delineation of large and small grower representatives and a rotating chairmanship between the two, for small growers such endemic patronization has undermined the democratic intent of both of these configurations; and there is even some speculation among small growers that large growers may be seeking to alter the proportions to their favour. Large grower representatives meanwhile tend to be tangibly frustrated by the disorganization of small growers and what seems to be their failure to apprehend the logistical and operational constraints of the committee and the mill, or appreciate the efforts of large growers in supporting and mentoring small growers at no direct benefit to themselves. The various local grower council meetings I attended were thus indeed marked by perfunctory courtesies strained by the heavy weight of such tensions, racialized undertones of mutual suspicion, and occasional muted flares of both.

Perhaps the issue most demonstrative of the tensions that I witnessed was the culminating failure of USM to secure government funds from MAFISA, as channelled through UAF. In light of the ultimate folding of UAF/FAF credit in face of high levels of debt and fraud, a conditional feature of the disbursement of MAFISA funds (at an estimated potential allocation of R1.5 million for USM) was that small growers form cooperative structures through which to funnel finance, and that these structures be underpinned by comprehensive business plans. Though nominally 'cooperatives', however, MAFISA did not carry any particular prescriptive conditions for the model of production, which could be undertaken collectively or among individual farmers. Rather its core impetus was to group proximate small growers within a loading zone area to ensure some level of mutual debt monitoring, and hence militate against incentives to 'cheat'. Unlike other mill areas where responsibility for drafting business plans was placed with the mill, a deigned 'lack of capacity' among limited USM staff saw SACGA specially delegate support from local and national office economists. The Mill Cane Committee was hence primarily tasked with

informing its constituent growers of the new scheme and encouraging uptake of the requirement for formal cooperative registration.

Among my own sample, a relatively high number of small growers claimed to have been in the process of registering as a cooperative, though slightly more than half of all respondents said they would not be interested in such a venture, as shown in table 5.3. For respondents showing a positive interest in co-ops, access to loan financing unsurprisingly formed the primary motivation, but overall almost all respondents cited difficulties in the length and expense of registration or a general confusion of what the process entailed.

Table 5.3: Membership and evaluation of co-op scheme

Co-op membership	Yes (N)	No (N)
Part of a co-op	11	55
Desire to be part of co-op	32	34
Reasons to join a co-op	(N)	
Access to loan finance	28	
Better access to inputs	1	
Access to other's labour	0	
Group cohesion	1	
Don't know or N/A	36	
Problems in joining co-op	(N)	
Process too long and expensive	6	
Conflict with other members	11	
Unsure of what to do	20	
Afraid of debt	7	
Don't know or N/A	39	

Indeed, generally small growers seemed unclear on the conditions of co-operative registration or its purpose beyond the fact that this might facilitate access to finance. For VM, a small grower who at his peak sustained 11 ha of cane under FAF, the prospect of finance was appealing even if the apparent top-down design appeared dubious:

> *"While growers have been told MAFISA will grant credit in the future, they have heard very little about it. They have been told that funds will be disbursed to cooperative structures so that if one grower defaults another will be responsible, and that they must register their names in this regard. VM has doubts about farmers with differential attributes forming cooperatives to offset default. Instead he thinks they should still disburse finance to individuals, perhaps with a signed witness to attest to the loan being advanced, or at least join with other farmers he trusts rather than just others in his Zone. Nonetheless he thinks credit is necessary, and is the only thing which can help to overcome the expenses of inputs and labour."* (VM 2012, pers.comm., 10 November)[50]

For the economists assigned, however, the onerous task of assembling 'viable' business plans proved vexing. In the first place, only 9 'cooperatives' managed to complete registration, three of which were selected as potential 'templates' for reproduction. However, during a

[50] Due to the very low levels of English literacy amongst growers and my own inability to speak Zulu, all interviews with individual growers were facilitated by the translation services of a resident research assistant. I chose to maintain the second-person tense to reflect this reality, though in transcription some vocabulary and grammatical changes were made where necessary or appropriate. The first-person tense was maintained for quotations from interviews or meetings conducted in English, or where translation was only made subsequently during transcription.

penultimate field inspection by UAF, small growers effectively nullified the content of the business plans by changing their original preference in production model, immensely frustrating the SACGA team:

> *"So those submissions went in at the beginning of this year. So Umthombo and SASA, with the MAFISA grant…because its dedicated to SSGs, there are a lot of hoops to jump through to access that funding, with business plans and what not. So for whatever reason, those criteria weren't met, and were returned. We resubmitted a business plan as a template and requested about R100,000 worth of funding. In compiling the plans, we had workshops with the growers to see if they wanted it as a co-op or individually through grower codes, and they explicitly said as this was loan finance they wanted it individually…So we had to go out and do the field inspections, inspect soils and agronomic inspections…compiled the document and sent it off to Umthombo, who agreed in principle but insisted on doing a field inspection first. Now the Umthombo guys came out to meet with the growers, but now [the SSGs] have changed their tune, they want to farm cooperatively, they changed the site altogether, and effectively the original plan is null and void. And how these business plans work is that, whether it is a recap business plan asking for R10 mill or R100,000 it is literally the same amount of work…. As the Development committee, we voiced this to MAFISA, but we are at the end of our tether"* (SACGA representative, 2011, Development Committee Meeting, 11 November)

However, having been tasked only with promoting registration this would be the first time the Mill Cane Committee chairman was made aware of the project's failure. The prospect of being party to and accountable for a necessary UCGA decision to turn down MAFISA funding was clearly bewildering:

> *"I don't know what to say, because we are representing people who aren't here. Now I don't know what to tell, them or who can help me tell them. I need someone who can stand in front of them and tell them this is the case, because as chairman I can't do that, I will be failing…because I said, we said, that this MAFISA thing here will have R1,3 million allocated to this mill, that they must apply, motivating them. I need someone else to tell them, because I am not in a position too. I need someone to write something down so I can read it. Because I have gone a long way promoting this. They have travelled a long way, wasting their money to apply. I even went to a MAFISA workshop in Durban, where we were told to work in cooperatives. Now you are telling me about one cooperative which has failed, what about others? We submitted ten cooperatives here, and we are throwing everything into one basket. What about people whose name was selected but they are not here?... The MCC selected about ten…because you said we must at least bring ten. Now I haven't heard anything about ten. I have been going around telling people the fund is there, and that we must accept it. I haven't been told we failed."*(SSG & Chairperson of MCC, 2011, Development Committee Meeting, 11 November)

Large grower representatives by contrast were far more equivocal. Without supporting business plans and conscious of low per hectare small grower yields, the high risk of on-lending precluded the only other possible option of the development committee itself administering the credit. Moreover, as small growers ultimately 'changed their tune', the failure was framed implicitly as a short-coming of small grower production despite the beneficial intent of SACGA and large-scale growers:

> *"We aren't saying it shouldn't be done or that it is right it ended up like this, but you need to realize that there is no one here who doesn't want it to happen. You also need to know that no-one is here for their own interests, everyone sitting here is here for your… poor… small-scale growers. I'm not here… for my own farming operation. And none of us are here except to support and encourage and do what we can to support the Umfolozi SSGs. It doesn't matter whether we are black or white or some other colour in-between. We are not here for any reason but to support the SSG, and find ways to do that. What we don't want to do is put a tire around the neck of the SSG and light that tire and say 'oh well it's the SSG it will make him feel better'. Because we know it won't. If we give a*

SSG a loan he can't repay, it would be the same as putting that burning tire around his neck" (Large-scale white grower, 2011, Development Committee Meeting, 11 November)

Ultimately, SACGA representatives attended a Mill Cane Committee meeting the following day to help the Chairman frame the failure, and assure the representatives present that a report specifying the relevant problems would be drafted. Most of the meeting was however spent dealing with other issues, and the Chairman made special note of the denigrating behaviour of the large-scale grower and administrational staff, some of whom were since suspended from the development committee.

Though perhaps ultimately doomed by inappropriate design in the onerous and somewhat dubious conditions of its requisite 'business plans', for SACGA, small-scale growers and large-scale growers, the aftermath of the MAFISA failure illustrated the latent faults in the nominally democratic partnership between small and large growers and the mill. Indeed, representative politics largely came to be defined by how the politics themselves were represented; of how a multiplicity of structural determinations could be ascribed to their most proximal agents. For large growers and the mill, failure was largely framed by what small growers *couldn't* accomplish, a near fatalistic story of the incapacity of poor, uneducated and parochial small growers to adapt to the technical requirements of production, though institutional failures carried somewhat greater weight for SACGA officials. For small grower representatives by contrast, the failure has been more defined by authority and resources that *wouldn't* be devolved by a dominant socio-ethnic class, and the material limits of rhetorical commitments to 'partnership'.

Underlying both narratives however is a conceptualization of an undermined small grower 'independence', whether by an alliance of large-scale grower/miller interests, institutional failure or undeveloped technical aptitudes. Yet despite such presumptions, as we have seen in Chapter Three, the basis of wider of small-scale sugarcane production was historically founded in direct interventions by millers to extend cane-supply to capital-intensive processing operations, and structured around a particular configuration of the industry's wider corporatist regulatory structure. Before critically examining the structural content of small growers' contemporary 'independence' and the basis of the tensions manifest in the MAFISA conflict, it is first necessary to attempt a partial reconstruction of the historical foundation of small-scale sugarcane production in Umfolozi, and its particular navigation of these shifts.

5.4 The shifting basis of small-scale sugarcane production

Just as USM's cooperative ownership was uniquely positioned within the sugar industry, the history of small-scale sugarcane production in Umfolozi is somewhat distinctive. The earliest instance of sugarcane cultivation in Madwaleni/Shikishela area has been widely attributed to entrepreneurial activity of the self-titled 'Group of Seven', at the centre of which was MPB and Mr S.[51] According to MPB, he began sugarcane cultivation in 1978 after consulting with Mr S, at the time working as a labour supervisor on a white commercial sugarcane farm. With Mr S' experience and MPB's access to his family's substantial land holdings, their initial planting of two hectares quickly escalated to 20 ha. Initially, USM refused to accept their cane directly, which instead was submitted via a white commercial farmer. Following an investigation, the mill authorities ultimately decided to accept their cane on condition that they were to form a registered cooperative through which to funnel payment, and thus with five other growers MPB and Mr S formed the 'Group of Seven'. Although MPB claims the group never received any credit via FAF, the mill did provide 'assistance' in the procurement of fertilizer and transport. Within five years of this pioneering venture, the mill began offering FAF credit services, and loading zones were constructed to accommodate cane from other growers.

Despite the early pioneering initiatives of the 'Group of Seven', however, the uptake of small-scale sugarcane production in Umfolozi appears to have been relatively gradual. Statistics provided by Minaar (1992) for instance indicate that whereas by 1978 the Felixton, Amatikulu and Ntumeni mills boasted 491, 1,622 and 13,777 registered small growers respectively, Umfolozi only had 4, and by 1989 this had only increased to 186 (Minaar, 1992, p. 162). To some extent this corresponds to the conservative nature of early mill approaches to small-scale sugarcane production; as recalled by the current cane procurement officer and former extension official:

> *"You see the industry was very clever. They could see the writing on the wall with this whole apartheid thing, [asking] 'what is being done to assist the rural people out there?' and then they said 'okay, we can make money out there'. And each mill started saying hey, 'we have to start changing our attitude, this isn't just a white man's business'. Around 1985-6 they started with extension out there. I'll be honest with you, at one stage the mill actually did the work with a team of tractors and trailers, at Umfolozi too, though I think some other mills still operate like this. They charged the grower, but they did the ploughing, sent out teams of labourers to plant. And the grower just sat and watched, came into the office and said 'where is my money'? ... So the mill then thought 'hey, we are force-feeding you guys, you don't even care about the cane there'. This was from around 1980, and so they then stopped around 1986. They turned around and said "right, who wants to buy these tractors?" Guys put their hands up, sold them the tractors, and said there. And a lot of the guys I'm talking about took those tractors and worked out there, and they made some money, but they are all gone now"* (USM Cane Procurement Officer, 2012, pers.comm., 20 April)

51 Full names have been omitted to protect respondents' identity

Secondly, black tractor owners now responsible for haulage and ploughing duties were instrumental in encouraging the uptake of sugarcane cultivation, and thereby expanding their client base. In addition to many new entrants first 'hearing' about the lucrative benefits of sugarcane production from black contractors, for particularly small-plot owners sugarcane cultivation was first initiated by way of the kinds of land-lease arrangements referred to earlier. In such cases, increases in grower numbers may simply reflect the registration of growers whose land was already under production by other registered growers and entrepreneurial tractor owners.

Finally, however, most growers interviewed reported pursuing conservative planting strategies, planting a small amount of land to cane and slowly expanding by reserving portions of each cutting for new plantings. Notably, very few growers claimed to ever have sought assistance from FAF/UAF, preferring to use returns from cane to fund expansion rather than risk indebtedness. Mill officials themselves estimate that credit was never extended to more than 25% of growers, and of my own sample only 28.7% (n=19) claimed to ever have used FAF. Notably, those interviewed who did ultimately undertake credit assistance only did so after already establishing substantial plantings of more than four hectares. Such conservative strategies thus may have also contributed to a 'lag' in production behind numbers of growers actually registered.

Despite the retraction of direct mill intervention in production following the devolvement of responsibilities to black contractors, however, mill section managers and field officers continued to exert strong influence over logistics in transport and harvesting, as well as oversight over applicants for FAF/UAF credit assistance. Paradoxically, however, the de-regulation of registration was accompanied by mill directives to rescind such oversight responsibilities:

> *"Though we were employed as extension officers, 80% of our time was spent chasing contractors, hauliers and labourers, to make sure the cane is in the mill within three or four days. The tickets, that's a full time job. And then the mill comes along says that's not what you are employed to do."* (USM Cane Procurement Officer, 2012, pers.comm., 20 April)

> *"They took that teaching away from me and told me to just go back and run my section. I had 3 guys underneath me. As the crop has gone down, they were pulled out from me, one by one. Eventually I was running the area on my own. As the estimate went down, they said it doesn't pay us to keep these guys on."* (USM Cane Procurement Officer, 2012, pers.comm., 20 April)

For mill extension staff, the eventual restriction of such services despite increases in the number of small growers was bewildering. However, despite acknowledgement that this was influenced by the mill's own commercial pressures, the origin of the retraction has largely

been read as emanating from disgruntled growers seeking the relaxation of restrictive oversight, particularly in criteria for credit assistance. That widespread default and fraud ultimately led to the closure of FAF/UAF's services has reinforced this viewpoint:

> *"FAF/UAF lent them money up front. The mill had the responsibility to manage that...Now when I started, this was in place. We the mill were the agents of FAF. We used to go out and say to this chap here, right 'you want to borrow money?'...we used to inspect his land as extension officers, make sure agriculturally you can grow sugarcane, that the infrastructure is there for the drop off...that is what the mill used to do…. So we the mill…and Umfolozi was one of the best in ensuring the money was paid back, because of the discipline of the office. But they complained we were too authoritarian in deciding who could have a loan, asking 'what right do you have to tell me if I can have a loan? You don't live out here or know me?' They then told FAF they wanted it changed. And they did…. So I backed off and told management, 'how can I be part and parcel of the fun and games out there?'. Eventually, UAF got to the point where they had lent out R100,000,000… The chairperson and secretary were even ducking and diving. So what happened? The hand that was feeding them, they [small-scale growers] cut it off. The finance institution helping them; they screwed it up."* (USM Cane Procurement Officer, 2012, pers.comm., 20 April)

For small growers by contrast, narratives of change are significantly different. For those who have lived through such different institutional relations of production, the reduction in support has been interpreted as a corollary of democracy and the decline of the KwaZulu state. As Mr G, a farmer from the original 'Group of Seven', and father of a substantial local contractor elaborated at a Local Association meeting:

> *"When myself, [MPB] and [Mr S] first got involved in the business of farming sugar it was under the apartheid government. I want to request, once again, that we go back to where we started under the apartheid regime... It was in 1979 that the first sugarcane farming business was established in Mpukunyoni. Just after we started, in 1980, there was a major drought which destroyed almost everything, including many cattle…. A white man by the name of Rosco who was the General Manager came and wanted to find out all those were had been affected by the drought the previous year. Some compensation funds were made available. We benefitted. I was given R15, 000 cash from the two hectares destroyed by the drought. This was not a loan. All one had to do was to go to the office, sign some documents and the money would be put into your bank account. I took the cash and used it for cultivation, buying grain. This was 1981, then it was '82, '83 and in '84 drought came and, once again, destroyed all our crops. For this, there was, once again a compensation fund that was made available. By? The KwaZulu government. This time around I was given R7,800. I took the amount, fixed my sugarcane and used the rest for my family. Now that was a government which, I say, was sympathetic to the aspirations and plight of farmers... I am sorry if there are some here who belong to political organisations. Then came 1994. The election came and we were made to believe the country was back to its rightful owners. We were told that the days of hunger and suffering for the black people were over. The years went by, and it seems as if they have forgotten about us as sugarcane farmers. I don't even want to discuss the other many problems facing others, I am just talking here about sugarcane farming. They have forgotten about us. This contrasts sharply with 1981 and 1984. Ministers of Agriculture have come and gone and not a single one of them has been prepared to listen to the views and concerns of sugarcane farmers in this area."*(Mr G, 2012, Local Association meeting, 18 April)

The origins of the withdrawal of small grower support in shifts of the industry's arcane regulatory structure thus remains largely obscure to both small growers who benefitted from enhanced support and the extension staff responsible for administering it. Most perniciously the outcomes of these changes have been causally interpreted as a direct by-product of democratic transition itself, whether in the extension officers' feelings of undermined authority and discipline, or in growers' sense of abandonment from government.

Nonetheless, the extent of service retraction has certainly been severe relative to pre-2000s levels. With extension support services confined to a joint venture between South African Sugar Research Institute and the Department of Agriculture, only two extension officers were deployed for the entire USM supply region compared to a previous complement of ten, and SACGA's local Grower Support Officer was often compelled to undertake agronomic support outside of her job description. Within my own sample, and as shown in table 5.5, few growers could recall the last time they had met with an extension officer and fewer had ever received training in cane production of any kind. The end of FAF/UAF's credit facilities has similarly confined individuated financial assistance to access to statements and a limited rotating savings scheme, which for most is both insufficient to cover recurrent costs and difficult to access timeously. Moreover, in the absence of tight managerial oversight, small growers experience substantial delays in haulage both from their field-to-loading zone by local tractor-owning contractors and from loading zone-to-mill by other private trucking services (see table 5.6). The most deleterious impact of such delays is on the quality of the cane measured by its sucrose content, which can fall substantially in the period between harvest and mill crushing.

Table 5.5: Availability and evaluation of extension, financial and transport services

		Yes	No	Don't know	N/A /missing
Extension Support	Could name extension officer	7	59	0	0
	Could cite last visit	14	52	0	0
	E.O advice suited to particular situation	12	54	0	0
	E.O visits particular field	12	54	0	0
	Able to implement advice	12	54	0	0
	E.O Provide Affordable services	4	62	0	0
	Ever receive training	6	60	0	0
Financial Services	Former member of FAF/UAF credit	19	47	0	0
	End of FAF/UAF hurt production	12	7	0	47
	Access to credit for cane	0	57	0	9
	Access to clear financial statements	43	20	0	3
	Member of UAF retention scheme	38	28	0	0
	Retention cover recurring costs	6	27	5	28
Transport	Delay in transport to LZ	20	38	0	8
	Delay in transport to mill	51	6	0	17

Table 5.6: Delay in accessing retention funds and transport services

Length of Delay	Retention	Transport	
		Field to LZ	LZ to Mill
No Delay	5	38	7
<week	6	12	27
<fortnight	8	4	10
<month	8	1	7
<2 months	1	0	5
1 year	1	0	0
Haven't drawn yet/own tractor complications	5	2	0
Don't Know	4	0	0
N/A/missing	28	9	10

Yet with the majority of small growers having first initiated production in the 1990s after originally high levels of productive support had already been curtailed, the experience of decline has been defined more by immediate pressures on production. A guiding point of orientation is offered by small growers' own identification of their most pressing problems/constraints, the frequencies of which are reflected in the table below.[52] Issues of climate (drought, rainfall, temperature) unsurprisingly featured very prominently among grower concerns, with 77% of growers citing it as a critical issue. However, it is notable that constraints of labour in cost and supervision were cited just as frequently, (though this does not necessarily mean that growers feel that labour issues are of equal impact as climate). Taking field-to-loading zone and loading zone-to-mill transportation together, transport delays featured third most prominently, being cited by 56% of growers. Moreover, as 'communication between growers and mill', 'lack of tractors' and 'mill breakdowns' impact growers most directly by increasing the time between harvest and processing, to some extent these can be taken as transport concerns which would bring the total up to 61%. Similarly, 30.3% of growers cited high input costs as a chief concern, but if 'pests' at 25.8% are taken to primarily constitute a matter of affordable inputs, the total number might be raised to 56.1%. Significantly, 22.7% cited competition with livestock as a key problem, and another 21.2% noted the particularly high costs of ploughing and land preparation as great inhibition.

Table 5.7: Most frequently cited constraints in cane production

Constraints	Responses (N)	%
Rainfall/Drought/temperature	48	77.2%
Labour too expensive/ supervision	49	77.2%
Delay in transport: LZ to Mill	29	43.9%
Delay in transport: Field to LZ	8	12.1%
Input costs	20	30.3%
Pests	17	25.8%
Cattle grazing Cane	15	22.7%
Too expensive to plough	14	21.2%
Communication between growers and mill	2	3.0%
Theft of Cane	2	3.0%
Too old to grow	1	1.5%
Lack of tractors	1	1.5%
Mill breakdown	1	1.5%
Accidental fires	1	1.5%
Bad Soil	1	1.5%

The confluence of these factors has certainly been severe for many growers. A typical account from NS, a widow from a polyganous marriage exemplifies this:

[52] Growers were asked to provide up to 4 of their most pressing constraints in order to assure that all problems were not given completely equal weight. Although a familiar list was provided and coded for, answers which were not pre-emptively coded for are also included.

> *"Now, however, [NS] only has 23 lines on about 1/8 ha (down from 3 ha of cane), and in 2011 only cut ½ ha. She says that the main reason for her drop in production was drought: as she received less money, she was unable to purchase enough fertilizer or hire enough labour for weeding. She doesn't know if things got more expensive because she would just buy things as they were needed, but she suspects that the tractors got more expensive, perhaps due to increased diesel costs. However, because she doesn't know how to use the cow for ploughing, she is dependent on the tractors, and because of decreased returns she couldn't afford to replant. Previously, she would use money from her Child Support Grant and Disability Grant to pay the tractor, while using the money from cane to cover other farming and consumption costs, but now she needs to use the grant for consumption. She said she would not take a loan for fear of debt, but still needs money to purchase fertilizer and to pay for labour, which she cannot get for free, even from her children. It is the same situation with her husband's other wives. Nonetheless, she hopes to slowly expand by using her current crop as seed cane."* (Mrs NS, 2012, pers.comm., 20 February)

Such pressures in many ways thus constitute something of a common list of farming concerns. Climatic vagaries, difficulties transport logistics, and cost-price squeezes afforded by high labour and input costs are of course well known concerns of large-scale as well as small-scale farmers. In one sense, such difficulties are concretely both 'objective' in the apparent generalized applicability of technical imperatives and ecological limitations in production, and 'subjective' in their relative impact on the idiosyncratic capacities of particular growers, and mediation by gendered and generational relations. But the shifting basis of small growers' incorporation also illustrates the intrinsically relational character of such problems and the significance of the manner of their mediation i.e. not just in the deep structural contradictions of the capitalist mode of production more broadly, but also in the structuring of particular productive forms. Indeed, while originating in the industry's arcane regulatory structure, the nature of small-scale sugarcane production has changed considerably from one of intensive miller oversight over relatively few growers, to the retraction or devolvement of such services over a much wider small grower base. Paired with a more inclusive representative arrangement, these retractions have been construed as democratizing, at least insofar as small growers wield greater control in production. However, a corollary of greater productive 'independence' has also been greater direct exposure to the myriad pressures of production, strictures which have not been rendered any more pliant by small growers' greater 'flexibility'.

5.5 The perils of 'independence'

5.5.1 Transport

Perhaps the most critical factor in this regard is the issue of transport, where the retraction of miller logistical interventions has left responsibility for the collection of estimates, timeous harvest and transport contracts to small growers and their representative structures themselves. In one sense, small growers' responsibility is treated as a parallel of greater

'freedom', 'independence', or 'flexibility' for growers in the wake of the retraction of 'authoritarian' miller interventions. A typical illustration of enhanced decision making is in small growers' capacity to choose among both long-haul service providers, and local black short-haul and ploughing contractor services. The underlying presumption is that such options will not only ensure productive efficiencies through competition, but that the use of local contractors is an encouragement for entrepreneurial activity, small-business and employment opportunities. However, the supposed openness of the system is controverted by the stipulation of 'rateable deliveries', the aforementioned sectional quotas premised on the mill's throughput capacity. Small growers' 'freedom' to make their own arrangements is thus ultimately conditioned by the industrial capacity of the mill, and successful submission is thus fundamentally premised on adaptation to these rhythms.

But such adaptations are far from seamless. The most palpable signal of small growers' difficulty is in relation with contractors, both long-haul and short-haul. As observed in the table above, long-haul truck contractors represent the most severe culprits, with 57% of growers reporting delays of more than a week. Though growers are able to choose and thus abandon particular hauler services, competitive pressures themselves have not resulted in any consistent reduction of delay. Perhaps the most obvious complication for large hauliers is the sheer scattered expanse of small growers delivering at different times. While regulations ensure that only one haulier will be chosen for a particular Local Association, cane scheduled for immediate transport/submission will often come not only from different Loading Zones, but also from different Local Associations. With some small growers from different areas supplying portions of their cane at the same time, delays are somewhat an inevitable consequence for large hauliers stretched over large areas.

The difficulty for hauliers servicing large physical areas however is accompanied by strain in coordination with local black contractors. Though often portrayed as 'entrepreneurs', the constraints of contractors are well known to the industry; a typical list usually including use of dilapidated machinery on poor infrastructure, insufficient timeous cash-for maintenance, highly variable grower-client bases, lack of business records, difficulties in mobilizing labour, and overall difficulties in the timeous coordination of transport (Le Gal & Requis, 2002, p. 90; Nothard, Ortmann, & Meyer, 2005, p. 406). These constraints have, as noted even in early studies by Cobbett, rendered contracting a commercially volatile operation punctuated by waves of boom and bust, circumstances which are familiar to surviving contractors of Madwaleni/Shikishela. Often using second or third hand tractors, and inhibited by 60km trips to Hluhluwe or Empangeni for spare parts, contractors find

themselves stretched thin servicing wide areas of fewer growers. As explained by two established contractors Mr M and Mr Z:

> *"prevailing prices are not enough because contractors have to travel long distances on poor quality roads and often suffer breakdowns, perhaps around 30 times a year. When a tractor breaks down he has to inform the haulier and the grower, and sometimes find a replacement…Right now Mr M has 3 tractors, but they are all broken at the moment. When a season starts, he tends to take out a loan from a local person who will demand 30% interest... There are also big changes year to year in terms of how many people he services, largely because the number of growers is diminishing, and because his tractors go in and out of service… He would prefer to get a loan from government, and if he can't will likely be compelled to stop."* (Mr M, 2012, pers.comm., 17 April)

> *"Mr Z says that contractors compete in terms of quality of service, but not in pricing. The price is set by the mill, and they have no say in adjusting it. At one point, he said they did have an organization of around seven contractors, but it broke up after misallocations of money for personal use caused a break-down in trust. Now Mr Z says that he services around 45-50 growers and earns about R41,000 per month. He used to earn around R80,000, but the drought has knocked many of the growers he used to service out of production. There also used to be many more contractors, around 12, but now there are only five… He says one of the big problems he faces is that he will have to service very disparate areas at similar times, having to travel from one area to another in response to calls from growers, and when the dates from the big trucks are set. He would much prefer it if they were able to do one zone at a time, but as they do not own the trucks, the contractors do not have a say."* (Mr Z, 2012, pers.comm., 17 April)

Similar to hauliers, a relatively few contractors thus face the prospect of servicing large areas with an ever-reduced number of grower-clients while stretching the capacity of their equipment. Moreover, while growers reported fewer instances and intervals of delay from local contractors, hold-ups in tractor haulage often operate to compound the delays of hauliers traveling farther distances.

Nonetheless, despite difficulties in maintenance and an overall smaller grower client base, a corresponding decrease in the number of contractors has also created opportunities. In the first place, though denied by Mr Z, SACGA insists that contractors do engage in collusive price-fixing by agreeing to never apply the lowest rate for short distances, and by misrepresenting to growers the actual distance travelled to the Loading Zone. Secondly, while nominal rates in transport are set by SACGA, rates in ploughing services are determined by contractors themselves. Unsurprisingly, contractors tended to say they preferred this less onerous service, and may effectively offset lower margins in transport with higher net gains in ploughing. Thirdly, however, a general dearth in contractual services for both ploughing and transport shifts the balance of market power in favour of contractors. Though often contractors present growers as the dominant party, two younger contractors, TN and SZ, both less than 30 years old and operating for less than seven years, reflected this reality in a more candid assessment of their competitive position in regard to other contractors and their grower clients:

> *"According to TN, ploughing is priced according to the land size on a per-metre basis. To determine the rate, contractors will get together and decide on a price on the basis on the per-litre price of diesel. Currently the diesel price is R14.98, and per-metre ploughing rates R17. He said it is okay if you privately give a grower a lower price, but unacceptable to charge higher. In transport, the price right now is about R48 per ton hauled, up from around R38, and is determined by the mill. Nonetheless they will go into negotiations with [the MMC Chairperson] in these regards. The only other time he engages with grower organizations is at Loading Zone meetings where growers voice complaints. He says that he thinks growers have more power generally, because they have the option of using your services or not. Nonetheless he says that there are few contractors, and that the people are desperate for quality services."* (Mr TN 2012, pers.comm., 15 April)

> *"SZ says that in principle contractors compete in terms of service, but he feels that in reality there is very little competition because the high cost of a tractor means there are far more growers than there are contractors. Often he finds there are more than he can handle and will pass some on to Mr Z, his grandfather…Nonetheless, some contractors do better than others. Mr Z does well because he has two tractors at his disposal, but Mr G is less successful because when his tractor breaks down, he can't afford to fix it. SZ said he, on the other hand, knows how to fix the tractor and save so that he doesn't wind up in that position."* (Mr SZ 2012, pers.comm., 18 April)

For many growers, the day-to-day tensions and contradictions of their relationship with local contractors are palpable. As acutely observed by one grower ZM:

> *"Contractors and hauliers are expensive, and often provide substandard services. For instance, when they crack the soil they plough very shallow rows, which reduces the number of ratoons you can get from one planting, say 8 instead of 15. Also, they do not pack the rows tightly enough, say doing 60 lines instead of 100 per ha, which means you plant less cane and get more weeds. A further problem is that growers must pay for transport in tonnage of cane, but only get paid for sucrose content. So if the grower's sucrose value drops from drought or transport delays, the grower gets paid less, but the contractor gets paid the same amount, even if they are late"*(Mr ZM, 2012, pers.comm., 21 February)

Nonetheless, typically both growers and local contractors tend to be publically muted about such tensions, preferring to emphasize their mutual interests and reserve criticism for the more socially distant millers and hauliers. As somewhat evident in the contractor quotes above, perceptions that hauliers exert more influence over determining transport logistics are wide and often accompanied by speculative rumours on their operation (for example that as Charl Senekal is a shareholder, Sentrans trucks are given preferential entry to the mill). While haulier delays represents the culmination of a compound of endemic under-capacity, their severity often results in local association representatives exerting their power to switch services. However, in failing to address the systemic root of delay, and in a context of few options in service provider, the exercise of such limited choice can be hopelessly circular. As observed by one mill official

> *"For arguments' sake, take Dukuduku which was hauled by Sentrans last year. Now [the SSG representatives] have come back saying they are kicking out Sentrans and brining Dorea back…you hear me saying back? Dorea was there before! They kicked them out and brought in Sentrans, and next year they'll kick them out and bring Sentrans!"* (USM Cane Procurement Officer, 2012, pers.comm., 20 April)

Indeed, from the perspective of mill officials, such moves amount largely to an attempt by unpaid local representatives to manage small growers' perceptions. More than just a

consequence of under-performing contractors, dysfunction is understood as the product of a lack of management and accountability among small growers and their representatives.

> *"This is how I see it. I did get involved when we had time…. Remember the MGB is given an allocation to the Zones. That haulier is signed an agreement with those zones. He knows the tonnage he has, and is given time-slots by the MGB to work out how to crush rateably… So it's a huge juggling effort…I believe it's up to the contractor to say, these are my customers, I have to move your cane in a week, Monday I will be here, Tuesday there etc… Because this is what happens as well: I will give tickets on a Friday, the loading zone chairman calls his growers on a Saturday, and they will ALL burn on a Sunday, even though that allocation is for a week, and the truck will only get there next Sunday…. But they don't do that. It drives me mad. They get their ticket and burn, and blame the contractor. The contractor is governed by the amount of cane the mill can eat rateably. So that's when the whole thing breaks down. And what is the zone chairmen doing? He is just giving tickets and saying 'burn your cane'. My second thing, is that, if that's the case, the Zone should ask: number one, who is going to cut your cane? 'Oh me and Inkosikazi.' And how long will that take? You and your wife will take five days, it won't be done on time. If he says he has a haulier, then number two, who is going to haul your cane from the field to the zone? If he doesn't have one, don't give him the ticket…"*(USM Cane Procurement Officer, 2012, pers.comm., 20 April)

> *"Yes, it's nice if you have four zones for an association to group them and do one area at a time, because its done nicely if you can get the labourers and tractor…but there is a problem with conflict. Say you have a field of two, I have a field of two, and the loading zone chair divides it between us…But now if there are 4 people, they will say no… you get 1, you get 1, I get 1, he gets 1. But now if someone doesn't put in a fire break and burns his whole field, he will prejudice someone down the line. When I was grouping it, and it was strictly controlled, it worked nicely…but when you do the four loads, you now are moving to the next area, and then you find the guy has burned his whole field; now you have six, there are two who will get prejudiced. And this is why my system fell apart. And maybe a grower is in some financial trouble, and will burn but tell you it's an accident….If you have your own farm; no problem. But with so many people…"*(USM Cane Procurement Officer, 2012, pers.comm., 20 April)

While nominally demonstrating an enhancement of small-scale grower 'independence', the delegation of responsibility over transport and ploughing thus ultimately represents an indirect but effective transmission of commercial pressures faced by the mill. Manifest in the necessity of 'rateable delivery', of course is the ultimate miller imperative to maximise throughput. Whereas in the early days of small grower production this logic was streamlined directly in miller mediation of production and logistics at zone-level, the rescindment of such services has not (and arguably cannot) been met with a corresponding flexibility in the system of 'rateable delivery'. Indeed, though growers technically carry the option of selecting their haulier and contractor services, this power is largely rendered moot by the determinate monopsony position of the mill. The devolvement of transport and ploughing services thus serves to embed the most proximate claims to grower surplus in unreliable but physically and socially adjacent contractors, effectively deflecting the direct cost and tension over their mediation and wider coordination to small growers and their own representative structures.

Notably however the overall dysfunction of the dispersion of logistics has to some extent precipitated a counter-movement towards re-integration by individual haulier services who have offered their own tractor services and administration personnel to oversee logistics. Though it remains too early to evaluate its durability, casual conversation with growers who

had dropped out of production indicate that the cheaper rates and more reliable services afforded by 'haulier-tractors' have provided a sufficient basis to recommence planting in some cases.

Even so, in the wider context of dispersion, logistical tensions ultimately manifest as a contradiction at the level of production. As observed by USM's commercial manager:

> *"It is chaotic, but the chaos runs from the bottom up at the zone level. There is no coordinated harvesting plan. Unless there is a coordinated harvesting plan, you can't expect someone to provide short-hauling at a viable price. But responsibility has to start with growers at their zones."* (USM Commercial Manager, 2012, pers.comm., 20 April)

The minutiae of logistical disorder in transport thus flows as something of an inevitability from the inability of large numbers of disparate small-scale growers to harvest, and thus produce as one. Though millers recognize that the ultimate source of such logistical turmoil is in the failure of small growers to match production with the rigours of the mill's throughput requirements, as they are neither able to provide the same levels of support nor willing to compromise the commercial imperatives of maximising throughput, the problem of adaptation is left to growers themselves.

5.5.2 Labour

Indeed, in addition to rescinding direct miller interventions over logistics and establishment, similar retractions in management of labour have effectively left small growers the task of managing production. In a context of high levels of wider unemployment, a common accompanying presumption is that more 'independent' small growers farming in former labour reserves have access to both the unpaid labour of family members and access to a wider 'reserve army' of cheap labour.

However, in reality small growers face considerable constraints in mobilizing labour. Indeed, particularly for small growers whose initiation of cane production was premised on miller interventions, such difficulties represent one of the foremost causes of decline. As illustrated by the parents of LG, the single-most highly paid individual in my sample:

> *"LG's parents started planting sugarcane around 1989. A black employee of the mill was coming around to people's homesteads counting their hectares, and registering those who wanted to plant. Eventually, a white person came with a tractor and seedcane. He hired local people and did all the initial work for a portion of the proceeds. This was not the FAF system, however, which only came later, and which his father never used… At that time they would use cow fertilizer to plant, although now there are rumours that this rots the centre of the cane and people only use chemical fertilizers. His family would work on the cane all day, and would only employ people when it was time to cut. Eventually they expanded to their full six hectares. However, this has now dropped to around two hectares, mainly because his parents could not find enough labour to maintain such large fields."* (Mr LG, 2012, pers.comm., 15 April)

More generally, as shown in table 5.8, in their own assessments almost two-thirds of growers claimed to experience labour shortages, from both homestead and casual labour, in six conventional tasks of cane cultivation. Growers' own understandings of the reasons behind these shortages tended to be unsurprisingly pejorative, but are still instructive. As shown in table 5.9, social grants were most commonly cited as constituting a disincentive to work in one way or another, with others believing that 'youth' (often but not exclusively referring to children within the homestead) simply aren't interested in agricultural activities, and others claiming that workers' wage demands were too high. Often these explanations were given in terms of moral failure, i.e. characterising labour as lazy and overly demanding. The irony of such statements of course, is that many homesteads and indeed small growers themselves are dependent on social grants for basic food purchases, and indeed for labour and inputs.

Table 5.8: Experience of labour shortage for select tasks

Experienced labour shortage in the past 12 months	Yes		No	N/A
	% of applicable	Count	Count	Count
Clearing grass	64.4%	38	21	7
Planting	63.8%	37	21	6
Top-dressing	62.3%	33	20	12
Chemical application	51.5%	17	16	30
Weeding	62.5%	35	21	9
Cutting	69.6%	39	17	9

Table 5.9: Grower explanations for labour shortages

Reasons for labour constraints	# of Responses	% of Responses
Social grant disincentive	21	42.0%
Youth not interested	8	16.0%
Workers ask for too much pay	13	26.0%
Age-related health complications	3	6.0%
Other	2	4.0%
Illness/ HIV/AIDS	1	2.0%
Other employment opportunities	1	2.0%
At school/ tech/university	1	2.0%

Despite the irony of such rather derogatory assessments, however, such comments nonetheless provide a critical insight into understanding small grower labour regimes. In the first place, the relatively large average homestead sizes noted in the previous chapter do not represent an unproblematic reservoir of 'free' labour. Many small-scale growers reported great difficulty in disciplining family members into cane production, both from adults seeking other opportunities and children otherwise in school, encapsulated in the testimony of NB and her husband.

> *"As NB and her husband do not use poison, they also face difficulty sourcing labour, particularly now that they are getting too old to work. They are currently looking after two grandchildren, one young boy in grade eight and a young girl in primary school, but they cannot help on the cane fields, spending almost all their time at school.*

> *Moreover, their sons who are employed never help them with anything. One is unemployed and living at Dukuduku, another one is employed in Durban as a security guard, another in Vryheid as a labour supervisor at a game reserve, and the last one is principal at Madwaleni Highschool. NB suspects that it is the wives of her sons who intervene to prevent them from sending any money."* (Mrs NB, 2012, pers.comm., 20 February)

Furthermore, in the presence of such difficulties it is not uncommon for small-scale growers to pay homestead members for their labour. In the case of NZ quoted earlier, this is largely a consequence of a lack of control. However, family members may also represent the object of investment of cane proceeds as well as the labour employed in its cultivation. As exemplified by the case of AZ, a widow who uncommonly claimed to rely exclusively on homestead labour:

> *"It was with savings from sugarcane that AZ would put her children through school and university (costing around R4000 per annum). AZ never hired in any additional labour, undertaking all the work herself and supplemented only by the paid labour of her son and two daughters during school holidays. One of her daughters, however, died of HIV, while the other moved away after graduating from the University of Zululand to live with her husband. AZ however, doesn't think that her children will follow her into cane, who only work when they are paid. They are focusing on amassing cattle for* lobola*, but she doesn't know where she will get the money to purchase the cows."* (Mrs AZ, 2012, pers.comm., 17 February)

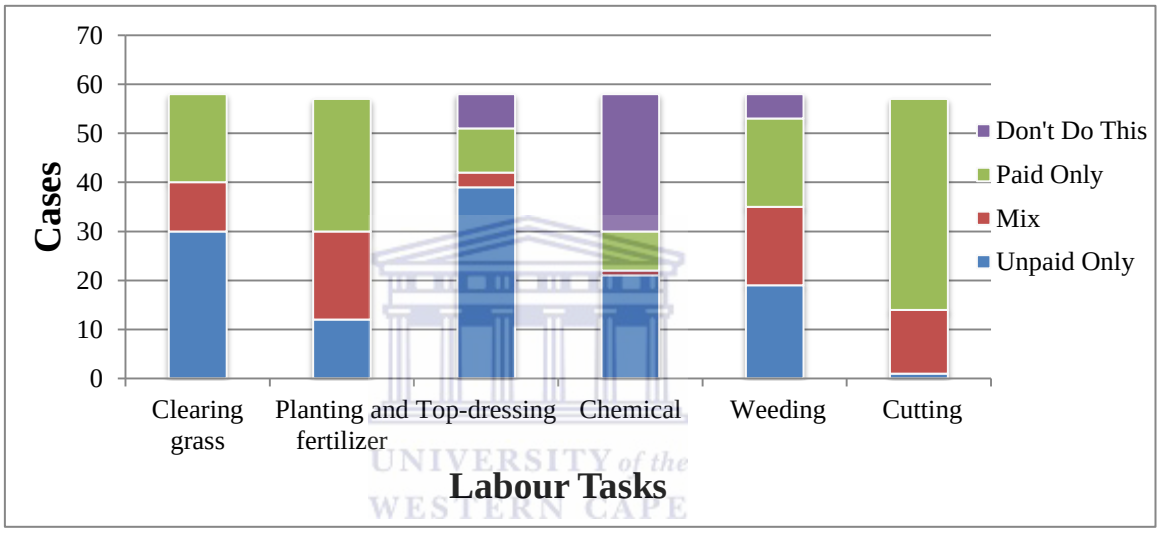
Such difficulties in sourcing and disciplining sufficient family labour from within the homestead thus compels small growers to hire labour from without, and has conditioned labour regimes to be highly heterogeneous. On the whole, table 5.10 shows that small-scale growers reported relying on unpaid homestead labour more than any other combination, and relied on both paid and unpaid homestead labour more than mixing with casual labour. However, disaggregation by task reveals that reliance on homestead labour alone (paid and unpaid) is most highly concentrated in the less arduous tasks of clearing grass, top-dressing and chemical application. More arduous tasks of planting and weeding cane meanwhile were far more likely to be accomplished by a mix of homestead (paid and unpaid) and casual labour. Perhaps most notably, homesteads relied almost exclusively on casual labour or a mix of casual and homestead labour for cutting; which is not only the most physically demanding task, but also the most critical to ensuring timeous coordination with transport.

Table 5.10: Type of labour used by task

	Labour Task						
	Instances Total	Clearing grass	Planting and fertilizer	Top-dressing	Chemical	Weeding	Cutting
	Count	Count	Count	Count	Count	Count	Count
Unpaid homestead labour only	122	30	12	39	21	19	1
Paid homestead labour only	35	9	10	4	1	9	2
Homestead Only Total	157	39	22	43	22	28	3
Unpaid homestead labour & casual labour	61	10	18	3	1	16	13
Paid homestead labour & casual labour	23	3	10	0	0	2	8
Homestead & Casual Total	84	13	28	3	1	18	21
Casual labour only	66	6	7	5	7	7	34
Don't Do This	40	0	0	7	28	5	0

Indeed, these patterns are somewhat more stark when displayed in terms of labour which is wholly paid (casual and homestead), wholly unpaid or mixed. As can be seen from figure 5.5 below, only the tasks of clearing grass, top-dressing, and chemical application displayed high levels of unpaid labour exclusively, while weeding, planting and cutting all employed paid labour, whether exclusively or mixed with unpaid homestead labour. It is further notable that whatever the combination, most growers claimed to attempt all of these relevant tasks except for chemical application, and to a lesser extent top-dressing and weeding.

Figure 5.5: Type of labour used by task



The tendency for small growers to rely on paid homestead and casual labour for more arduous activities might be understood in the mainstream economic parlance as the 'opportunity cost' of cane labour. To some extent, this can be interpreted as a positive signal of relative 'development', both in the availability of more remunerative activities elsewhere or the ability of small growers to afford payment. However, reliance on paid labour may equally be a sign of relative homestead *fracture* or fragmentation, i.e. the relative difficulty of financially and socially sustaining family cohesion and hence involvement in cane.

The relative availability of casual labour lends some insight into unpacking this dilemma, central to which has been the emergence and prevalence of social grants. Perhaps most foundationally, in providing a consistent consumptive base, social grants have certainly appeared to reduce the imperative to casual labour from neighbouring homesteads. For TN, one of the younger contractors, this outcome is explicit:

> *"After the cotton processor closed in 1991, TN's homestead switched to sugarcane on about two hectares, selling a cow to purchase cane and using cattle to plough their land as before. Initially they used to hire about 10 women and others from neighbouring homesteads for weeding and cutting, but when social grants came labour was harder to find, and some members of the homestead would have to cut on neighbouring homesteads in order to maintain reciprocal labour relations. The homestead has slowly been expanding their area under cane production, hitting 14 ha last year. Nonetheless, since 2009 they purchased their first tractor with sugarcane, and no one in the homestead has had to seek employment."* (Mr TN, 2012, pers.comm., 15 April)

Even where social grants are not explicitly cited, small-scale growers nonetheless note a significant shift in the socioeconomic source and demographics of available labour. JM, a third-wife who has been financially cut-off by her husband, illustrates a common response that labour is found increasingly from other cane growers similarly facing labour constraints and individuals not qualifying for old-age pensions:

> *"When JM's husband first started sugarcane, they used to hire individuals of both genders from the Shandu, Khumalo, Mfekayi, and Peers homesteads, which didn't have cane and only a small amount of land for food. In those days the youth outnumbered the old and tended to weed and not cut, but no one from her family homestead worked on other people's fields. Now Janet alone is responsible for her 2 hectares. Weeding is accomplished primarily by JM and her children, but they have to hire labour in order to harvest on time. This is more difficult now as labourers who normally did the cutting grew too old or died, and the younger ones tended to not be interested. These days she would hire TM (f, 60); Ma M (f, 65); Ma N (f , 40); Ma K (f, 63); and N and MN (m, mid 30s), all of whom have very little land. Ma herself sometimes will also help these mamas to cut their cane, and though she gets paid, the main reason is to maintain reciprocal labour relations"* (Mrs JMk, 2011, pers.comm., 13 November)

Furthermore, the few small-scale grower homesteads where wages formed a principal basis of survival were marked by the absence of old age or disability grants. Even in these cases, however, child-support grants formed a critical component of homestead's consumptive base.

> *"TS first started growing sugarcane in 1999. He had seen the money people had received for it and initiated an agreement with Mr M, who agreed to plough and plant 0.5 ha in return for payment after the first cutting...The labour was done by him and his wife, though he would hire for cutting from M's children and one young man from the Mthiyane homestead... TS still works on other people's cane, but says this is getting harder as he gets older. Moreover, his wife stopped working on cane years ago, but he doesn't know why. His children do not work, because they are at school. The homestead receives two CSG, but this is not enough to sustain the homestead on its own, though he thinks it will get easier when he gets old enough for a pension"* (Mr TS 2012, pers.comm., 15 April)

> *"When SN's family moved to Madwaleni on 1ha when her grandfather died in 1973. Here she, her mother and siblings all worked as wage labourers on neighbour's cane farms, applying fertilizer, planting and cutting cane. They put this money to food and clothe purchases, but often did not have enough to eat. In 1984 she met her second boyfriend and had 3 boys and one girl by him, but he left in 1992 to seek work in Pongola and never came back after finding another wife there. However, before he left he gave SNanother hectare and SN struck a deal with a Mr M, who agreed to plant the cane and take the proceeds from the first cut, but allow SN to keep the subsequent ratoons, and a Mrs Sambothi, who allowed her to submit cane on her code. All labour on her own sugarcane plot was done by SN and her children, except cutting…Although the money helped, it was not enough, usually covering food purchases for only about a month, and Sarah continues to seek wage work on other people's farms…. She says she does not know how her children will survive in the future, but doubts they will earn a living from cane, which is hard work."* (Ms SN, 2011, pers.comm., 14 November)

Such testimonies indicate that though providing a consistent and reliable consumptive foundation *within* homesteads, social grants have similarly compressed the differences of relative deprivation *across* homesteads. For the individual homestead, this on the one hand

serves to problematize the naked exploitation of family members, who are thus able to count on reliable food purchases and may legitimately resist arduous cane-labour in favour of other prospective income or educational opportunities, whether these are actually found or not. In effectively mitigating the 'dull economic compulsion' to cane labour within the homestead, however, social grants have similarly pulled most homesteads above the threshold of desperation at which wages from cane form a principal component of consumption. This is perhaps most evident in the fact that only homesteads who did not qualify for the higher income old age grant ever claim to engage in casual cane labour as a matter of survival.

Despite the lack of a reservoir of easily exploitable neighbours, however, the necessity of timeous harvest for transport conditions calling upon supplementary labour as a necessity for *all* homesteads. For many homesteads, engagement in cane labour for neighbours is thus somewhat ironically driven less by wages and more by promise of its reciprocation. For a few with sufficient resources, more readily exploitable labour can be sought further afield. In the case of Mr Z, casual labour is contracted from other areas from people "who do not have cane, and who survive principally off of him". Similarly, in the homestead of IM, a desperate 44-year old man of the same clan-name was subsumed into the homestead as a permanent supplement to domestic and agricultural labour.

Perhaps as a consequence of the combination of the imperative to source paid labour and the difficulty of affording it, the wages offered by small growers tend to be low but variable. In the table below, the number of cases (N) of each payment method show that growers tended to use the same method of payment for any given task, though with some deviations. In weeding, for example, most growers (24) reported using a per line method of payment, though two growers chose to use a per-hectare method, and five chose a per day method. Nonetheless, within the more common methods of payment, the range of wages tended to be wide.

Table 5.11: Method and amount of payment per labour task

		Per line	Per ha	Per day	Per stack	Per field	Per person
Clearing Grass	N	16	2	7	0	1	1
	Mean	15	250	30		200	25
	Range	10-20	200-300	10-100		200	25
Planting	N	9	1	33			
	Mean	12	120	21			
	Range	8-20	120	10-35			
Top-dressing	N	2	1	7			
	Mean	10	200	15			
	Range	10	200	5-30			
Chemicals	N			6			
	Mean			53			
	Range			20-100			
Weeding	N	24	2	5			
	Mean	14	450	24			
	Range	10-20	300-600	15-35			
Cutting	N			1	55		
	Mean			50	46		
	Range			50	20-55		

The lack of wage compression in particular tasks thus suggests that wage agreements between growers and paid labour, whether from within or without the homestead, are fairly contingent on their interpersonal relations of relative bargaining position, social authority and reciprocity. Growers labouring primarily for reciprocal labour relations tended to have a fairly flippant regard for the actual amounts paid, particularly in comparison to those received on large commercial farms:

> *"When Ma K started growing in 1999, she also began working on neighbour's cane fields so that they would help her when it was time to cut. In those times it was about R20-R30 per stack, which she would spend on small things. The white-man's cane farm used to pay a lot more."* (Ma K, 2012, pers.comm., 16 April)

However, for those whom cane wages represent an important survival component, wage negotiations entail more consideration of the relative difficulty and scope of work, as well as the relative social position of the labourer. Indeed, much like contractor's invocation of determinant hauliers, the testimony of MG a 23 year-old female illustrates how small growers themselves can invoke the scientific mystery of 'the mill':

> *"Payment in weeding is largely given on a per line basis. The grower will offer a price and the worker will have to consider whether this is worth it. Haggling is usually premised on how many weeds there are in the field. The price used to be about R10 a line, but now it is about R15 on average. She said that this increase was based on what the growers were informed to pay by the mill"* (Ms MG, 2012, pers.comm., 16 April)

While variable wages remain too low to form a significant basis of savings beyond food purchases for homesteads without old-age grants or substantial employment, payment of

labour nonetheless stand as a considerable cost to growers. Indeed, despite dismissing the wages she received in cutting, like many other growers, Ma K also cited the high cost of labour as a chief constraint. As has been already noted above, it is the cost-price squeeze that the culmination of dysfunctions in transport and difficulties in managing labour are most profoundly felt.

5.5.3 Production Costs

While high costs are a common complaint among all farmers, big and small, rough costing data from my survey and production and data provided by SACGA suggest particularly tight margins for small-scale growers. Before presenting these results, however, several caveats are necessary.

In the original design of my questionnaire, a key ambition was to gather data from which I could to establish rough calculations of small growers' profits in order to gain some insight into relative livelihood contribution of sugarcane. This goal was underpinned by the knowledge that I would be able to retrieve annual production statistics from SACGA for growers who agreed to provide me with their identifying six-digit production codes, and hence have accurate overall revenue data. Generating rough calculations of profit would thus simply be a matter of collecting exhaustive annual costing information to deduct from revenue. However, several fundamental problems undermined this objective.

In the first place, many growers could not acutely recall all manner of their annual production expenses for all labour and input processes. In cases where growers felt fairly confident estimates were often made, but in many cases growers felt too uncertain to even make a reliable guess. Costing data thus tended to be somewhat piecemeal, with some growers remembering some costs in detail but not in others, and thus data is spread unevenly across different costing categories.

A second and more important failing however stemmed from my design of the questionnaire. The most critical failing was an assumption that growers cut ratoons of their entire fields annually, though in reality growers may only cut fractions of their fields at different stages of growth or according to available ticket allocations. This created a considerable tension in translating data collected in *annual terms* into *per hectare* expressions, and some estimates from available data and secondary source material had to be made.[53] Nonetheless, with these estimates taken into consideration, the results compare

[53] For labour tasks and input applications that tend to be applied to entire areas under cane regardless of the stage of production, as in chemical application and weeding, division by growers own estimates of area under cane were expected to be reasonably accurate. A similar approach was taken in the case of planting, which due to my prior assumption had been asked in terms of growers' total area under cane,

favourably with SACGA's own costing investigations, suggesting that either that these calculations and estimates are reasonable, or that there is something of a 'consistency of inconsistencies' between both. Another consequence was that gross annual revenue data provided by SACGA could not be translated into a per hectare basis, and thus is not directly comparable with my costing data. Finally, accurate transport cost data could only be gleaned in cases where small growers were able to furnish receipts from their most recent submission. Such receipts only identified gross revenue before and after the deduction of transport costs and administration levies, and consequently transport costs could only be established as a proportion of the most recent submission, but not an annual or per hectare basis. Nonetheless, though not fully comparable, these figures do provide insights in their own terms, and are worth consideration.

In terms of production data, perhaps the most striking indicator in table 5.12 below is the low sucrose content of small-scale growers' cane, standing at a maximum of 8.55% and a mean of 7.37% against an industry average of 14.14% (SACGA, 2011, p. 7).[54] Such a flat range of low quality suggests a universal factor suppressing small growers' sucrose values apart from idiosyncratic differences in ability and resources. While drought presents itself as the most obvious factor, the substantial transport delays already reviewed are another likely candidate. Regardless of which of these is more prominent, however, the upshot of such flat quality levels is that differences in revenue among small growers are thus almost completely based on gross tonnage submitted, and thus the total land under cane. Consequently, gross revenue for 2010 exhibit a very large range, from around <R1,500 to <R60,000, with average returns <R12,000 in mean terms and <R7,000 in median terms. Notably, 5-year averages are significantly even lower at R9,192 and R5,997 in mean and median terms respectively.

despite in reality being impacted by different stages of production. In terms of seed cane and harvesting costs that were requested in annual terms, estimates had to be made. For seedcane, growers generally claimed to purchase one stack per hectare, and mean cost per-stack of seedcane was simply applied to area under cane, though in reality the tonnage constituting a 'stack' may vary. This was more pertinent to the cost of cutting labour, wages of which were almost always priced paid in per-stack terms. Consequently, secondary sources were used to establish estimated ranges for how many tons constitute a stack and how many tons small growers harvest per hectare on average in order to arrive at a stack per hectare range. This is why the averages provided for per hectare labour and overall costs are expressed in terms of a range.

[54] Sucrose percentages were established by dividing annual 'tons sucrose' over 'tons cane' from data provided by SACGA for growers agreeing to provide their production codes. Notably however, these figures conflict with USM's own data, which indicates the highest small grower sucrose value to stand at 16.83% and the lowest at 8.49% for October 2011 (Mathaba, 2011). It is not clear what the basis of this discrepancy might be.

Table 5.12: Average annual production and revenue data for small-scale growers

	Average sucrose percentage	Tons of Cane Submitted		Revenue from cane		Proportion of revenue deducted for transport from last submission
		2010	5 year mean	2010	5 year mean	
Mean	7.37	34.28	38.32	11358.57	9192.40	0.35
Median	7.27	20.61	27.18	6548.76	5997.35	0.33
Maximum	8.55	157.43	161.41	57314.19	42695.98	0.66
Minimum	6.72	4.90	4.90	1418.46	1212.32	0.02
Valid N	40	34	40	34	40	27

Of course, revenue does not equal profit. The first and among the most substantial costs small growers face is in transport and levies, which the mill deducts automatically from grower returns before issuing payment, and hence ensuring that cane submission is never threatened by a small grower's financial position. Despite direct industry subsidies accruing to small-scale growers delivering <200 tons, data from 27 growers who were able and willing to supply me with receipts from their last submission indicate the direct cost of transport to be substantial, constituting a mean of average of 35% of revenue.[55] After immediate deductions for transport, growers of course still face a substantial range of other production costs. Tabulated in table 5.13 below, rough calculation from survey data and secondary sources reveal overall per-hectare costs to stand between R5,852-6,352, comparing well with SACGA's calculation of around R7,148. The total was accounted for almost evenly by paid labour and inputs, respectively at 35-39% and 31-37% of the total, with ploughing the single greatest cost at R1,758 (28%-30%). Arranged slightly differently in table 5.14, average annual per hectare input and labour costs amounted to between R2,578-3,078 (or 44%-48% of the total), with cane establishment costs by themselves amounting to R3,274 (or 52-56% of the total).

Table 5.13: Estimate of per hectare costs of production by cost type

Cost	Item/Task	Total Use/Do	Use Paid Labour	Valid	Mean (R/ha)	% Total	Source	SACGA
Inputs	Seedcane	60			531	9%-8%	Est. from data	
	Planting Fert.	52		38	626	11%-10%	Data	1351
	Top-Dressing	51		30	691	12%-11%	Data	
	Chemicals	29		24	417	7%	Data	373
	Subtotal				2265	39%-35%		
Labour	Clearing	60	30	24	267	5%-4%	Data	
	Planting	60	45	37	359	6%	Data	
	Top-Dressing	51	13	9	189	3%	Data	
	Weeding	53	27	23	613	10%	Data	
	Chemicals	29	9	8	201	3%	Data	
	Cutting	60	59		200-700	3%-11%	Est. from source	
	Subtotal				1829-2329	31%-37%		1714
Tractor	Till	60	59	26	1,758	30%-28%	Data	3347*

[55] Since 2006, SASA has instituted a Supplementary Payment Fund (SPF) subsidising small growers delivering < 200 tons of cane at a rate of R13.30 per ton. Taken from the division of proceeds, the fund is effectively contributed in the proportion of 64% by LSG delivering more than 5000 tons cane and 36% by the milling companies. Small growers further qualify for Flat VAT Rate and Diesel Rebate payments calculated by SACGA to be R15.38 and R2.74 per ton cane, respectively (Armitage, Hurley, & Gillit, 2009)

Total				5,852-6,352	100%		7148

Table 5.14: Estimate of per hectare ratoon and establishment costs

Annual ('ratoon')		Mean (R/ha)	%Total
Input	Top-Dressing	691	12%-11%
	Chemicals	417	7%
Labour	Clearing	267	5%-4%
	Top-Dressing	189	3%
	Weeding	613	10%
	Chemicals	201	3%
	Cutting	200-700	3%-11%
Sub total		2,578-3,078	44%-48%
Semi-Variable ('establishment')			
Input	Prep Fertilizer	626	11%-10%
	Seedcane	531	9%-8%
Labour	Tractor Till	1,758	30%-28%
	Planting	359	6%
Sub total		3,274	56%-52%
Total		5,852-6,352	100%

Although not strictly comparable with annual revenue, these cost projections nonetheless lend some insight into the tight margins faced by small growers and a rough guide to the relative income contribution provided by sugarcane production. Perhaps most significant is that overall mean revenue, whether expressed in terms of a five-year mean or for the year 2010, is in itself significantly lower than the annual income of R14,400 received from a government old-age grant (RSA, 2013). Furthermore, if the mean proportional cost of transport is applied to the higher 2010 figure of R11,358.57, the resultant deduction of R3,975.3 would leave R7,383.27; a sum itself insufficient to push a single individual out of 'poverty' in terms of governments rough R524 per capita, per month poverty line (NPC, 2013). Finally, this resultant average *annual* revenue is almost completely eclipsed by the average costs of establishment and production *for a single hectare*; leaving a mere R1,531-R1,031 by my own calculations, and an even more pitiful R235 if SACGA's figures are utilized.

While even such rough figures indicate that for most small growers sugarcane does not afford a sufficient income off which to survive, several qualifications are worth noting. Perhaps most obviously, not all costs are indeed borne by growers all the time, and any unpaid labour which might be extracted from small growers themselves or from family members, or in some cases from inputs, constitutes something of a net savings. While skimping on tasks or inputs certainly impacts the low quality of cane, the relative gain from more intensive labour practices is somewhat offset by the devastating impact on quality from the combination of drought and substantial harvest to crush delays. Indeed, where drought

and delays certainly seem to *ensure* low quality, returns to scale become paramount and the economic rationality of pursuing or financing intensive labour practices inverts. For mill officials, such logic is nonetheless counter-intuitive to the principle of premium returns to better cane husbandry:

> *"And now you get to the culture side of things. If I give you a 100ha, the potential for that is 10,000 tons at 100 tons ha. You might see your neighbour is getting 120, and another is getting 130, and pick it up, because that's you. But another might say, 'no but this is enough for my style of living'…'why produce more if the tax-man will take it'? And it's like that in the reserve, with your SSG. He can live on R500 a month, maybe R200 for some of them. So what you have up there, they come and say 'I have no money' and I say look at your RV [Recoverable Value], look at what you're giving!"* (USM Cane Procurement Officer, 2012, pers.comm., 20 April)

Finally, however it must be observed from the second costing table that the costs of cane establishment account for a high proportion of overall costs. Indeed, if only annual ratoon management costs are borne, per hectare returns are increased by R2,700-R4,000. These substantially lower annual costs p/ha highlight the critical significance of the number of ratoons received for each planting to small- rower income. Indeed, as has already been noted in passing, for many particularly poorer small growers, involvement in sugarcane was foremost premised on its establishment by another party, whether the mill or more commonly by lease arrangement with a neighbour. As illustrated by the testimonies of Ma K and TS:

> *"In 1999, Ma K decided to start cane afresh by embarking on an agreement with Vusi Mathiyane, a larger cane farmer of around 10 ha whereby he would use her land to plant sugarcane for 5 years, after which the remaining ratoons would be hers. However, the money she received from the cane after five years was not very substantial, and she would spend it primarily on traditional things, such as funeral slaughtering… However, the costs of inputs are increasing and the 5-year rental strategy is not effective under drought conditions."* (Ma K, 2012, pers.comm., 16 April)

> *"TS first started growing sugarcane in 1999. He had seen the money people had received for it and initiated an agreement with Mr M, who agreed to plough and plant half a hectare in return for payment after the first cutting. He didn't use fertilizer the first time. On the first cut, he didn't receive much money, so he paid Mr M and ate the rest. On the second ratoon he used top-dressing and received better money, and decided to expand. The labour was done by him and his wife, though he would hire for cutting from Mr M's children and one young man from the Mt homestead. After about five years he expanded to about one hectare, purchasing, cane from neighbours and top-dressing. He was still working on other people's cane at this time, but the money from cane was sufficient for him to deconstruct his small hut and build several other houses. By 2010 he had cane on his entire two-and-a-half hectares. Now, however, his hectares have dropped to one-and-a-half hectares because that cane was about eight years old. His other cane now lasts about three years. He doesn't think that this is related to a lack of fertilizer, but rather the lack of rain, noting that his cane which lasted eight years was planted before the drought in the early 2000s. ..The main problems now are shortage of rain, and he notes that after one year, his cane should be higher than it is (about 1.5m). He said that the good cane is N27, but that N17 is more resistant to drought. N27 is good even with small rain, but doesn't grow back strong like N17. He knows this from observing other people's cane, and has never had training."* (Ma K, 2012, pers.comm., 15 April)

Indeed, these testimonies further highlight the particular malign impact of drought for small growers: where significant returns to cane come from ratoon submissions, the reduction in the life-cycle of cane exposes growers more frequently to the onerous costs of re-establishment.

Moreover, for poorer growers specifically, such costs were never directly fronted in the first place, but rather borne by via lease agreement with larger contractors and growers temporarily expanding their area under production during good rainfall conditions. Faced with sometimes insurmountable establishment costs promising to reduce grower margins to negligible levels (if not outright loss) on the first cutting; poor prospects for subsequent ratoon cuttings thus further tilt the intuited calculus of cane's income relevance.

5.6 Conclusion

The conventional characterisation of small-scale sugarcane production, as the product of a 'win-win' compact between miller-processors and relatively marginal small-scale grower suppliers, disguises a far more contradictory set of relations. On the surface such tensions are seemingly self-evident: despite the democratic trappings of the representative system formally governing grower-miller interaction, disparate and poor small-scale growers accounting for a relatively marginal proportion of overall cane-supply are chronically under-capacitated in both their administrative and productive capacities. The almost categorically weak bargaining position of small growers has also further been undermined by the drastic decrease in production following several years of sustained drought conditions. In such an endemically inferior position, small growers both rely upon the support of SACGA and distinctive union of large grower-miller support and chafe from the often paternalistic or sometimes ill-adapted content of interventions. Small growers are thus perpetually caught in the contradictory position of presenting a 'closed fist' in the struggle to assert an independent political identity and prove themselves as capable agriculturalists whilst simultaneously having to extend an imploring 'open palm' for more materially-substantive discriminatory interventions. This contradiction is made all the more bitter by the reality that predominantly white large-scale growers and millers of course represent the direct or descendant beneficiaries of South Africa's racialized dispossession, and thus the ultimate historical source of small growers' relative deprivation. Such tensions however are not simply a consequence of inadequate institutional design, the individuated qualities of representatives, or even the harsh circumstances of drought. Rather, they are premised primarily in a deeper structural contradiction between the nominal 'independence' of small growers and their effective subordination to the commercial pressures and industrial rhythms of the mill; in turn conditioned by its monopsonic position and the necessity of processing cane into sugar for it carry any significant exchange value.

As is clear from its early history, the original impetus for small-scale sugarcane production was driven by millers' imperatives toward expansion and the integration of production and logistics at the initiation of millers. Such expansionary imperatives were of course themselves conditioned by the high average levels of industrial productivity in the wider sugar market, and the high throughput demands of the capital-intensive mills required in meeting them. But as the effective intra-industry subsidies underpinning small-scale growers' expansion were gradually curtailed, efforts were made to shed the direct costs of logistics and production in former KwaZulu onto growers themselves and by providing a limited accumulatory space in transport to local contractors. As elsewhere, the consequent boom in small grower registration and production in Umfolozi would thus be short-lived. While devolving responsibility over the *execution* over production, the logic or as put by Braverman (1974) the '*conception*' of production remained premised on the fundamentally unaltered commercial imperatives of milling capital. As good rainfall conditions abated, the greater 'autonomy' afforded to small growers by the retraction of miller interventions has thus indeed translated largely into greater *exposure* to such pressures, and contradictions in the relationship have become more pronounced.

Dysfunctions in transport are perhaps most critical in this regard. The logistical chaos of transport is of course ultimately rooted in the inability of disparate small-scale sugarcane growers to produce as a unified section to meet the integrated imperative to 'rateable delivery'. Such difficulties are further exacerbated by both the fragmentation of transport capital into haulier and commercially-volatile local contractor fractions and difficulty mobilizing sufficient cutting labour for timeous harvest; thus creating compounding backlogs leading to severe deterioration in sucrose content. Though in reality reflections of commercial imperatives of *sugar production* the costs of such dysfunction are borne in *cane production*, while its tensions are experienced at the interface with less socially-distant intermediaries making the most proximal claims on surplus product. Indeed, local contractors and loading zone representatives are almost universally growers themselves, as is much of cutting labour, sourced sometimes from within growers' own homesteads. Though at each point of this interface small growers and contractors prefer to blame millers and large hauliers for the costs and delays in logistics from their neighbours and kin, such reproaches commonly represent less an analytical observation than invocations of rumour and conjecture to deferral of responsibility to the 'scientific mystery' of the mill.

At the level of production, however, small-scale sugarcane growers face considerable difficulty in transmitting such pressures further on to labour through intensified

exploitation. While social grants provide some measure of stability for relatively-aged growers to perform less arduous tasks of cane labour themselves and/or with family members, poor returns from sugarcane provides a limited basis for disciplining family members to physically-taxing cane labour, particularly where the same grants can be relied upon to provide minimum food purchases and thus enable the pursuit of other potentially rewarding educational or sparse employment opportunities. This is further compounded by the devastating impacts of drought and transport on cane quality and payment, hence further dis-incentivising intensive labour practices. Moreover, sourcing cane labour from similarly constituted neighbouring homesteads is likewise difficult; with homesteads compelled to cane labour by dint of a lack of access to social grants or employment relatively few and far between, attracting reliable cane labour is often premised on either reciprocal paid labour arrangements from other often relatively aged growers, or sourcing from further afield for those who can afford it. Indeed, though small-scale farming is often characterized as more labour absorptive or even more labour 'efficient' than their large-scale counterparts, the limited scope for intensified exploitation and the supplementary nature of cane income actually conditions a logic of minimizing financially and physically taxing labour. This is particularly evident for many poorer growers who never paid for the costs of establishment themselves, and simply submitted ratoon harvest following the close of land-lease arrangements with more capitalized neighbours.

Certainly then, despite their current structural 'independence' over production, small-scale sugarcane growers as a whole do not constitute self-sufficient 'family farmers', but neither do they represent a rarefied yeoman peasantry 'penetrated' by capital. Indeed, the history of small grower production shows that they were in fact constituted by capital in high levels of integration via miller interventions in production and logistics. In the wake of the retraction of such interventions, however, small-scale sugarcane production remains bound to meeting the unaltered throughput requirements of monopsonistic millers, yet are reliant on less efficient fractions of commercially volatile contractor capital and their own limited administrational capacities. In an industry where average levels of productivity are defined by capital-intensive large-scale growers, small growers thus face the imperatives of competitive capital but not do not enjoy its efficiency while similarly being constrained in both intensifying exploitation or expanding the scale of their own operations. As in reality sugar production necessitates an integration of cane production and sugar manufacture, the more pronounced separation (alienation?) of small-scale sugarcane growers' production from

milling thus represents both a more pronounced *division of labour*, but also a *fragmentation*[56] *of capital* across petty-commodity producers facing heavy constraints in both their constitutive (yet contradictory) poles of capital and labour.

However, such a critical analysis of the 'independence' of small-scale sugarcane growers similarly tempers an overly functional reading of their subordination as a nefarious outcome of plotting by dominant millers. Indeed, while the retraction of the subsidies which underpinned original integrated forms of small grower production were perhaps the greatest spur to dispersion, its impact has also introduced a great level of uncertainty in USM's coveted home cane supply. The initial high levels of production that accrued in the immediate wake of retraction indeed proved itself to be structurally fragile, and thus represented something of a 'false equilibrium'. While to some extent this risk is being spread over more small growers, in a context of renewed commercial expansion USM is clearly interested in exploring new avenues of 're-integration', to some extent exemplified by the various small grower 'projects' listed earlier. The forms by which re-integration may occur however is not predetermined: interestingly haulier capital is likewise making their own attempts at re-integration by the introduction of their own tractors for ploughing and short-haul services. Coming largely at the expense of local black contractors, there is some anecdotal evidence that these have fostered the re-initiation of cane production for some small-scale growers. Indeed, this suggested schism of interest between small growers and contractors introduces another critical element to the picture: namely that such generalized pressures and structural tensions have nonetheless not been even in their impact. Understanding such differential dynamics is nonetheless key to understanding the social consequences of small-scale sugarcane production, its limitations, and its possibilities.

[56] The term 'fragmentation' is used here to suggest that part of the root of inefficiency in contracting lies in the fact that contractors are compelled to valorise and organize their operations independently, whereas previously they could be run as a scale economy by millers.

Chapter Six: Accumulation, differentiation & livelihood trajectories

6.1 Introduction

Thus far, analysis and discussion has focused on small-scale growers as a group, both in Madwaleni/Shikishela and in the industry more broadly. To some extent this has been necessary to critically explore shifting relations of a largely 'vertical' nature; i.e. between growers, contractors, millers and the wider industry. In this final chapter investigation and analysis is 'horizontal' in character, focusing on the terrain of social differences amongst small growers. In particular I examine the *class* character and dynamics driving such difference, with a particular concentration on the influence of sugarcane production and its shifts under different 'vertical' productive relations.

This chapter has three sections. The first fairly short section uses a statistical 'asset ranking' procedure to provide a slightly more detailed sense of the patterns of socio-economic inequality. The second section discusses the 'accumulation-history' interviews I conducted with a select 23 small-scale sugarcane growers (between 30 minutes-2 hours in duration) in the vein of Oya (2007), who are then grouped by a typology of livelihood trajectories first drafted by Dorward et al. (2009) and subsequently utilized by Scoones (2011). The interviews focus on the shifting material basis of the grower-respondents' livelihoods from birth to the present, and the impact of cane on this life-arc. The interviews seek to substantively 'fill in' the 'frame' of difference established in my statistical analysis by identifying broad causal patterns underlying small growers' own accounts of their individual livelihood trajectories.

The final section attempts to identify some key patterns in these testimonies and discuss the analytical implications. It is argued that the 'vertical' shifts explicated in previous chapters together with poor rainfall conditions have closely tied patterns of differentiation to non-cane income sources used to stabilize consumption and provide cash-on-hand for necessary input and labour purchases. Using a broadly Marxist approach, it is further argued that different types of non-cane income sources have been critical in conditioning small growers' capacity to intensify the exploitation of homestead labour and hence enhanced appropriation of surplus value. In the case of contractors, it is argued that commercial survival has been premised on the cross-subsidization of contracting and cane enterprises as

an effective attempt to grow *absolute* surplus value through expansion to compensate for deficiencies in *relative* surplus value owing to capital inefficiencies by.

6.2 Distributions by asset groups: patterns of wealth and inequality

In the course of my survey it was immediately apparent that the material endowments of some homesteads were greater than others. To some extent, the terrain of social difference is evident in the large ranges in the descriptive statistics provided in Chapter Four; perhaps most starkly in the highly unequal distribution of land ownership. But when expressed independently from one another these distributions failed to capture my impression of a confluence of types of wealth. Homesteads with 'more' of one type of socio-economic variable certainly appeared to have 'more' of other types. However, the material endowments of apparently better-off homesteads also seemed to be configured differently from one another. While 'wealth might beget wealth' it seemed to do so in different ways. Finding a common measure for 'wealth' was thus necessary, but it was not completely obvious what would be most effective. As noted in the previous chapter, estimates of income were far too partial to provide a compelling measure, while distributions of jobs were too few to be used as a grouping mechanism across the whole sample population. Similarly, though land distributions were indeed found to be highly unequal, different levels of land ownership and use in cropping or of livestock numbers were unreflective of apparently wealthy homesteads with less agricultural involvement.

The ultimate choice of a wealth measure is based on my survey's asset register: a predefined list of a number of key domestic and agricultural items owned by homestead members. In every case respondents were able to cite the presence of these items, with the only problem found in choosing whether a 'broken' item was to be counted. In most cases, broken items were excluded, though in some cases where it seemed that repair was likely it was included. The confirmation that assets would be a useful statistically useful indicator came in its strong correlation with a number of key socio-economic variables. As can be seen in the tabulation of Pearson correlations[57] below (table 6.1), a number of these variables were significant at the 0.01 level. With assets established as a strong proxy for wealth, homesteads

[57] A Pearson correlation coefficient measures the strength and 'direction' of linear correlation between two quantitative interval variables. The 'stronger' the relationship, the closer the coefficient will be to 1 or -1, the weaker it is, the closer to 0. A positive or negative correlation only signals the direction of the relationship, not its strength (Wright, 1986, p. 292). Cohen (1988) suggests guidelines for interpretation, suggesting that between a result of 0.1-0.29 indicates a 'small' linear correlation, 0.3-0.49 a 'medium' correlation and 0.5-1 to be a 'large' correlation (Cohen, 1988, pp. 79-81). Nonetheless, even if a Pearson correlation between variables is not strong, this does not necessarily imply there is no statistical relationship, only that it is not significantly bivariate and linear.

were hence divided into asset quartiles as 'wealth groups', with '1' representing the lowest or 'poorest' homesteads and '4' representing the highest or 'richest'.

Table 6.1: Correlation of total homestead assets with other key socio-economic variables

	Total Assets	Tractor ownership	Total Homestead land (ha)	Area under cane	Number of cattle owned by homestead	Homestead size	Number of homestead members earning income from		
							Permanent job	Temporary, contract job	Non-agri income activity without employees
Pearson Correlation	1	.529**	.516**	.501**	.383**	.433**	.281*	.144	.192
Sig. (2-tailed)		.000	.000	.000	.001	.000	.015	.222	.101
N	74	74	72	72	74	74	74	74	74

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

6.2.1 Assets and income sources

Amongst the starkest distributional patterns emerging from the grouping procedure concerned the number and type of homestead income sources, tabulated below (table 6.2). Perhaps most unambiguous is the direct ascension in median number of non-grant homestead income sources from the poorest to richest quartiles. The positive impact of the sheer number of non-grant income sources on homestead asset wealth is similarly influenced by the quality standard of employment. While instances of all kinds of employment were too low to make any impact on the median, there is a clear correspondence between asset ranking and absolute concentrations of ascending grades of employment. As can be seen, the richest quartile notably claimed 50% of all permanent jobs in the sample, with the second richest quartile claiming 34.6% of all temporary jobs, and the second poorest quartile claiming 44.4% of all 'non-agricultural income activities without employees' (typically the sale of handicrafts). The poorest quartile meanwhile displayed low concentrations in this type of income activity as well as permanent jobs, though it also displayed a significant number of temporary jobs. Social grants meanwhile displayed a solid median of three across the top three quartiles, except for a median of two in the poorest quartile. This suggests that despite the substantive importance of social grants in forming a consumptive baseline, they are not statistically significant differentiators of wealth except in graduation from the poorest to second-poorest quartile.

Table 6.2: Distributions of income sources by asset group

Asset Group		Number of non-grant income sources	Number of social grants	Number of homestead members earning income from		
				Permanent job	Temporary job	Non-agri income activity w/out employees
1	Median	1	2	0	0	0
	Sum		69	2	6	1
	Column Sum %		27.3%	6.3%	23.1%	5.6%
2	Median	2	3	0	0	0
	Sum		61	5	5	8
	Column Sum %		24.1%	15.6%	19.2%	44.4%
3	Median	3	3	0	0	0
	Sum		58	9	9	4
	Column Sum %		22.9%	28.1%	34.6%	22.2%
4	Median	4	3	0	0	0
	Sum		65	16	6	5
	Column Sum %		25.7%	50.0%	23.1%	27.8%

6.2.2 Assets and land

As with income sources, the ranking procedure revealed a substantial correlation between asset wealth and the aforementioned inequalities in land, as revealed in table 6.3 below. It is first notable that median ownership of land, land in use, and area under cane all ascend directly from poorest to richest, except for a small dip in median land ownership between quartiles one (3 ha) and two (2.5 ha). Tractor ownership features an unambiguous ascension, with more than half of all tractors concentrated in the richest quartile, and with only the richest quartile claiming enough cattle to make an impact on the average with a median of 11. Absolute numbers of cattle similarly rise directly with asset wealth, except in the poorest quartile, which shows greater concentrations of cattle than either quartile two or three. This may indicate that the use of asset groups is disguising the wealth of some homesteads investing in cattle rather than ‘assets’, but who are not numerically significant enough to make an impact on the average.

Table 6.3: Land ownership and use by asset group

Asset Group		Total homestead land (ha)	Land in use	Area under cane	Homestead cattle	Tractor ownership
						Yes
1	Count	21	21	21	21	0
	Median	3.00	1.50	1.00	0	
	Sum	77.13	53.13	32.83	70	
	Column Sum %	17.9%	19.8%	15.7%	20.8%	
2	Count	19	19	19	19	3
	Median	2.50	1.50	1.00	0	
	Sum	62.00	30.75	29.25	34	
	Column Sum %	14.4%	11.5%	14.0%	10.1%	
3	Count	17	17	17	17	4
	Median	5.00	3.00	2.50	0	
	Sum	112.75	52.00	48.00	52	
	Column Sum %	26.1%	19.4%	23.0%	15.5%	
4	Count	17	17	17	17	11
	Median	9.50	7.00	3.50	11	
	Sum	179.50	132.50	99.00	180	
	Column Sum %	41.6%	49.4%	47.4%	53.6%	

In terms of absolute concentrations of land, it is notable that the poorest quartiles have similar amounts of 77ha and 62ha, with the richer quartiles boasting far more at 112.75 ha and 179.5 ha. Despite these different land endowments, absolute area under cane was very similar for the first three quartiles, at 32.83 ha, 29.25 ha and 48 ha compared to the richest quartile's 99 ha, as graphically displayed in figure 6.1. Though the richest quartile has by far the highest absolute concentrations of land, land in use and area under cane, it is further notable that cane accounted for almost all cropping in the middle quartiles, with only the poorest and richest quartiles holding significant amounts of land under non-cane crops.[58] It is also worth mentioning that as the group with the largest area under cane, average production and revenue from cane is far more significant for the top quartiles despite similarly yielding stubbornly low sucrose content (as shown in table 6.4).

[58] Non-cane cropping however only refers to relatively substantial field cropping, and did not include homestead 'gardens' of <0.5 ha

Figure 6.1: Land ownership and use by asset group

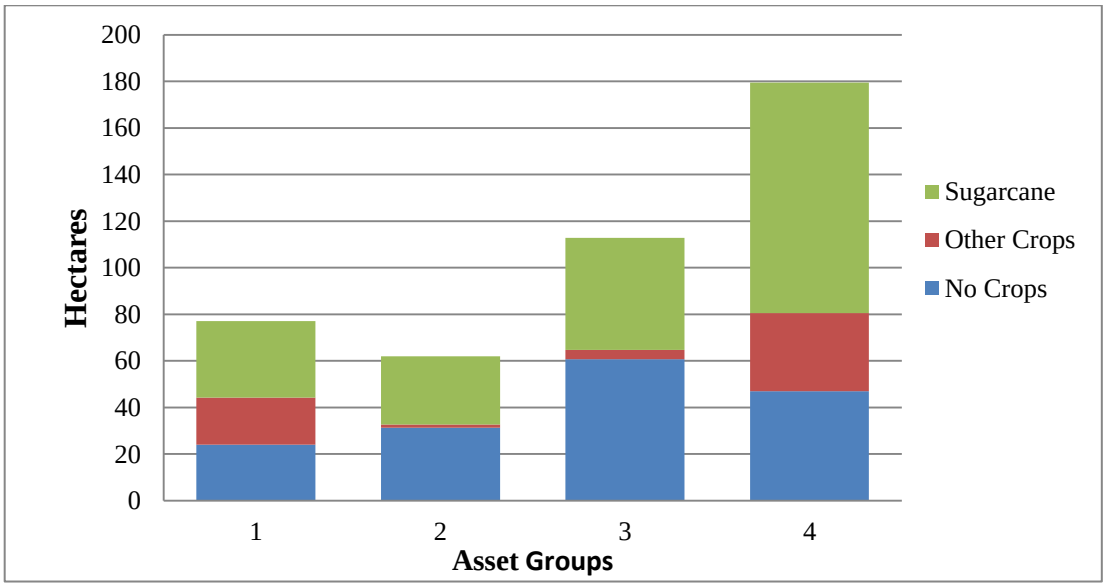
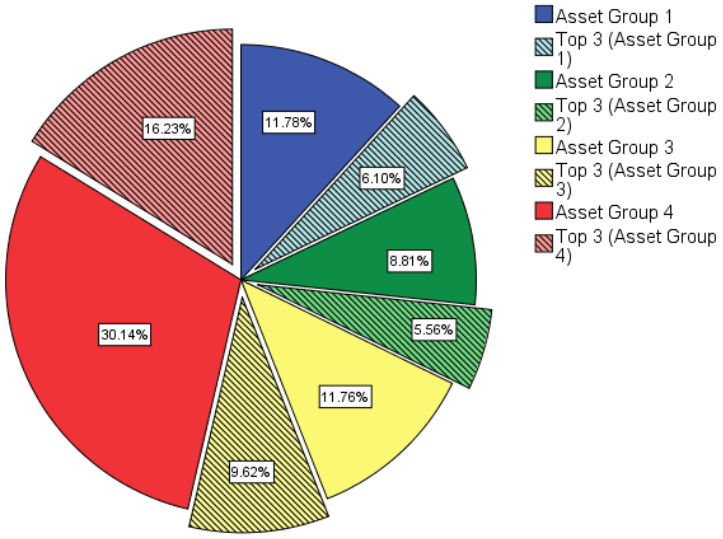


Table 6.4: Annual production data by asset group

Asset Group	Mean sucrose percentage	Tons of cane submitted 2010	Tons of cane 5 year mean	Revenue from cane 2010 (R)	Revenue from cane 5 year mean (R)
	Mean	Mean	Mean	Mean	Mean
1	7.45	21.33	34.38	6860.05	7843
2	7.43	19.38	23.56	6002.48	5337.78
3	7.22	36.03	37.29	12389.11	9854.45
4	7.35	46.77	67.04	15899.89	16084.95

Though asset groups go some way in establishing a close relationship between land ownership and wealth, it is worth observing that land ownership remained concentrated within the asset quartiles as well. Notably, if the top three land owners from each quartile are isolated, though representing 16.2% of the sample they account for 37.51% of total land owned, as revealed in figure 6.2 below. Thus while revealing, asset wealth clearly was not the only determinant of land ownership.

Figure 6.2: Distribution of land among top 3 land owners in each quartile



6.2.3 Assets, homestead demographics and labour

The grouping procedure also revealed significant impacts on the demographics of the homestead, as displayed in table 6.5. Firstly, median homestead size featured a fairly direct ascension from the second quintile (8) to the fourth (13), though the poorest indicated more members than the second (9). Numbers of adult men featured a direct ascension with adult women staying relatively stable. However if the median numbers of women to men are expressed as a ratio, poorer homesteads are revealed to be more feminized. Median numbers of children remain stable at three throughout, until doubling to six in the final quartile.

Table 6.5: Homestead demographics by asset group

Asset Group	Homestead size	Adult men in homestead	Adult women in homestead	Median ratio of women to men	Children (<18) in homestead
1	9	2	4	66.66%	3
2	8	2	3	60.00%	3
3	10	3	3	50.00%	3
4	13	5	4	44.44%	6

As distributions cannot reveal the underlying causality behind them, it is not clear whether homestead size increases because richer homesteads are able to support more members or whether more members contribute to the greater wealth of the homestead. However, median numbers of adults earning income (table 6.6) provide some suggestive hints. Indeed, the median number of adults earning an income ascends directly from poorest (2) to richest (4), with the median number of adults not earning an income staying constant at

three, except for the second quartile which shows two. Taking into consideration similar average numbers of children, the median number of 'dependants' per homestead stays relatively constant at five to six, until jumping up to nine in the last quartile. Median measures of my version of the 'dependency ratio' thus rise until the final quartile, suggesting that for the first three quartiles, wealth rises as higher proportions of members earn an income, while for the last quartile greater homestead wealth provides support for more people.

Table 6.6: Adults earning incomes by asset group

Asset Group	Adults earning an income	Adults not earning an income	Dependants	Dependency ratio*
1	2	3	5	.33
2	3	2	5	.45
3	3	3	6	.73
4	4	3	9	.44

* See table 4.11 for an explanation of the unconventional way this variable was defined.

The relative wealth of homesteads also has an impact on gendered distributions of growers and homestead heads, as shown in table 6.7. In terms of the former, female growers are far more concentrated in the two poorer quartiles than their male counterparts, while men also feature a disproportionately high concentration in the richest quartile. Similarly, while concentrations of male homestead heads are relatively randomly distributed across quartiles, almost 50% of female-headed homesteads are concentrated in the poorest quartile. While this is perhaps unsurprising given the stylised tendency of customary structures to afford lower or more circumscribed social status to women, it is still significant that two female-headed homesteads are indeed in the richest quartile, and seven in the second.

Table 6.7: Gendered distribution of small-scale growers and homestead heads by asset group

Asset Group	Sugarcane grower's gender		Homestead head's gender	
	Male	Female	Male	Female
1	7	14	9	12
2	5	14	15	4
3	8	9	10	7
4	13	4	15	2

Despite the significant distributional effect of wealth on homestead demographics, this was not matched by equally clear trends in the kinds of labour employed. Indeed, when subdivided by asset groups (table 6.8), no clear pattern exists between relative wealth and the number of instances of paid or unpaid labour. Poorer growers nonetheless did display a

higher propensity not to undertake certain tasks at all, which as we have seen relates primarily to chemical application.

Expressions in terms of mean numbers of labour 'units' applied per-hectare in table 6.9 similarly provides a murky picture. It is first notable that the poorest homesteads tended to utilize the most *paid* labour per hectare (2.58-3.16) while the richest used the least (1.13-2.18).[59] Knowing that there is a general correlation between homestead size and wealth, this would seem to suggest that any greater capacity for richer homesteads to hire labour is less influential than the difficulties faced by poorer homesteads in disciplining fewer homestead members to cane labour. However, numbers of unpaid homestead labour units per hectare exhibit no clear pattern across wealth quartiles. Meanwhile, grouping homesteads into 'size' quartiles reveals that larger homesteads *do* in fact tend to commit more unpaid homestead labour; but the distribution of paid labour is then rendered sporadic. Another explanation may thus be that wealthier homesteads are simply less inclined than less diversified poor growers to either invest in or discipline cane labour (particularly in a context of generalized pressures on sucrose content from transport and drought). While this may be a factor, however, these cursory results suggest rather a far more complex relationship between wealth, homestead size, and labour utilization than can be inferred from bivariate cross-tabulations.

Table 6.8: Type of labour used by asset group

Task	Asset Group			
	1	2	3	4
Paid Only	35	24	36	29
Unpaid Only	27	37	39	19
Unpaid & casual labour	16	20	11	14
Don't Do this	11	16	8	5

Table 6.9: Average labour units used by asset and homestead size groups

		Paid Labour Units p/ha		Unpaid Labour Units p/ha	
		Min	Max	Min	Max
Asset Group	1	2.58	3.16	.89	1.01
	2	1.36	2.48	1.75	1.81
	3	1.54	2.71	.62	.70
	4	1.13	2.18	1.27	1.51
Homestead Size Groups	1	1.83	2.68	.57	.61
	2	2.02	3.11	.84	1.13
	3	1.96	3.09	1.01	1.03
	4	.99	1.77	2.10	2.19

[59] These are presented in terms of a minimum and maximum range due to difficulties in calculating numbers of cutting labour used per hectare (see Chapter Five). Although data was acquired on the number of workers hired and number of stacks cut, the absence of data on the numbers of hectares cut necessitated using an estimate of the number of stacks harvested per hectare from secondary sources. As these estimates are expressed in terms of a range, both minimum and maximum calculations are presented

6.3 Small-scale grower trajectories:

As is clear from the ranking procedure, inequality in Madwaleni/Shikishela is distributionally marked by a convergence of measures of material 'wealth'. Relatively 'rich' homesteads tend not only to have access to greater labour endowments and access to more income sources of better quality, but also account for the bulk of means of production, i.e. in land, tractors and, to some extent cattle. There is further a clear gender dimension to wealth, as poorer homesteads not only tend to feature a high proportion of female heads, but also tend to be more feminized overall. While such distributions do not show causality, to some extent they appear as self-explanatory: employment for instance yields higher incomes to purchase consumptive and productive goods; gender imbalances reflect the customary location of authority in men etc.

Nonetheless, certain puzzles persist, particularly in regards to cane production. Though it is unsurprising to find a larger area under cane in a group of larger landholders, it is notable that in terms of absolute concentrations of land, rich and poor homesteads have committed similar proportions of land to cane. Moreover, though 'rich' homesteads are by definition better-resourced and tend to be larger, and though large homesteads tend to commit more unpaid labour, rich homesteads show no greater tendency to commit more homestead labour than poorer homesteads, but neither do they purchase more labour from within or without the homestead. Clearly, the relation of wealth, land, cane and labour cannot be inferred from such distributions alone.

In order to yield better insight into these static patterns, the rest of the chapter is devoted to unpacking more substantive causal relations by interrogation of several interviews with select growers from each asset group, subjectively chosen to reflect different variable material and scoio-economic configurations. The interview form was broadly orientated around semi-structured 'life-histories' now a staple of grounded social research. But following Oya's (2007) variant employ of 'accumulation histories', the focus of the interviews was placed on tracing the shifting material circumstances of growers' lives, with particular attention given to the role of cane production (See table 6.10 for a tabulated summary and appendix for individual narratives). By this method some sense of longitudinal trajectory can be fathomed, yielding significant patterns across cases and a more informed vantage point upon which to base analysis of the 'horizontal' dynamics of cane production and social differentiation. The emphasis here on dynamic factors in cane production, rather than a static typography, has led me to group these histories in terms of their current

productive trajectory. The precise categorical groupings are drawn from Scoones et al (2011) more recent employ of the typology formulated by Dorward (2009), supplemented by my own addition of two categories relevant to the context. Growers are hence grouped according to whether they are:

- **'Stepping up'** – Expanding production/re-investing in sugarcane;
- **'Hanging in' -** Growers who have managed to maintain a relatively stable level of production despite exacerbating constraints;
- **'Stepping Down/Out'** – Growers who are maintaining production but have been compelled to reduce the scale of their operations; and growers who are advantageously diversifying out of sugarcane production
- **'Dropping out/Dropped out' -** Growers whose production is in terminal decline or who have abandoned production;
- **'Creeping Back?'** – Growers who had dropped out or faced severe reductions but are attempting to incrementally re-start or expand production.

Table 6.10: Small-scale grower trajectory summaries

SSG	Ward	Asst Rank	Tot. Land	Land Use	AUC	Non-Grant Income	Trac	Cows	Labour	Relation to Hhead	SSG Age	SSG Sex	SSG Marry	HH Size	Cane Year	Natal home/Arriving in Madwaleni & Shikishela	Basic Economy/Starting Cane	Sugarcane Trajectory
Mr MP B	Mad.	4	20 ha	20 ha	?	2 Perm	Yes	0	Mainly casual labour	Self	90	M	Yes; dead	13	1979	Forced removal from St. Lucia. Arrive in Mad. w/ belongings & 100+ cattle, allocated large land. Father is pastor; continue to use & sell cattle.	Begins cane 1979 with 'group of 7'. Expands to 20 ha. Cane pays for food; sons' education & lobola; & funds general store (burns down)	**Unclear** Getting too old, divided land among 6 sons at around 3 ha each. All but one died from 'sickness', cane left exclusively to widows
Mr Z Snr.	Shiki.	4	12 ha	8 ha	8 ha	Contractor 1 Temp Livestock Sale	Yes	12	Casual labour only	Self	57	M	Yes; alive	26	1982	Born in Shiki. Father is policeman, gives his 3ha away.	Works on LSCF until allocated 5ha in 1982, starts cane on 4ha. 1989 buys tractor from LSCF; 1995 began contracting. Expands land to 12 ha via (purchase, clearing & govt).	**Stepping Up** Effective cross-sub of contracting and cane; slowly expanding. Drought, few contractors, little competition, now has 50 clients. But must travel far; breakdowns often
Mr Z Jnr.	Shiki.	4	11 ha	7 ha	7 ha	Contractor 1 Temp	Yes	12	Mainly casual labour	Mother	26	M	No	10	1997	Born in Shiki. Father's land 4 ha, 1 ha crops. Father works at Spoornet. 1997 invests savings in cane; buys tractor in 2001, begins ploughing services	In 2003 father buys 7ha from neighbours for cane, other 4ha for grazing but dies 2005 from 'sickness'. Mother decides to buy trailer for cane transport services.	**Stepping Up** Reinvesting & cross-sub with cane. Now hauling for approx. 55 SSGs a month & ploughing for hundreds annually. Despite breakdowns, little competition as few contractors
Mr TN	Mad.	4	24.5 ha	14.5 ha	14 ha	Contractor	Yes	19	Mainly casual labour	Father	31	M	No	7	1992	Born in Mad. 25 ha. Father ex-labour tenant in Vryheid, evicted 1971. Land for food, & cattle but also cabbage & cotton for sale. Cotton processor closes 1991, switches to cane	Hires labour & works on neighbours land to maintain labour relations. Bought 1st tractor in 2009; 2nd 2011; began ploughing & transporting. Slowly expands, now 14 ha.	**Stepping Up** Reinvesting in contracting; cross-sub with cane. Expanding with dearth of other contractors. Now approx. 68 transport & 19 ploughing clients. Can now afford extra inputs & labour
Mr UM	Mad.	3	6 ha	4.25 ha	4 ha	1 Perm; 2 Temp; Tractor Rental	Yes	4	Mixed labour	Self	64	M	Yes; alive	22	1997	Forced removal from St Lucia. Arrive in Mad. on 1 ha. Father & uncles=LSG cane labour. 1974 receives 2 ha from MP Buyazi, & 2ha from neighbour	Ascending wage labour: LSCF, to supervisor at Bell tractor co. Funds 3 marriages. Starts cane 1997 1 ha, ploughs with cattle; Submits on neighbours code. Slowly expands to full fields	**Stepping Up** Reinvesting in land & capital: 2009 retires, uses pension to purchase tractor, covers variable costs; 2011 purchases 2 ha from neighbour
Mr M	Mad.	4	12 ha	12 ha	12 ha	Contractor Tuck shop 4 Cas Ag	Yes	0	?	Father	50	M	Yes; alive	17	1998	Father was ex-labour tenant, forced to leave all belongings for NCP job; moves to Mad. Uses land for cropping & cattle. 1991 father retires	Ascending wage labour: construction ->miner->driver. Returned home to marry & farm in 1998. Father starts cane 1995 on 3ha, gives Mr M 4ha 2001.	**Hanging In** Contracting cross-sub cane . Now has 30 (plough) and 47 (trans) clients, & 3 tractors, but all broken -> taking annual loan with 30% interest from local lender
Ms AZ	Mad.	3	6.5 ha	6.5 ha	6 ha	Selling mats	No	0	Home labour only	Self	71	F	Yes; dead	10	1990	Born in Swaziland-> moves to CA elsewhere. At 17 leaves for farmwork for 3 years, marries Nkandla farmworker. Together flee Nkandla witches, arrive in Mad. Husband dies 2 years later.	AZ. switches from maize to cotton 1 year, then cane with husband's savings. No supp income except mat sales. Slowly expands from 1 ha to full field, no extra labour, earned R10--12,000. Covers food & Uni fees for children	**Hanging In** Declined to 4ha, but returned to 6. R8,000 last year, attributes to transport delays. Survives on social grants, rest of money for cane and children. but expects children will switch to cattle for lobola

SSG	Ward	Asst Rank	Tot. Land	Land Use	AUC	Non-Grant Income	Trac	Cows	Labour	Relation to Hhead	SSG Age	SSG Sex	SSG Marry	HH Size	Cane Year	Natal home/Arriving in Madwaleni & Shikishela	Basic Economy/Starting Cane	Sugarcane Trajectory
Ms IM	Mad.	4	8 ha	1 ha	1 ha	3 Perm; tractor rental	Yes	9	Mainly casual labour	Husband	44	F	Yes; alive	10	1992	Ex-Vryheid labour tenants. Family moves to Mad. IM marries neighbour bus driver with 8 ha; IM & sisters, mother-in-law grow food.	1991 start 1 ha cane; 1998 expand on new 3 ha then other 5. Cane pays for food, college, driving school. Husband uses saving for own-use tractor 1998	**Stepping Out/Diversifying.** 2008 Drought &high input costs: cycle of declining returns. Now 1 ha. Reliant on jobs. Seeks alternatives: broilers, gumtree, cattle.
Mr LG	Mad.	4	6 ha	2 ha	2 ha	1 Perm Job 3 Cas Agri	No	11	Mainly home labour	Father	37	M	Yes; alive	11	1989	Born in Mad. Father born in Shiki, but grandma=sister of induna, granted 6ha plot in Mad. food crops & cattle. Father worked in Durban	Parents start cane in 1989, mill labour & tractor ploughs all 6ha.Bros seek work on LSCF, but die of 'sickness' in 2000s. LG works at shell garage ->Uni->BHP	**Stepping Out/Down?** With drought, no mill support, & expense of inputs, cane has declined. Family relies on grant & LG's good salary.
Induna	Mad.	1	1 ha	?ha	1 ha	1 temp	No	10	Mixed labour	Self	70	M	Yes; alive	16	1989	Mad. born. Father=induna, 30ha. 13ha cropping, rest for 50 cattle. Leaves home to work as mill technician. Returns in 1973, assumed title of induna. Land used for cropping as by self & 3 bros, on around 5 ha	Wages & family cattle, until cattle wiped out. Starts cane in 1989 on 1.5 ha, expands to 8 ha; bros on approx 2 ha. Work with sons & some hired labour. Earned about R3,000 per ha, to supp food, clothes, school fees	**Stepping Out/Down?** Now only 1 ha to cane: drought & declining returns, bought less input & labour. Now growing herd to 10 cattle,& is considering using 1 ha as seedcane.
Ms JM	Mad.	2	2 ha	2 ha	1 ha	1 perm; 1 own business	Yes	16	Mixed labour	Husband	62	F	Yes; alive	8	2003	CA Homestead elsewhere. Married as 3rd wife to truck driver in Mad., owner of 42 ha. Each wife given 2ha for cropping, rest for grazing.	Husband contributes wages monthly for school fees, food, & agri tools, while wives crop.1990 husband buys tractor starts cane. He expands to 12 ha, using about 1/2 the wives land too. Work done by hired labour & wives.	**Stepping Down** 2003, husband stopped giving money to wives. Cane pays for food and school fees, but less with drought. Depends on social grants, support from employed son for inputs
Mr VM	Mad.	1	15 ha	4 ha	4 ha	None	No	5	Mixed labour	Self	77	M	Yes; alive	16	1989	CA Homestead elsewhere. "Large" land; not enough to feed family leaves to pursue wage work, Comes to Mad. with wife & children in 1977, receives 15 ha.	Ascending wage labour: cane cutter, miner, tractor driver. 1984 starts cotton, & 1988 buys tractor, switches to cane with neighbour's code. 1991 full 15 ha under cane with FAF ; cane supports family alone	**Stepping Down** Decline after drought & end of FAF, extension services. Cannot afford inputs, repair broken tractor. Cane reduced to 4 ha. First applied for social grant in 2010
NtS	Mad.	3	8 ha	2 ha	2 ha	1 temp 1 Cas agri	No	0	Mainly unpaid home labour	Self	47	F	Yes; dead	4	199?	CA Homestead elsewhere. 4 ha; mother=domestic; not enough to feed family; no cattle. 1994 marries Gr 12 classmate, moves to Mad.	Husband already had 8ha under cane, used FAF & worked as contractor, but 2005 dies in car crash.	**Dropping Out** Drought + declining returns,+ 2 tractors breakdown, fall in production. Income supp by son working as taxi driver
Ms NB	Mad.	2	5.5 ha	1.5 ha	0.5 ha	None	No	5	Mainly unpaid home labour	Husband	50	F	Yes; alive	4	2007	CA Homestead elsewhere. 10 ha, 30 cattle, enough to subsist, but bros migrant labour. Marries Transnet worker, move to Hluhluwe, then Mad, given 5.5 ha.	Husband worked, NB uses donkey to plough food crops, grazing for 19 cows. When donkey died, used pension money to plough & plant cane. Expanded to 4 ha. Paid for food, clothes, university fees	**Dropping Out** With drought, high labour/ input costs (now no poison), cane drops to 0.5 ha, maize 1 ha. Getting too old to work (husband blind), employed children do not contribute.
Ms MZ	Mad.	1	3ha	2 ha	1 ha	2 temp	No	3	Mixed labour	Self	62	F	Yes; dead	10	199?	Mad. "Large" land; enough to feed family large cattle. Leaves for farm work, marries farm worker w/ 3ha plot in Mad, 2ha food, 1 ha cane	Husband works on game reserve, then SADF in 1990s until diabetes, and stops late 90s. Rely on cane, DSG and selling cows. Mill used to help with teams of labourers	**Dropping Out** 2000s husband & son die. Declining returns. Now almost no money from cane; grants; 2 daughters clerks wages

SSG	Ward	Asst Rank	Tot. Land	Land Use	AUC	Non-Grant Income	Trac	Cows	Labour	Relation to Hhead	SSG Age	SSG Sex	SSG Marry	HH Size	Cane Year	Natal home/Arriving in Madwaleni & Shikishela	Basic Economy/Starting Cane	Sugarcane Trajectory
Ms M	Mad.	1	1 ha (2.5 ha)	0	0	None	No	0	N/A	Self	58	F	Yes; dead	9	1991	CA Homestead elsewhere. "7 ha" land; 12 cattle; father=employed; brother=miner. Marries NPB secretary. Move to Swaziland briefly, then Mad.	Rely on husband wages, crop on 1.5 ha, borrows 6 ha, sells some food crops. 1991 starts cane Using husband's savings. On 1 ha, not enough profit; expands to 4 ha. Covers inputs, clothes, school fees.	**Dropped Out** 1998 husband dies, wages replaced with R680 pension. No money on hand for fert or labour, brief stint with FAF before ends, cane down to 1 ha by 2003. 5 ha revert
Ms SN	Mad.	2	2 ha	0	0	1 Cas Agri/ 1 temp	No	0	N/A	My Child	46	F	No	14	1992	CA Homestead; 4 ha, not enough; mother=unmarried casual labour. Parents die, forced to leave, arrive in Mad, relatives give 1 ha, cas-lab.	SN receives 1 ha from boyfriend before he absconds. Still relies on casual cane work. In 1992, lends land to contractor to plant cane & take first cut. Cane buys about 1 month's food	**Dropped Out** As ratoons decline, exacerbated by drought; unable to re-plant, or afford inputs. Completely dependent on cas lab
Ms T	Mad.	3	20.5 ha	0.5 ha	0	1 Temp 3 Cas Agri 1 Sell mats	No	0	N/A	Husband	55	F	Yes; alive	19	1997	CA Homestead elsewhere. 3 ha for food, no cattle. All siblings in wage work. T works on LSCF, marries Spoornet worker move ->Mad. in 1998	Husband at Spoornet for 25 years; T would grow food on 0.5 ha & cane on 2ha from 2000-2008, with other 20 ha for grazing. Still does cane work on neighbour's farm, but survives on private pension & social grants.	**Dropped Out** Stopped in 2008 because of intense heat, but is considering restarting, by saving pension money for inputs. First wants soil analysed.
Ms K	Shiki.	1	2.5 ha	0	0	2 Temp 1 Perm 1 Cas-Agri	No	0	N/A	Self	63	F	No	10	1999	CA Homestead Elsewhere. 5 ha, 16 cows father =farm worker. Children seek work. Ascending wage labour, domestic->factory worker. Marries hotel worker, move->Mad.	Husband dies 9 years after marriage, as do his brothers. Ma works on cane farm, family sells cotton. By 1999 only Ma & children; starts cane via land rental, relies on DSG & cas- lab	**Dropped Out** Crop established by neighbour depleted. Considering restarting if drought relents and son helps to buy inputs with his wages
Ms NS	Mad.	1	5 ha	3 ha	0.25 ha	None	No	0	Mixed labour	Self	48	F	No	6	1994	CA Homestead elsewhere. 4ha,10-20 cattle; father=casual timber labourer Married at 19 as 3rd wife, moves to Mad. Husband divides land amongst wives, NS gets 5 ha	Husband was gardener, gave each wife R100 a month for cleaning products, but dies in 1999. Wives subsistence crops , and start cane in 1994 on 3ha. Earns R14,000; R4,000 profit. Wives reciprocate labour & hire.	**Dropping Out/Creeping Back?** Drought + rising input costs see declining returns; now too expensive to replant with grants. Only 0.25 ha cane. Hopes to expand by using current crop as seedcane.
Mr ZM	Shiki.	1	5.5 ha	4 ha	1.5 ha	None	No	0	Mainly home labour	Self	67	M	Yes; alive	7	1997	Born Shiki., parents have 40 ha, 400 cows. No-one sought wage work. Left home after 2nd child ('Zulu Custom'), father gives him 3 ha.	Wife cropped, while he sought wage work: LSCF, clerk; SANDF assistant. Stops 1994. Brother, the induna, grants him an extra 2 ha for cane. Pays for initial ploughing/inputs, then expands with FAF.	**Creeping Back?** By 2000s, R10,000/ha to re-plant, but earns R8,000/ha. FAF took 20%; & R3-4,000 for use. Now 1.5 ha; 2008 needs pension. Expanding 0.5 ha at a time, reinvest & use cuttings for seedcane
Ma Z	Shiki.	2	3	1.5	1.5	Sell mats; 1 remittances	No	0	Mainly unpaid home labour	Husband	74	F	Yes; alive	9	1996	Shiki. Small land; some crops and cattle but not enough. Father and brothers in migrant labour, Ma Z and sisters farm labour	Marries fellow farm worker, eventually works for SADF, now retired. No land of his own, but later given 1.5 ha from neighbours. Invests some savings in cane, since devastated by drought	**Creeping Back?** Borrowed 1.5 ha more and has set aside pension money for ploughing and seed cane, consumption subsidized by remittances
Mr TS	Mad.	?	2.5	1.5	1.5	2 x Casl agri labour	No	0	Mainly unpaid home labour	Self	(<60) ?	M	Yes; alive	?	1999	Forced removal from original plot, now game reserve; granted 6 ha for food & cattle. Father = supervisor on pineapple farm	Ascending wage labour sugarcane->mines. Eventually forced off family land by brother. Starts cane on borrowed land with lease-plough agreement. Returns fund brick house	**Creeping Back?** Cane ratoons decline with drought, and cane quality degrading. Nonetheless will try again w/different variety & proceeds
Ms MG	Mad.	1	3 ha	3 ha	0	1 Cas Agri 1 Land rental	No	0	N/A	Grand mother	23	F	No	5	N/A	Mad. born. 3h plot, no crops or cattle. Mother born in Mad. Not sure of father.	Father was miner, but died of 'sickness' 2008. Used to do cas ag work with mother, but since 2003 mom is too sick. Currently renting land for cane ratoons reverting to them in 2 years.	**Impoverished** Lives on cas- agri wages, CSG, & grandma's pension. Father of her child works in Empangeni, waiting to marry him, move on his family plot.

6.3.1 Stepping Up: Contractors with cane

The category of 'stepping up' includes growers whose sugarcane operations are in a process of expansion or intensification. The most obvious common characteristic amongst these four homesteads is that they are all local contractors, and thus categorically all own at least one tractor. Furthermore, all have significant land holdings of between 6 to 25 hectares, high proportions of which are under cane production. All grower/contractors are male, but two were notably younger, unmarried and did not consider themselves 'heads' of the homestead. Three homesteads were also notably in the 'richest' asset quartile, with one in the second-richest quartile. Three also similarly had above-average homestead sizes, and three had more than 10 cattle; though one notably had zero. Only one homestead had access to any kind of 'formal' employment other than contracting and sugarcane. Despite the lack of jobs, however, it is clear that in quantitative terms these homesteads show a striking confluence in all of the signals of 'wealth' outlined earlier.

While on their own such indicators do not by themselves explicate the causal relationships between these variables, life history interviews reveal substantive similarities. Despite the current lack of jobs, one stark pattern is the central role played by historical wage employment in providing a savings fund for investment. For Mr Z, SZ and UM (cases one, two and four respectively), initial investments in sugarcane were premised almost entirely on savings garnered from wage employment, which for the latter two constituted relatively skilled or supervisory roles. For UM in particular, historical wages also formed the main fund for the original purchase of his tractor. Only in the case of TN's (case three) family was the original investment for cane premised on non-wage sources, specifically sale of cabbage and cotton from his family's significant land endowments.

Of course, access to substantial swathes of land nonetheless formed a necessary pre-condition for substantial sugarcane production. In all four cases, original settlement in Madwaleni/Shikishela was notably impelled by the hallmarks of apartheid-era dispossession (from St. Lucia) and eviction (from labour tenancy), and perhaps unsurprisingly allocations seem to have been premised on lineal links to existing residents or state officials. However, as is clear from the cases below, 'customary' allocations were not the only means by which land was acquired. This is perhaps best encapsulated by Mr Z, who augmented his 'tribal' allocation by both clearing 'unused' land in Monzi, registering a claim at Dukuduku, and purchasing land from neighbours. The testimony of his grandson SZ further suggests that the extent of Mr Z's land acquisitions were understated. Indeed, while customary tenure tend to be portrayed as being constituted 'outside' of market relations, in three-fourths of cases more land was at some point acquired in a cash exchange legitimated my the *induna*.

Expansions in land holdings were moreover directly motivated by a desire and capability to extend sugarcane cultivation. While in some cases initial expansion was predicated on particularly good harvests or sustained wage investments, in nearly all the below cases contractors observed that the cross-subsidization of their contracting and sugarcane operations was the key to their persistence under prevailing drought conditions. Most pertinently, the perpetual cash-flow generated by contracting has provided sufficient cash-on-hand to afford sustained input and labour purchases and for Mr Z further enabled him to source reliable/dependant labour from further afield. Nonetheless, for UM who has a substantially less cane than other contractors, and currently only engages in ploughing services, self and family labour is still relied upon for non-cutting work.

Despite the overall drop in small grower numbers (and hence contractor client base), the corresponding drop in the number of contractors appears to have muted competitive pressures, augmented contractors' marketing power, and consolidated a certain community of interest amongst survivors. This is perhaps most evident in the preference for ploughing services, which is free not only of the onerous distances and schedules inherent in transport, but also of industry-imposed price limits.

However, this is not to suggest that contractors are free from competitive market pressures, even in regards to ploughing services. Rather, such pressures seem simply to be premised less on direct competition for clientele so much as on average productivity; resulting in a continual struggle to maximise the difference between the costs of operation (diesel, maintenance, repairs etc.) and prices received. Though contractors do appear to utilize their relative market power to exact some inflation of prices, high costs remain a persistent constraint over which they have little control. Indeed, while contracting has been essential to providing cash-on-hand for the expansion of sugarcane, likewise the bulk income from cane has been essential to sustaining costly tractor repairs and maintenance.

Thus though in one sense sugarcane and contracting operations have *enabled* one another, it seems equally true to say that they have *compelled* one another. This is partially evident in the fact that the extension of sugarcane cultivation (often by the purchase of new land-holdings) occurred after the adoption of contracting. Yet most revealing is the reality that just as the only small growers who appear to have 'stepped-up' sugarcane production are contractors, the only contractors who have survived are substantial sugarcane growers.

Indeed, while constituting a differentiated segment of small growers, contractor-growers are significantly differentiated from one another and have managed these tensions in somewhat different ways. TN, perhaps most evidently claimed to have particularly substantial land holdings and area under cane. In the case of Mr Z and SZ, though nominally 'distinct' enterprises, lineal relations would certainly seem to imply a subtext of familial

cooperation beyond the historical inheritance of land. This is partially evident in SZ 'passing on' grower-clients to his grandfather, though the extent of cooperation is not clear. UM meanwhile represents the newest and smallest entrant in both capital intensity (having only one tractor) and land holdings (with four hectares under cane, and a further two hectares recently purchased). Clearly UM's survival has to some extent been premised on self-exploitation and the successful mobilization of family labour in both his sugarcane and ploughing operations in addition to his private pension and the wage employment of other homestead members.

6.3.2 Hanging In: By discipline and debt

Unlike the homesteads 'stepping up' section, the two homesteads 'hanging in' are markedly different in even their basic socio-economic profile. In the first instance, Mr M (case five) is the son of the homestead head and a contractor. His family homestead sits within the richest asset group, claims 12 ha under cane, and has no cattle. Among its 17 homestead members four sometimes work on other grower's cane fields, and his family owns a tuck-shop on their premises. In the second instance, AZ (case six) is a widow and homestead head of a family of 10 within the second richest quartile. She has six hectares under cane and garden plot, and her only non-grant form of income other than cane comes from making and selling reed mats. Nonetheless, despite drought and high costs of production, both of these growers have been able to sustain full or close to full production.

In the case of Mr M, like many of the contractors 'stepping up', dispossession was the initial impetus to his family's arrival in Madwaleni. Furthermore, investment in cane was similarly premised first on savings garnered from wages garnered in relatively skilled employment, and returns from a bulk cane cutting used to purchase a tractor and subsequent entry into contracting. A notable silence in Mr M's testimony, however, is his engagement in plough-lease agreements with neighbouring growers (see the testimony of TS, case 22, below), and it is unclear whether or to what extent the other contractors interviewed similarly engaged in such arrangements. While servicing a similar number of growers to his peers however, Mr M admitted to facing considerable difficulties in financing the maintenance of his tractors. At the time of interview all three were out of service, and to finance their repair at the beginning of each season he is compelled to take usurious loans from local money lenders charging 30% interest. Though his homestead claims 12 ha of cane, Mr M controls only four hectares directly; a central constraint to enjoying the extent of cross-subsidization with cane enjoyed by other contractors. That Mr M's four hectares are insufficient scale to meet the 'replacement' costs of his contracting operations thus exposes a deeper contradictory logic of cross-subsidization.

By contrast, the trajectory of AZ at first glance appears to presuppose an entirely different set of dynamics. Settlement in Madwaleni was made as refuge following several moments of severe familial fragmentation and displacement from her first conjugal homestead rather than direct dispossession by the state or white landed property. From the early days of settlement, however the 'classic' combination of wages from farm labour and subsistence production was strongly bolstered by crop sales. Following a disappointing experiment with cotton production and the death of her husband, AZ invested her husband's savings in both the education of her children at University of Zululand and sugarcane production. Sugarcane has thus acted as something of a multiplier for historical wages.

That AZ has been able to sustain full production without further investments from outside employment (let alone contracting) is somewhat curious. One pertinent distinguishing factor would certainly seem to be AZ's effective mobilization of homestead labour to the extent that she claims to never hire labour from without. Though the labour of homestead members remains paid, as the cash remains within the homestead it is to some extent 'recaptured' to contribute to the family's own consumptive fund. Similarly, AZ notably limits her own consumption exclusively to income from social grants and reed mat sales to ensure consistent re-investment in fertilizer and chemicals.

The apparent vast differences in the dynamics facing Mr M and AZ thus ultimately have some similarity. While the 'organic composition'[60] of Mr M's contracting-sugarcane operations veers precipitously high, AZ has diligently resisted 'drawing down' on proceeds beyond the capital requirements of her operation. By limiting the family's subsistence requirements to the provisions of social grants, selling of reed mats and indeed wages paid to her children, AZ has thus managed to somewhat invert the logic of social grants as a barrier to the exploitation of others, to facilitating the intensified exploitation of herself and her family.

6.3.3 Stepping Down/Out: Wages for exit; none for investment

The five growers in this category are defined by the fact though they retain land under cane, in all cases production has substantially receded. While nearly all growers attribute such relative decline to the myriad pressures of drought, high labour and input costs and transport delays, the impact of sustaining lower levels of production have not been felt evenly. The

[60] The 'organic composition' of an enterprise essentially refers to the proportion of constant capital (means of production, tools, equipment etc; 'c'.) to variable capital advanced (labour costs, 'v'). Although the concept has many nuances, a key point is that as competitive pressures compel greater intensity of 'dead' constant capital, it is increasingly difficult to appropriate surplus ('s') from 'living' labour. As summarized by Harvey (2010):

"it is the internal dynamics of technological change within capitalism, the search for relative surplus-value, that increases the organic (value?) composition of capital, c/v, which in the long run will lead to a falling rate of profit (s/[c+v]) under the assumption of a limit on the rate of exploitation (s/v). Put differently, labour-saving innovations remove the active value producer from the labour process and so make it more difficult (other things being equal) to produce surplus value" (Harvey, 2010, p. 265).

degree of severity 'stepping down' production has had is closely linked to levels of access to equally or more remunerative income sources, particularly from employment. While homesteads with substantial employment vacillate as to whether or not to invest wages in cane-production, those without have been unable to sustain the input and labour purchases necessary to maintain peak levels of production.

The homesteads of LG (case seven) and IM (case eight) have had perhaps the most painless experience of 'stepping down' out of the entire group and now veer close to stepping out altogether. From a descriptive position, the two homesteads are notably similar. Both sit within the wealthiest asset quartile, are comprised of 10 members and male headed, have six to eight hectares (one to two hectares of which are under cane) and 10-11 cattle. As in the some of the cases already reviewed, access to such relatively large swathes of land was premised on long-standing residence (in the case of IM's husband) and social proximity to the *induna* (in the case of LG's grandmother). But most pertinently, both have access to substantial wage employment off which their respective homesteads comfortably depend. In the case of IM, not only does her husband claim substantive employment as a bus-driver, but so do his brothers; one similarly employed as a bus driver and another who is an Eskom employee. While LG is the only permanently employed member of his homestead, his salary from BHP placed him as the single highest paid employee in the sample. While sugarcane production endures largely by dint of the input and labour purchases of these employed homestead members, in both homesteads reduced returns to cane have prompted the question of whether investment in cane is worthwhile.

Nonetheless, the paths by which these two homesteads have come to this position do have some substantive differences. Perhaps most notably, high quality wage employment has been a feature of IM's homestead for some time, and formed the core fund of investment for sugarcane production. Though IM and her husband were not so distant as to be considered 'absentee' producers, it is clear that direct family involvement in production was relatively slight. Investment in cane was initially somewhat conservative, but ultimately culminated in the purchase of a tractor to lower ploughing costs. By contrast, LG's employment is relatively recent, and his family sustained much higher levels of involvement (and hence self-exploitation) in recurrent labour tasks; hiring labour only at harvest, and minimizing the use of hired tractor services after original establishment by millers. As such, declining terms of exchange have been experienced quite differently between the two homesteads. For IM's family this has primarily been defined by lower returns to *capital* as cane revenue failed to cover the replacement costs of their tractor and afford sustained input and 'full' labour purchases (i.e. in the absence of intensified homestead exploitation). For LG's homestead, by contrast, intensifying conditions of *labour* have come to be too severe, where the 'gap' in

small-scale productivity previously 'filled' by intensified homestead exploitation has grown to untenable proportions, by dint of the twin constraints of less efficient 'sectional' capital operations and drought, and further exacerbated by age of LG's parents. This is further accentuated by the fact that while both homesteads' fields have dwindled, IM's homestead continue to rent out their tractor, while LG's family now engages in wage labour on neighbour's cane fields.

In contrast to both LG and IM, relative decline has indeed been more protracted for MMk (case nine), JMk (case 10) and VM (case 11) all whom have less substantial non-cane income sources. While all sit in the lowest two asset quartiles, at first glance MMk and VM feature perhaps the greatest basic descriptive similarity, being both as male heads of homesteads with 16 members, and holding substantial swathes of land. JMk by contrast is third wife in a polyganous marriage, claiming only two hectares.

Nonetheless, such descriptions veil far more substantive proximity between MMk and JMk. Most importantly JMk's husband is a direct relative with MMk, who is also Madwaleni's *induna*. Although MMk claimed to only have eight hectares for himself, his family homestead's claim of around 30 ha is very close to the 32-42 ha claimed by JMk's husband. Though they share the same surname, the exact relationship between JMk and MMk was never established, but their respective testimonies suggest that JMk's husband is MMk's brother or cousin, and would seem to indicate that they each have claims on more or less the same amount of land. This would explain the disproportionately large land holdings of the 'two' homesteads, which would come as a function of the *induna*'s position as the local arm of the tribal authority.

If both narratives are taken together, it is clear that the core focus of the Mk family was on accumulating cattle, supplemented by food cropping (on smaller though still substantial swathes of land) and wages earned by the homestead's young men. Clearly a strong motivating reason for initial experiments with sugarcane came with the death of a substantial portion of the family's herd in the 1980s, by which time MMk and most of his brothers had ceased wage labour. Savings from wages would form the initial basis of investment in both cases, and while JMk's husband would initiate production about 10 years after MMk began experimenting with cane, his capital investments were far more substantial. For JMk, however, the benefits of cane largely came at the expense of wives' land and labour previously devoted to food crops for subsistence and limited sales. Indeed, while the relative decline of cane has been followed by a renewed emphasis on cattle production for both patriarchs, waning production has been more severe for JMk due to her husband's co-incident decision to terminate financial support to his wives and permanently devolve small portions of two hectares to each of them. While she has maintained one hectare under cane, survival is

now premised primarily on her old-age grant, selling reed mats with her daughter, and supplementary contributions by her employed son.

The extent to which declining terms of exchange and deteriorating rainfall have precluded survival from sugarcane alone, however, is probably best encapsulated by VM. After decades of ascending wage employment, VM and his three wives consolidated their conjugal home in Madwaleni in the 1970s on a substantial 15 hectares of land. After a brief but fruitful period growing cotton yielded sufficient funds to purchase a tractor in 1988, he began experimenting with sugarcane and reached full production by 1991. VM's experience is particularly notable in his close resemblance to the 'ideal' image of a small-scale commercial farmer: he is knowledgeable about the agronomics of cane after having undergone training in addition to his prior experience as a sugarcane farm worker, he consistently invested in chemical and fertilizer inputs, purchased his own tractor, and survived almost exclusively off of cane. No doubt due to his close resemblance to an ideal 'progressive' farmer, it is perhaps unsurprising that VM was successful in his application for FAF loan assistance. However, the termination of FAF concurrent with the onset of drought would prove devastating: unable to afford tractor maintenance and sustained input purchases, production has been scaled back to four hectares, and has necessitated his application for an old age pension.

6.3.4 Dropping Out/ Dropped Out: Women without wages or labour

Throwing into greater relief the importance of non-cane sources of income to sustained production are growers who have found themselves either in a terminal rate of decline, or who have already dropped out of production altogether. Notably, all of these growers are women, six of whom are also the head of their respective homesteads, and two with incapacitated husbands. While in each case patrilocal custom played a strong role in conditioning differential access to land by marriage, the rapid decline faced by these women is most distinguished by the loss or lack of non-cane income (both of jobs and social grants) and labour in the face of deteriorating agronomic conditions.

The centrality of wage investment is probably best exemplified by Ma M (case 12). Despite a fairly small initial land allocation, her husband's reliable wages provided a strong basis upon which to borrow land for non-subsistence agricultural production. It is further notable that, in her own assessment, the marginal profit was too small to provide a significant contribution to basic homestead consumption until they had reached four hectares. Following the death of her husband, his lesser private pension was insufficient to provide both basic food purchases and sustained input purchases even with a brief dint of financing from FAF.

Though one son has since been employed (and left home), it clear that cane is seen to be an inferior investment option compared to job training.

Cane's increasingly less attractive potential is similarly evident in the testimonies of T (case 13), NB (case 14), and MZ (case 15). For T, though her husband claims over 20 ha of land and a substantive permanent job, in their nine years of production T's homestead never expanded production beyond two hectares. Indeed, despite one child's employment and sustained labour relations with neighbours, T and her family see little motivation to re-embark in cane production, at least under present conditions. For NB and MZ, the incapacitation and death of a husband would further be exacerbated by the redirection of children's labour towards wage work. For MZ, who also suffered the death of a son, the combination of her pension and daughter's wages is enough to provide a consumptive base for the homestead, but insufficient to spare substantial investment. In the case of NB sugarcane cultivation was only initiated in 2007, and she cultivates largely independently of her two school-going grandchildren and incapacitated husband. Though her children have gained decent salaried positions, they have concentrated their earnings in sustaining new independent homesteads and thus simultaneously also represent a loss of labour.

Indeed, an enduring subtext in all of these testimonies is that sugarcane cultivation represented something of an experimental 'moment'. With nearly all growers in this category initiating cane production in the 1990s, the initiation of this moment is no-doubt tied closely to the de-regulation of registration, while its decade-long gestation is likely due to the long life-cycle of the cane itself and the necessity to cover recurrent costs to maximise this initial sunk investment. For these homesteads it further appears that the original appeal of the 'lump' returns offered by cane was to *free* child labour from agricultural production, largely to enter school and/or invest in later training or education. In this sense, cane acted as medium by which to transmit historical wages into enhanced employment prospects. The requirement of higher investment and intensified exploitation to persevere with cane production under less climatically favourable conditions is thus something of an inversion of this original logic.

While open-registration during a sustained period of good rainfall was a strong impetus to invest in cane production for those with sufficient savings to do so, it also created a social basis of entry for those who did not. For SN (case 16) and Ma K (case 17) in particular, the initiation of cane production was premised almost entirely upon the expansionary strategies of a substantially landed neighbour via an establishment-rental arrangement. For SN, an unmarried mother, self-exploitation on her own cane provided a welcome consumptive supplement to the wages upon which she received in being exploited by others. That she is one of the few growers who depend on casual agricultural labour for

survival, is of course not coincidentally due to her homestead's lack of either an old-age grant or other substantial employment. Indeed, having never had the financial resources to invest in cane production herself, it is highly unlikely that she will be able to resume planting so long as agronomic conditions remain severe. Moreover, though Ma K's homestead had embarked in cane production before, by the time she initiated a similar agreement she and her children were the only members of the homestead who had not died or left. Though subsidizing ceremonial expenses, Ma was overall unimpressed by the returns she received from cane under drought conditions. Though her employed children would contribute to recurrent input and labour costs, it is clear that Ma K is not interested in drawing further on wage resources to invest in onerous establishment costs.

In the case of NS (case 19) and NtS (case 18), a vicious cycle of declining returns following the end of 'boom' conditions has further fractured lineal relations of production within and between homesteads. NtS has been perhaps hit the hardest by the decline of cane: following the death of her husband, a local contractor, she has been unable to sustain his operations. With their two tractors now broken, her cane fields reduced to two hectares, and in the absence of a social grant, NtS is now largely dependent on a combination of her son's wages as a taxi driver and her own earnings from casual labour. Moreover, however, NtS' husband had also played an instrumental role in establishing cane on the land of his mother and her sister-wives, of which NS is one. For NS, cane production was defined by reciprocal relations of labour with her husband's other wives, and cane-labour for her son in law, with some additional wage support from her husband. The confluence of declining returns and the death of her own husband, however, has prompted the fragmentation of such reciprocal relations not only between NtS and NS, but also between the other wives. This has been further exacerbated by NS' own relative incapacitation from a chronic swelling in her leg, which has prevented her from pursuing relations of mutual labour, and by the fact that she is unable to discipline her children into unpaid labour. With no jobs in the homestead, NS is thus all but completely dependent on her DSG and CSG.

6.3.5 Creeping Back?: 'Eating' grants and investing cane

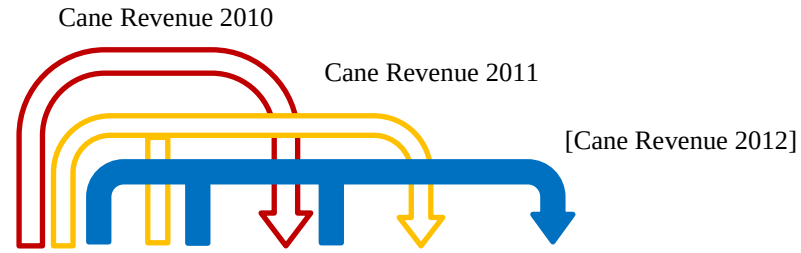
While the bulk of growers reviewed so far have largely been caught in a dynamic of 'dropping' or 'stepping' out of cane production, this section seeks to examine growers who have embarked on a strategy of re-expansion after sustaining near or total falls in production. In some ways, each of these three growers has followed distinctive but now somewhat familiar trajectories. Ma Z (case 21) invested in sugarcane with wage savings from farm labour and her husband's pension and currently receives some remittances from her son, TS (case 22) who is a cane labourer without a pension and who first got involved in cane by way

of an establishment-land lease arrangement, and ZMk (case 20, and the *induna*'s cousin) who followed a path of gradually ascending wage labour until investing in cane and expanding to full production with FAF. For TS cane similarly provided enough funding to improve his homestead home, while for and ZMk and Ma Z at its peak cane was the homestead's chief source of revenue. For ZMk and MZ in particular, the decline of agronomic conditions eventually forced both to use draw down on their replacement fund for consumptive purposes, a reality accentuated for ZMk by burdensome interest charges.

Despite these differences, the expansion strategy being pursued by each of these growers is very similar. ZMk's particular plan at the time of interview illustrates the core thrust approach, and is displayed diagrammatically in figure 6.3 below. Most essentially, the strategy entails a conservative incremental expansion by using some portions of a field as seedcane (and hence saving on seedcane purchases), and using revenue garnered from the submission of other portions to the mill to cover recurrent/annual ratoon costs and reinvesting all profit in a marginal expansion. So, as shown in the diagram, in 2010 ZMk used 0.5 ha (b) as seedcane for 0.5 ha (c) with services and inputs for the expanded fields (a + b + c) purchased with revenue from 0.5 ha (a). In 2011 he in turn used 0.5 ha (c) as seedcane for 0.5 ha (d), with revenue from both (a) and (b) used to finance expanded field (a+b+c+d). In 2012, ZM hence planned to use (d) as seedcane for field (e) with revenue from (a), (b) and (c) to finance expanded field (a+b+c+d+e). Not displayed, but key to the strategy is to refrain from drawing down *on any* cane revenue for consumptive purposes until scale is achieved, such that proportionately low per hectare profit margins are consolidated. Fundamental to this strategy is hence the *limitation of consumption to within the bounds of grant income* for day-to-day survival.

Ma Z and TS similarly seek to pursue slight variations on this basic plan. TS has already proceeded with it to some extent, though in the absence of an old-age grant he has relied primarily on wages in casual agricultural labour to survive. Nonetheless, he has observed that his standing cane's growth remains somewhat stunted, and may require switching to another more heat resistant variety. For MZ, re-expansion is being premised on borrowing land from a niece and borrowing input money from a neighbour to augment free fertilizer received by the mill (originally sourced from the DoA). Though carrying an additional burden of debt, grant-based consumption limits will be supplemented somewhat by remittances sent by her son in Durban. Nonetheless, limits to self-exploitation by her old-age and a reluctance to impinge on her children's education also mean she may be compelled to commit more funds to herbicide and a knap-sack sprayer as a labour-saving alternative.

Figure 6.3: ZMk's Expansion plan



0.5 ha (a)	0.5 ha (b)	0.5 ha (c)	0.5 ha (d)	0.5 ha (e)	0.5 ha	0.5 ha	0.5 ha	0.5 ha	0.5 ha
Cane	Cane	New Cane (2011)	New Cane (2012)	New Cane [2013]					

Seedcane 2010 | Seedcane 2011 | [Seedcane 2012]

6.4 Discussion: divergent paths, convergent dynamics

While the first section of this chapter established that inequality among the small growers of Madwaleni/Shikishela has manifested as a convergence across a number of socio-economic variables, the testimonies provided here provide some insight into the causal basis of these trajectories and the influence of cane production upon them. Perhaps the greatest strength of the life-history approach is in its longitudinal vantage, particularly in highlighting the importance of wider historical determinations in understanding present realities. One of the most conspicuous aspects of these testimonies is the centrality of on-going processes of class formation and differentiation. It is here in the intersection of individual life-histories with wider social dynamics, that that the underlying social content of cane production can begin to be understood. Moreover, analysis of shifts at this 'horizontal' level provide a strong basis for similarly evaluating the content of changes in the 'vertical' relations elucidated in previous chapters. It is thus by an analytical process of comparison within and across divergent paths that the contours of ultimately integrated dynamic tendencies begin take an appreciable 'shape', and the implications for contemporary productive forms fathomed.

To begin with, it is perhaps worth re-iterating that these testimonies bear witness to the now familiar historical emergence of South African agrarian capitalism on white farms established by widespread African dispossession and sustained by African labour. Generally, prospects for competitive African landed production were thus forcibly stunted in its relegation to the reserves/Bantustans, and largely limited to subsistence complements to

wages and 'residual' production for local markets 'segmented' from more 'advanced' circuits. While socially marginal relative to the wider country, however, these testimonies clearly show that differential access to land remains a substantive conditioning factor in social reproductive dynamics. It is notable that land ownership tends to be larger for small growers who trace deep lineal roots to Madwaleni/Shikishela. This particularly true for male relatives of the Mk clan, from which local traditional authority largely emanates, but less so for female descendants compelled to settle on the land of their husbands. However, even for women who married-in to established families, effective enjoyment of large land holdings was not guaranteed, as is clear the fragmentation of JMk's 'house' from the conjugal homestead. Nonetheless, as observed in Chapter Four, most small growers are first or second generation residents. For a large number of growers interviewed above, Madwaleni and Shikishela represented a place of refuge from overt dispossession, largely in forced removals from the Hluhluwe game reserve and St. Lucia conservation area, but also from evictions from labour tenancy, homestead fragmentation and social conflict in other customary areas. For other, particularly male growers, settlement in Madwaleni/Shikishela was driven by the desire to establish a conjugal homestead outside of their natal home in other customary areas, typically founded after a period of ascending wage employment towards the purchase of cattle for *lobola*.

Although the particular historical determination of the scale of landholdings is not completely clear, these testimonies suggest at least three pertinent factors. Firstly, lineal connections to the existing residents, particularly to large landholders and/or the traditional authority seem to have played an important role. Appealing to familial ties of social obligation would appear to have been crucial to motivating local residents to both vouch for the potential entrant's credibility of character, as well as identify or surrender particularly good quality residential and productive sites. Secondly, prior social standing in a different community and/or relative wealth appears to also have had influence. It is not clear if this is due to entrant's making payments above and beyond *khonza*, an accommodation of their greater means (particularly cattle), or a desire to augment the social power base of local authorities. Finally, the timing of entry also appears to be important. Although historical rates of population growth, immigration, and emigration could not be acquired, the testimonies seem to suggest that Madwaleni/Shikishela has become more crowded over time, particularly due to Mpukunyoni's general accommodation of former St. Lucia residents. Although such crowding may not be as severe as in more peri-urban or less cultivated areas, early immigrants appear to have had something of a better chance of claiming larger portions of land than later entrants.

The importance of access to relatively large swathes of land is seemingly self-evident. More land obviously enables more crop and livestock production whether for direct consumption or sale, and it is indeed notable that a fair number of homesteads with more sizable land portions indeed did utilize their land for the sale of local food crops and/or cotton. Sizable land holdings have similarly been a prerequisite for the relative success of the cross-subsidization strategies of surviving local contractors, and indeed almost all have since expanded upon their original allocations, largely by purchase. To this extent, it is probably unsurprising that there exists such a strong correlation between land and relative wealth amongst the sample. But while access to substantial landholdings may be a prerequisite for commercial survival, these testimonies illustrate it is not a *sufficient* condition.

Indeed, perhaps the most striking consistency in the initiation of sugarcane production has been the critical role of non-cane income investments. Most commonly, such investments took the form of wages, whether current or historical savings, although for some cane cultivation was preceded by cotton production. Such initial investments tended to be fairly conservative, comprising a relatively small amount of land, seedcane, and fertilizer, and incrementally expanded, based on the good returns received. It is further notable that for growers who initiated production in the late 1980s, establishment was clearly bolstered by miller assistance in dispatching labour and ploughing services. For many growers, good initial returns were motivation enough to extend the experiment to supplant food (or in some cases, cotton) production. In many cases, initial production fell within a common homestead division of labour, with much work being accomplished by wives and children supplemented by hired labour from poorer homesteads. In cases where male heads had 'retired' from migrant labour they would tend to take a more active role in actual production, and in some cases, invest in tractors.

The boom of small-scale sugarcane production in the 1990s thus occurred as something of an intersection of determinants. The previous chapters outlined how, in addition to good agronomic conditions, small-scale growers not only received preferential pricing, but also enjoyed enhanced infrastructural, administrative, and in some cases productive support as a result of effective intra-industry and government subsidy. Yet even while direct miller interventions slowly receded, the wave of initial accumulation by small growers with considerable wage savings and land served also to inculcate a *social basis* for expansion. With the loosening of restrictions of registration, neighbouring homesteads enticed into cane production presented nascent accumulators with several important opportunities. In the first place, new growers represented a potential market for seedcane, ploughing and transport services to help cover capital costs. Secondly, they presented some opportunities to temporarily expand the scale of operations through land rental and

establishment-lease arrangements. Indeed, as we have seen, for growers with less land and wage savings, such services offered a potential means to enter cane production without fronting onerous establishment costs. For these growers, own cane production represented a beneficial extension of casual cane labour, but represented a largely supplemental income from ratoon management.

The ultimate precipitous drop in production in the 2000s thus came as something of an inevitability as each of these enabling circumstances fell away. The rescinding of miller supports and preferential pricing, followed by the onset of drought and ultimate closure of FAF engendered a vicious squeeze which further undermined the social basis of production and negatively affected prospects for investment in cane. In the first instance, low rainfall conditions have shortened the lifecycle of cane, compelling growers to undergo high costs of re-establishment more frequently. Secondly, the devastating impact of heightened inefficiencies in transport and low rainfall on sucrose levels has largely negated income returns to intensified labour and input application. Thirdly, small-scale grower decline has amounted to the gradual depletion of the client base of nascent accumulators less able to meet replacement costs of equipment, particularly tractors. The rapid drop-out of contractors has then further undermined the efficiency of timeous transport, and further raised the effective cost of small-scale sugarcane production. Fourthly, a general lack of employment opportunities more generally has undermined the wage basis of investment more broadly, while social grants have inhibited the translation of widespread unemployment into intensified exploitation.

The severity of these intensified pressures on poles of both capital and labour within petty-commodity-producing enterprises has thus tied dynamics of social differentiation in cane production to non-cane income sources in a far more intimate way than before. Whether diversification operates as a function of accumulation or survival, in *all* cases the attractiveness of cane production has been most strongly conditioned by the availability and quality of other income streams. Unlike in the original stages of production, where savings represented the catalyst to the initiation of production, non-cane income sources have been integral to the recurrent operations; either through direct input and labour purchases or indirectly as a basis for homestead consumption.

Diversification of livelihoods has become something of a staple observation of empirical studies into small-scale agriculture, both in Southern Africa and internationally. This is perhaps an unsurprising trend in a general context where the value of labour-power is effectively devalued by highly productive mechanised operations of competing capitalist farmers. While such studies do tend to make descriptive distinctions between different grades of non-agricultural income sources, this is largely done on the basis of the differential

quantities of cash returns they attract. Though critical, making sense of different small-scale grower trajectories also requires making an *analytical* distinction between different non-cane income sources in order to make sense of the empirical taxonomy of varied productive pathways provided by Dorward et al and Scoones et al utilized above.

One of the core benefits of a Marxist analytic is its explanatory power in this regard. Broadly speaking there are three potential responses for petty-commodity-producers to sustain their operations in the face of competitive pressures. One is to expand the scale of operations; i.e. to increase the area under cultivation and hence augment the mass of absolute surplus value. Barriers to expansion in land may come from prohibitive purchase and rental prices and interest rates (particularly in open markets) or from intractable social barriers (a common attitude to customary tenure). A second possibility is to intensify the exploitation of labour (whether self, family or hired) until the 'socially average' levels of productivity are met; i.e. to lower wages and appropriate more surplus value for the same amount of work and/or demand more work for the same wage. Intensified exploitation of course requires considerable disciplinary powers and an absence of more remunerative options for the worker, and is ultimately limited by their physicality. Where 'socially average' returns to labour-power are pushed below the cost of physically sustaining the manual labourer, say by the use of productivity-enhancing machinery by competitors, intensified exploitation may be insufficient even in the absence of any other income options or social/ethical constraints. The final possibility is hence to raise the productive capacity of labour via capital investment, either in labour-saving technology (e.g. tractors, herbicides and sprayers) or yield-raising inputs (e.g. chemical fertilizers or improved hybrid or genetically-modified varieties). In raising the organic composition of the enterprise, however, an increase in capital intensity often necessitates an economy of scale and hence simultaneously increasing the area under cultivation and/or intensified exploitation. This is perhaps most classically exemplified by tractors, often characterised as a 'lumpy' (or indivisible) inputs due to the much higher revenue streams they require to sustain their operation. Understood in these terms, an analytical distinction can be made between three key income sources, namely wages/salaries from employment; social grants; and contracting. Though in reality two or more of these income sources are combined in various ways, each carries distinctive though subtle subtexts for labour and hence the creation and appropriation of surplus value.

The historical importance of wages in initiating cane production distinguishes it as perhaps an appropriate place to start. As is clear in the evidence in both survey and life-history testimonies, wages have been a critical determinant to relative levels of wealth and sustaining some level of production. Most obviously, access to wages may reduce incentives to 'draw down' on cane revenue for the purposes of consumption, or provide cash-on-hand

for recurrent input purchases. In the case of JMk, for example, sustained input purchases from her son have been integral to maintaining some level of production. Yet as we have seen, the mere presence of an employed homestead member does not automatically translate into a subsidy to cane-production. Particularly for homesteads that are 'stepping out' via wage employment, cane no longer appears to be an attractive investment opportunity. This is even more evident for some homesteads which have 'stepped out' altogether, such in the case of T. On one level, a reticence to commit wages to agricultural production under harsh agronomic conditions would appear obvious. However, it is curious that though homesteads like those of IM and LG carry far greater purchasing power and land endowments than homesteads like JMk, both have sustained similar levels of production. While one might predict that greater wage and land endowments would enable greater investment, returns and sustained levels of production, this is evidently not the case.

The key to understanding this differential is that ultimately employment represents a claim on the exploitable pool of homestead labour. While income from employment might be used to purchase labour from neighbouring homesteads, appropriation of surplus has been limited by the barriers to exploitation posed by social grants. Indeed, in the case of LG, homestead males have proved far more willing to engage in cane labour for neighbours at going rates than contribute to their parents' and grandparents' own production. Though employment can allow more consistent purchase of inputs and tractor services, both represent necessary but ultimately 'sunk' costs; neither able to 'create' value and moreover hindered by their operation below the social average levels of productivity (due to drought and transport/contractor inefficiency). While proportionately lower profits might be offset by an absolute increase by increasing the area under cultivation, the absolute investment required would come at the cost of lower consumptive levels which homestead members would (quite reasonably) be unwilling to sustain. Production has thus been maintained only within the ambit of capability of available, willing or disciplined homestead labour from which commensurate value can be appropriated.

The explanatory power of such a Marxist analysis is made more cogent by comparison with homesteads sustaining production with social grants and in the absence of recurring wage investments. This made most explicit by the cases of AZ and VM, neither of whom have access to substantial employment. In the case of the former, homestead consumption has been strictly confined to the cash received by social grants and average level 'wages' paid to homestead labour, with residual profit re-invested in recurrent costs or saved for bulk items. In the case of VM, deteriorating conditions saw his production fall to less than half its peak, while his tractor has fallen into disrepair. Nonetheless, he has been able to maintain a level of production comparable to that of AZ with similar reinvestment,

commitment of homestead labour and limitation of consumption to recently received social grants. His tractor meanwhile remains in a state of disrepair; and it is unlikely that the savings it would provide through own-use in cane would be greater than the costs of maintaining it.

Indeed, the strategy of limiting consumption and committing homestead labour is also remarkably similar to the path which has been followed by small growers 'creeping back' into production. It is further notable that this 'incremental' expansion strategy based on the labour commitments of homestead members has also reportedly had some successes in other supply regions (Munsamy, 2012). But even at this level there are tensions, exemplified in my own sample by the cases of ZMk, who claims a pension and utilizes mainly his own labour with that of his two wives and children; MZ, whose expansion strategy requires both borrowing money for land and labour-saving inputs; and TS, who is compelled to subsidise homestead consumption with cane labour in the absence of an old-age grant. While the foremost has both a pension to sustain basic consumption and a reservoir of homestead labour upon which to draw, the latter two cases have but one of each respectively. For these latter two in particular, the reduction of the own-exploitation labour commitments raises the question of whether any significant returns above cost will be generated.

Finally, the case of contractors is perhaps most illustrative of this dynamic. For these growers, the answer to the devaluation of labour power and low relative surplus value has been to intensify capital investments and extend the scale of cane production. In the face of arguments that locate small growers' decline purely on agronomic grounds, these contractor-growers have been expanding their dual enterprises year on year. Integral to this process has of course been the cross-subsidization of the two enterprises, underlined by the fact that there no longer exist any contractors without cane, but similarly no growers with operational tractors who are not contractors. Clearly, contracting has been rendered unsustainable as a stand-alone enterprise by high diesel costs and relatively high rates of depreciation encountered in servicing disparate growers on poor-quality roads; a reality exacerbated by the poor state of used tractors at the time of purchase. Where extending (an already diminished) small-scale grower client bases cannot be accomplished without further extending their machinery, cross-subsidization with cane is necessary to cover these costs. Certainly, the own-use of the tractor can be utilized to lower own ploughing and transport costs, and the large *revenue from contracting* surely enables the timely purchase of inputs to ensure commensurate levels of productivity. This indeed is what allows the contractor-grower to garner a *surplus from cane.* But, to paraphrase Marx, it is this surplus extracted from the 'living labour' of cane production which is subordinated or 'sucked' by the 'dead labour' of

contracting; inefficiencies in which make its 'vampire-like' thirst all the greater.[61] [62] Yet with high average levels of productivity in the industry more broadly de-valuing labour-power, and labourers themselves resistant to intensified exploitation by the generalized presence of social grants, the scale of the contractor's sugarcane operations are central.

6.5 Conclusion

Previous chapters have focused primarily on the shifting 'vertical' relationship between small-scale growers in the wider industry. It was argued that growers were originally constituted (though unevenly) as 'renters/landed proletarians' amidst intensive miller logistical oversight and/or direct interventions in production, much of which was funded by augmented claims on the industry's total surplus and outright subsidy by the KwaZulu state. The ultimate retraction of these interventions resulted in brief 'bubble' of small grower production and registration since 'popped' by the harsh circumstances of drought and resulting in a precipitous decline. Hence reconstituted as petty commodity-producers, small growers have chafed at both poles of the contradictory combination of capital and labour, with a combination of contractor inefficiency and harsh agronomic conditions pushing quality and productivity well below the social average set by large-scale white growers more broadly, and social grants acting as something of a barrier to intensified exploitation.

This chapter has sought to examine the uneven impacts of small-scale sugarcane production under these new structural conditions. In the first section an asset-grouping procedure was utilized to expose the terrain of material inequality amongst small growers in Madwaleni/Shikishela, revealing a stark convergence in measures of wealth. Asset 'rich' homesteads were found to have access to greater labour endowments and access to more income sources of better quality, and further account for the bulk of means of production, i.e. in land, tractors and, to some extent cattle. There is further a clear gender dimension to wealth, as poorer homesteads not only tend to feature a high proportion of female heads, but also tend to be more feminized overall.

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[61] The vampire metaphor here is drawn from Marx's section in Chapter 10 ('The Working Day') Section 4 of Capital Vol.I "Constant capital, the means of production, considered from the standpoint of the creation of surplus-value, only exist to absorb labour, and with every drop of labour a proportional quantity of surplus-labour. While they fail to do this, their mere existence causes a relative loss to the capitalist, for they represent during the time they lie fallow, a useless advance of capital. And this loss becomes positive and absolute as soon as the intermission of their employment necessitates additional outlay at the recommencement of work. The prolongation of the working-day beyond the limits of the natural day, into the night, only acts as a palliative. It quenches only in a slight degree the vampire thirst for the living blood of labour" (Marx K. , 1976, p. 367).

[62] Of course, there is also labour inherent to contracting, i.e. workers paid to operate tractors and cane loaders. Although not systematically investigated, casual conversations held that such jobs were generally preferred to field labour, both because they attracted higher wages, and because the nature of the work was less physically taxing. It is quite likely that such wages exceed the 'desperation threshold' as raised by social grants, and mask higher than socially average levels of exploitation, particularly when such exploitation is of the self or family such as is the case of UM. However, the very low efficiency of capital utilization posed by the various aforementioned constraints faced by contractors undermines the competitive edge of such heightened exploitation, hence why I have placed the emphasis on appropriation from field labour.

The second section sought to elucidate the particular influence of cane production on on-going processes of social differentiation through analysis of 23 life-history interviews set in a typology of productive trajectories. Growers who were 'stepping up' production were notably limited to contractors, based largely in the mutual expansion and cross-subsidization of cane and transport/ploughing operations. Growers 'hanging' in included one indebted contractor whose contracting operations had grown beyond a size that could be effectively subsidized by his cane operations, and one single female grower who relied exclusively on homestead labour. Growers 'stepping out' out of production came from homesteads with access to substantial employment, and for whom cane has been rendered an unattractive investment opportunity. Growers 'stepping down' production had retained some measure of production, either by subsidizing input and labour purchases with wage employment or grants. Growers who had dropped or were in the process of terminally dropping out of production all faced a vicious cycle of declining returns and input/labour purchases. Notably, all of these homesteads were female headed, with decline often being marked/preceded by the death or incapacitation of a male-wage earner. In these cases, the relative impact of the decline of cane has been heavily conditioned by the availability of old-age pensions and/or employed children. Finally, growers 'creeping back' into production have sought to pursue a strategy of limited re-expansion by limiting consumption within the confines grants and employment, using a portion of standing cane as seedcane, submitting the balance, and wholly reinvesting the proceeds until scale is reached.

The third and final section sought to use a Marxist class analytic to explicate these differences of trajectory. It was first observed that in all cases, relative access to non-cane income sources of varying quality (predominantly from migrant labour) and differential historical access to land proved to be central conditioning factors to the initiation of cane production. The 'boom' in cane production also provided a social basis for entry by way of land-lease arrangements for those unable to front the costs of establishment. For most homesteads, accumulation from cane production thus played a fairly subordinate role to homestead social reproduction, acting largely as a multiplier of current or historical wages, but rendered possible by good agronomic conditions and the relative efficiency of transport and ploughing operations under the close management of millers. The retraction of miller oversight and onset of drought has however critically undermined grower productivity and efficiency, hence diminishing their relative surplus.

Constrained in expanding the scale and capital intensity of their operations and in intensifying the exploitation of neighbours, I argued that sustained production for most growers has been determined by their capacity to both appropriate greater absolute surplus from the intensified exploitation of family labour and resist 'drawing down' on revenue for

consumption. With day-to-day consumption premised largely on social grants, and differential wealth largely conditioned by the number and quality of employment opportunities available to homestead members, it was further argued that the labour content of non-cane income sources has been a key conditioning factor in growers' capacity or willingness to persist in cane production. Contractors meanwhile have been the only growers to expand the mass of surplus value by expanding the scale and capital intensity of their operations via a process of cross-subsidization and proportional growth. However, the hence raised 'organic composition' of both enterprises raises questions of durability as the costs of (inefficient) constant capital comes to demand ever greater commensurate increases in scale.

Chapter Seven: Summary and Implications

7.1 Summary of ground covered

This thesis has sought to critically investigate the political economy of small-scale sugarcane production under shifting structural conditions of incorporation with a particular focus on the impact of cane production on processes of social differentiation. The first chapter sought to briefly establish the general context of small grower decline and outline the general structure of the rest of thesis before providing a review of the methodology utilized in my inquiry. Following Sayer (2010) my empirical research consisted of three over-lapping phases. The first 'exploratory' phase was concerned with gathering background information on the general context of small-scale sugarcane production through a general literature review and engagement with key informants in the South African Cane Growers Association (SACGA). Secondly potential field sites were evaluated based on the descriptions provided by extension officers, growers, and SACGA in reference to their anticipated representativeness, the relatively unpronounced impact of factors I would not be able to investigate such as soil fertility, constraints on my capacity as single researcher, and ease of entry. The final stage of this phase was to orientate myself within my selected field sites under the guide of my grower-host and test a first draft of my questionnaire.

The second 'extensive' phase of research was concerned primarily with gathering general descriptive data by way of a homestead survey directed at the resident sugarcane grower, though opportunities to attend grower meeting were taken whenever possible. The final 'intensive' phase of my research was initiated after a protracted period of data analysis, and focused mainly on investigating the causal relations underlying the descriptive 'frame' provided by my data. Ultimately 23 life-history interviews were administered with growers, focusing on the shifting material circumstances of their lives. This was further supplemented by semi-structured interviews with mill officials, and continued attendance of grower meetings. Concurrently, over the course of this phase I had begun pursuing a review of secondary materials to reconstruct a general history of the political economy of the sugar industry, with a particular focus on the evolution of its peculiar regulatory structure and the shifting structural foundations of small-scale sugarcane production.

The second chapter provided a review of the on-going debates as to content and relevance of contract farming as a particular governance form, giving particular attention to differing perspectives from within radical political economy. There it was firstly argued that so-called 'peasant' farmers were best understood as petty commodity-producers combining the contradictory positions of capital and labour in various uneven ways (Bernstein, 1988). In governing the terms of exchange, and indeed often methods of production, it was hence

further argued that monoposonistic contractors subordinate the 'capital' portion of the farmer's enterprise, which in turn can indirectly compel intensified exploitation (Wilson, 1986; Watts, 1994; Gibbon & Ponte, 2005). Intensified exploitation serves to first compensate for lower than socially average levels of productivity set by more capitalised farmers, with any 'excess' surplus hence captured by the processor. The terms of subordination by contracting 'normal' capitals is nonetheless competitive with others, and need not be understood merely in terms of an arbitrary 'monopoly rent' (Starosta, 2007). It was further suggested that wider commercial conditions play a strong determinant role in the content of any given scheme, which may 'flexibly' shift over time (Watts, 1994). Under expansionary conditions, the emphasis is on amassing relative surplus via integration, to reduce transaction costs by increased productivity and expanded output. Under contractionary conditions, the emphasis may hence shift to augment absolute claims on farmers' surplus by setting more stringent terms of exchange and hence reducing labour 'costs' by indirectly coercing greater exploitation (Wallerstein & Hopkins, 1994). In addition to variability of wider commercial conditions and labour-capital composition of farmer enterprises, the social content of contract farming will be heavily influenced by wider on-going processes of social change, and cannot be isolated as the sole driver of patterns of differentiation (Oya, 2008; Little, 1994). Understanding the social content and impact of contract farming thus requires investigation of the concrete commercial, social and political conditions under which any given scheme operates.

Chapter Three hence sought to provide a general history of the political economy of the South African sugar industry in order to understand the structural origins of small-scale sugarcane production and how the terms of their incorporation have shifted over time. It was argued that small-scale grower production originated in an expansionary impulse during a brief period of high world-prices, but gained particular prominence under conditions of contraction. Disguised as the outcome of the extension of small-scale credit, the effective subsidization of small-scale sugarcane production by the KwaZulu government and the enhanced claim on total proceeds it provided within the industry's regulatory structure, small-scale sugarcane production provided millers with a 'cheap' cane supply as chronic overproduction compelled broader 'rationalization'. Under this dispensation, small growers generally emerged as little more than landed proletarians or rentiers within highly regimented productive and logistical interventions by millers. Critically, this economic logic was mutually conditioned by the politically-legitimating appeal of small-scale grower 'development' to the apartheid/KwaZulu governments.

The political importance of small-scale sugar growers has persisted into democratic era, particularly as part of the industry's wider strategy of resisting liberalisation

deregulation. The limited 're-regulation' pursued by the industry has nonetheless undermined the structural foundations of small-scale grower production as originally constituted. The removal of the cost-based division of proceeds effectively removed the material basis for intensive miller interventions and more firmly reconstituted small growers as 'independent' petty commodity-producers. In tandem with an earlier removal of restriction on registration and a period of good agronomic conditions, the subsequent boom in small-scale sugar production in the 1990s-2000s amounted to a structurally unsound 'bubble'. Its ultimate 'pop' with the onset of drought in the mid-2000s has indeed witnessed a massive decline in small-scale grower production and the ultimate closure of the industry's much lauded small-scale credit facilities. Meanwhile millers have pursued an aggressive expansion northward into Southern Africa in pursuit of new export and investment opportunities bolstered by the reconditioning of South Africa's regional relations and speculation in bioethanol.

Chapter Four sought to introduce the empirical portion of my research by providing a 'snap-shot' description of small grower homesteads in Madwaleni and Shikishela in particular, relying primarily on socioeconomic data collected in my own survey and compared with wider census data. Most foundationally, grower homesteads were found to be comprised by fairly large, multi-generational families, with most family members present most or all nights. The distribution of men and women was found to be more even than the wider ward and municipality, though the incidence of marriage remained comparably low. A high proportion of marriages were accounted for in the senior-most conjugal relationship, and registered growers tended to be co-incident with nominal homestead 'heads', most of whom are male. Overall, growers thus tended to either be male homestead heads, women married to a male homestead head, or women homestead heads in the absence of a living male partner. Homesteads tended to rely on a median of six income sources, but with 'formal' employment accounting for only 12.5% of adults; more than half of all income sources were accounted by social grants.

It was suggested that these measures indicate something of a subversion of the 'classic' basis of Bantustan survival on a combination of subsistence agriculture and migrant labour (Wolpe, 1980). Amidst chronically high levels of unemployment, social grants appear to have stood in for remittances as the foundation of homestead consumption, centred largely on the old-age grants of senior homestead members but importantly supplemented by the less remunerative but more common child-support grants received almost universally by women. It was further notable that despite cultivated air of traditional permanence, only one third of homesteads inherited their land from direct lineal relations, with most homesteads having been founded between 1970 and 1990. Median land ownership meanwhile stood at four hectares, but also remained highly unequal, exhibiting a range of between one-half and 25

hectares. 62% of homestead land was reported to be under cultivation, 80% of which was accounted for by cane. Nonetheless, while instances of homestead cattle and goat ownership are consistent with that of the Africa Centre surveillance area, instances of non-cane cropping were found to be are much higher. It was thus suggested that the prevalent social and physical infrastructure dedicated to cane has served to 'crowd in' homesteads to cane production, but has also indirectly encouraged the production of subsistence compliments, possibly through the marginal extension of labour and reservation of inputs.

Chapter Five then proceeded to interrogate the 'vertical' relations between small growers, contractors, the mill and its large-scale grower owners. Despite formal representative equality between large and small grower sections, small growers occupy a marginal position in terms of their overall supply contribution and are chronically under-capacitated in their administrative and productive capacities. In such an endemically inferior position, small growers both rely upon the support of SACGA and distinctive union of large-scale grower-miller support and chafe from the often paternalistic or sometimes ill-adapted content of interventions. A concrete illustration of these tensions was provided in the failure to compile the 'business plans' conditional to the disbursement of MAFISA funds. It was argued, however, that rather than a product of inappropriate institutional design, such tensions are instead reflective of deeper structural contradiction between the nominal 'independence' of small growers and their effective subordination to the commercial pressures and industrial rhythms of the mill.

It was argued that the gradual devolvement of direct miller involvement and then oversight in ploughing and transport to intermediaries accentuated the formal separation of the *execution* of cane production from its *conception* as an integrated component of sugar production. The *ex-nihlio* creation of a class of local black contractors to this end further served to socially embed the logic and tensions of cane production by offering a 'space' for local accumulators to hence mediate these pressures together with private truck-hauliers. It was further argued that this amounted to a *fragmentation of capital*, insofar that transport and ploughing operations necessary for small grower production as a whole but previously run as a collective function of the mill are now compelled to independently valorise themselves within terms of *circulation and exchange* set by millers (though determined by the industry more broadly). It was further argued that fragmentation has been further intensified by the retraction of the strong coordinating and logistical oversight previously provided by millers, in addition to extension support. The deleterious impact on small growers is most forcefully represented by consequent dysfunctions in transport. Ultimately, the strictures of transport are set by the principle of 'rateable delivery' determined by the mill's competitive imperative to maximise throughput. With growers hence unable to independently co-ordinate harvest (and

hence production) as a unified section, private hauliers and local contractors in particular struggle to timeously service disparate growers, resulting in compounding backlogs. Together with drought, such backlogs have had a devastating impact on grower sucrose levels, and further undermine their productivity. With loss of sucrose and transport delays playing no part in the accounting of transport (itself accounting on average for more than a third of revenue), such a loss is borne by the grower alone.

In addition to this acting as a disincentive to intensive production, growers face considerable difficulties in responding to such pressures by *deepening the exploitation of labour*. I argued that the most formidable barrier to intensified exploitation is posed by social grants, which in providing a measure of basic consumptive security have both reduced the desperation (and hence improved the bargaining position) of hired labour from neighbouring homesteads *and* raised the opportunity cost of enticing or disciplining family labour at the expense of pursuing other, even stochastic education or few employment opportunities. It was indeed shown that (generally aged) growers depend on paid hired and family labour for the most labour intensive aspects of cane husbandry (particularly harvest), with some growers further reporting relying primarily on reciprocal paid labour arrangements with neighbours. With obstacles to expansion in scale given by crowded land parcels, growers thus find themselves squeezed between the inefficiency of fragmented 'sectional capital' and obstacles to intensified exploitation posed by grants.

Indeed, data provided by SACGA showed that mean cane revenue (i.e. before costs) was less than the value of an old-age or disability grant, standing at R11,358.57 for 2010 and R9,192.40 as mean of the previous 5 years. Rough average per hectare costing figures further showed the proportional weight of capital and labour costs (presuming they are paid at the average wage). In a year of planting, input and ploughing costs accounted for 60-70% of annual revenue *after* transport while establishment costs alone (including labour) accounted for 50% of costs. Though not strictly comparable, if the total costs of a single hectare are deducted from annual revenue data, it would leave only R1,531-R1,031, far below the poverty line. Nonetheless, it was also observed that if ratoon costs are taken alone, the range is bumped up to R2,700-R4,000, highlighting the particularly negative impact of drought in reducing the life-cycle of planted cane under constraints of high labour and capital costs.

Moving to a horizontal focus, Chapter Six then sought to examine the differential impact of cane production on dynamics of social differentiation. In the first section an asset-grouping procedure was utilized to describe the terrain of material inequality amongst small growers, revealing a stark convergence in measures of wealth. Asset 'rich' homesteads were found to be larger, have access to more income sources of better quality, and further accounted for the bulk of means of production, i.e. in land, tractors and, to some extent cattle.

There is further a clear gender dimension to wealth, as poorer homesteads not only tend to feature a high proportion of female heads, but also tend to be more feminized overall. The second section then sought to interrogate the underlying causal basis of the differences and how these intersected with cane production by way of life-history interviews with 23 select growers.

Growers were hence grouped according to their relative productive trajectories utilizing a slightly modified version of a typology first developed by Dorward et al. (2009) and subsequently utilized by Scoones et al. (2011). Contra to discourses which focus on drought as the only source of small grower decline, grower-contractors had all notably 'stepped-up' production, most of which claimed substantial areas under cane (6-25ha) and had even purchased land from neighbours at some point. All such growers had notably relied on a process of cross-subsidizing their enterprises (largely buying inputs/labour with proceeds from contracting and investing in maintenance of tractors with proceeds from cane). Growers 'hanging-in' at relatively sustained levels of production included a single female grower notably producing exclusively with family labour and a highly indebted contractor. Growers 'stepping out' out of production came from homesteads with substantial employment, and for whom cane has been rendered an increasingly unattractive site of investment, while growers 'stepping down' retained some measure of production, either by subsidizing input and labour purchases with wage employment or grants. Growers who had dropped or dropping out of production all faced a vicious cycle of declining returns and input/labour purchases. Notably, all of these homesteads were female headed, with decline often being marked preceded by the death or incapacitation of a male-wage earner. The relative impact of the decline in these cases has been heavily conditioned by the availability of old-age pensions and/or employed children. Finally, growers 'creeping back' into production have sought to pursue a strategy of limited re-expansion by limiting consumption within the confines grants and employment, using a portion of standing cane as seedcane, submitting the balance, and wholly reinvesting the proceeds until scale is achieved.

The third and final section sought to use a Marxist class analytic to explicate these differences of trajectory. It was first observed that in all cases, relative access to non-cane income sources, largely from migrant labour, and differential historical access to land proved to be central conditioning factors to cane production. Furthermore, the 'boom' in cane production also provided a social basis for entry by way of land-lease arrangements for those unable to front the costs of establishment. For most homesteads, accumulation from cane production thus played a fairly subordinate role in homestead social reproduction, acting largely as a multiplier of current or historical wages, but rendered possible by good agronomic conditions and the relative efficiency of transport and ploughing operations.

However, under the aforementioned constraints on capital efficiency and constraints to exploitation posed by social grants, I argued that sustained production for most growers has been determined by their capacity to both appropriate greater absolute surplus from the intensified exploitation of family labour and resist 'drawing down' on revenue for consumption.

Key to their ability and/or willingness to do so has been the labour content of non-cane income sources. For non-contracting homesteads, cane production has either been maintained at ≥4ha or is 'creeping back' where consumption has been kept within the bounds of social grants while cane revenue is reinvested *and* where exploitation of family labour has taken precedence over hired labour. The logic of social grants as a barrier to exploitation is thus inverted *providing* the absence of other income opportunities acts a sufficient form of discipline to family labour. Consistent input purchases thus help raise productivity while the inefficiencies of contractors as 'sectional capital' are offset by intensified exploitation. The lower *rate* of valorisation is then itself offset by a gradually expanding *mass* of surplus as scale is achieved, potentially providing cash on hand to purchase a bulk item or service. Such a dynamic critically explains the lower levels of production exhibited by both grower homesteads 'dropping out', which have relied predominantly on purchasing inputs/labour and/or using cane for recurrent consumptive needs to sustain lower levels of production, *and* homesteads 'stepping out' despite claiming access to even greater incomes from wage employment.

Meanwhile, contractors' relative 'success' was problematized by arguing that an apparent 'virtuous' circle of cross-subsidization was only sustainable by the proportional growth of sugarcane and contracting. It was argued that this was due to disproportionate rise in the organic composition of both enterprises. In particular it was argued that while own-use of the tractor and timely input and labour purchases enabled by the large *revenue* generated by contracting together enable contractors to overcome barriers to productivity and generate a more significant *relative surplus* from cane production, the *mass of surplus* must be ever raised to offset the capital inefficiencies in contracting. This principle would explain why expansion has been limited to grower-contractors and similarly why there are no contractors without cane.

7.2 Discussion: implications for small grower politics and policy

Having completed this analytical journey through the historical and contemporary structural position of small-scale sugarcane growers and the impact of cane on on-going processes of social differentiation, I feel some space must be provided to engage with the question of what

the prospects there are for cane production to have a more meaningful impact on rural livelihoods and for growers to further enhance their relative structural position.

While this study is obviously confined to the question of small-scale sugarcane producers, it is worth re-iterating that sugar and sugarcane production mutually necessitate one another. Sugar production is indeed an integrated process, and the division of cane production is one of form. The unusually close relationship between the two thus presents sugarcane as something of a 'relief case' of agro-industrial integration. Though the context of small-scale sugar production and the sugar industry cannot be extrapolated to other commodities wholesale, it is nonetheless illuminating of the somewhat 'distilled' dynamics of agro-industrial incorporation more broadly, and may indeed have relevance beyond the sugar industry.

Perhaps one of the strongest emerging insights is that small-scale sugarcane farmers do not, and indeed never have, represented a class of 'yeoman' commercial farmers. This is historically true both in the sense that various non-cane income constituted the main fund from which initial investment was predicated and the main foundation of consumption for most growers, and in the sense that small-scale production was indeed originally premised upon substantial and discriminatory intervention by the KwaZulu state and miller extension, administrative, and logistical staff. Indeed, as we have seen, while the removal of restrictions on grower registration and the retraction of miller oversight and productive interventions did result in a brief boom in small-scale grower production, it was soon followed by a precipitous decline. Although the end of apartheid, deepening structural unemployment and introduction of social grants have shifted the content of non-cane income sources in relation to dynamics of cane production, they clearly remain critical to the survival of *all* homesteads. Nonetheless, small growers are clearly eager to engage in landed production in order to augment their varying 'livelihood portfolios'. As sugarcane specifically and petty commodity-production more generally cannot be expected to 'resolve' the deeper question of structural unemployment, the interim 'developmental' question should not be one of 'how can small growers survive from cane production?' as much as 'how can cane production help small growers survive?'.

Despite a general recognition of the technical constraints to production faced by small growers, supporting interventions have tended to remain implicitly premised in the notion that they might be helped to 'develop' into self-sustaining producers. Driven largely by SACGA, such interventions have tended to focus on institutional responses to overcome such constraints, such as access to small-scale credit through the new MAFISA initiative, achieving economies of scale through co-operatization, training etc., or in mobilizing discretionary support through SACGA, such as through SPF payments and the deployment of

GSOs, or through government, such as the joint-ventures in extension or distribution of free fertilizer. Such initiatives have certainly not been insubstantial. Moreover, efforts to inculcate a greater degree of representative inclusivity are certainly progressive improvements which, however inhibited, cannot be dismissed. Nonetheless, such efforts have tended, somewhat ahistorically, to presume that institutional innovations might act as an effective substitute for the wide-range of direct and intensive supports, however draconian, which underpinned the initial growth of small-scale production in the first place. There is something of a double consciousness at work here, where small growers are on the one hand not expected to ever be capable at competing with the average levels of productivity set by large-scale white growers, while on the other supports are largely based on market-based institutional mechanisms to 'develop' small-scale producers as independent farmers, *in spite* of the fact that it is well known that this is not the case. Indeed, this failure to engage with the actual social conditions of small grower production is similarly a feature of government thinking, as is evidenced by the questionable terms of MAFISA and its requisite 'business plans', and the strange confidence that the reintroduction of micro-credit will succeed under the same, if not more severe, conditions that UAF/FAF failed. The ultimate issue, however, is that a corollary of such an ahistorical attitude is its apolitical character, seeking technical and market-based interventions and side-stepping issues as to the class character of small grower production and its structural position and further treating prevailing economic conditions as neutral and immutable.

To the contrary, however, the entire history of regulatory interventions in the South African sugar industry has been premised on the recognition that non-intervention is itself a political act favoring certain classes and fractions thereof over others. Particularly in the industry's earliest history, government explicitly sought to ensure that the differential benefits of favorable pricing and import tariffs were to be conditional on establishing terms of exchange and circulation (amounting to a redistribution of industry's surplus) which were advantageous to the interests of white planters as a politically favored class. While much of this emphasis would shift toward the interests of milling capital from the 1960s onward, it is a bitter irony that greater interest in expanding small-scale production came in the 1980s from the apartheid government, largely at the behest of KwaZulu, than has come since, at least in any clearly documented form. Indeed, the quote from Mr G in section 5.4 clearly reflects this sense of palpable abandonment despite no clear knowledge of the arcane regulatory mechanisms and intersection with milling interests that underpinned such support.

To some extent, government's 'hands off' approach seems motivated by a general desire to 'increase competition' (presumably to cheapen sugar in the interests of downstream manufacturers and consumers) and a vague sense that tampering with the industry's structure

will harm the interests of black NFGs and SSGs. But while small-scale growers have been invoked by the industry, there is little evidence to suggest that small-scale growers have developed a significant independent political voice, as subsumed within SACGA, however 'democratically'. Indeed despite the large number of SACGA personnel dedicated (often with great earnestness) to encouraging small-scale production, it seems that this interest will be categorically confined to the extent that small grower interests do not impinge on those of large growers. A core question for small grower politics is thus how they might continue benefiting from SACGA's wide range of supports, while transcending mill-level micro-politics to influence the organizing conditions of production as set by the regulatory structure.

Is there room for discriminatory intervention in the regulatory system to support small-scale sugarcane growers? Perhaps most foundationally, despite the phases of 'de-regulation' that occurred in the 1990s-2000s the South African sugar industry remains subject to statutory self-regulation by a Sugar Agreement under the Sugar Act (1978), under which the Minister is empowered to publish and amend the operating Sugar Agreement. Categorically, government seems legally capable of intervention. Its bargaining position moreover, appears to remain relatively strong, as despite the exodus of milling companies generally, the South African market remains lucrative, and government retains effective control over the domestic tariff. More recently, government is further capable of setting the tariff rates for electricity co-generation and bio-ethanol blending in which millers are particularly interested, and indeed upon which the current, shrouded negotiations are rumored to be premised. While regional coordination would of course strengthen government's position, it does not seem to be an absolutely necessary condition.

The question of whether discriminatory interventions on behalf of small-scale growers would impact the wider price of sugar or undermine the structural foundations of the industry would of course depend on the scope and content of intervention. Nonetheless, that small-scale growers represent a relatively marginal proportion of national supply suggests that they would not. Moreover, the distinctive potential of regulatory intervention in the sugar industry as it stands is that it can impact the national market-forces as a whole, rather than just an individual firm. In other words, it shifts the focus from adapting small growers to the market, to adapting the market (and hence other interests) to small growers.

This leads to the question of how specifically should the structural position of small-scale growers be altered, and to what end and is regulatory intervention sufficient to realize these ends? Broadly speaking, this analysis has viewed the question largely in terms of understanding growers as petty commodity-producers constrained at both poles of capital (largely by inefficient transport services under miller strictures of delivery and barriers to expansion in scale) and labour (largely by the barriers to intensified exploitation caused by

social grants). Drought has indeed also played a role in exacerbating these constraints, particularly in terms of shortening the life cycle of cane (and increasing onerous costs of establishment). As we have seen, many non-contractor growers have indeed sustained production by successfully intensifying the exploitation of homestead labour by confining consumption to the bounds of grants, largely in the absence of other employment opportunities. Many others have simply stepped out to pursue other employment opportunities and/or faced declining terms of trade neither able to afford input costs or front the costs of re-establishment, and even where possible, are unable to extract significant surplus from homestead labour. Contractors, meanwhile continue to grow by the cash flow generated by contracting, but in turn must divert surplus generated by cane to cover shortfalls in contracting. In short, though heavily conditioned by the availability and kind of non-cane income upon which grower homesteads principally survive, sustained cane production has largely been premised in variegated ways by appropriating a greater *absolute surplus* from laborers (through lower pay or extended work) to compensate for the deficits in *relative surplus* (i.e. labour-power) garnered by inefficient capital operations.

It is taken as a given that finding ways to further increase absolute surplus by coercing the intensification of exploitation of laborers is a reactionary response which would lead only to further immiseration. The question thus turns to how to improve the productivity of growers' limited capital. Thus far efforts to introduce micro-credit, cheapened input supplies and co-operatization are largely based on such a premise. However, in my opinion, one of their critical failings is that they too rely on intensified exploitation insofar that that they require a commitment of far greater involvement in management and administration in order to seek efficiency gains, in addition to oft observed issues of group 'conflict' and 'free-riding' etc. Credit similarly does not evade such problems so much as push them into the future, largely in a compounded form of 'debt' which growers in any case fundamentally fear. While I am not suggesting that such initiatives are valueless, or that they should be completely abandoned, they do not solve the problem by themselves. One similarly cannot fall prey to the illusion that simply disbursing capital individually to growers, say of tractors, will solve the problem: more likely than not such capital will simply fall into disrepair as the costs of maintenance far outpace the efficiency gains it garners on a small plot.

It is instead suggested here that a new focus must be placed on augmenting grower capital as a *section* and enhancing their relative claim on the industry's total surplus through preferential terms of *circulation and exchange*. It is, in other words, a political strategy that rests on promoting small grower *integration* via discriminatory mechanisms. It is anticipated that such interventions would *not* be competitive with wider levels of productivity set by the industry, and will likely amount to a net claim on the industry's total surplus. Efforts should,

I believe, further be made to shift the proportional burden of cost on mills *without* significant small-scale grower production to incentivize mill competition to raise the proportion of cane-supply claimed by small-scale growers. This should not be seen as a replacement of current initiatives or a complete reversion to the draconian production systems of the 1980s, but should nonetheless acknowledge that many growers may indeed prefer effectively renting their land to cane cultivation to receive a more predictable income supplement while pursuing other opportunities. It is further anticipated that if successful in the short term, such initiatives would *not be boundless*, particularly insofar as they effectively amount to a claim on the industry's net surplus. While perhaps sustainable for so long as small growers represent a fairly marginal proportion of overall supply, should small grower supply indeed grow, the proportion of industry surplus redistributed to small grower sections (even if allowing for absolute growth) would eventually come to unsustainably eclipse other sections. These interventions thus must be viewed as a starting point in the short-to-medium term. Where this anticipated threshold sits is not clear. It might be somewhat offset by more radical structural interventions (such as more substantial land reform to gradually increase scale) but would still be ultimately limited. Sugarcane cannot be a panacea for rural development, nor a means to circumvent deeper issues of structural unemployment. While hardly comprehensive, I nonetheless conclude here with three key interlocking areas of potential intervention that stand out for consideration:

1. **Differential Pricing/Support; Industry Subsidization**

   As we have seen, the growth of small grower production was premised on its effective subsidization from total industry proceeds, and for a brief period, discriminatory pricing of small growers' product. Perhaps one of the most important aspects of these policies was that differential benefits were accompanied by strong financial incentives to millers to pursue such production. Instituting discriminatory mechanisms to both raise small grower returns on cane *and* miller proceeds for sugar from small-scale production would not only augment the income-multiplying impacts of cane for small growers, but would similarly give greater incentive and financial resources to either expand small grower production or enhance support measures to it. It would also enhance the bargaining position of small grower representatives to know that their cane attracted disproportionately high prices. A second possibly complimentary option would be for the overall industry to subsidize the overhead costs of support structures, particularly extension and administrative personnel, thus shifting some of the financial burden from SACGA alone and again create miller incentive to enhance support to small growers. It must be noted, however, that such measures would

effectively come at the expense of mills without substantial small grower supply and large-scale growers. In the absence of a cost-based division of proceeds, implementing such mechanisms might have to take the form of instituting a dual 'notional' price, effect distinct inter-mill transfers of proceeds, or somehow relating increases in small-scale grower product to enhanced rights to the domestic market, perhaps by an augmented 'flexible' market share.

2. Transportation

Transport undoubtedly represents one of the most onerous costs for small-scale sugarcane production, both directly in terms of service charges, and indirectly in terms of loss of-quality due to delay. In the 1982 Rorich Commission of Inquiry, one of the notable rationales for placing the total burden of transport costs on growers was the idea that they would be better placed to choose the most efficient method of transport and optimize their location accordingly. While this was paired with initiatives to augment small-scale grower supply in the context of effective subsidization allowed by the cost-based division of proceeds, these circumstances obviously no longer hold. Such logic would indeed certainly seem inapplicable to small growers, who do not have the resources either to relocate or 'choose' between any varieties of transport methods. For all small-scale growers, the only option is to engage local contractors individually for short haul, and collectively pick one of three or four private truck-hauliers. While grower absorption of transport costs would appear to incentivize prompt harvest, growers have great difficulty in both sourcing labour and administering schedules, while local contractors are few in number, over-stretched, and likely charging high collusive rates. Currently, the direct cost of small grower transportation is subsidized by the SPF, but has little effect in adapting transportation systems alone.

Ultimately, both millers and growers have an interest in the efficient operation of transportation, and it would thus appear that millers must have a more direct stake in transportation systems. Three compatible options present themselves directly, but all notably rely on simultaneously increasing miller financial interests in small-scale sugarcane production or industry subsidization of overhead costs. The first is increasing miller capacity to employ personnel to oversee logistics, i.e. to specialize in ensuring the coordination of prompt harvest, short-haul and long-hauls. This option is already being somewhat pursued by certain long-hauliers with their own personnel. The second option is to phase-in a miller stake in transportation costs to incentivize more efficient transportation measures. This might include the mill absorption of

haulier or contractor services, thus eliminating the profit-requisite of such operations that could then be run at cost-price. This would be in the interest of cheaper and more reliable services for small growers, but would come at the expense of local contractor accumulators, a fact that might be somewhat offset by their direct employment. It should further be noted that at the time of writing, re-integration of contractor services has been reported to be occurring in my field sites at the initiative of private haulers interested in streamlining supply. Casual phone conversations with informants suggest that the cheaper services have indeed encouraged the re-entry of some growers. Should harvest services be similarly offered, this might further reduce the burn-harvest delays and optimize transport efficiency.

A final option which has been given only passing mention by SASA and the DTI and would require more considerable research would be the possibility of de-centralizing initial processing of small-scale sugarcane. Small Scale Milling (SSM) in the form of Open Pans Sulphication (OPS) operations are widespread in India, but often rely on local sales of relatively unprocessed sugars such as jaggery, for which no local markets exist in South Africa (Grantham, 2001). It must be noted, however, that production of a higher 'value-added' commodity does not necessarily translate into premium profit, as higher returns are of course offset by higher capital costs and a higher 'organic composition'. Some studies of the experience of OPS in Kenya nonetheless suggest that the lesser efficiency of OPS mills is offset by the lower fixed (or constant) capital costs, though they insufficiently explore what the impacts are on labour (Kaplinsky, 1990). In South Africa such operations might instead be tied to further processing or treatment at the central mill or 'organic' sugar sales, and/or again might simply be subsidized in the same manner as small grower supply more generally. The potential benefits of such a system might be to both reduce transportation costs (which would be of sugar rather than cane) and/or give small growers a greater share in value-adding.

3. Registration

As I have argued, the de-regulation of small grower registration that accompanied a reduction in miller interventions in production resulted in a rapid but structurally unsound entry into the industry, precipitating the current rapid decline. Currently, millers would be more inclined to extend the number of overall supplying small growers in order to hedge the supply-risk of growers failing to submit, and which comes at little risk or cost to themselves. However, the considerable investments that would necessarily accompany a re-extension of services as proposed above would not

be able to be extended to all growers at once, and if made categorical might result in a necessary consolidation of small-scale sugarcane production, and ultimately a reduction in numbers. The emphasis would in a certain sense then shift from increasing the quantity of growers, to enhancing the quality of productive conditions for a smaller number of small-scale growers. In order to dampen such a shock, small growers might undergo a process of additional re-registration corresponding to the slow extension of support services, with non-registered growers continuing to submit via existing systems. Ultimately, however, there would be limitations to such service extension, and this could possibly inculcate a tier of 'second-class' growers outside the ambit of such intensified services.

7.3 Conclusion

Although presented fairly cohesively here, it perhaps goes without saying that the research processes have been challenging, and indeed beset by inevitable limitations of scope (in terms of anthropological depth, for example) and discipline (with agronomic lines of investigation beyond my means). This study thus cannot be expected to provide the 'whole' definitive story, and further research would be required to disentangle other complex facets. Nonetheless, I do believe that the approach taken has yielded significant insights into the 'nature' of small-scale sugarcane production lacking in many other analyses, and serves as a useful and necessary complement to other lines of investigation (even if the analysis or evidence presented here is itself disputed).

Perhaps the most profound (and methodologically difficult) insight is how closely bound sugarcane production is with processes beyond the farm. While many studies at the very least give some recognition of this fact, often these are relegated to the 'background' as framing circumstances. This is true particularly of more technical lines of investigation, which tend to treat the farming enterprise as a closed system defined by fairly static attributes and internal processes. It should be emphasized that this is not a condemnation of more technical lines of inquiry or a specious critique of a failure to transcend limitations that all research inevitably faces. It is simply to point out that the forces which constitute small-scale sugarcane production, and indeed commodity production in general, are inextricably social, and cannot be explicated in terms of merely internal, empirically discrete attributes.

In my own study, this is perhaps most basically illustrated by the centrality of non-cane income sources to sugarcane production under shifting terms of incorporation (particularly in transport and coordination), conditioning how, by whom, to what extent, and to what end it was pursued. Moreover, though yielding some insights in its own right,

quantitative distributions of non-cane income sources, even when disaggregated by type, could not elucidate the content of their impact alone. The relationship, as I hope was adequately shown, is intrinsically dynamic and non-linear. While non-cane income sources could serve as a source of investment in sugarcane (in labour, input and establishment costs) they were often also the site of investment themselves (largely in training for various kinds of employment). On one hand they served to bolster the consumptive foundations of homesteads to *enable* sugarcane production, but they also served to *inhibit* sugarcane production by presenting more lucrative alternatives and creating barriers to intensified exploitation. I suggested that it was the differential labour content of different non-cane income sources together with differences in absolute payment that proved critical to understanding their uneven impact. Nonetheless, the matter was hence firstly one of dynamic emphasis rather than categorical or taxonomic division (e.g. semi-proletariat, peasant etc.), secondly further systemically linked to wider complex forces (e.g. structural unemployment, competitive barriers to production of other commodities etc.), and thirdly unevenly mediated locally (e.g. by resistance to labour by homestead members, the purchase of supposedly commercially inalienable land by accumulators etc.). While no single study can hope to interrogate all of these dynamically overlapping analytical 'levels' with equal rigour, the problem is that neither can they be conceptually eliminated if analysis is to be substantive.

A second related aspect of this general point is that changes in such wider dynamic conditions can impact (directly or indirectly) the *content* of social relations without having any apparent changes at the level of *form* (though this too may change). Over the course of my own research, for instance, it became increasingly clear that understanding the relative decline of small-scale grower production would be critically incomplete without some grasp of the considerable structural shifts the industry has undergone. While the issues of drought and the closure of UAF/FAF featured prominently as proximal factors, the respective questions of 'why so relatively severely?' and 'why now?' were not fathomable at the level of the farm alone. Not only did the form (of individual homestead production under customary tenure) appear largely unchanged, but most growers had only initiated cane production after direct intervention by millers had already been retracted. The issue was moreover not simply one of a general dearth of longitudinal data (though this posed a considerable empirical constraint), or even changes in the formal institutional make-up of the industry, but rather in understanding how the organizing conditions of production, circulation and exchange had fundamentally shifted, and how these had altered the structural position of small-scale growers within them. This was further complicated by the obscurity of the regulatory changes which both initiated and reflected such shifting conditions, and to which

small-farmers have had little to no access or understanding, even if their indirect impacts were palpable for those who had survived the transition.

The experience raises a distinct challenge for socio-economic research more broadly, as it highlights the imperative of empirically and conceptually engaging with dynamics beyond the 'ground level', in order to fully understand them. This is no simple task, particularly in industries where the terrain of contradictory class interests and mediating mechanisms are not clearly explicated or even understood, where pertinent data is confidential, selectively released or simply not collected, and where the conceptual tools to evaluate such information are unfamiliar. This is not at all to suggest that empirical research that does not purposively move beyond such levels is futile or unimportant, simply limited. At a conceptual level it runs the risk of conflating dynamic relations of form and content and misidentifying social processes.

These implications are, finally, particularly important for research which is directed, explicitly or implicitly, for political advocacy or 'developmental' policy. The unspoken question is thus 'what is being elucidated for whom?' Is it sufficient for academic and developmental researchers to disseminate the 'voices' of poor, differentiated, classes of labour so that their views and struggles might inform the policies of 'developmental' agents and institutions, or is it more pertinent to use these resources to help the same poor broaden their own vantage, to inform their own political tactics and strategies? The question is further complicated by competing and contradictory interests amongst differentiated 'horizontal' segments, as much as amongst 'vertical' segments. In my research, for example, small-scale production was shown to have historically been more closely aligned to the interests of *milling* capital than large-scale *grower* capital, and indeed the interests of contractor and non-contractor growers chafe on a day-to-day basis. While I offered some suggestions for *policies* that might enhance the structural position of small-holders, there is little chance of durable gain if grower *politics* from 'below' do not continually engage with the politics of 'above'.

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Appendix:

Grower Interviews

Stepping up:

Case 1: Mr Z (Contractor) [17/4/12]

Mr Z is 57 and was born on the other side of Shkishela. His father was a policeman with around 3 ha, but he gave it to other families. The first time Mr Z left home was to work on a white man's cane farm in Monzi. Since those days, however, he has managed to acquire several different land holdings. In Shikishela he was allocated 5 ha by the induna *in 1981, and has in turn given his wife there 1 ha. The next year he committed the other 4ha to sugarcane, and in 1989 he purchased a white farmer's tractor with savings from farm work. By 1995, people were also approaching him to request that he haul their cane, and he took up contracting in 1998, servicing around 6 loading zones. Since then Mr Z married twice more. His second wife lives on another 2ha in Dukuduku, which he acquired after a man from government came to register people's name for land allocations. In 2003 he also embarked to start clearing land in the Monzi area, and established about 4 ha for himself. He was the first to do so, though many soon followed his example. Then in 2008 Mr Z settled his third wife on another hectare when a neighbour sought to move. He paid him R3000 for the house he left behind, and paid a R500 khonza fee to the* induna *to legitimate the transfer. Now he has 4 ha of cane for himself, and 4 ha for grazing, and all his other wives also grow cane on their hectares.*

Now Mr Z says that he services around 45-50 growers and earns about R41,000 per month. He used to earn around R80,000, but the drought has knocked many of the growers he used to service out of production. There also used to be many more contractors, around 12, but now there are only 5. He said those that have survived have tended to be the ones with their own sugarcane as well. With contracting money, he said you can cross-subsidize your sugarcane to purchase fertilizer, chemicals and labourers. He said that he only hires casual labourers he knows who do not have cane, and who survive principally off of him. He said that he would like to expand but that as there are fewer growers, he gets less money and has a harder time dealing with the high cost of diesel and breakdowns. He says one of the big problems he faces is that he will have to service very disparate areas at similar times, having to travel from one area to another in response to calls from growers, and when the dates from the big trucks are set. He would much prefer it if they were able to do one zone at a time, but as they do not own the trucks, the contractors do not have a say.

Case 2: Mr SZ (Contractor) [18/4/12]

SZ was born in 1985 at his current residence in Shikishela. His family's plot was inherited from Mr Z, his grandfather, who was originally from Empangeni near St Lucia until he was chased away by the white people. Then he had more than 10 ha, which were devolved to SZ's father, and his uncles. At the time of SZ's birth, his father's land included around 4 ha though they only used 1 ha for maize, and used the rest for grazing. His father worked at Spoornet as a welder while his mother stayed home. His father's salary paid for the homesteads needs, and was sufficient to send him and his siblings to school. In 1997 they started sugarcane cultivation using savings from his father's job to purchase inputs, extra labour and ploughing services. In 2001, using a mixture of money from his father's job and from cane they purchased a R29,000 tractor, and began ploughing for themselves and neighbours. This money from ploughing helped to cross-subsidize their sugarcane input purchases, particularly fertilizer. In 2003 SZ's father further purchased 7ha of unutilized land from neighbours. They expanded 1 ha at a time until the 7 ha was full, but reserved the 4ha for grazing. In tandem with their cane, their earnings from ploughing covered most of the homestead's consumption needs, and put the children through school, including his sister's bachelor's degree at UNISA.

In 2005, however, SZ's father died from illness. The next year his mother decided they should purchase a R19,000 trailer with the intention of hauling cane the following year. Now they plough for nearly 100 growers a year and haul for around 55. Often he finds there are more than he can handle and will pass some on to Mr Z, his grandfather. He thinks in general the contracting work is better because the money made goes to the bank, making it easier to save against the cash received for ploughing, but this money goes to his mother. In contracting the price is determined by the mill, but in ploughing they set a price themselves, around R15 a metre at the moment. Contractors compete in terms of service, but he feels that in reality there is very little competition because the high cost of a tractor means there are far more growers than there are contractors. Sometimes they refuse to pay, and in that case he simply remembers never to work with them again. Nonetheless, some contractors do better than others. Mr Z does well because he has 2 tractors at his disposal, but Mr G is less successful because when his tractor breaks down, he can't afford to fix it. SZ said he, on the other hand knows how to fix the tractor and save so that he doesn't wind up in that position.

Case 3: Mr TN (Contractor)[15/4/12]

TN was born here in Madwaleni to his father MN and his mother SN. His father previously lived in Vryheid as a labour tenant, working for 6 months in Gauteng as a miner and then return for 6 months unpaid work on the white man's farm. However, at one point the white farmer beat SN after accusing her of stealing a jacket, and evicted MN when he intervened. They then sold the white farmer their 60 cattle and moved to Madwaleni in 1971, where they had relatives to help smooth their arrival. They were allocated some 25 ha, most of which were used for home consumption, but some of which was devoted to cabbage for sale. At one point they also grew cotton for sale on around 2-3 ha. They purchased the seed from Coastal Farms and would bring the cotton to Mtubatuba where a truck would take it away to a processing facility in Jozini. The family did not take any loans from KFC, but they would ask advice from them. The main benefit of cotton was that they would get paid in cash immediately at the point of delivery.

They had to stop cotton production, however when the processor shut down in 1991. The homestead switched to sugarcane production on about 2 ha the same year, selling a cow to purchase cane and used cattle to plough their land as before. They would hire about 10 women and others from neighbouring homesteads for weeding and cutting, but when social grants came labour was harder to find. Some members of the homestead would also help to cut on neighbouring homesteads in order to maintain reciprocal labour relations. The homestead has slowly been expanding their area under cane production, both by replanting ratoons and purchasing new cane, and hit 14 ha last year. Nonetheless, TN thinks they would have more if it were not for transport delays, noting that last week their cane waited 4 weeks in the Lubisana loading zone.

In 2009 they purchased their first tractor with sugarcane proceeds for R30,000 from a resident in Shikishela, and soon after purchased a plough and trailer from a Ntondweni resident for R8,000 and R10,000. Since TN started contracting no one in the homestead has had to seek employment He also recently purchased a second tractor for 10,000 which is more fuel efficient and in better condition. . TN also noted that it was important for a contractor to have a car to fetch parts for servicing the tractor. He hires 1 driver and two loaders per tractor, and each is paid R65 a day. Currently he services about 68 growers in transport, and about 19 in ploughing. He says that his contracting and sugarcane operations continually cross-subsidize one-another. Before he started contracting, they couldn't afford planting fertilizer, only top-dressing, and it also provides enough cash-on hand to pay for chemicals and labourers. TN said he would like to increase his tonnage, but in order to do so he needs to continue providing good service, particularly in communicating breakdowns and delays. He

said that one particular cause of breakdowns is large field to Loading Zone distances, which was his prime motivation for getting another tractor.

Case 4: Mr UM (Contractor)[13/11/11]

Mr UM was born in 1947 near St Lucia, where his family had about 10ha. They grew an assortment of crops and had 15 cattle. No crops were ever sold, and though cattle were occasionally sold they were kept principally for lobola. *His father and two uncles worked on a white man's commercial farm all year round, providing the homestead with cattle, clothes and school fees. However, in 1965 the government announced that all residents would have to move across the Nyalazi river. They dispatched a fleet of trucks and were forcibly removed without their belongings or cattle. Across the Nyalazi they approached an* induna *who granted his family 1 ha. This new small plot caught very little rain, and there was no place to catch fish as there was in St Lucia. Wages were redirected towards subsistence, and though the family survived, they did not eat well.*

Consequently, UM sought employment, finding work in the kitchen of a white commercial farm in Empangeni where he also met his first wife. In 1974 UM moved off of his parent's land to a 2ha plot in Madwaleni. He had first heard that there was available land in Madwaleni from his aunt, who was married to MPB, and who made a request to the induna *on his behalf. From 1976 his farmer-employer purchased the Hluhluwe game reserve in Mkuzi, and hired UM as a supervisor from 1976-1979. By this time, UM had 4 children, who stayed on the homestead with his first wife while he was away working. By 1981 he had increased his cattle herd from 7-14 and was able to complete his* lobola *payment, with 8 live cattle in addition to the monetary equivalent of three. In 1982 UM left again to pursue employment, this time at the Bell tractor company in Richard's bay, which paid for all homestead necessities. It was also where he met his second wife in 1986, whom he married five years later. With another wife and his sons now maturing, in 1987 UM received another 2 ha from neighbours who had been using the land exclusively for grazing, but as their cows began to die had no other use for it. In 1989 he also met and had children by another woman who lives in Madwaleni at another homestead. His first wife passed away from illness in 1997.*

UM first started growing sugarcane in 1997 on the advice from neighbours; aided by his experience working on a white commercial sugarcane farm. To this end he bought his first stack of seedcane from far away in Mfekayi and planted half a hectare, using cattle to plough and a neighbour's code to submit his cane. From his first submission he earned R6000 and expanded his field to unutilized land, and has been slowly expanding ever since. His family helps with the labour, and UM only hires neighbours to help with cutting. This year Mr Mgenge expanded further by purchasing 2 ha for R4000 from a neighbour who wanted to move, a transaction validated by the induna. *In 2009, UM retired from Bell, and used his pension to purchase a tractor. In addition to ploughing his own land, he also rents it to other growers for ploughing (but not transporting) cane. The money from rentals funded the construction of his house, and the current purchase inputs for cane. He speculates that other growers struggle because they cannot buy inputs this way, noting that 1 bag of fertilizer costs around R400 and will only cover ¼ ha.*

The biggest problem, he thinks, is the lack of irrigation and continual drought: the intensity of the heat has seen rivers shrink and the water capacity of soils degrade, he estimates that his soil can hold water for 3 months. Nonetheless, Mr Mgenege thinks that with his expansion he might be able to make a profit, as up to now his proceeds from cane have all gone towards maintenance and expansion, despite occasionally dipping into his proceeds to subsidize food and pay school fees. A further problem remains the distribution of quota tickets. Typically, tickets are granted slowly to one person in a loading zone, then another, then another. However, as one ticket amounts only to one hectare or less, one is forced to cut unevenly. As a result, one is unable to reach economies of scale in sourcing and paying for labour and transport.

Hanging in:

Case 5: Mr M (Contractor)[17/4/12]

Mr M was born in Madwaleni. His father had arrived in 1975 after working as a labour tenant and at NCP Alchohols. When the opportunity for a full time job at NCP alcohols came up, the white farmer would not allow his father to leave with all his cattle and sheep, and so he left with nothing but the promise of a job at NCP. A friend he was working with at NCP had told him about Madwaleni and they were granted residence by the induna. *At that time his father's salary was put towards food and clothing, while his mother grew food crops.*

As Mr M grew older, he eventually left to find work for himself. His older brother had been working at a construction company in Durban, and his first job in 1982 was in shop-fitting in eThekwini. After a mass firing following a strike he then left to work at a mine in West Riftfontein Caltonville in 1985-88. He eventually left the mine, because of the serious danger involved. After the mine he left to become a driver for a company called European from 1989-94, where he earned much better wages. When his father retired in 1991 he was compelled to redirect some of his earnings away from lobola *towards the family. In 1994, however, the company liquidated, and Mr M sought a number of temporary jobs as a general worker and driver until 1998 when he returned home to marry.*

His father had already begun sugarcane production from 1995, hiring a tractor and buying fertilizer. He did not send any cane to the mill until he had about 3ha, cutting only to plant further and purchasing inputs from his savings. At that point they had ceased to grow food, and were using money for basic consumption. In 1998 there was little rain, so they decided to cut before their standing cane degraded. Mr M also decided to plant at that time because the sugarcane was more resistant to the heat than maize was. His father allowed him to use 1 ha to start and he similarly used his savings to hire ploughing services and to purchase new cane. Like his father, he expanded year on year, replanting his cane until about 2001 when he had reached 4ha, the limit his father had set for him. In that year he cut all of his hectares. With that money he bought a tractor in 2002 from the Frankfurt company near Gauteng, and it cost him about R35,000.

When he purchased his tractor, Mr M began contracting almost immediately. He initially started with just ploughing, and had to hire someone to help him. The prices were set by his predecessors, and Mr M still accedes to these more experienced contractors, particularly Mr Z. He said that the returns from contracting are very helpful in cross-subsidizing his cane production, particularly fertilizer purchases. This year they also started with chemicals because since the introduction of social grants, labour is difficult to source.

Soon after he began ploughing, Mr M also started transporting cane. Now he services around 30 growers for ploughing and about 47 for transport. Though growers complain about delays, as contractors are so few now it is very difficult to service the entire area. The price for hauling cane is set by the mill but, he thinks these are not enough due to the long distances they travel on poor quality roads. Consequently he often suffers breakdowns, perhaps around 30 times a year. Although he received R22,000 last month, he doesn't know what his annual profit is because he is always engaging in repairs. Right now he has 3 tractors, but they are all broken at the moment. When a season starts, he tends to take out a loan from a local person who will demand 30% interest. In general, ploughing is preferable to transport because you get paid immediately, whereas with transport one has to wait two months to get paid and can fall into debt trying to maintain tractors. There are also big changes year to year in terms of how many people he services, largely because the number of growers is diminishing, and because his tractors go in and out of service. He would like to extend his services, but says this is difficult with his tractors in and out of service. He prefer to get a loan from government, and if he can't will likely be compelled to stop.

Case 6: Mrs AZ [17/2/12]

AZ was born in Swaziland. Her parents had a small patch of land for crops, and around 35 cattle sustained on communal land. A.'s father was the induna *in her area, and though there was land to expand it was stony, and not suitable for cropping. For reasons which are unclear to A., however, they eventually moved to South Africa when she was about 13.*

They first moved to Ingwavuma, where uncle was living and allocated the family just under 2ha. The land was less than what they hand in Swaziland, and though they brought all their cattle, about a third of the herd died due to insufficient grazing land. However, when they arrived the family was astonished to discover that A.'s father had another wife living there already. This revelation was the cause of significant family tension, which culminated in an attempt by the secret wife to poison the family. Consequently, A's family fragmented. Her older sisters left to live with their boyfriends and one of her older brothers left to rent a house in KwaMsane after finding a job as a water truck driver, but was murdered in a hijacking shortly thereafter. A., her mother, and the rest of her siblings left to live with her father's mother. Soon after they moved, A's father was killed in his first month of seeking work on the mines when the shaft ceiling collapsed upon him. A. was 13 at the time. Consequently, neither A. nor any of her siblings ever attended school. A's grandmother had about 4ha for cropping and grazing for about 50 cattle and a machine to make maize-meal. Although they never sold any produce, it was sufficient to feed the family. A. helped by looking after the cattle, driving the oxen-plough, and making and selling reed mats. When she was 17, however, she left look for work and found a job on a white-man's farm harvesting pineapple. She lived and worked on that farm for three years, using her wages to purchase clothes in preparation to marry a fellow farmworker from Nkandla.

After her marriage, A. left to live on her husband's land in Nkandla while he worked on the white man's farm. He had around 10 cows and fenced good quality land of about 3ha. They lived in this way for 8 years, but were then forced to flee from local witches who tried to kill them out of jealousy for their good land and nice crops. They were compelled to leave everything but a fridge, table and clothes in their flight, and took refuge with the Hluhluwe white farmer for whom they had worked. He inquired after his other labourers, who informed him that A. and her husband could probably seek refuge in Madwaleni. The white farmer subsequently approached the induna *on their behalf, and after a once-off khonza fee of R1000, they were allocated the plot on which she still resides.*

As soon as they arrived, A. started growing maize, but after the first year she sought advice from KFC, which offered a package of seed and chemicals to grow cotton. She consequently hired a tractor to plough all 6ha of their land, and she planted the cotton herself without help from anyone. However, she was only given around R300 for her harvest, and suspects KFC might have cheated her. In the same year, her husband died from diabetes. Shortly thereafter, she took the advice of neighbours Mr Sithole and Mr Shandu to start growing cane, which they said offered a much better return.

She used money saved by her husband to purchase seedcane from Mr Shandu and initially started with just one hectare, but slowly expanded year on year. The food crops had been sufficient to feed the family and provided a surplus which they sold to purchase other food, clothes and training for her son's security job training. But sugarcane proved to fetch much better returns, and with all her land under cane, she was able to earn about R10-12,000 per year, and now she only farms 0.5 ha of crops for food. They never hired in any additional labour, and A. would undertake all the work herself, supplemented only by the paid labour of her son and two daughters during school holidays. One of her daughters, however, died of HIV, while the other moved away after graduating from the University of Zululand to live with her husband.

Last year, however she only earned R8,000 from 3ha, which she attributes to a haulier delay of 2 months. Besides haulier delays, she says she doesn't experience other problems. She says that she doesn't really believe there is a drought, though this year the heat has been so intense that one may be coming. Nonetheless, she plans on replanting the 2ha she isn't using next year. She has premised her relative success on good agronomic practice, noting that other farmers aren't applying top-dressing and are not weeding appropriately, particularly removing dead grass after spraying. She suspects that other growers are lazy, and that they may be relying on income from a husband. A., however, doesn't think that her children will follow her into cane, and who only work when they are paid. They are focusing on amassing cattle for lobola*, but she doesn't know where she will get the money to purchase the cows. She recently purchased one Nguni for R7000 using the community grazing land, and will survive herself on social grants and mat selling.*

Stepping out:

Case 7: Mr LG [15/4/12]

LG was born in his current residence in Madwaleni. His father, MG was born in Shikishela, but after LG's grandfather died, they moved to Madwaleni, where his grandmother was born. The induna *at that time was his grandmother's brother and granted them 6ha, though he is not sure exactly when this happened. MG worked in Durban, and no one else in the homestead worked when he was a child; he his 3 older brothers, 4 male cousins and 2 female cousins all went to school, though they did help with looking after the cattle and in the fields. In those days they used the land for food crops; all which his family now buys. Sometimes, however, things were difficult, such as when the drought in 1981 (ending with the rains in 1983) compelled them to eat yellow maize, which made them sick.*

His two older brothers never finished school, and instead left to work on white cane farms in Monzi. They would use their money mainly on consumer items which were not as pervasive back then, and carried a certain social novelty. Unfortunately, all three have passed away; one in a car accident in 2003, and the other two from sickness in in 2001 and 2006. After LG completed his matric he left to go work at a Shell petrol station in Richard's Bay for one year before leaving for the University of Zululand. The registration fees were paid for by selling two cows, and his yearly fees were afforded by his parent's sugarcane money. LG registered for a BSc in maths and physics, but had to drop out in his third year of study when his parents could no longer afford to pay.

LG's parents started planting sugarcane around 1989. A black employee of the mill was coming around to people's homesteads counting their hectares, and registering those who wanted to plant. Eventually, a white person came with a tractor and seedcane. He hired local people and did all the initial work for a portion of the proceeds. This was not the FAF system, however, which only came later, and which his father never used. After this initial work, when it was time to re-plant they would hire a neighbour with a tractor to crack soil, and the family would plough and plant. At that time they would use cow fertilizer to plant, although now there are rumours that this rots the centre of the cane and people only use chemical fertilizers. His family would work on the cane all day, and would only employ people when it was time to cut. Eventually they expanded to their full six hectares. However, this has now dropped to around 2 ha. The main reason for this drop was that the parents could not find enough labour to maintain such large fields.

After the University of Zululand, LG went back to the petrol station. He had a good relationship with his boss, who would allow them to take newspapers home if they returned them the next day. It was in one of these papers that LG saw a vacancy advertised at BHP. After a long wait for an interview he was eventually hired to help clean the big aluminium smelting pots. However, after forging good relations with his supervisors, he was given enough leeway to learn how to operate the machines on the sly. After 2 years he was sufficiently knowledgeable about the machines to be promoted to his current position as a general machine operator. He earns about R290,000 per year and has funded the construction of his parent's multi-room brick house and several smaller brick houses on his parent's land; as well as a car, installation of electricity and a water tank. He says sometimes he feels like he does not know what/how to invest this money in, but says he does plan to eventually take over his parent's land and might continue sugarcane farming.

Case 8: Mrs IM [19/2/12]

IM was born in Vryheid to her mother CM and SM who lived as labour tenants on a white man's maize and cattle farm. She lived with her parents, 6 brothers and 3 sisters. Although the farmer gave them a small piece of land for crops, they were all but dependant on the white-farmer for food. The farmer also allowed her brothers' cattle to graze on his land. The white-farmer would demand that IM's family work 6 months of the year on his farm without pay, after which her brothers sought work in Gauteng and Vryheid. She is not sure what jobs they got, but knows one of them got a job as a welder. They would always give some money to their parents, and would invest the rest in cattle. However, while away at work, IM's brothers were informed that there was residential space in Madwaleni, where they would not have to pay rent. They subsequently presented the white-farmer with an ultimatum, either they were to be paid for their work or they would leave.

The imperative to paid work was made more pressing by the fact that IM's parents were getting too old for the hard labour. The farmer refused, so they left with all their cattle to settle in Madwaleni. Once in Madwaleni, the induna *allocated a relatively large plot for a once-off khonza fee of only about R200. They grew some food, but not enough to feed the family all-year round, and were thus still reliant on the wages of her brothers. Nonetheless, life was much better in Madwaleni. On the white man's farm one would be arrested by neighbouring farmers for taking a walk, and in Madwaleni they could walk all the way to Shikishela.*

IM first met her future husband in the Madwaleni while he was working cutting trees on a white man's farm. She married him in 1982 and four years after he started driving a bus for a living, she moved on to his land. When she arrived, he had 5ha of crops, which were sufficient to feed the family all year-round. The cropping work was performed by IM, as well as her sisters and mother in law. In 1991, on the advice of neighbours, they switched to sugarcane. They started by purchasing seedcane from the induna *while simultaneously applying for a quota number from the mill, and thus never had to use another grower's code to plant.*

They initially planted 1 ha to sugarcane, and expanded slowly based on the returns, year on year. From this sugarcane they received enough money for food and school fees, getting about R3000 per cutting. In 1995, they were permitted by the induna *to expand another 3 ha, for which only a R700 khonza fee was charged. The land previously belonged to an elderly neighbour who moved after his wife and brother died to stay with surviving family in Nongoma. At 8 ha the cane now generated enough savings to fund college and driving school for their children. In 1998 they also bought a tractor from Irena's husband's savings so that they would not have to pay ploughing costs, and to rent it out for ploughing as well. IM herself never works in the fields herself, and labour for the cane was typically sourced from neighbours in surrounding homesteads. Some of these neighbours have cane and some don't, and comprise both men and women older than 30. There is also a 44 year old man named Alpheus who lives on the homestead looking after cattle, and gets paid R500 a month in addition to being fed. The family took him in because he shares the isibongo of IM's mother-in-law.*

Today, however, they only grow sugarcane on about 1 ha of land, with the other 8 ha being used as grazing for their 9 cattle, which they keep for milk and savings. Irena says there is a shortage of rain, and her husband adds that labour, transport and input costs are very high. He said that three years ago their area under cane decreased as they had to spend more and more money to maintain the fields. The high cost of inputs meant that they would sometimes be compelled not to use any, and they fell into a vicious cycle of declining returns and reinvestment. He further notes that there isn't enough good agronomic advice; extension officers sometimes come to meet with them at the loading zone, but do not visit their individual fields. Moreover, they need financial advice to help prevent spiralling into decreasing returns. However, they would be reluctant to take up a loan for fear debt and default.

Now the homestead relies almost exclusively on employment from homestead members, particularly on her husband and his brothers, one who is an Eskom employee, and another who is also a driver. The problems they have encountered in sugarcane have prompted them to consider other alternatives, but these have not yielded anything promising. A chicken co-op lead by Umsombuvu failed to deliver on its promise of providing a cage and electricity; and IM's husband is contemplating gum tree production, but would be happier for someone to rent the land in the meanwhile.

Stepping down:

Case 9: Mr MMk (induna)[20/2/12]

MMk was born in Madwaleni, but slightly further away from where he lives now, to his mother D and his father M, who was the induna*, and also had three other wives. He was the youngest of 9 children, comprising 3 older brothers and 6 older sisters. His father had around 30 ha, most of which was used as grazing land for his 50 cattle, but about 13 ha of which was also used for cropping. When the rains fell this was sufficient to feed the entire family, but when it did not, they were compelled purchase food. If necessary, the money came largely from his older brothers, who worked on a white-man's farm, and who otherwise bought cattle. MMk's father was never paid for being an* induna*, but if he needed money he could always sell a cow. In those days there were no khonza fees, which MMk only heard of himself from his advisors. However, MMk's father died when he was around 9, leaving his uncle to take up the* induna *position, his father's land and cattle. Nonetheless, his uncle's wife died with child while in labour, and he never had a son meaning the* induna *title would eventually pass back to MM or one of his brothers.*

Like his brothers, MMk also eventually left to seek work, and found employment as a technician in the Gledhow sugar mill from 1958-1972. The bulk of his wages he gave to his parents and wife, which was arranged at a church conference in Durban in 1963, when he was around 23. When his uncle died in the same year, MMk was chosen at the suggestion of his brothers to be named induna *as he was the only one married at that time. Nonetheless, while MM was working, a distant but trusted relative assumed the functions of* induna*; an arrangement validated by the chief. He assumed the position of* induna *when he returned home in 1973.Around the same time, nearly all the family cattle had died as a consequence of drought. By that time his brothers mainly survived by their crops, though one was still working. The 30 ha had not been formally divided amongst the sons, who simply used as much as they needed. MMk's own wife was also cropping on about 4.5 ha.*

MMk first started growing sugarcane in 1980s in order to take advantage of its income benefits. He was granted a code almost immediately, and purchased seedcane and other inputs from a neighbour. He started planting on 1.5 ha but soon expanded year on year until he had reached about 8ha. His brothers also began growing cane, but they never grew more than 2 ha. The work was done by himself, his sons, and the hired labour of 4 young men from neighbouring homesteads. Neither he, nor his children ever had to help or work on anybody else's cane fields. MMk estimates he earned about R3,000 per ha, and though he wanted to use this profit to reinvest and expand, he had to use it for consumption, particularly food, clothes and school fees. Now, however, MMk only has 1 ha under sugarcane, and only managed to cut 1 ha in 2011, a state of affairs he attributes largely to drought. As his returns from cane began to shrink, he could only afford to buy fertilizer, and could not afford to buy enough fertilizer or to hire labour for weeding at the normal three times a year. Mill breakdowns were also a problem, as is inadequate transport services, which have seen cane rotting in the zones. Right now he is growing nothing on that land, but thinks the rains might slowly start returning, and plans to use his existing 1 ha as seedcane. Money from inputs will have to be taken from his pension, as his children cannot spare any, and he doesn't want to sell any cows seeing as how he just achieved a 10-strong herd. If he cannot maintain cane production, he says he will focus on further growing his herd.

As induna*, MMk does not think much has changed in Madwaleni's population. He says that the residential population is comprised of many different people with different stories, but all have come from communal areas with a letter from their previous* induna*, and he hasn't heard of it happening any other way. He also said that now there is a shortage of food, which he attributes to the drought and people being less capable of growing anything. When he was young, people would share food without judgement, though this is not the case anymore. The drought he says started in the 1980s, but Madwaleni was much greener then. There is also a decline in traditional values; when he was young everybody wore amabehshu, and you could safely walk to Madwaleni from the Mtubatuba train station at night. When he was young, most young people had jobs and had a sense of conscience because they worked in order to eat. Now people have lost interest in traditional ways of being, have become jealous of those with jobs, and often rob old people of their pensions. The main problem, he thinks is the lack of jobs.*

Case 10: Mrs JMk [13/11/11]

JM kwas born in Swaziland in 1948 to her parents P and Z, but they died when she was a baby. She was raised by her aunt in Melmouth on a large plot of about 4 ha. 1 ha was used for maize, potato, sweet potato, amabele and pumpkin, and the other 3 for grazing by their cattle

(10+) and goats (+-20). Also living in the homestead were two cousins, their 17 children, one cousins' wife, and an aunt. The two cousins worked at the harbour and would come home on the weekend, bringing in enough money to purchase cattle and food. They also sold about 1 cow a year to cover school fees and travel expenses. JMk never went to school, but left home around 1972 after entering into an arranged marriage set-up by a church in Richard's Bay. At the time JMk moved there, her husband's father and mother were still alive and living there. Also living on the homestead were his two other wives and their children, as well as his 4 sisters and 2 cowherds. Each wife would ultimately have 4 children each, but one of JMk's daughters died when she was young. Now one of the other wives' sons also lives on the homestead, as do his 5 grandchildren.

Her husband owned around 30-42 ha in Madwaleni, on his parent's family plot. About 1/8th of his land was devoted to cropping, which was divided evenly among his wives, as was responsibility for growing. The rest of the land was dedicated largely to grazing: in those days her husband owned about 50 cattle, but now has only around 15. JMk's husband had worked in the forest cutting gumtrees for £4 a month, using the money to purchase cattle from 1949-1951. From 1960 into the 1970's he was worked as a truck driver, earning about £30/R60 a month and contributing some of his wages for food, agricultural tools, school fees. While he was driving, the wives would look after the food crops, and sometimes sell tomatoes for bread and lunch money for the children.

Around 1989/90, JMk's husband started growing cotton to bring in more money, but soon switched to sugarcane after realising it was more lucrative. He had bought his own tractor, sprayer, fertilizer and poison with the money from driving. He expanded chiefly onto the land the wives were growing food as well, until each wife had only 1 ha. She estimates that he devoted around 12 ha to sugarcane, though this was variable. However, though the sugarcane was in his name, most of the work was accomplished by the wives and hired labour while he was driving. They hired individuals of both genders from homesteads which didn't have cane and only a small amount of land for food. In those days the youth outnumbered the old, though they tended to weed and not cut. No one from the family homestead used to work on other people's fields.

However, in the 2000s their 12ha began to diminish as cattle began encroaching on the cane. A fence of trees had divided the cattle from the cane fields, but as it rotted the cattle encroached, consuming about 1 ha of cane per year. Around then they were also forced to begin selling cattle for food purchases. Subsequently, her husband bequeathed some hectares to his wives. JMk and the first wife received around 2 ha for sugarcane, though she is not sure about the second wife, who is not a cane grower. JMk replaced all her vegetables with cane, purchasing inputs with the insurance money from her deceased child, as well as diesel to use her husband's tractor. Although the other wives' children had made some money, earnings tended to stay within each wives' own house. Weeding was accomplished primarily by JMk and her children, but they would hire labour for cutting. This was more difficult as the older labourers who normally did the cutting grew too old or died, and the younger ones tended to not be interested. These days she would hire TM (f, 60); Ma M (f, 65); Ma N (f , 40); Ma K (f, 63); and NN and MN (m, mid 30s), all of whom have very little land. JMk sometimes will also help these Mamas to cut their cane, and though she gets paid, the main reason is to maintain reciprocal labour relations.

Initially the money from sugarcane was good, and provided money for groceries and school fees. This was particularly important after 2003, when her husband stopped working and stopped giving any money to his wives and children. As the drought progressed, however, the money from sugarcane drastically reduced; she only cut 1 ha in 2010, wasn't able to cut last year, and currently has only about 1 ha under cane. JMk thus became dependant largely on her social grant, insurance pay-out, and selling reed mats (for which she earns about R500 a month). She is also helped sometimes by her son, who works in a factory. Sometimes he sends money for his sister's school and university fees, groceries in Christmas, and in 2009 paid for the cutting labour. Besides drought, Janet says that fencing, input costs, and labour are her biggest problems. When cows encroach on her sugarcane land, the cane they eat does not grow back, though with goats it does. She also cannot afford poison or fertilizer, and worries that this affecting her cane's quality. She hopes that she will be able to hand over the cane to her working son, who might be able to afford these things, but if he doesn't want to she will continue and ask him for money to expand.

Case 11: Mr VM [10/11/11]

VM was born in Hlwathi, in Hlabisa to father I and mother E. His family homestead owned a large parcel of land on which he recalls his parents growing crops and keeping around 34 cattle, of which 12 were used as draught with 2 ploughs.
Yet although their land endowments were significant, the homestead was unable to grow sufficient food to feed the family year-round. While sometimes they might sell a cow, the balance would be accounted for by working on neighbour's land.

While VM was attending school he would find time to work on neighbour's fields in the summertime, however onerous school fee expenses prevented him from exceeding Standard 1. Around 1948 VM left home for the first time to pursue employment on a white-owned commercial sugarcane farm in Mtubatuba. His first job was to collect cut sugarcane into 'stacks' for which he was paid R8 a month. All of his salary would be repatriated home when he visited,, and was just enough for his family to cover subsistence food purchases. On the commercial farm VM would reside in a large room with 20 other labourers, and food was provided by the white farm-owner. On occasion some of the other labourers would fall into conflict with the farm-owner for being drunk or lazy. Around 1955, he left the commercial farm to work on the mines in pursuit of slightly higher wages. However the great danger involved in mining was compounded by very poor safety regulations, and he returned to the white sugarcane farm one year later to begin work as a tractor driver for R10 a month.

*VM continued as a tractor driver until around 1965 when he transferred to another white commercial farm to work as a supervisor for R30 a month. The same year he married his first wife and his first child was born, both of whom stayed on his parents' homestead. Two years later he married again in 1967, and yet again in 1972. The l*obola *for all three marriages had been with income from VM's jobs. By 1975 VM had 6 children by his three wives and in that year moved with his family to Nseleni township, near Richard's Bay where he had received a job driving a tractor in the construction of a dock co-terminal. While working at Richard's Bay, VM was told by a colleague that he might be able to help him secure a fertile plot of land at Madwaleni and subsequently introduced him to Madwaleni's* induna*, who in turn called a community meeting to ensure there was no objection to his occupation of the 'empty' (unoccupied) land.*

After moving to Madwaleni with his wife and children in 1977, VM began growing maize, and slowly cleared more land for cropping after each successful harvest. In 1982, VM returned to Nseleni for a two year work contract building bridges, but when he returned he entered into a cotton growing scheme initiated by KFC. Under this scheme VM was given a loan, premised on the security of his crop, to purchase seed, chemicals and fertilizer. He consequently planted around 2ha to cotton with his family, though he also sometimes paid neighbours to help. Despite high input costs and stringent quality pricing, VM averaged around R3 per kg of cotton. For the most part, this money was only sufficient to feed the family, but after a particularly good crop in 1988 yielded R3000, VM purchased a tractor. The next year he began experimenting with sugarcane; initially planting a small portion of land to cane and using each cutting as seedcane to slowly expand the area under cultivation. When he first started cutting his cane for cash, VM initially submitted his cane under a neighbour's code. However, a white man from the mill eventually visited his field, and after inspecting the high quality of his cane, saw to it that VM was granted a code.

VM expanded his area under cane year on year until 1991, at which point he had around 15 ha under cane. Around the same period he also joined the Financial Aid Fund (FAF), which like KFC offered credit against the security of his crop. VM utilized FAF primarily to purchase fertilizer and maintain his tractor. The labour in growing the cane would come from him and his family, as well as paid neighbours from Madwaleni and Shikishela. The money he received from sugarcane was directed principally toward consumption, school fees, the purchase of a car, and tractor maintenance, and was sufficient such that no one else in his family needed to look for work. However, around 1998/9 drought began to adversely affect his crops, and he began to receive less money. Not long after, FAF was re-launched as Umthombo Agricultural Finance (UAF), but ceased to provide credit due to the high incidence of grower defaults. Growers, however, were not consulted or informed about this development: credit was simply discontinued. While VM had paid back all his loans himself, the discontinuation of FAF exacerbated the impact of drought, particularly in inhibiting the purchase of inputs. Moreover, his

tractor engine broke in 2006, and without loans, he has been unable to repair it. As a consequence, he has scaled back his sugarcane operations to 4 ha, and is currently using the other 11ha for grazing by his and his neighbour's cattle. Now sugarcane only subsidizes his family's consumption, and he was compelled to apply for social grants in 2010.

VM has also distinguished by having received some formal training from SASA as well as having served as the chairperson of his loading zone. His responsibilities included checking to see when his neighbours' cane was ready to be cut, estimating the number of trucks which would be needed to haul the harvest, and selecting contractors and hauliers to do so. He noted however that he had little power prevent haulier delays. In addition to arriving late, he said once the trucks arrive at the mill, they wait in long lines before their cane is loaded into the mill for processing. Moreover, small grower cane is often the last to be loaded, with first preference given to white large-scale growers.

Though the rain is improving, VM contended that small growers are not properly trained in how to grow, but instead treat the cane like a weed which can be left to grow by itself. At the Local Association he said there might at best be 2 people who are trained in growing cane, a problem exacerbated by the near total lack of extension support. He said that there also seems to have been some change in the treatment of small growers by different mill owners. He said extension used to come when the mill was owned by C.G Smith (Illovo) but that when Patrick Sokhela took over machines broke down, extension support stopped and delivery tickets were not delivered. When USM ultimately took over extension was not resumed, and growers have been left to themselves. He said that he thinks USM is a small and relatively weak company, and barely prevented being transferred to Empangeni. As such he says it feels like USM does not care about the black growers, and has serious reservations about schemes like MAFISA. In the meantime he is considering growing sweet potatoes to sell to his neighbours. He said he tried this once before, but due to incorrect manure application the crop did not flourish. Knowing where he went wrong, he said he might now try again.

Dropping out/Dropped out:

Case 12: Ms M [14/11/11]

Ms M was born in 1952 at Ngunjanani, near Hlabisa. Her family homestead owned about 7 ha, on which they grew food crops and kept about 12 cows and 6 goats. The crops were sufficient to feed the family year-round, and also provide some surplus to sell. In addition, her father worked as labourer for Spoornet near Durban, and would come home once a month, using his wage money for extra food and clothes. Her brother also worked in the gold mines, but was beaten to death when he went to visit his girlfriend.

Ms M first left her homestead when she married her boyfriend 1984, and went to stay with him in Ngawavuma, near Swaziland. She had met him in 1977 at St. Lucia while she was working as a cleaner in an apartment block from 1975-8, and while he was working as a secretary at the Natal Passport Bureau. It was from this job that he was able to afford her lobola*, of about 10 cattle. However, the tough, mountainous terrain compelled them both to move to Madwaleni three months later. The choice of Madwaleni was informed by the advice of a friend of her husband who knew of unoccupied land in Madwaleni, and helped set up a meeting with the* induna.

On the one side of their plot they had 1.5 ha, but then initiated an agreement to borrow 6ha from their neighbours. The agreement was to last five years and was legitimated by the induna*. Her husband, who was still working at the NPB earned enough money to supply food, clothes, and the construction of a house, and Ms M started growing maize and beans for sale. However, as she saw these crops were not making much money, she switched to cane under the guidance and advice of MPB. She initiated planting by calling a contractor tractor to plough her land, and purchased seedcane from MP Buyazi, all of which was afforded by savings. She had no problem registering for a production code at the mill, but did so in her husband's name. However, their first cutting only yielded R2,500, so they decided to expand, year on year. By the time the 5 year borrowing agreement was up, they had expanded to around 4 ha, but the original owners allowed them to continue. It was only when they had expanded to 4 ha that they had begun to make a profit, which afforded them recurrent costs, such as fertilizer and labour, as well as consumptive ones such as clothes and school fees.*

However, in 1998 Ms M's husband died, and the homestead no longer benefitted from his wages, though Ms M would receive a pension of R682 every month. In addition, she receives a child support grant, and of her seven children and 6 grandchildren, one son is temporarily employed, but is largely financing the training of his brother as a nurse. Without her husband's wages, Ms M no longer had money on hand to buy fertilizer and hire labour, and she was forced to diminish her sugarcane production, down to only one ha by 2003. Initially she had borrowed from FAF to help after her husband's demise, but it folded not long after. Although the end of FAF did not impact her production more severely than the loss of her husband, with such adverse weather conditions she would use it again were it available. She also said that although 5 of the six hectares have reverted to the original owners, they would allow her to renew the agreement if she could start sugarcane production again, but she would have to ask the induna *too. She said the compounding problems included the drought, huge delays in transport, and cattle eating her cane, despite some attempts to erect a fence (which collapsed right before her husband's death). Of her children, she says she has one young son (born 1987) who has expressed an interest in farming cane, so he might be the one to continue production in the future.*

Case 13: Mrs T [16/4/12]

T was born in Dondotha near Empangeni along with her 2 brothers and 2 sisters. Their family homestead had about 3 ha of food crops sufficient for family consumption, but they had no cattle. As they got older, however, her siblings sought work. Her brothers left to Johannesburg, to work at a painting company, one of which became the foreman, and they would send money home. Her one sister left to work on a white man's sugarcane farm in Empangeni, and she is not sure where her other sister left to. T also went to work on a nearby white man's cane farm, sleeping at home and traveling there by a white man's truck in the morning. She would work weeding and cutting, and with her earnings she would buy food and clothes, as well as give some to her parents.

T first met her future husband K while he was working for Spoornet fixing the railways nearby the white man's farm. By 1998 they were married and T left to live here on K's land in Madwaleni. The homestead had been allocated around 20 ha in 1969, but by 1998 they were only growing maize on about 0.5 ha and sugarcane on about 2 ha, with the rest of the land being used for grazing. K retired from Spoornet in 1999 after working there for 25 years, for which he received a pension. She does not know exactly what he would do with it, because with the money from sugarcane they would buy food.

T started working in sugarcane around the 2000s. She says that she did not mind the work, but the principal reason was to maintain reciprocal labour relations, particularly when it was time to cut. She says that even though they stopped growing cane in 2008, and though she does not particularly need the money, she still helps neighbours with their work because she enjoys it. Generally , labour on the sugarcane comes almost exclusively from neighbouring mamas, though they expect that one day their children will adopt cane production as well. They stopped growing cane because the heat and the sun were killing it, but they are thinking of starting again. Before they do, however, they plan to do a soil analysis through SASRI. She says inputs to replant on 2ha will likely be paid for through pension money, and if the cane is successful they will use some of their cane as seed to expand, and send some to the mill to pay for inputs.

Case 14: Mrs NB [20/2/12]

NB was born on her parents' homestead in Nongoma as the first of 10 children. Also living there were her 2 grandparents. The family had around 10 ha which they planted to food crops, and they also had around 30 cattle, which grazed on community grazing land. The crops provided enough food all year-long, but two of her brothers would leave home to work on the mines nonetheless, returning only on public holidays. They invested their money primarily in cattle to eventually be used as lobola*, but also had some residual savings. All of her*

siblings went to school up to grade 1, and school fees were afforded by selling cows. Although NB would eventually leave to get married, most of her family still lives in Nongoma.

Nellie met her husband at somebody else's wedding when she was around 25, and was his first and only wife. They moved to Hluhluwe, where they had a small garden and access to communal grazing for their 30 cattle; though there was not quite enough and some of the cattle had stunted growth. At that time her husband was working for Transnet fixing the railways and getting around R900 per month, which covered food, clothes and school fees. NB meanwhile stayed at home with their four children, working on the garden and tending the cattle.

8 years later, in 1981, they left Hluhluwe for Madwaleni in order to shorten her husband's commute to Durban. They heard about Madwaleni from a friend, who introduced them to the induna*. The* induna *did not require a khonza fee, but they did have to purchase a case of beer. The land they were allocated was 5.5 ha, and they have not deviated from this original allocation. Initially they planted around 3.5 ha to maize, using a donkey to plough, and left the other two for grazing for their 19 cattle (the difference had been used for* lobola*). They only started growing sugarcane about 5 years ago after the donkey died, and they thus required money for ploughing year-on-year. At first they planted around 1 ha using their pension money, though they couldn't afford fertilizer. They then slowly expanded until they had around 4 ha under cane, 1.5 under maize, and had left their cattle to graze on communal land.*

Labour on the sugarcane fields was done by themselves, though they would hire four neighbours for cutting including two men of 36 and 60 years, and two women of 40 and 45. Of these, only the 45 year old woman had sugarcane, the others only having a little land for food. The woman's husband probably had around 10 ha for sugarcane, but this slowly died as everything became more expensive and because she had no jobs in her family. At their field's peak, the money from sugarcane allowed them to pay for food, clothing, school and university fees.

Now, however, their sugarcane has shrunk from 4 ha to about 0.5 ha, and their maize and beans to about 1 ha. They attribute this to the drought, as well as high transport, and input costs. As they do not use poison, they also face difficulty sourcing labour, particularly now that they are getting too old to work. This is particularly sever for husband, who is now almost completely blind. They are currently looking after 2 grandchildren, one young boy in grade 8 and a young girl in primary school, but they cannot help on the cane fields, spending almost all their time at school. Moreover, their sons who have left never help them with anything. One is unemployed and living at Dukuduku, but another one is employed in Durban as a security guard, another in Vryheid as a labour supervisor at a game reserve, and the last one is principal at Madwaleni Highschool. Nellie suspects that it is the wives of her sons who intervene to prevent them from sending any money. They are dependent on their pension monies for food, though money from the sugarcane helped them buy a water-tank and a fridge. Nonetheless, they hope to expand once again by using their 0.5 ha as seedcane and using the free fertilizer distributed by the mill.

Case 15: Mrs MZ [10/11/11]

MZ was born in Madwaleni, but on a different plot than the one on which she now resides. She does not know how big the plot was, but recalls that they owned around 30 cattle and that her family grew enough crops to feed the entire homestead, though they never sold anything. She had two older sisters, but none of them ever attended school, as her family never considered it important.

In 1972, when MZ was in her 20s, she moved from her family homestead to marry her husband. They had met as farm labourers on a white man's farm. She recalls the conditions as being good, with separate dormitories for men and women and food provided daily. From this work she earned R6 a month, half of which she spent on food and clothes for herself, and half of which sent home to her parents, who used it largely for alcohol. It was from this work that her husband earned enough money to purchase cows for her lobola*. Soon after their marriage, he took up employment in a game reserve until the 1990s when he left to work for the SADF. However, 6 years later he was diagnosed with diabetes, and was forced to stop working. The family homestead thus came to rely largely on sales of sugarcane and cattle, though from the 1990s this would be supplemented by her husband's disability grant.*

Her husband's plot in Madwaleni was substantial, at approximately 3ha, most of which was dedicated to food crops and about 1ha of which was used sugarcane. Although she wasn't sure when her husband began growing sugarcane, she said they began on the advice of a neighbour by selling a cow in order to hire a tractor to plough and plant. Most of the labour was accomplished herself with the help of her seven children, though this was supplemented with the paid labour of neighbours. The money from sugarcane was received by the husband, but put largely towards food purchases, which it covered sufficiently, and all of her children went to school, three of which would achieve matric.

However, the returns from sugarcane production have been declining as the costs of replanting, cutting and input purchases become prohibitively onerous. While MZ says that previously she had earned between R3-4000 per annum, she now hardly receives anything to supplement consumption. This she said was compounded by mill breakdowns, about which growers are not informed and which consequently sees their cane rotting at the loading zone. Moreover, the extension support growers used to receive, which in the 1990s even included mill-dispatched teams of labourers to cut and plough, has long since stopped. While she said she had never previously need FAF, she would still be too reticent to take on credit for fear of debt.

Last year, however, MZ's husband died. This was tragically soon followed by the death of her eldest son this year, who had left to join the SADF in 1998 but had recently became sick. All of her daughters currently reside with her, but only two have been able to find employment as shop clerks, though one does have a child support grant. While MZ says she will persevere with sugarcane cultivation she doubts her children will ultimately pursue it.

Case 16: Ms SN [14/11/11]

SN was born in 1965 at Nongoma, near Hlabisa to her mother LN and father Mr K. LN lived alone, first getting married to a Mr M, but the marriage did not last. She then had two boyfriends, and had one boy by each of them. Subsequently she moved in with Mr K and bore by him 1 boy, followed by SN, and then a younger sister. The relationship with Mr K, however, similarly did not last, and LN moved back with her parents at Nongoma. LN's parents had around 4 ha which were planted to food crops, but did not provide sufficient food to feed the homestead year-round. Consequently, LN was forced to seek work on a white man's tomato farm near Mkuzi, working in the day and returning home at night, and using the wages she earned to buy clothing and food and to pay the school fees of all her children. Although LN had siblings, they did not seek work, but instead helped at home tending to the crops and cattle, of which there were around 10. However, when SN's grandfather died around 1973, they were all compelled to move. They left to Madwaleni, where relatives had set aside around 1 ha for them, which LN planted to maize. In Madwaleni, LN, SN, and her siblings all worked as wage labourers on neighbour's cane farms, applying fertilizer, planting and cutting cane. They put this money to food and clothe purchases, but often did not have enough to eat.

When SN was 18 she met her first boyfriend, a peer at school, and had one girl by him. Unfortunately, the relationship did not last. In 1984 she met her second boyfriend and had 3 boys and one girl by him. Although he had paid some of his lobola*, he eventually left to seek work in Pongola, but never came back after finding another wife there. However, before he left in 1992, he gave SN another hectare and immediately made plans to plant sugarcane. To this end SN struck two deals with two respective neighbours. The first one agreed to plant the cane and take the proceeds from the first cut, but allow SN to keep the subsequent ratoons, while the second allowed SN to submit cane on her code. All labour on her own sugarcane plot was done by SN and her children, except cutting. SN says she was never a member of the FAF credit system, but was a member of the UAF retention scheme. Although the money helped, it was not enough, usually covering food purchases for only about a month, and SN continued to seek wage work on other people's farms. Meanwhile SN's sister had found employment as a domestic worker for a white farmer, and her brothers had found employment at SA Wire in Durban. They would visit her around twice a year, and bring some money to help her, but this generally only covered food purchases for around one month.*

However, in the last few years, SN has been forced to abandon cane production due to its onerous expense. Although she says she would like to plant again, she does not have enough money for seedcane, fertilizer and tractor services to plough. Other complicating factors included major delays by haulier services and issues of fencing, with cattle coming and eating her cane. She says she does not know how her children will survive in the future, but doubts they will earn a living from cane, which is hard work.

Case 17: Ma K [16/4/12]

Ma K was born in Umbombo. Her parent's plot was large, at around 5 ha, on which they food crops for family consumption, and they never had to buy any. Her father had 3 wives and 15 children, and though each wife was allocated one ha by they would work all the land together and eat together. Her father would work on a white man's farm in Mbonjeni all week and come home on the weekends. He used his money largely for drinking, but also for clothing and cleaning products for the homestead. He also had around 16 cattle which he never sold, but would slaughter one around once a year. They also had about three kraals housing around 50-100 pigs and would slaughter a pig about once a week. He would also barter the pigs for goats and cattle acting as an imbondo. Ma Khambula went to school with one sister and one brother, because they were the only ones of school-going age at the time the school was built. The fees were paid by her mother and by her teachers. She also had one brother who went to work on a mine in Germiston, and another one who also left for the mines but never returned.

Ma also left to find work in 1968, finding work as a domestic for a white family in Bombjoni. However the white family moved away after a year and she was compelled to look for work elsewhere. She eventually found work in a factory processing rope and used the money for clothes and her mother. In that time she also met her husband who was working in a hotel at that time. They married in 1970 with a lobola *of 6 cattle. She then moved to Madwaleni to his family homestead, where his father, mother, 4 brothers and 3 sisters lived. The family had around 2.5 ha of land under maize, which was worked by the women of the homestead with the parents while her husband worked in the hotel. By 1979, however her husband died from sickness, and as time went on the sisters left the homestead for marriage, and the brothers passed on, 1 in the mine, and the rest also from sickness. By 1999, Ma K and her 6 children were the only ones left.*

Before Ma K embarked on sugarcane cultivation, however, the homestead had grown cotton in the 1980s. The money from cotton had gone towards her mother-in-law who spent it primarily on the construction of their house, and towards cattle purchases. Her mother-in-law also started growing cane around 1989. From 1984, however, Ma K had left the homestead to work on a white man's cane farm in order to afford food purchases after the death of her husband. She couldn't however afford schooling. Ma isn't sure when she stopped working exactly, but she was tired, and her children were old enough by that time, with one receiving a disability grant.

In 1999, Ma K decided to start cane afresh by embarking on an agreement with a neighbour whereby he would use her land to plant sugarcane for 5 years, after which the remaining ratoons would be hers. This neighbour was the same one SN made a deal with, and was a larger farmer with around 10 ha. However, the money she received from the cane after five years was not very substantial, and she would spend it primarily on traditional things, such as funeral slaughtering. While she started growing in 1999, she also began working on neighbour's cane fields so that they would help her when it was time to cut. In those times it was about R20-R30 per stack, which she would spend on small things. The white-man's cane farm used to pay a lot more.

At the moment Ma has no cane however. One of her biggest problems is transport: in 2009 she waited for 2 months for the haulier , but in 2010 it was on time. Another problem is that small growers have to pay the chairperson to go to meetings on top of the expense of labour for weeding and for chemicals and renting a knapsack sprayer, which you need to do three times a year. She thinks that eventually her children will take up cane production, and notes that her son, who is currently working as a security guard in Mtubatuba, used to help her to purchase input, and she may ask him to help her start again. However, the costs of inputs are increasing and the 5-year rental strategy is not effective under drought conditions.

Case 18: Mrs NtS [12/11/11]

NtS was born in Manguzi (near Mozambique) on her parent's land, in 1974. Her parents had about 4ha and grew food crops. They never hired any labour to help with any agricultural work and did not own any cattle, but NtS' mother was employed as a domestic worker, and could to afford to send NtS to school. In 1994 NtS married a grade 12 classmate and left her parent's land to join him. When she took up residence with him, he had 8 ha planted to sugarcane, and he also worked as a tractor driver, both ploughing land and transporting cane. NtS helped her husband to plough and weed, augmenting the labour they hired from their neighbours for nearly every task. Her husband was a member of FAF, but his debt was always amortized. With the money they received from cane they were able comfortably afford food and furniture. However, in 2005 NtS' husband died in a car accident, leaving her solely responsible for sugarcane production.

Although production was not directly affected by her husband's death, it began to falter as drought conditions became onerous, and she hasn't been able to continue planting on her full 8ha. Although she owns two tractors, both are broken and are sitting in a garage until she can afford to have them repaired. Weeding labour furthermore often does not come, and input prices have been prohibitively expensive, forcing her to try to slowly expand without. Homestead income is augmented by her son, who works as a taxi driver, and currently the money she has received from sugarcane has been set aside for school fees. The poor growing conditions have further prompted her to consider growing gum trees, but this remains only a notional prospect.

Case 19: Mrs NS [20/2/12]

NS was born in Hlabisa along with her 2 brothers and 3 sisters. The family had about 4 ha of land which was used for food crops for home consumption, and this was sufficient to feed the family. They also had 10-20 cattle they used for draught power, but also sold one every year to help buy food. Her father would nonetheless go and work planting gumtrees for white men in order to earn enough money for clothes and other food. Her brothers still live in Hlabisa, with one working selling clothes, and another working in a factory in Johannesburg.

Like her sisters, NS eventually left home to get married. She first met her husband at a church conference in Durban, and married him when she was 19. She left to live with him in Madwaleni, but in a different section of the plot where she currently resides. Also living on her husband's plot were his other two wives, their 19 children, his mother, and brother. Her husband had a lot of land which was split amongst his wives, NS was given 5 ha, but the other wives had more. Her husband meanwhile worked as a gardener on a white-man's farm, and would give each wife R100 a month from his earnings, which they largely spent on cleaning products. He died in 1999, however, after a witch summoned an impundulu to kill him.

When she first arrived, she began growing food. But when she saw one of the other wives' son (and husband of NtS) growing good sugarcane, she also decided to start with his assistance, as did his other wives. When she started, she would regularly receive around R13-14,000, around R3-4,000 of which was profit, twice a year. With this money she would buy clothes and food and pay school fees for her five children. Generally she would allocate around 3 ha to cane and 2 ha to maize though this would sometimes change. The work in the field was largely performed by NS and the other wives, who would all help each other for free, although they would also hire in two young women from neighbouring homesteads for weeding and cutting. These two homesteads both have land, but small portions on which they only grow maize. NS also used to go and help NtS in cutting and weeding, for pay.

Now, however, NS only has 23 lines on about 1/8 ha, and in 2011 only cut ½ ha. She says that the main reason for her drop in production was drought: as she received less money, she was unable to purchase enough fertilizer or hire enough labour for weeding. She doesn't know if things got more expensive because she would just buy things as they were needed, but she suspects that the tractors got more expensive perhaps due to increased diesel costs. However, because she doesn't know how to use the cow for ploughing, she is dependent on the tractors, and because of decreased returns, she couldn't afford to replant. Previously, she would use money from her CSG and DSG to

pay the tractor, while using the money from cane to cover other farming and consumption costs, but now she needs to use the grant for consumption. She said she would not take a loan for fear of debt, but still needs money to purchase fertilizer and to pay for labour, which she cannot get for free, even from her children. It is the same situation with her husband's other wives. Now, however, she plans to slowly expand by using her current crop as seed cane.

Creeping back?:

Case 20: ZMk [21/2/12]

ZMk was born in Shikishela, though on a different plot to the one he lives on now. Also living in the homestead were his 11 brothers, 9 sisters, and his father's mother. His parents had around 40 ha, 20 ha of which was used for food crops sufficient to feed the family, though they never sold anything. They also had around 400 cows, 500 goats and 300 sheep. They never used to sell the cows, but they were used for ploughing, milk, lobola *and food when they would slaughter one in winter. Goats and sheep, by contrast, they would eat regularly. They would also sometimes give cattle to be used as* lobola *to outsiders on condition that they would return them in the* lobola *of their daughter. No one in the homestead ever had to seek work, and they all wore traditional clothes then, though ZMk would help with the ploughing in the field and herding of the cattle.*

ZMk met his first wife in Shikishela when he was around 35, and the 11 cattle for the lobola *for the marriage were provided by his parents. His wife moved onto the family's land with him, as had the wives of about 6 of his brothers. He left his parents homestead land around 1960 after his wife began bearing children. This was in line with Zulu custom, which instructs sons to leave their father's land after they have 2 children. The land he settled on was given to him by his father, including about 3 ha for crops and around 10 cattle. Now that entire 40 ha has been divided amongst his brothers.*

The land he was given was enough to feed the family all year, but in 1962 he left to seek work at Monzi working on a Thomas Smit's sugarcane farm, largely helping to transport cane using a donkey cart. He worked there for around 2 years, coming home once a month and giving most of the money to his wife. At that time there were shops in Shikishela where she would buy food and clothes. He eventually tired of farm labour and then took a job at one of Shikishela's food and clothing stores. This store, like all similar stores in Shikishela, was owned by a white man. Ironically, he was thus being paid by the same man he was buying goods from, though sometimes he bought goods in Mtubatuba. ZM worked in that shop for 4 years until the owner fired everyone for suspicion of stealing, and hired new staff. He then sought work driving machines and cutting grass at the 121 battalion of the SANDF, and with that money he could afford to pay school fees. He worked there until 1994, when the unit disbanded.

When ZMk returned home he borrowed another 2 ha for sugarcane from his brother, who was induna *and had a lot of land. MMk is his cousin, the son of one of his uncles. He used some of the money he had saved from the 121 battalion to purchase 2 stacks of cane, fertilizer and for ploughing services. He received a quota number easily, as by the time he was growing cane the rule that one need at least 5 ha had been revoked. He then expanded using R12,000 credit from FAF, with which he purchased seedcane, fertilizer and ploughing services, and was given 2 years to repay the loan. By the time he had expanded to 5 ha, he was producing around 15 trucks worth of cane at around R1,200 per truck. Although he was able to pay back the loan, it was not easy. With the money from cane he still had to pay for school, food and inputs, and FAF would take 20% from each payment. Consequently, he could only afford to hire labour for weeding on 3 ha to supplement the work done by himself and his wife. Typically he would hire about 6-8 people from neighbouring homesteads. Although he doesn't remember their names and which homes they came from, he said they were usually between 38-45 years old, consisting maybe between 3-5 men and 3 women.*

Now however, he has only about 1.5 ha under cane, 0.5 ha which was just planted, and only cut 0.5 ha in 2010 and 2011 after not planting at all for some time. The decrease was premised on the fact that costs of inputs increased while his returns decreased and that homestead needs still had to be accounted for. He said 1 ha cost about R10,000 but he started only receiving R8,000 per ha and would need to take at least R3-4000 from all of them. Generally, he would invest as much as necessary in the first few hectares, and that the last ha would suffer. The first thing which thing he would sacrifice was labour which is expensive and in short supply, and would opt instead for cheaper poison.

Contractors and hauliers are also expensive, and often provide substandard services. For instance, when they crack the soil they plough very shallow rows, which reduces the number of ratoons you can get from one planting, say 8 instead of 15. Also, they do not pack the rows tightly enough, say doing 60 lines instead of 100 per ha, which means you plant less cane and get more weeds. A further problem is that growers must pay for transport in tonnage of cane, but only get paid for sucrose content. So if their sucrose value drops from drought or transport delays, the grower gets paid less, but the contractor gets paid the same amount, even if they are late.

During the first five years of cane production, ZMk married his second wife, and his brother allocated him some more land for her to build a home and start a small 0.5 ha garden. The food produced by these crops is not enough, and he must supplement her groceries with money from his and his first wife's pension. He first started receiving a pension in 2008, and though it has helped food purchases, the increased cost of food has diminished its value. He uses it to buy food and for the school fees of his 5 children. This he says is enough to meet basic needs while he reinvests all his cane money into expanding his fields. The cane he did not submit in 2011 has gone towards expanding another 0.5 ha and he plans to expand slowly expand in this manner, but this will be contingent on his returns.

ZMk says that over the years there have been a lot of changes in Shikishela. In his assessment, people are a lot poorer, there are fewer jobs, food is more expensive, and it rains less. Less than encroachment of cane land, he says that it is the less abundant rainfall which has resulted in less grazing land, and seen the death of many cattle. There are also many more people who came mainly from St. Lucia after they were disposed between the 60s-80s. He says that once St. Lucia and Shikishela were under the authority of the same induna, his brother Ozias, but following dispossession they had to incorporate themselves in other Mpukunyoni wards. Shikishela saw many new entrants, and incumbent residents had to surrender a lot of land to accommodate them.

Case 21: Ma Z [21/2/12]

Ma Z was born in Shikishela as the youngest of 3 sisters and 1 brother. Also living on the homestead was their father's mother. The family homestead owned some cattle which grazed on communal land as well as 1 ha of land on which they grew maize, amabele, izindlubu, sweet potato and pumpkin. However, this was not enough to feed the family all year-round. To make up the short fall, her father and brother would leave to work in Johannesburg and when he would return would join Ma and her brother working on a white man's sugarcane, tomato, pineapple and cabbage farm. They would work in the day and return at night. Eventually her sisters left to get married and her brother left to establish his own homestead and would work on a white man's cane farm in Umfolozi. He simply found a free space of land and paid khonza, which consisted of beer and cool-drink to be served during an introduction to neighbours. Ma isn't sure, however, if there is still enough land to do this.

Eventually Ma left home to get married, and already had five children by that point. She moved to her husband's homestead, but he didn't have any cattle or land of his own; and instead they had to borrow 0.5 ha from neighbours on which to plant food crops. Nonetheless, in the 1970s their neighbours gave them 1 ha, and this was ratified by the induna*. Her husband meanwhile worked on a white man's sugarcane farm, and Ma worked on a white man's pineapple farm for another 6 months while her oldest child looked after her other children. She also used to made reed mats to sell, as she still does, and would sell enough to purchase washing powder. Eventually her husband stopped working on the cane farm and instead left to work at the SADF 121 Battalion during the day as a machine driver. The money he received was much better, and allowed them to build the family's main brick house. He worked there for 10 or 11 years until he retired in the 1990's, and that would be the last job he ever had.*

Ma's homestead started growing sugarcane around 1998, after Mr Z suggested it as a good way of making money. It was easy getting a quota number, but they never used FAF and didn't want to. Instead they purchased inputs and tractor-ploughing services from her husband's 121 pension. Most of the work was done by Ma alone, although she would ask her husband and pay her grandson to help cut. The money they received was good, and allowed them to purchase food and school fees, as well as bolster their savings. Although she would be the one receiving the money from the mill, she would give it to her husband because, seeing as how he was unemployed, it would otherwise be disrespectful.

During the 2000s, however, there was a drought which devastated their cane. In that year they only managed to get one stack of cane, and their cane didn't survive the second ratoon. Though it was expensive however, the second planting provided cane which lasted much longer. Still their cane life is fairly short, and they find they must replant every 4 years. After receiving free fertilizer from the mill, however, they have borrowed 1.5 ha from a niece some distance away, borrowed R1,400 from an immediate neighbour for ploughing, and have been setting aside some pension money for a stack of N376 cane, which she thinks will grow well. Their consumption will further be subsidized by a child working at a hotel in Durban who sends R700 every month. The other problem will be labour, as she and her husband are getting too old, and her children are in school. She might therefore be compelled to buy poison and rent a knapsack sprayer for R200

Case 22: Mr TS [15/4/12]

TS was born in Makhakhathane in Madwaleni along with his 3 sisters and two brothers. When he was young, however, his family were forced to find another homestead in Madwaleni after they were chased off of their land in 1953 by white people who would eventually establish the Bhangaze game reserve. The whites let them bring their cattle and possessions, and then loaded them into a truck to drop them off at Madwaleni highschool, where they appealed to the induna *to grant them refuge and a new plot. The* induna *granted them 6ha, on which they grew various crops.*

As before the move, his father worked as a labour supervisor on a white man's pineapple farm in Hluhluwe. Although there was enough to feed the family, TS also eventually left to seek work with his brother on a white man's cane farm in Umfolozi so that his family could purchase domestic products like cooking oil, and so that he could save enough money for cattle. Eventually, however, the poor wages prompted him to seek work on a mine at Welkom, a job he had for 16 years. He would visit home once a year, saving most of his money for cattle. The work was very dangerous, and at one point he narrowly avoided a severe injury when a big stone fell on his back. Luckily, however, the injury was not incapacitating,. Nonetheless, he only worked underground for two years, after which he worked in the kitchen. There was a union at the mine, but he couldn't remember its name, and there were not many conflicts.

He eventually married a woman from Madwaleni, and all of his cattle went towards lobola*. Eventually, however, he was compelled to leave his family's homestead after a dispute broke out between his wife, and that of his brother. His brother's wife was from Gauteng, and grew furious when his wife shouted at her children playing in the sweet potatoes. His brother, however, refused to speak with him about the conflict and he was forced to move next door. Although at home he had around 3ha, his father allocated him 0.5 ha while his brothers still stay on the original family plot and have around 4 ha. On his 0.5 ha TS and his wife grew food crops, but the small size meant they were compelled to work weeding and cutting neighbour's cane to survive. The money they received was not enough, but it was all they had. Eventually his neighbour, who had a lot of land let him indefinitely borrow 2ha for personal use, and though that man is dead now, his sons would still let TS use it if he needed to.*

TS first started growing sugarcane in 1999. He had seen the money people had received for it and initiated an agreement with Mr M, who agreed to plough and plant 0.5 ha in return for payment after the first cutting. He didn't use fertilizer the first time. On the first cut, he didn't receive much money, so he paid Mr M and ate the rest. On the second ratoon he used top-dressing and received better money, and decided to expand. The labour was done by him and his wife, though he would hire for cutting from Mr M's children and one young man from another homestead. After about 5 years he expanded to about 1 ha, purchasing, cane from neighbours and top-dressing. He was still working on other people's cane at this time, but the money from cane was sufficient for him to deconstruct his small hut and build several other houses. By 2010 he had cane on his entire 2.5 ha.

Now, however, his hectares have dropped to 1.5ha because that cane was about 8 years old. His other cane now lasts about 3 years. He doesn't think that this is related to a lack of fertilizer, but rather the lack of rain, noting that his cane which lasted 8 years was planted before the drought in the early 2000s. He still works on other people's cane, but says this is getting harder as he gets older. Moreover, his wife stopped working on cane years ago, but he doesn't know why. His children do not work, because they are at school. The homestead receives two social grants, but this is not enough to sustain the homestead on its own, though he thinks it will get easier when he gets old enough for a pension. He would like to expand his cane but has found this difficult. He planted 1 ha in 2011, bringing his ha up to 1.5 ha, by using the money from his 0.5 ha cutting to purchase cane. Consumption needs were met that year with money from cane work. He estimates that he would need another R1,500 to put all his land back under production, and thinks he may be able to do this with his next cut. The main problems now are shortage of rain, and he notes that after one year, his cane should be higher than it is (about 1.5m). He said that the good cane is N27, but that N17 is more resistant to drought. N27 is good even with small rain, but doesn't grow back strong like N17. He knows this from observing other people's cane, and has never had training.