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Dairy Joint Ventures in South Africa's Land and Agrarian Reform Programme: Who Benefits?

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Abstract: Joint Ventures (JVs) between ‘agribusiness’ investors and ‘small farmers’ or ‘customary landowners’ are being promoted in South Africa’s land and agrarian reform programme as a way to include land reform beneficiaries in the country’s competitive agricultural sector. This paper undertakes an in-depth comparative analysis of two JV dairy farms located on irrigation schemes in the former ‘homeland’ of the Ciskei, in South Africa’s Eastern Cape Province. The community, through government investment, brings the fixed assets to the business: land, irrigation infrastructure and milking parlours. The agribusiness partner or ‘sharemilker’ contributes the dairy cows and other movable assets. The paper explores what incentivizes agribusiness partners to enter into these types of ‘sharemilking’ JVs. The research reveals that investing in ‘moveable assets’ is more profitable for agribusiness and is also viewed as a more politically pragmatic way to arrange production in the context of land reform. These arrangements have led to further opportunities for investment in other parts of the dairy value chain. The social relations of production involved in sharemilking JVs also obscure class and race relations in ways that benefit agribusiness partners. Although beneficiaries are receiving benefits in the form of jobs and dividends, which in certain cases make notable contributions to household incomes, the structuring of sharemilking contracts is not a fair return on investment for the customary landowners. It is also argued that the JV model is at risk of equating ‘black emerging farmers’ with a group of ‘beneficiaries’ who are in reality workers and passive recipients of dividends and land rents.

Keywords: joint ventures; inclusive business models; agricultural investments; class dynamics; social reproduction; sharemilking; dairy farming; communal land; land and agrarian reform

1. Introduction

This paper investigates what incentivizes agribusiness partners to enter into joint venture (JV) arrangements with customary landowners in South Africa’s communal areas. JVs are being promoted as a way for black landowners to enter the highly competitive dairy industry. JVs typically involve collaboration between ‘agribusiness’ investors and ‘small farmers’ (Cotula et al., 2009; IFAD 2012) [1,2] or local people with existing land rights (Mayson 2003) [3]. IFAD (2012) [2] (p. 9) defines JV arrangements as follows:

“Joint ventures entail co-ownership of a business venture by two independent market actors, such as an agribusiness and a farmers’ organization. A joint venture involves sharing of financial risks and benefits, and in most, but not all cases, shared decision-making authority in proportion to the equity share”.

In the South African case JVs are most commonly implemented in the context of the land reform programme. Governance and financial arrangements tend to take diverse forms. Lahiff et al. (2012) [4] (p. 7) describe the specificities of these arrangements to the South African context:

“In distinction to the way in which the term is used in the international business literature, the term ‘strategic partnership’ is used here (and widely in South Africa) to signify a joint venture or other form of collaboration between an established commercial firm and a new (or ‘emerging’) group of workers, shareholders, small farmers, entrepreneurs or community members with limited commercial experience and little or no access to finance or leading-edge markets. Such collaborations typically have social as well as economic objectives.”

Since around 2005, JVs have been promoted as a key model in land and agrarian reform in South Africa (Lahiff et al., 2012; Pieterse et al., 2017) [4,5]. The JV model’s success to date, however, is questionable. Research in South Africa has illustrated that many JVs have struggled to take off, and have collapsed after major losses for both investors and communities (Aliber and Maluleke 2011; Bitzer and Bijman 2014; Bunce 2018; Cousins and Gumede, 2017; Davis 2014; Lahiff et al., 2012; Pellizzoli 2009; Tapela 2005; van Koppen et al., 2018) [6–13]. Despite mounting evidence of unfavourable outcomes, these models continue to be posited as potential ‘win-wins’ for both small farmers and agribusiness, if they are structured in appropriate ways, in both the South African and the international literature (IFAD 2012; Liversage 2010; Pieterse et al., 2017; Vermeulen and Cotula 2010) [2,5,14,15].

Critics of ‘inclusive business models’, like JVs, have cautioned that the model may be a new way for agribusiness to exploit black farmers and landowners, while retaining their dominance of the market and benefiting from improved political credibility (Lahiff et al., 2012; Tapela 2005) [4,12]. They highlight how these models tend to promote large-scale commercial farming as the only viable option within land and agrarian reform. This has been exacerbated by the unwillingness of government to sub-divide land for smallholder production, as a possible alternative model (Aliber and Hall 2012; Cousins et al., 2020) [16,17]. Many authors highlight the negative consequences of these approaches for social reproduction, given that they attempt to integrate small farmers and the rural poor into circuits of capitalist relations (Manenzhe 2016; Murray Li 2011) [18,19].

A strong focus on JVs in the South African context has tended to exclude other ways of promoting improved agricultural production in both communal areas and in land reform contexts, for example, through subsistence production or promotion of a differentiated smallholder sector targeting both formal and informal markets (Cousins et al., 2020; Lahiff et al., 2012; Mayson 2003; Pellizzoli 2009) [3,4,11,16]. Alternatively, Manenzhe (2016) [18] suggests that farming systems should be considered, which can bring together the complementarity of large-scale and household production. However, the specific nature of the agricultural commodity being produced must also be considered when promoting new avenues for black farmers to enter the agricultural sector, and when envisioning alternatives to JVs (Bunce 2018; Cousins et al., 2020) [8,16].

The dynamics driving JV-type models in the South African context, can be linked to the emerging trends of how global capitalism is reorganizing capital/labour relations. The ways in which agrarian capital is organizing in these JV-type models is not unique to agriculture. Similarities can be drawn across sectors, for example, the tendency to give workers shares in companies in the industrial sector. These types of mechanisms ultimately seek to diffuse tensions between capital and labour by obscuring class positions (Bunce 2018) [8]. Importantly, the state plays an integral role at a policy level and in mediating and enforcing these types of contracts (Minns 1996; Sesil et al., 2001) [20,21].

This paper undertakes an in-depth comparative analysis of two JV dairy farms located on irrigation schemes in the former ‘homeland’ of the Ciskei in South Africa’s Eastern Cape Province. The former ‘homelands’ are a key legacy of the 1913 and 1936 land acts, which reserved only 13% of the land for black South Africans. These regions continue to suffer from a legacy of poverty and underdevelopment that has sharpened in recent years, due to the failure of post-apartheid land and agrarian reform to address access to land, tenure insecurity and impoverished livelihoods (Cousins and Walker 2015) [22].

Both the Shiloh and the Keiskammahoek farms are located on the site of homeland-era irrigation schemes, originally established in 1976 at Keiskammahoek and in the mid 1960s at Shiloh (subsequently revitalised in 1979). At Keiskammahoek commercial dairy production was the focus and was

undertaken by an original group of 97 farming households, alongside some marginal crop production. While at Shiloh only a few households (15–17) were engaged in commercial dairy production, while the majority of 278 households had food plots primarily for household subsistence and some commercial vegetable production was undertaken by a group farm. After the Ciskei Agricultural Corporation (Ulimocor) was liquidated in 1997 both schemes fell out of full commercial production, although some marginal production continued at Keiskammahoek (Holbrook 1996; van Averbeké 1998) [23,24]. Both irrigation schemes were later resuscitated through the Recapitalisation and Development Programme (ReCap)¹, when Amadlelo Agri was identified as the strategic partner for the sharemilking JV.

Sharemilking is a form of organising dairy production that originated in New Zealand (Blunden et al., 1997) [25]. Amadlelo Agri has adapted this model in the JV schemes. The structure of Amadlelo Agri's 50/50 sharemilking model is described in this paper, in terms of the relative ownership of assets, the social relations of production on the farm, and how benefits and risks are distributed. The implications of this particular way of organizing production is evaluated in terms of the relative benefits for the agribusiness partner and the communities.

Residents from the rural settlements of Keiskammahoek and Shiloh are involved as both landowners and workers. Shiloh Dairies Trust is a 450-hectare farm that milks 900 cows, employs 27 workers and distributed a mean annual dividend of R2096 to 395 households in 2016. Keiskammahoek Seven Stars Trust is a 750-hectare farm that milks 2000 cows, employs 50 workers and distributed a mean annual dividend of R110,000 to 35 households in 2016.

The similar contexts and time frames facilitate comparison, however, they also differ in fundamental ways. The much larger group of 395 customary landowning households at Shiloh, with rights to relatively small irrigation plots (± 1 hectare), is sharply contrasted to the historical context at Keiskammahoek, where land consolidation benefited only 35 households (12–20 hectare plots) from an original group of 97 that first settled on the land. Most of the 35 households at Keiskammahoek have private title to their land (or are in the process of finalising their titles), unlike Shiloh, where irrigation plots are held under a form of communal tenure (van Averbeké et al., 1998) [24]. Additional JV farms are also referred to in the analysis, in order to get a better idea of the various ways these types of JV arrangements are structured.

The paper will start by briefly discussing the materials and methods used in the research. The political economy of the dairy sector in South Africa will then be analyzed, as a means to unpack the underlying incentives for agribusiness firms to enter into sharemilking arrangements. Following this, Amadlelo Agri's sharemilking model at the two JV farms will be presented and compared to other sharemilking arrangements. The paper will conclude with an analysis of what incentivizes agribusiness to organize in this way in the dairy industry. The significance of the JV model for understanding wider processes of agrarian change in South Africa will also be discussed, along with alternative models which could be more successful in improving livelihoods in the former 'homeland' areas.

2. Materials and Methods

This paper analyses data collected between September 2015 and December 2016, over 19 weeks of fieldwork. The fieldwork included a household survey of 58 households in Keiskammahoek village and 63 households in Shiloh village. Data were gathered on household composition, livelihood sources and incomes, labour relations, land ownership and use, household and farming assets and the distribution of JV benefits and risks. Survey data were analyzed using SPSS statistics. The qualitative methods included 122 unstructured and semi-structured interviews, 29 life histories, two focus groups and field observations drawn from ethnographic immersion. The research design was iterative, whereby data

¹ Government has made access to ReCap funding conditional upon beneficiaries entering into an arrangement with a 'strategic partner'. Pressure is thus placed on both communities and agribusiness to enter into JVs to access scarce government funding (Lahiff et al., 2012) [4].

analysis took place alongside data collection in order to reflexively revise the focus and approach of the research and of the fieldwork. Respondents were hesitant about being personally identified in the research due to the politics and conflicts surrounding the JVs. It was therefore decided to ensure anonymity for all respondents.

Marx's method of dialectics and the tenants of Critical Realism form the basis of the methodological approach used in this paper. Critical Realism asserts that it is not possible to perceive reality solely through empirical observation, all observation is theory laden. In other words, we require theory to bring together 'appearances' and 'reality' (Sayer 1992) [26]. The empirical data has been analyzed by making use of relevant theoretical concepts and analytical categories that Marxist political economy provides. A review of available primary documentation and research reports was also undertaken.

Trying to comprehend the significance of JVs entails grappling with various aspects of social reality. It requires systematically working one's way from what can be directly observed, from the shared meanings drawn from the lived experiences of key informants, and then digging below this surface, peeling away the appearances, to get to the conceptual core of these relations and dynamic social processes using abstract theory. Marxist political economy, by its nature, embraces complexity. It is not a simple task to bridge the divide between how things might first appear to the researcher and the actual 'reality'. The task of materialist dialectics is to provide the tools by which the researcher can integrate appearances/form and reality/content, and to uncover the contradictions and forces, which are hidden from the empiricist observer (Mandel 1976) [27].

Marxist agrarian political economy is concerned with unravelling unequal power relations and their structural dynamics. Unpacking underlying class dynamics at work in these JV arrangements is not straightforward. Capital-labour relations are not explicit because of the varied ways in which people meet their livelihoods under the uncertainties and pressures of the modern capitalist system (Bernstein 2010) [28]. Class relations that are disguised by surface appearances need to be revealed through careful analysis. In these JVs, agribusiness is being brought in as a 'partner' to 'communities' or 'small farmers'; social categories whose class character is anything but clear (Bunce 2018).

Although this paper is primarily concerned with what incentivises agribusiness to enter into these JVs, the broader research focus was also concerned with analysing the distribution of power, property rights, benefits and risks at inter and intra household (or group) levels. Therefore, important relationships and dynamics of power are not only relegated to those between 'communities or landowners' and 'agribusiness firms', but also to the dynamics among the households of the socially differentiated communities (Bunce 2018) [8].

The key areas of enquiry in Marxist agrarian political economy are concerned with the social relations of production² and reproduction³. Bernstein (2010) [28] (p. 22) has usefully summed this up into four succinct areas of enquiry: Who owns what? Who does what? Who gets what? What do they do with it? These are key questions of enquiry which guided the research focus. Evaluating the significance of JV arrangements for agrarian change also entailed evaluating the character and historical development of the capitalist economy of South Africa and of dairy farming in particular, which is the focus of the next section of this paper.

3. Overview of the Political Economy of South Africa's Dairy Sector

Over the last few decades South Africa's dairy industry has radically transformed from being highly regulated, subsidized and protected, with its activities overseen by a dairy marketing board,

² Marx and Engels (1977) [29] (p. 212) describes social relations of production as "The social relations within which [humans] produce, the social relations of production... in their totality form what are called social relations, society, and specifically a society at a determinate historical stage of development, a society with a peculiar, distinctive character. Ancient society, feudal society, bourgeois society are such totalities of relations of production".

³ Reproduction is the process of "securing the conditions of life and of future production from what is produced or earned now" (Bernstein 2010) [28] (p.128).

to a contemporary context where the sector is unregulated, unsubsidized and unprotected. The sector is dominated by large processors and a few highly efficient, large commercial farmers producing on extensive landholdings, along with a marginal number of small to medium-sized milk producers (Migley 2016; Milk SA 2013; MPO 2015) [30–32]. These commercial dairy farms have large herd-sizes, use capital-intensive production systems and employ wage labour (DAFF 2017; Midgley 2016) [30,33]. The prevailing discourse around ‘viability’ is that to compete in the formal market one requires at least 300 cows, with the average herd size at 399 (Milk SA 2013; Standford 2012) [31,34]. Some of the defining features of South Africa’s Dairy sector are captured in Table 1 below.

Table 1. Salient Features of the South African Dairy Sector.

| | |
|---|---|
| Number of Dairy Farmers | 1683 (MPO 2016) [35]. |
| Jobs created in the dairy industry | 60,000 farm workers and 40,000 people with indirect jobs within the extended value chain, including the milk processing and milling industry for feed (DAFF 2017) [33]. |
| Contribution to world production of milk | South Africa contributes 0.5% of world production (DAFF 2017; MPO 2016) [33,35]. |
| Cost of production | ±US\$35 per 100KGs. Produces competitively due to irrigated and rainfed pasture-based systems, large herd sizes and cheap wage labour (Hemme et al., 2014) [36]. |
| Contribution of dairy to GDP | 4th most important agricultural commodity, accounting for 7% of agricultural GDP. In terms of production (tonnage), it is the third largest agricultural product (DAFF 2017; Midgley 2016; MPO 2016) [30,33,35]. |
| Markets for dairy | 96% of milk sold in formal market, 2% informally and 2% for on-farm consumption (MPO 2016) [35]. |
| Dairy products | The dairy market is divided into 60% liquid and 40% concentrated products. Pasteurized milk and UHT milk are the major liquid products. Hard and semi-hard cheese are the major concentrated products (DAFF 2017) [33]. |
| Dairy animals | 1.7 million dairy cows in production in 2016. Relatively high productivity. 4th largest herd sizes in the world with the average at 399 dairy animals (MPO 2015/6) [32,35]. |

Increasingly capital-intensive production systems are employed by these on average larger farms e.g., rotary dairy parlours, which can take between 40 and 80 cows at a time, milking between 180 and 440 cows per hour. A labourer on the Keiskammahoek farm notes some implications for production and labour requirements, since the JV introduced two high-tech rotary dairy parlours. The statement illustrates how mechanization of dairy farming reduces how much labour is required, which poses questions for the suitability of dairy farming for land and agrarian reform where job creation is a key concern:

“During the Ciskei we could milk six cows at one time. The difference is now the milk goes straight to the tank. With the old system, you would have to empty the bottles in a bucket and then you write down how much it takes. You used your hands to change the milk... This new one is automatic. This one is easier, and we need fewer workers. Even one person can milk all 2000 cows on these machines... The computer feeds the cows and records everything now. On the old one you had to take a dish to feed the cows”.

Mkhabela and Mndeme (2010) [37] (p. 122) note that for milk producers “economies of size exist, with larger farms able to produce any given level of output at lower costs compared to their smaller counterparts”. The largest dairy farming company in South Africa, Grasslands Agriculture, owns

14 extensive dairy farms and also sharemilks⁴ on a land reform farm, together milking 15,000 cows. Concentration of land and dairy herds is evident in how twenty-five years ago there were around 50,000 dairy farmers but only 1683⁵ remain as of January 2016 (McCullough 2017; Midgley 2016; MPO 2016, Scholtz and Grobler 2009) [30,35,38,39].

In spite of the fact that the numbers of dairy farmers have drastically reduced, between 2006 and 2016 the number of dairy cows in production increased by 28% and milk production increased by 23% (DAFF 2017) [33]. This indicates that the surviving enterprises are highly productive and clearly poses many barriers of entry for new farmers and to the viability of a smallholder sector (Mkhabela and Mndeme 2010) [37]. The few existing small and medium dairy farms mostly sell informally to consumers. Since only 2% of total milk produced is sold informally, they are capturing very little of the market (MPO 2016) [35]. This constricting ‘market reality’ has contributed to government’s decision to partner customary landowners with agribusiness firms in JV arrangements.

Another defining feature of the South African dairy industry is that the dairy processing sector is dominated by four large national processors—Clover, Parmalat, Nestlé and Dairybelle (DAFF 2017; Stanford 2012) [33,34]. These processors force dairy producers into a price-taking position. However, processors also complain that they are in turn being squeezed by retailers, particularly large supermarkets that conduct immense power in the value chain. Despite these challenges, the National Development Plan identified dairy as having high growth potential thus still making the sector attractive to large commercial farmers and firms, who are able to effectively navigate market volatility (NPC 2011) [40].

In South Africa production has shifted to the coastal regions, which have milder climates and where pasture-based systems (some with irrigation and others rain-fed) are cheaper to produce on. These favourable climatic conditions bring down the cost of production, which has become necessary in order to survive in an unprotected dairy market where producers are price-takers (Midgley 2016) [30]. In 2016 the coastal regions produced 83% of South Africa’s milk and the Eastern Cape Province was responsible for 28% of production (DAFF 2017) [33]. This also explains the attraction of entering JVs with communities in the former Ciskei, where agribusiness can reap the benefits of the milder climate with access to gravity-fed irrigation on pasture-based systems.

Key threats which are commonly noted to the survival and profitability of dairy farmers in South Africa include: the threat of land reform, undervalued land, depreciation of the value of the Rand, rising price of inputs (especially grain), threat of cheap dairy imports, difficulty in accessing credit, climate change, high costs of farm wages, low producer price for milk and the dominant position of distributors and retailers (DAFF 2017; Midgley 2016; Scholtz and Grobler 2009) [30,33,39]. In April 2016 a respondent from Amadlelo Agri noted how the profitability of the JV dairy farms was being negatively impacted by dairy imports and the rising price of inputs:

“The market is ever-changing. Last year the equivalent of a month and half was imported into this country in a day. So, it threw our milk market on its head! The price crashed from R4.50 to R3.50 a litre. Remember that the price of production is R3.30, so we were making 20 cents a litre ... This year there are threats of imports again ... The inputs worry us more than the imports though, especially the price of maize ... The price of maize has gone from R2000 per ton to R3000 per ton, which put us in a difficult position”.

The statement above suggests that South African dairy farmers are forced to operate in an environment of great uncertainty and volatility. It has become increasingly difficult for producers to be profitable in this context. In this context, having access to government funding, as was the case in Shiloh and Keiskammahoek, assists in farmers’ surviving the periodic price squeezes that result from

⁴ See below section on sharemilking for more details.

⁵ DAFF (2017) [33] reported in their Dairy Value Chain Analysis report that there were 1961 milk producers. However, the 2016 statistics have been used since the case study was conducted between 2015 and 2016.

cheap imports, the rising cost of inputs, and the ability of dominant milk processor and distributors to determine milk prices. In contrast, Amadlelo Agri's Middledrift farm was established on loan funding and has experienced great difficulties in periods of increased market volatility. The greater security offered by state funding offers clear incentives for agribusiness companies to engage in sharemilking JVs.

Dairy farmers who manage to survive the volatility of the dairy industry have engaged in a few notable strategies. Firstly, some have undertaken horizontal integration (e.g., buying more land and producing at scale) and investing in capital inputs to boost income and profit margins. Some rely on cost-saving measures like accessing 'gravity irrigation' or particular grain growing practices. Some diversify into niche markets e.g., producing organic milk or selling a portion of milk informally as unpasteurized milk⁶, which both have higher profit margins. While many also survive by investing in enterprises outside of agriculture or engaging in vertical integration of the value chain (Bunce 2018; Genis 2012) [8,41].

The above analysis has illustrated that if one is not operating at scale or diversifying, it is difficult to survive the competitive pressures of the dairy market. This has contributed to the declining number of dairy farmers. Dairy farming is amenable to technological innovations and capital-intensive methods, which has resulted in extreme competition between producers. The specific nature of the industry must be considered when evaluating the suitability of dairy farming for emerging black farmers in South Africa's communal areas. Research has indicated that producing labour-intensive agricultural commodities such as vegetables, sub-tropical fruit and livestock may provide more promising livelihoods for small-scale black farmers (Bunce 2020; Cousins et al., 2020) [17,42].

4. Amadlelo Agri's Sharemilking Joint Venture Model

Amadlelo Agri's JV model has built on the sharemilking model from New Zealand, with some adjustments that, in their view, have simplified the model. The community, through government investment, bring the fixed assets to the business: the land, irrigation infrastructure and the milking parlours. The land and fixed assets are owned by the respective community cooperatives: Mayime Cooperative at Shiloh and Seven Stars Cooperative at Keiskammahoek. Amadlelo Agri contributes the dairy cows and other movable assets to the business e.g., tractors. Amadlelo Agri is also responsible for the day-to-day running of the farms, for which they employ farm managers⁷. After a 10% management fee⁸ has been deducted, profits from milk sales are equally split between Amadlelo Agri and households affiliated to the community cooperatives in the form of dividend payments.

At Keiskammahoek, Amadlelo Agri signed a five-year sharemilk contract with the Seven Stars Cooperative in 2010, which was extended for a further five years in 2015. Amadlelo Agri entered into a 10-year sharemilk contract with Mayime Cooperative at Shiloh in 2011, with an option to renew it in 2021. The sharemilk agreement specifies the assets owned by the relevant parties, a list of equipment and implements contributed by Amadlelo Agri and outlines the financial and governance arrangements. Each of these JV sharemilking farms has an operating company in the form of a farm trust (Seven Stars Trust at Keiskammahoek and Shiloh Dairies Trust at Shiloh). The trusts serve as the agent for the implementation of the sharemilk agreement.

⁶ It is illegal to sell unpasteurized milk in South Africa but many farmers still sell it informally because there is a high demand for it to make sour milk or 'Amasi'. A key informant from Amadlelo Agri notes, "Our customers don't want pasteurized milk. They can buy from us for R5.50 a liter or at the shops it costs R10 ... In my view, as long as your cattle tests negative to contagious abortion and TB (bovine tuberculosis) it's fine ... We sell about 10% to 15% of our milk unpasteurized. It gives us a price of 10 cents more than the average price for milk ... 10 cents on 4 million liters is R400,000 per year, giving a bottom-line increase of about 10%".

⁷ Farm managers are employed by the farm Trust. However, Amadlelo Agri plays a key role in ensuring skills development.

⁸ The management fee is, however, conditional upon profits being made by the farm.

4.1. Leasing and Ownership of Dairy Cows on the JV Farms

Amadlelo Agri leases the majority of their dairy cows through a cattle broker. A manager at Amadlelo Agri notes: "Our aim is to own all our own cows. But that's going to take a while, maybe 10 years. Of the 8000 cows we are milking across our farms, in total we own 1000". Amadlelo Agri pays for all the expenses related to the dairy cows, including rental fees. Dairy heifers (female calves) born on the farms are reintroduced to the dairy herd and raised as replacement heifers. Beef heifers and bulls born on the farms are sold to the surrounding community or commercial farmers. The Mayime (Shiloh) and Seven Stars (Keiskammahoek) cooperatives share in the calves born on the farms. A key informant from Amadlelo Agri explains: "If there were 100 surplus heifers, 50 belong to Amadlelo and 50 to Mayime . . . We want them to build up stock so they can get other income and then if Amadlelo or Mayime, for example, call it a day, then they have enough stock".

Leasing of dairy cows allows farmers to quickly grow their herd and achieve economies of scale, to earn profits on milk from the leased cows, and to benefit from growth of capital from calves born. A key motivation to accumulate dairy cows for lease to other farmers is the tax benefit. A key informant from Amadlelo Agri explains:

"If I have five million worth of tax income I can rather go and buy cows and then I don't have a tax problem . . . So, two things happen, I have surplus animals that I can't use but I don't want to sell them and pay tax on that money, so I prefer to lease them. And, I want to build another milking parlour. So, I can park my profits in cows and pay no tax... one day I sell the cows and build a milking parlour for 10 million and still pay no tax".

4.2. Sourcing Labour From the Local Communities

The JV farms commit themselves to hiring workers from the local communities. At both farms, there are contentions over who has the right to labour on the farm, which are permeated with language of belonging and mediated by networks of kin and customary groups. There are also notable generational struggles over jobs. Amadlelo Agri concedes to a preference to hire landowning households, which are perceived to be more invested and easier 'to manage'. However, the farms' legitimacy also rests on meeting demands for work from the wider community. This has produced several tensions between landowners and the wider community.

The technical nature of dairy farming requires a high level of skill from the labour force, which must be adequately trained to work with valuable, disease-sensitive animals. A manager at Shiloh explains the impact of having to source labour locally: "There is a lot of politics here! Because it's a communal farm, we must take staff from here, but the quality of the workers is not up to standards. We have a high calf mortality rate here because guys don't follow procedures. We are not building our equity because you have so many animals dying".

Currently these higher labour and production costs are being mitigated by the benefits of access to gravity irrigation, government funding for fixed assets and Amadlelo's investments in processing downstream of the value chain (which ensures a favourable milk price). However, in the long-term the farms may struggle to continue to meet high demands for labour, while maintaining profitability within the context of South Africa's competitive dairy sector.

4.3. Training and Mentoring of Black Farm Managers

An important focus of Amadlelo's JV model is to train and mentor skilled black farm managers. Amadlelo Agri has partnered with Fort Hare University to develop a one-year diploma programme in dairy training. Graduates get the opportunity to intern on the JV farms, or on the farms of the 50 commercial dairy farmers from 'Amadlelo Milk Producers Investment Company'. Amadlelo Agri also arranges for their managers to spend a year in New Zealand undertaking a sharemilking internship. This was an experience that many of the managers spoke highly of.

All nine senior and junior managers interviewed across four JV farms (Keiskammahoek, Shiloh, Middeldrift and Fort Hare) were complimentary of the opportunities that the Amadlelo Agri model afforded them for professional growth, skills development and a competitive salary package. The production manager's case is illustrative of the accumulation path of their farm managers:

"To break into the industry in farming as a black person is not an easy one, it requires character. I was lucky that I managed to get the job with Amadlelo, I took a chance quitting my previous job, but accumulating cattle has really changed my life. Since I am a 10% sharemilker, I sign my own check. I made R1.1 million last year. This year (2016) I got a new opportunity as the production manager at all of the farms. This opportunity is huge, the assets that I have, everything is because of Amadlelo!"

Amadlelo Agri encourages its farm managers to accumulate dairy cows. One female farm manager had accumulated 92 dairy cows over eight years, which are being leased on the Middeldrift JV farm that she manages. The production manager had accumulated 160 dairy cows over nine years, which are being leased on different farms across the Eastern Cape and generating R16,000 per month in passive income.

Amadlelo Agri has been successful in facilitating the entrance of black farm managers into a sector dominated by white commercial farmers and managers. This has been the most positive 'transformation' impact of their JV model. JV jobs have made a significant impact on the livelihoods of managers and their households. It is, however, important to note, that apart from one of the junior managers at Shiloh, none of the managers came from the beneficiary communities. The benefits accruing to this group of black farm managers also need to be evaluated in relation to the jobs and dividends accruing to customary landowners and other members of the local communities in which these farms are situated⁹.

4.4. Governance and Financial Arrangements in Amadlelo Agri's JV Model

4.4.1. Amadlelo Agri Agribusiness Firm

Amadlelo Agri is an agribusiness firm whose stated vision is 'to contribute to transformation by creating profitable, sustainable, black empowered agribusiness'. Amadlelo Agri was first established in 2004 by 70 commercial dairy farmers¹⁰ from the Eastern Cape and KwaZulu-Natal provinces. Amadlelo Agri has since established seven dairy JV farms in the Eastern Cape and KwaZulu-Natal provinces. In addition, Amadlelo Agri also has shares in a Macadamia JV and a Piggery JV, both located in the Eastern Cape.

Amadlelo Agri's shareholders include: Vuwa Investments (a black empowerment company) which has a 35% share, Amadlelo Milk Producers Investment Company (AMPIC) (owned by 50 white commercial dairy farmers) which has a 49.9% share and the Amadlelo Empowerment Trust (500 workers from the 50 commercial dairy farms) which has a 15.1% share. A key informant from Amadlelo Agri asserts that no profits are currently distributed to its shareholders because of debt repayments. R100 million went into building Amadlelo Agri, with an initial investment of only R25 million from the white commercial dairy farmers at AMPIC.

Government is essential to the JV deals in terms of sanctioning and funding them, especially those on communally owned land. However, apart from initial negotiations in setting up the JV schemes and providing funding for the fixed assets, government does not actively monitor the performance of these JV schemes¹¹. The financial management of the farms is the sole responsibility of the farm trusts and government does not sit on these structures.

⁹ This will be briefly discussed in the next section of this article but see Bunce (2018) [8] for a more thorough analysis.

¹⁰ At the time of interviews in 2015/6 the shareholders had reduced to 50 commercial farmers.

¹¹ Apart from yearly visits and occasional meetings that are held with the chief executive director of AMPIC.

4.4.2. Joint Governance Structures: Seven Stars Trust and Shiloh Dairies Trust

Both the Seven Stars Trust and the Shiloh Dairies Trust have a board of trustees, which is governed by representatives from Amadlelo Agri (through Keiskammahoek and Shiloh Livestock (Pty¹²)) and the community cooperatives (Mayime and Seven Stars cooperatives). The representatives on the board of trustees meet once a month and are responsible for the financial management of the farms and for reporting back to the members of their relevant organizations. The trusts also have quarterly meetings with the cooperative committees to discuss the financial outlook of the farm.

The Shiloh Dairies Trust is composed of twelve members, six from Amadlelo Agri and six from the Mayime Cooperative. Three of the Mayime Cooperative members serve on Mayime Cooperative's committee as well as Shiloh Dairies Trust's board of trustees, including the local headman/traditional leader. These members wield considerable power and influence in the community structures. Conflict among the landowners over the governance of the Mayime Cooperative resulted in an opposition group being formed. Members of the 'opposition group' expressed contentions over who the legitimate 'landowners' are in Shiloh village and concerns over the financial management of the Mayime Cooperative. Disagreement has also emerged over whether all profits should be paid out as dividends to customary landowners or reinvested in the business. Several claims were heard that people are receiving dividends even though they are not 'landowners', as the following quote from a landowner suggests:

"278 people own the dairy who are supposed to get money... But because of corruption there are 395 who are getting the money. There is a fight in this village about this, some of those top members of Mayime Cooperative are not even landowners."

A worker on the farm further explains some of the issues of contention in this statement:

"Some of the issues are that the dividends come after six months, but they want the money every month... But the cooperative says if they pay every month there will be a loss. A lot of people are not happy with it, there are opposers of this project. Half of the beneficiaries I think are unhappy. One time they came here to take out the cows, but we are workers and we can't let them do that. They wanted to take them out the fields and put them on the tar road to be knocked by the cars. Another thing they wanted is milk for every community member that is a landowner, but that will create a loss."

The above quote reflects the inherent tension between commercial farming and the social reproduction needs of poorer households. These conflicts have their roots in the intense reproductive squeeze many households are subject to. Differential access to limited JV jobs and conflicts over the distribution of dividends have heightened processes of social differentiation and all the associated conflict this brings along intersecting lines of class, generation, gender, ethnicity and religious affiliation. The threat by a faction of customary landowners to harm the dairy cattle and therefore their own farm is not unique. Numerous similar examples were documented, indicating that JVs are particularly susceptible to acts of vandalism (Bunce 2018) [8]. Democratic reform of the governance structures and improved financial management of the Mayime Cooperative would likely ameliorate some of the tensions. However, these types of reforms wouldn't resolve the wider contradiction that the JV model poses to the reproduction of poorer households.

The Seven Stars Trust is composed of two representatives from Amadlelo Agri and seven from Seven Stars Cooperative. Three landowners serve on both the Board of the Seven Stars Trust and the Committee of the Seven Stars Cooperative. There are also tensions among the Seven Stars Cooperative members, some of which are linked to historical relations that precede the establishment of the JV

¹² Amadlelo Agri owns 100% of these entities unlike at their other JV farms where they share the equity with other partner firms.

(Bunce 2018) [8]. However, a member of the trust from Amadlelo Agri, noted that “these issues do not spill out onto the farm”, in the same way as they do in Shiloh. At Keiskammahoek there is decidedly less conflict over the governance of the Trust and Cooperative structures and over the distribution of dividends. However, the relatively larger dividends have, in some cases, ignited intra-household conflicts over their distribution, which have taken on a particularly gendered character. Many female respondents expressed frustrations over male members controlling income from JV dividends (Bunce 2018) [8].

The pressures experienced by differentiated households in their ability to meet social reproduction, is central to understanding emerging conflicts. In Keiskammahoek less conflict is present, due to on the one hand the larger dividends to satisfy the needs of reproduction, and on the other hand, the different character of class dynamics among the landowners. In Keiskammahoek, the historical process of class formation that took place during the Ciskei era, among this small group of 35 households is central to understanding contemporary dynamics. The 35 remaining households, from an original group of 97, managed to accumulate larger parcels of land from their neighbours. Many households received private title and also accumulated productive assets (Holbrooke 1996) [23]. At Shiloh, where social differentiation is more extreme among the landowners, livelihood needs are disparate and many households are struggling to simply survive, and thus more conflict is emerging.

4.4.3. Financial Arrangements at Keiskammahoek and Shiloh

The farm operating trusts are the key entities that control the finances of the JV farms. Figure 1 below maps out the financial flows at the Seven Stars Trust Farm in Keiskammahoek. It illustrates that at Keiskammahoek R66 million¹³ of government funding alone has gone into establishing the fixed assets on the farm, which are owned by the Seven Stars Cooperative. Amadlelo Agri has also contributed an estimated R20 million in movable assets, which remain the property of the agribusiness firm.



Figure 1. Keiskammahoek Seven Stars Trust: Financial Arrangements (Bunce 2018) [8]¹⁴.

¹³ Chamberlain (2015) [43] and key informants reported that R66 million of government funding was invested into the Seven Stars Dairy JV Farm.

Figure 2 below maps the financial arrangements at Shiloh. Around R30 million¹⁵ of government funding has gone into establishing the fixed assets on the farm and Amadlelo Agri has invested around R11 million in movable assets. Unlike at Keiskammahoek, where the farm trust pays the beneficiaries their dividends, at Shiloh Mayime Cooperative is responsible for the dividend payments to the 395 households. This was an area of contention mentioned by households, who preferred that the Shiloh Dairies Trust distribute the dividends. Mayime Cooperative has not agreed to a financial audit and its committee is accused of misappropriating funds by the ‘opposition group’. A respondent from a landowning household notes: “We want things to be transparent, we want to know how much they make and how much is paid to workers and how much is left.”

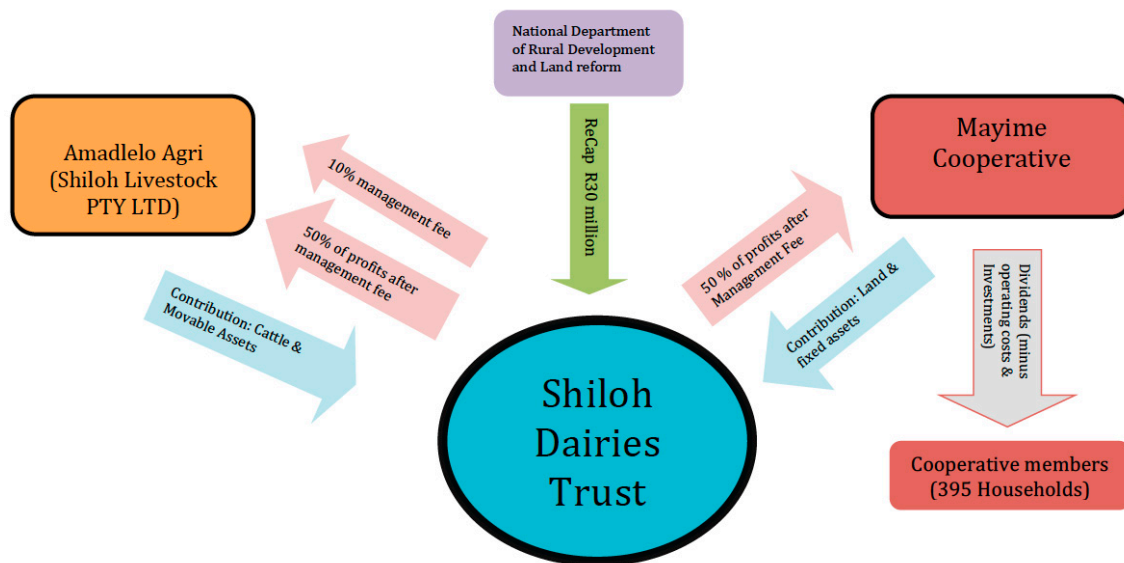


Figure 2. Shiloh Dairies Trust: Financial Arrangements (Bunce 2018) [8].

Government has claimed that Amadlelo Agri’s sharemilking model exploits the community because of the relatively higher value of the land and other fixed assets that the community brings to the farming business, as opposed to the value of the cows, other movable assets and management skills that Amadlelo Agri brings. Several key respondents, from among the landowning households at both case study sites, also emphasized that the 10% management fee and 50% of remaining profits deriving to Amadlelo was ‘unfair’. Amadlelo Agri argues that the landowners benefit from land appreciation, whereas their assets are at risk of depreciating.

While a reliable break down of investments made at each farm was not forthcoming, a key informant from Amadlelo Agri noted: “The incentive at Keiskammahoek is that government has spent money disproportionately to what we have, they spent about R60 million and we’ve spent about R20 million ... so it’s a gripe of theirs that we get 50% of the profits when they invested more.”

Amadlelo Agri reports that government investment in fixed assets, across all of their projects to date has amounted to R197 million, while they have invested R92 million in dairy animals and movable equipment. Evaluating the return on investment on the provided figures alone indicates that the profits deriving to the various parties is a mismatch to the relative capital investments.

¹⁴ Based on Chamberlain (2015) [43] with own edits from fieldwork insights (Bunce, 2018) [8].

¹⁵ Government funding was in the form of a ReCap grant, according to key informants. I could not obtain accurate information regarding Amadlelo’s investment in movable assets at this farm, however, on their website they note that livestock and assets for a 1000 cow unit amounts to R12 million and Shiloh was milking 900 cows at the time.

5. Results

5.1. Amadlelo Agri's Revisions to the 50/50 Sharemilking Model: Evaluation of the Benefits Deriving to Customary Landowners

Amadlelo Agri adapted New Zealand's 50/50 sharemilking model and in their view simplified it¹⁶. These differences have implications for the 'fairness' of the model, especially in terms of how communities benefit. In the Amadlelo Agri model, the costs of replacing assets or of further capital investment remain separate, like in New Zealand. However, all the operating and maintenance costs are paid for by the JV trusts on a joint account, whereas in New Zealand costs of maintaining assets are strictly separated. The logic behind sharing the operating and maintenance costs, in the view of Amadlelo Agri, is that it is easier to manage and to act quickly in a farming environment. However, as discussed below, there are examples where the New Zealand 50/50 sharemilking model is being implemented in land reform contexts in South Africa, allegedly without challenges.

In New Zealand the sharemilker is responsible for all the costs related to hiring of labour (Faur 1997) [44]. However, in Amadlelo Agri's model the workers and farm managers are employed by the JV farm trusts. In the standard '50/50 Sharemilking Agreement' in New Zealand, it states: "the relationship of the parties shall be deemed to be that of employer and independent contractor" (du Faur 1997) [44] (p. 47). This is clearly different to Amadlelo Agri's arrangements where the two parties are deemed to be 'partners' who share equity of the farm operating company. In Amadlelo Agri's model the parties share in the profits, unlike in New Zealand where it is milk income that is shared.

'Grasslands Agriculture', is making use of the New Zealand 50/50 sharemilking model at a land reform farm (Schoonfontein) in the Eastern Cape. A respondent from Grasslands Agriculture asserted that the New Zealand model is "fairer for the landowners" and that "we haven't found it difficult to maintain assets separately". In the quote below they explain that sharing the milk income (as opposed to sharing of profits) provides a much better return on investment for the landowners and is thus more suitable for use with land reform beneficiaries in their view.

"Amadlelo calls their model sharemilking but it's essentially not, they just split the profits ... If you share the milk income 50/50 and not the profit, the end result is that the landowner ends up with about 60% of the profit and the sharemilker with 40%. You need an equitable share of investment. You can't say the land costs 10 million and the cows five million but you get the same amount, that's not fair ... I don't agree with sharing maintenance costs. Then the landowner has no say in the matter ... If you had that in New Zealand, they would be in court all the time ... The reason why we use the New Zealand model exactly as it is, is because it's been experimented with for 120 years and it's a recognized formula ... It is more profitable for the sharemilker to share the profit versus the milk income. It's a better return on investment for the sharemilker, which is why they may have chosen it".

Table 2 below compares the scale of production and benefits to landowners across three of Amadlelo Agri sharemilking farms and Grasslands Agriculture's Schoonfontein sharemilking farm. It demonstrates that the latter distributes the largest dividends to the landowners. Grasslands Agriculture's 50/50 Schoonfontein sharemilking farm involves 49 land reform beneficiaries¹⁷. A key informant from Grasslands Agriculture stressed that they would not set up sharemilking schemes with larger beneficiary groups: "we would have to expand otherwise you just dilute the benefits for existing

¹⁶ See Bunce (2018) [8] for a full evaluation of the New Zealand model of sharemilking.

¹⁷ These beneficiaries are farmworkers from Grassland Agriculture's other commercial dairy farms, along with previous labourers that had worked on the former farm, which was acquired through an 'Land Redistribution for Agricultural Development' government grant. Government grants covered 35% of the total investment and the remaining funds were acquired through a commercial bank loan. The commercial loans were paid off within three years of operating.

beneficiaries". Clearly the size of the beneficiary group is a crucial factor to consider in ensuring adequate benefits for landowning households.

Table 2. Comparative Analysis of Sharemilking Case Studies: Scale of Production and Benefits to Landowners.

| JV Dairy Farms | Year Established | Hectares of Land | Number of Cows Milked | Number of Workers Employed ²⁰ | Number of Beneficiaries/Landowners | Mean Dividends per Household in 2015/16 | Land use Fees Paid to Landowners per Year (If Relevant) | Total Dividends & Land use Fees Paid to Landowners in 2015/16 |
|---------------------------------|------------------|------------------|-----------------------|--|------------------------------------|---|---|---|
| Middledrift Dairy | 2009 | 150 | 700 | 15 | 65 | R0 | R1200 | R78,000 |
| Shiloh Dairies Trust | 2011 | 450 | 900 | 27 | 395 | R2096 | R600 | R1, 178,000 ²¹ |
| Keiskammahoek Seven Stars Trust | 2010 | 750 | 2000 | 50 | 35 | R110,000 | NA | R3, 850,000 |
| Schoonfontein Dairy | 2004 | 425 | 1000 | 17 | 49 | R160,000 | NA | R7, 840,000 |

When the total benefits being paid out to landowners at the Shiloh farm are compared to those at Schoonfontein, which are operating at a similar scale of production, clearly the latter is receiving far greater benefits (total dividends and land use fees are 6.6 times greater), as Table 2 indicates. When Schoonfontein and Keiskammahoek are compared, in spite of the fact that Keiskammahoek's scale of production is double that of Schoonfontein's and there are less beneficiaries, the latter is still producing superior benefits for the landowners. The Middledrift farm received no funding from government and its fixed assets were established through a loan from the Industrial Development Corporation¹⁸. Key informants from Amadlelo Agri noted that it is unlikely to generate dividends for landowners for another 10 years.

Schoonfontein's advantage is clearly the longer period of operation. A key informant from Amadlelo Agri noted that, "It takes three to four years to settle a dairy farm down". Another sharemilker interviewed, who is using the '50/50 share of profit model' on white owned dairy farms noted: "In five years I know that I could get my capital investment back. I bought my herd in year one and by the time the agreement was over, we were sitting with a debt free herd". Schoonfontein had been operating for 12 years by 2016, as opposed to only 6 years at Keiskammahoek and 5 years at Shiloh¹⁹. However, the latter two farms have an advantage over Schoonfontein because they received 100% of the costs of their fixed assets from government grants.

The Keiskammahoek and Shiloh JV farms employ more workers because of the high demand for jobs and the need for the farms to legitimize their use of land in the communal areas. However, given the competitive and highly concentrated dairy industry in South Africa, there are questions around the long-term feasibility of this from the logic of capitalist farming. Keiskammahoek employs one worker for every 40 cows, Shiloh employs one worker for every 35 cows, while at Schoonfontein the ratio is one worker for every 58 cows²². As documented in Table 2 above, 50 formal jobs were created at Keiskammahoek and 27 at Shiloh. The nature of dairy means that there are more formal jobs created as opposed to seasonal or informal jobs. Although New Zealand's sharemilking model clearly offers greater benefits for landowners, Amadlelo Agri's farms are creating more crucially needed jobs.

²⁰ This includes farm managers and junior managers who are paid salaries rather than a share of the profits.

²¹ This total amount is based on information received from the Mayime Cooperative, which confirmed that the farm paid out R192,000 in land rents for $\frac{1}{4}$ hectare food plots and distributed R986,000 in dividends. The mean dividends and land use fees are based on household survey data.

¹⁸ The IDC is a national development finance institution.

¹⁹ Although both these Amadlelo Agri farms are within the period of 3–5 years of operation, noted by most key respondents as a reasonable period to 'settle a dairy farm down'.

²² Sharemilkers operating white commercial farms in the Eastern Cape hire even less workers. On three different sharemilking farms I found a mean ratio of one worker for every 62 cows, with the sharemilker rotating labourers across nearby farms to save on labour costs. For example, one sharemilking farm was milking 800 cows on 320 has with a rotary dairy parlour (very similar conditions to Shiloh) but only hiring 13 people, which is half the amount of labourers at Shiloh.

Household survey data attempted to quantify the income contribution of JV wages and dividends among beneficiary households at the two Amadlelo Agri JV farms in Shiloh and Keiskammahoek. The contribution of 'JV benefits' was analyzed among three groups of households: those who received only JV jobs, those who received only dividends/land rents and those who received both dividends/land rents and JV jobs. Among households only receiving JV jobs, in Keiskammahoek the median contribution of JV wages to total household income was 42% and in Shiloh it was 50%. Among households who received both JV jobs and dividends/land rents, at Keiskammahoek JV wages contributed a median of 17% to household income and in Shiloh they contributed 32%. These different contributions to household incomes can be explained in part by the comparatively larger dividends received in Keiskammahoek. However, a wider analysis of household livelihoods illustrated that variances in household composition, access to off-farm jobs, asset ownership, and labour hiring patterns also accounted for differences. Households in Shiloh are generally subject to a more intense reproductive squeeze and suffer from a broadly felt unemployment crisis.

In Keiskammahoek, JV dividends made significant contributions to overall household incomes: a median of 44% among households receiving only dividends and 47% among those receiving both dividends and JV wages. Many elder pensioners are using these incomes to take care of grandchildren and some send 'reverse remittances' to migrant children looking for work in urban areas. Several respondents noted that they were using this money to reinvest in own-account farming and were hiring labour. However, these households also had access to many other types of off-farm income, and because money is fungible it's hard to delineate the dividend's contribution from these other sources of income. However, it is fair to conclude that the dividend makes a contribution to the overall reinvestment fund for own-account farming in many of these households.

In Shiloh, the dividend only contributed a median of 2% to both groups of households. It thus makes a relatively small contribution and is used predominantly on household consumption. In general, you don't see the same level of accumulation occurring in farming in Shiloh, even with contributions of off-farm incomes (as opposed to dividends). There are some dynamic livestock 'worker farmers', however, they are fewer in number. The difference in livelihood strategies in these two sites, is in part a reflection of how the Keiskammahoek landowners accumulated larger areas of land and how most have maintained 1 or 2 hectares for own production. However, livelihood strategies are also more closely connected to agrarian activities. Most households at Keiskammahoek had been farming their land and continuing to target formal and informal markets (to different degrees), up until the JV was implemented. Whereas the majority of landowners in Shiloh reported having abandoned the use of their land on the irrigation scheme between 1994 and 1997. Access to off-farm incomes and social grants had thus become comparatively more critical for the reproduction of these households.

5.2. *The Incentives of Sharemilking Joint Ventures for Agribusiness*

The way in which agrarian capital chooses to organize production tells us something about how capital is responding to the particular pressures inherent to a commodity market and the wider political economy. Capital must organize in ways that are profitable if it is to survive. In South Africa, the sharemilking model cannot be explained as a pathway to eventual farm ownership, as is the common explanation in New Zealand (Blunden et al., 1997; Gardner 2011; Pepper 2013) [25,45,46].

This paper has revealed that sharemilking in the South African context allows sharemilkers/agribusiness firms to avoid tying capital up in costly fixed assets and land, as these are instead provided through government grants and communal land. This allows agribusiness to rather accumulate large herds of valuable dairy cows. Amadlelo Agri benefits from a 10% management fee and 50% of the remaining profits, while investing far less capital compared to the value of the land, irrigation infrastructure and milking parlour. Other incentives discussed in more depth below include: goodwill and increasing political creditability within the context of land reform; labour disciplining effects and obscuring class relations; access to scarce irrigated pastures (providing a 'differential rent'); and the opportunities for investment in other parts of the dairy value chain.

5.2.1. A Mix of Goodwill and Political Pragmatism

A strong discourse on the part of Amadlelo Agri is the desire to actively participate in agrarian transformation, poverty alleviation and black economic empowerment, as this quote from a key respondent indicates: “For Amadlelo to do business in a communal area is a hot issue, there is no logic for it from a business point of view. From a social perspective, entrepreneurship, empowerment perspective-yes! But those are not things that carry a rand value. In fact, they carry a negative rand value”.

To be fair, one should not rule out altogether that agribusiness may, in part, be motivated by ‘goodwill’. Primary research and interviews with an array of key informants does support the notion that there is indeed a great deal of ‘goodwill’ at work on these farms, whether or not one agrees with the underlying logic or ‘fairness’ of the model. However, there are also clearly incentives from a profit perspective in investing in communal areas, some of which were openly admitted by management at Amadlelo Agri. JVs are also driven by a sense of political pragmatism- they are a strategy for surviving within a changing political environment, within the context of land reform.

5.2.2. Labour Disciplining Effect and Obscuring Class Relations

The specific social relations of production on the JV farms seem to have a disciplining effect on labour. There are three main ways in which this was observed on these farms. Firstly, where landowners or their kin are employed on their farms, they are less likely to make demands on management or undermine production in other ways, since they are invested in the outcomes of their work, through their share in the profits of the business. Their presence among the workforce also seemed to have an overall disciplining effect. Secondly, in some cases the agribusiness partner/sharemilker has given workers shares in their holding company. These workers are not employed on the JV dairy farms but are employed in processing factories or on the farms of shareholders. Lastly, at Schoonfontein Farm, the landowners’ rights as beneficiaries were made conditional on their continued employment on Grassland Agriculture’s other dairy farms until retirement.

Sharing equity in firms is a requirement of empowerment policies (BBBEE) in South Africa, however, these types of JV arrangements also have the effect of obscuring class positions. This is clear when one looks at the shareholders of Amadlelo Agri. Who is capital and who is labour? We can’t plainly claim that it is white agrarian capital exploiting labour or black customary landowners. Black farm workers and black empowerment partners (like Vuwa Investments) are also shareholders of Amadlelo Agri. Similarly, what is the class position of the landowners? As partners in these JVs, who receive a portion of the profit as ‘rents’ and ‘dividends’ they are involved in indirect exploitation of labour. However, some landowners are also employed on the farms making their class position anything but clear. In Bunce (2018) [8], the fundamental social relations of production involved in sharemilking are conceptualized as one between landed property (the communal landowners) and a capitalist producer tenant (Amadlelo Agri). However, the complex ways in which livelihoods are strung together under modern capitalism through a mix of farming incomes, wage employment, social grants and remittances, coupled with how race and class interweave in South Africa, makes disentangling fundamental class relations a complex task²³.

5.2.3. Differential Rent from the Specific Conditions of the Land

Pasture based systems in the milder coastal regions of the country have become crucial to farming competitively in the dairy industry. Access to gravity irrigation, where you don’t have to pay the price

²³ See Bunce (2018) [8] where a class typology is discussed for landowners drawing on Patnaik’s (1987) [47] ‘labour exploitation criterion’. A thorough theorization of sharemilking is also offered which makes use of Patnaik’s (1983) [48] application of Marxist theory of rent to sharecropping. Sharecropping can, under certain circumstances, be viewed as a form of capitalist rent, involving indirect exploitation of labour by landed property.

of pumping water further increases profit margins. Keiskammahoek has gravity irrigation²⁴ and at Shiloh there are plans to change to gravity irrigation, but the government currently pays the price of pumping water. The following comment from a key informant from Amadlelo Agri is illustrative: “Don’t underestimate the competitive advantage of gravity irrigation! To give you a simple story, the top 25% of dairy farmer currently would make R20 -25 000 per hectare, but pumping is R5000 per ha. So immediately we have a R5000 advantage because we don’t have to pump. On a 200ha farm that’s a million rand we don’t have to spend on pumping”.

A differential rent is accrued, in contexts where differing soil fertility or water sources allow individual capitals to produce at lower prices than the ‘socially necessary price of production’ and therefore generate a surplus profit. The price of production in agriculture is determined by the average socially necessary conditions of production. Therefore, those with access to above average conditions will make surplus profit, above the average rate of profit. Landed property would usually appropriate this surplus profit as a differential rent (Patnaik 1983) [48]. In other words, higher rents are usually paid for more fertile land. However, in the sharemilking model this doesn’t happen because ‘the land’ is the landowners’ contribution to the JV business. In Amadlelo Agri’s model, the sharemilker benefits from the differential rent because of how they share in the *profits* from the JV business.

5.2.4. Vertical Integration of the Value-Chain

The potential political credibility gained in supporting black emerging farmers through JVs, also opens up opportunities for investment and access to funding in other parts of the value chain. This is demonstrated by Amadlelo Agri’s investment in the dairy processing firm COEGA Dairy, which received a loan from the Industrial Development Corporation and in turn procures 20% of its milk from ‘empowerment farms’ including the Shiloh and Keiskammahoek JVs²⁵ (Bunce 2018) [8]. The low and volatile producer milk price in South Africa is a key motivation for agribusiness to find other ways to improve profitability. Increasing vertical integration of the dairy value chain enables firms to capture value at different points in the chain, and to disperse risks. Respondents from Amadlelo Agri also mentioned the incentive of markets that are becoming increasingly interested in sourcing products from ‘empowerment farms’ at a premium. Amadlelo Agri already managed to secure a lucrative contract with Famous Brands, whose cheese is made exclusively from milk procured from its JV farms.

6. Conclusions

The volatile and highly competitive nature of the dairy industry in South Africa has shaped the type of large-scale JV sharemilking arrangements that are emerging in the communal areas of South Africa. The sharemilking model originated in New Zealand, where the model allows younger sharemilkers to accumulate capital and a dairy herd, with the aim of eventual farm ownership. However, ‘sharemilkers’ (white agribusiness firms like Amadlelo Agri) in South Africa are not incentivized by landownership. The sharemilking model allows agribusiness to avoid tying capital up in costly fixed assets (e.g., dairy parlours, irrigation infrastructure) and land, and to rather accumulate large herds of valuable dairy cows for the lucrative rental market. In the context of ongoing land reform, this is perceived to be a politically pragmatic way to restructure production.

These government orchestrated arrangements also provide opportunities for investment in other parts of the dairy value chain e.g., in processing. Access to scarce irrigated pastures in South Africa’s milder coastal regions has become crucial to producing competitively and is another incentive to farm in the communal areas of the former homelands. In JV arrangements customary landowners and their

²⁴ This means that there are no electricity costs. Water comes from a high-water source under pressure on its own without having to incur an energy cost.

²⁵ The JV Farms have a share in COEGA Empowerment Trust, which has a 38% share of COEGA Dairy. Of this percentage, 40% belongs to COEGA workers trust at COEGA Dairies (the factory), 40% to the JV projects (each farm has a percentage) and 20% to farm workers on 13 commercial dairy farms which own a 62% equity stake in COEGA.

kin are also involved as workers and shareholders, this obfuscates class and race relations and creates a labour disciplining effect which benefits agribusiness firms.

The lower costs involved in investing in movable assets makes the 50/50 profit sharing model a very good return on investment for the sharemilker. However, the evaluation indicated that although there is evidence of livelihood benefits at the Keiskammahoek and Shiloh farms in the form of both dividends and JV wages, the 50/50 share of profits is not a fair return on investment for the customary landowners. Strictly following the New Zealand model with a 50/50 share of the milk income and a strict separation when it comes to maintaining assets, would provide better benefits to customary landowners.

Some of the emerging conflicts at the JV farms discussed in this paper, illustrate that the JV model, premised on the logic of capitalist farming, faces enormous challenges operating in contexts where the social reproduction of customary landowners is under immense strain and where rights to and use of land are contested by numerous overlapping claims. The poor governance of the community cooperatives has further complicated this and produced numerous tensions. The demands placed on the farms to hire landowner's kin, provide milk to all beneficiaries and pay all profits out as dividends, are also rooted in the complexities of social reproduction. There appears to be an inherent mismatch between the capitalist logic of the JV model and that of social reproduction engaged in by these socially differentiated households.

This paper did reveal that one particularly positive aspect of Amadlelo's sharemilking model is its contribution to the transformation of a historically white dairy sector, by mentoring a number of successful black farm managers. However, the livelihood benefits deriving to these black farm managers do not match those deriving to the customary landowners. The cooperatives are also not being sufficiently trained to take over the financial management of their farms. In essence the JV model and its vision of agrarian reform is at risk of equating 'black emerging farmers' with a group of customary landowners, who are in reality passive recipients of JV dividends and jobs. The paper concludes that the JV sharemilking model is not appropriate for contexts such as these, on communal land involving sometimes hundreds of beneficiary households. The model could possibly have better success if it supported these enterprising black farm managers to succeed in the dairy sector and to access private land through the land redistribution programme.

The analysis in this paper has illustrated that alternative models, such as smallholder dairy production would face several challenges because of how the dairy sector is dominated by a few very productive large-scale farmers, and a few processors which force them into a price-taking position. Without a significant shift in the way government supports and protects the dairy sector, smallholder dairy alternatives would set customary landowners up to fail. The National Development Plan identified other crops which are high-value, have high-growth potential and importantly are labour-intensive e.g., vegetables, various fruit and nut tree crops and livestock (NPC 2011). Small-scale farming systems producing a mix of these commodities could provide viable alternatives to dairy production for communal area farmers (Bunce 2019/20; Cousins et al., 2020) [17,42,49].

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