



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

The Koup fencing project: Community-led job creation in the Karoo

Nicoli Natrass

Centre for Social Science Research, University of Cape Town, Cape Town, South Africa. E-mail: Nicoli.Natrass@gmail.com

Beatrice Conradie*

School of Economics and Centre for Social Science Research, University of Cape Town, Cape Town, South Africa. E-mail: Beatrice.Conradie@uct.ac.za

Inge Conradie

School of Economics, University of Cape Town, Cape Town, South Africa. E-mail: conradieinge@gmail.com

* Corresponding author

Abstract

This paper discusses a community-led fencing project in the Koup, an arid, predominantly sheep-farming district in the South African Karoo. The project was managed by farmers but had a strong empowerment dimension in that fencing team leaders were drawn from the ranks of unemployed people in the town of Laingsburg. These leaders were responsible for recruitment into the project and for the day-to-day operations. By comparing information collected from participants with local census data, we show that the public works programme was appropriately targeted to the poor. This was in part because workers were required to camp on farms for two weeks at a time, thereby resulting in the project automatically selecting for those most committed to earning additional income. In explaining the success of the programme we highlight the role of supportive government officials in sourcing funding, and the importance of leadership in overcoming collective action problems amongst the participating farmers. This holds important lessons for the design of future public works programmes and for the kinds of mixed research methods that may be appropriate for evaluating such programmes.

Key words: public works programme; farm labour; rural development

1. Introduction

This article discusses a fencing project in the South African Karoo that was financed by government, but managed by participating farmers and team leaders drawn from the ranks of unemployed people in the town of Laingsburg. The objectives were three-fold: to document a successful public works project; to illustrate how mixed methods research (drawing data from surveys, the census and from qualitative interviews) is useful for understanding the various dimensions of that success; and to highlight the key role that individuals played in ensuring the success of the project. By comparing information collected from the participants with local census data, we show that the public works programme was appropriately targeted to the poor. This was in part because the workers were required to camp on farms for two weeks at a time, thereby resulting in the project automatically selecting for those most committed to earning additional income. In explaining the success of the programme we highlight the role of supportive government officials in sourcing funding, and the importance of leadership from individual farmers in overcoming

collective action problems. This holds important lessons for the design of future public works programmes and for the kinds of mixed research methods that may be appropriate for evaluating such programmes

We begin with an introduction to the Koup fencing project, drawing potential lessons with regard to government funding and the efforts necessary for resolving collective action problems. We then turn to a discussion of the fencing workers, arguing on the basis of comparative data from the 2011 census that the project selected for relatively poor people.

2. The Koup fencing project¹

The Koup fencing project was conceived of in 2010 by Lukas Botes, the chairman of the local farmers' association, and Piet Gouws, a sheep farmer and a local church leader. Frustrated by the growing problem of jackal predation in the Karoo (see Nattrass & Conradie 2013), they decided to apply to the government for assistance to build and repair jackal-proof fencing in their district: an 80 000 hectare collection of 19 farms known as the Koup along the banks of the Dwyka River. It was the start of a process that grew to encompass a research dimension, and that resulted in a project closely aligned with the empowerment and employment-creation priorities of post-apartheid South Africa.

During apartheid, substantial assistance was provided to white commercial farmers in the form of cheap loans and agricultural subsidies, including for fencing. The previous (apartheid) Department of Soil Conservation and Technical Services operated a scheme whereby (white) farmers could apply to government for subsidies for fencing, erosion control and irrigation systems. Individual farmers would approach local government officials with a plan and, if this was approved, an agreed subsidy would be paid out to the farmer after inspection of the completed work. With the transition to democracy, this scheme was phased out in favour of area-wide, community-driven projects and support for emerging farmers (coloured and African farmers who had been disadvantaged by apartheid, for example). Soil Conservation and Technical Services was transformed into LandCare, a division within the Department of Agriculture, to promote conservation and social transformation, as well as soil protection and the removal of alien vegetation.

Botes and Gouws developed their idea for a fencing project after learning from Francis Steyn (head of LandCare Western Cape) about a government-funded area-wide fencing project in Rietbron, a Karoo farming district to the east of the Koup. They became aware of this at a predator management workshop held by the Department of Agriculture (Western Cape) in Beaufort West in November 2011. Discussions with Francis Steyn and Prof Beatrice Conradie (an agricultural economist working on the problems of predator management for farmers) at the meeting encouraged them to set up their own area-wide fencing initiative. They developed a plan to ensure that the 19 farms were surrounded by a jackal-proof fence (i.e. a wire mesh fence packed with rocks at the base), and then to repair the boundary fences between the farms. However, their original application, which included contractor-supplied fencing as well as helicopter hunting operations against jackals, was unsuccessful. This was partly due to their lack of experience in fundraising (both are working sheep farmers), but also because their proposal did not sufficiently reflect the post-apartheid priority of promoting community empowerment and job creation. Their vision of eliminating jackals and creating a 'sheep reserve' also did not align with post-apartheid environmental policy, which emphasises sustainable environmental management and protection of wildlife.

¹ Interview with Francis Steyn (1 September 2014), Lukas Botes (18 August 2014), and Piet Gouws and Phyllis Pienaar (19 August 2014).

After receiving further advice from Steyn, Conradie and, subsequently, also from Phyllis Pienaar (the LandCare district manager for the Karoo), they transformed their proposal into an area-wide plan in which the fencing project was reconceptualised as a community-led job-creation scheme framed as a jackal control (rather than eradication) effort, and as a means of facilitating sustainable agricultural livelihoods and wildlife stewardship. Their fencing strategy, however, remained controversial, with some environmentalists who argued (at Predator Management Forum meetings) that it would undermine biodiversity by restricting animal movement across the landscape. The farmers countered that, once the jackals were under control, holes inevitably would arise (from porcupines and aardvark digging under the fences) and that wild animals hence would be able to move again. Others argued that, given the current use of poison and trapping to control jackals, a fence might actually improve biodiversity.²

The transformation of the fencing proposal into an income-creation and empowerment programme was facilitated by an already existing initiative to assist farmworkers in the Koup. Botes's wife, Jacolise, had conducted research on the social needs of farmworkers in the Koup (Botes 2011) and had started an NGO called AgriReap, which runs, *inter alia*, the 'farmworker of the year' competition in the district. After funding was obtained for the project from government in 2011, AgriReap became the vehicle for handling certain aspects of the project, such as managing the finances, registering workers with the Unemployment Insurance Fund and assisting them to open bank accounts.

Workers were divided into teams of six and, depending on the work and available funding, between four and five teams were in the field at any one time. Team leaders were responsible for managing the day-to-day fencing work and for ensuring that sufficient food was purchased to enable the teams to camp on remote farmlands for two weeks at a time. Wages were set at the same hourly rate as the legislated minimum wage in agriculture (which is also the minimum wage for government employment projects in the area), with team leaders earning an additional 30%.

Steyn and Pienaar cobbled together start-up funding for the Koup project in 2011/2012 from funds left over from the old apartheid fencing subsidy scheme (R66 860 for wage costs) and from a budget surplus in engineering services³ (R250 000 for materials). The following year they leveraged R500 000 for the cost of materials from the national fencing programme and successfully applied for R400 000 from the national Expanded Public Works Programme (EPWP)⁴ to cover wage costs. As of mid-2014, 238 kilometres of fencing had been completed, providing 6 038 person days of employment.⁵

The Koup project was made possible by the support and innovative funding strategies of Steyn and Pienaar, who were skilled at writing the proposals and reports required by national incentive funding schemes designed to encourage job creation, economic transformation and community empowerment, notably the EPWP and the Department of Agriculture's Comprehensive Agricultural Support Programme (CASP).⁶ But relying on such incentive funds brought with it further operational challenges, as the state sought to achieve an appropriate balance between its objectives and the spread of projects competing for funding. In some cases this resulted in severe funding shortfalls for the Koup project. Notably, in 2013/2014, Steyn and Pienaar had expected to receive a grant of R5 million from the EPWP for job creation projects in the Karoo (of which the Koup

² Whether the fence will have a net positive or negative benefit for wildlife remains to be seen and is currently being researched.

³ Engineering services and LandCare are both units falling under Sustainable Resource Management in the Department of Agriculture.

⁴ Information about the EPWP can be obtained at <http://www.epwp.gov.za/>

⁵ Information provided by Phyllis Pienaar (personal communication, 12 September 2014).

⁶ Information about CASP is available at <http://www.nda.agric.za/doaDev/topMenu/DoAProgrammes/CASP.htm>

fencing project was one). Their project had been approved, but when the money was actually transferred, only R500 000 was made available to them. That year, the Koup fencing project had to rely on a minimalist budget of R60 000 for wages and R40 000 for materials from LandCare's internal project funding (the Department's Equitable Share Programme). This meant that the fencing teams had limited work that year.

The South African national government seeks to influence the type of projects being funded through their incentive programmes in order to spread the benefits of project funding over a wider range of participants. This was evident in the funding of the fencing project. For example, in 2014/2015, Steyn and Pienaar were able to allocate R800 000 for wage costs to the project from a larger CASP grant, in terms of which this was made conditional on the construction of fencing (free of charge) on the lands of two emerging farmers in the district, and around the common lands used by subsistence farmers in Merweville and Leeu Gamka (small Karoo towns).⁷

The history of funding for the Koup fencing project highlights the centrally important role of innovative and supportive government officials like Steyn and Pienaar. The Koup farmers were fortunate in being able to work with officials who could successfully navigate the South African government's often complicated and multi-level incentive-based funding for community-led job-creation projects. The experience also shows that national government can be successful in inserting a broader transformation agenda into projects through incentive-based funding, which prioritises community-led projects, and by requiring that government money also be spent on emerging and subsistence farmers. The downside of such incentive funding, however, is that it injects significant uncertainty into the process in that funding varies significantly from year to year.

The Koup fencing project, of course, also relied on the dedicated efforts and energy of the participating farmers, especially those who took on leadership roles. There are always 'collective action problems' in area-wide initiatives of this kind, as individual farmers have an incentive to shirk and free-ride on the efforts of others. Collective action problems can be overcome in a range of ways, such as social incentives (peer pressure exercised through meetings, church groups or subtle shaming through gossip about those not pulling their weight), restricting benefits, where possible, to contributing members, and by relying on the efforts of individuals, where such individuals have an incentive to drive the project forward, even in the presence of free-riding (Olson 1965). All three mechanisms were evident in the Koup.⁸

The Koup fencing project provides fences for individual farmers, thereby benefiting them directly, but because it sought to enclose an 80 000 hectare district, it potentially provides benefits (fewer jackals) for all those within the area, whether the boundary fence is on their farm or not. The jackal-proof fence thus is in part a 'public good', in that some can benefit without having to pay the costs. The project also renovated many farm fences within the enclosed area, a process that brought with it inevitable challenges of trying to ensure that farmers on both sides of the fence contributed to the construction/renovation. Government funding covered the costs of labour and wire fencing, but farmers were expected to contribute 'droppers' (metal fence posts), and to lend a tractor and trailer to the fencing team to help them collect the rocks they needed to pack along the base of the fence to render it 'jackal proof' (see Figure 1). Disputes arose over who should provide droppers (and how many), who should lend a tractor and trailer to the team, and who should be checking the quality of the fence work. Some farmers provided insufficient or inferior (wooden) droppers, thereby compromising the quality of the fence, or refused to lend the project a tractor and trailer, thereby making the work harder, longer and slowing down progress across the district.

⁷ Information about the budget was provided by Phyllis Pienaar, interviewed in Beaufort West on 19 August 2014.

⁸ This analysis is drawn from interviews conducted in 2014 with Lukas Botes (30 July, 18 August), Piet Gouws (30 and 31 July, 18 and 19 August), Phyllis Pienaar (19 August), Helene Coetzee (20 August) and Francis Steyn (1 September).

Such problems were addressed mainly through moral persuasion (for example, Gouws would talk the issue over with relevant farmers on a Sunday after church). The fact that all the farmers were white and Afrikaans speaking, and that most were from families who had farmed in the area for generations, made this kind of moral persuasion easier. But this did not eradicate the problem of shirking. Gouws at times resorted to threatening to take fencing teams off farms where insufficient assistance was being provided. However, as the vision for an area-wide jackal-proof fence required an area-wide approach, this threat did not carry much weight and some shirking farmers effectively got away with it by relying on others to provide the resources.

The farmers differed in terms of how involved they were prepared to be with the fencing teams. While some embraced the empowerment dimension, others were annoyed by the hassle of having the teams on their land and some would have preferred to have done the work themselves with a direct subsidy. Fortunately the quality of the fencing was good, and sceptical farmers mostly reconciled themselves with the project. Problems arose, however, from time to time – for example complaints about theft of fencing materials and substance abuse, a longstanding problem amongst farmworkers (see Atkinson 2007; Botes 2011).

Farmers were collectively responsible for transporting the workers into town after their two-week camping stints on farms, but in the end the bulk of the responsibility fell on the shoulders of Gouws and, to a lesser extent, his neighbours, Jan du Toit and Ferdie Botes. Gouws was provided with a small stipend which contributed to, but did not fully cover, his transport costs. Helene Coetzee of AgriReap also dedicated a greater than expected share of her time to managing wage payments and the food orders of the individual teams. Gouws and Coetzee thus functioned as project champions, ensuring that the project operated on a day-to-day basis, even though this made additional demands on their time. Without them, the project probably would have collapsed under the weight of collective action problems, as had occurred in Rietbron.

The Rietbron project was a fencing project funded through the roads department. It was not set up as a job-creation project and it did not have any empowerment or transformation agenda. It was community led only to the extent that it involved the participating farmers, who had to liaise with contractors and execute quality control. But the initiative lacked the social cohesion of the Koup fencing project and was plagued by managerial and quality-control problems. The project was eventually cancelled. Ironically, this project, which had inspired Gouws and Botes to try something similar in the Koup, became a source of funding for the Koup fencing project as R92 500 of Rietbron's unused budget was made available to the Koup to contribute to wage payments in 2012/2013.



Figure 1: Workers packing rocks along the base of a jackal-proof fence (top left); collecting rocks (top right); and meeting with Piet Gouws and Josef le Roes (a Koups farmer) at a fence team camp site on Le Roes's farm.

Source: (top left) LandCare, Western Cape; (top right and bottom) Nicoli Nattrass

The Koups fencing project succeeded where the Rietbron project failed by having project champions who were genuinely inspired by its dual function of improving agricultural infrastructure and creating jobs. It is also likely that social cohesion was supported through Gouws's role as a church leader and Botes's role as chairman of the local farmer organisation. The fact that Botes's wife (unfortunately now deceased) had been involved in the social upliftment of farmworkers prior to the project no doubt made the transition to an empowerment programme easier.

Also important, though, was the momentum provided to this community-level project through the interest generated by the inclusion of a research component focusing on the issue of jackal ecology, sheep predation, economic sustainability and wildlife diversity. As discussed below, by involving social scientists and ecologists from the University of Cape Town, Botes and Gouws were able to expand their area-wide fencing project into a site for the study of biodiversity on sheep farms and the relationship between ecology, predation, farming practices and stock losses in the area. This, in turn, generated interest in and further momentum for the area-wide fencing initiative.

Research in the Koup was facilitated by Beatrice Conradie, who met Botes and Gouws after presenting her work on the relationship between jackal control and stock losses at the same Predator Management Forum meeting attended by Francis Steyn. Conradie acknowledged the farmers' concerns about jackal predation, but pointed out that old hunting club data suggested that killing jackals might lead to greater rather than reduced stock losses in subsequent years (see Conradie & Piesse 2013). This result resonated with the argument made by some ecologists that predators respond to persecution by increasing the size of litters and allowing beta females to breed (see review in Nattrass & Conradie 2013). The farmers, however, argued that jackal numbers were out of control in the district because the number of active farmers had declined, protected areas had grown and fences were in need of repair. Conradie invited Botes and Gouws to the University of Cape Town, where an ambitious multidisciplinary research project, including socio-economic surveys of farmers and ecological research comprising, among others, the use of trail cameras (and subsequently also the radio-collaring of predators), was devised.

Research in the Koup (and subsequently also in a nearby nature reserve) began in 2012, supported by funding raised from the University of Cape Town (for equipment and the socio-economic study) and the Nedbank Green Trust/World Wildlife Fund. Marine Drouilly, a PhD student under the primary supervision of Prof Justin O'Riain, was responsible for setting up trail cameras, collecting predator scat (dung) for analysis and radio-collaring predators. This required additional co-ordination work on the part of Botes to obtain the necessary permission from farmers to collect this data. He also made repeated requests to farmers to donate predator carcasses to the research project (for DNA analysis) and to avoid illegal trapping that could jeopardise the research. Gouws provided accommodation for researchers in a cottage on his farm, turning it into something of a research and social centre for the project. This helped consolidate Gouws's central role and encouraged him to maintain his efforts to build social solidarity around the fencing project. Feedback meetings during which Drouilly presented preliminary results and progress reports to the farmers generated a lot of interest and provided an opportunity for Gouws and Botes to keep momentum going for the fencing effort.

Conradie supplemented the ecological study with an economic survey of the farmers. Her preliminary results pointed to a lack of knowledge on the part of the farmers about how many of their sheep fell pregnant – and hence to the unreliability of data on jackal-related stock losses. Her work generated momentum for a further intervention in the Koup: to provide subsidised scanning services to farmers to check which ewes were pregnant. This was managed by a local farmer (Ferdie Botes), who also was very supportive of the ecology study. As the Koup fencing project expanded into a broader area-wide planning effect, LandCare Western Cape agreed to conduct a vegetation assessment in the area to help explore how much of the problem faced by farmers was related to grazing quality.

The Koup area-wide planning process is now regarded as something of a gold standard by LandCare Western Cape.⁹ It was able to address and transcend collective action problems through the efforts of committed individuals, and social solidarity was enhanced through the interest generated by the unique landscape-level exploration of the economics, ecology and sociology of predation problems in the Karoo. All of this helped foster the 'buy-in' needed to ensure that farmers took the necessary 'ownership' of the project. Other area-wide initiatives are being set up with the assistance of LandCare Western Cape, but whether they will succeed in the same way as the Koup is an open question. Such social conditions and motivating factors as evident in the Koup are not easily replicated.

⁹ Francis Steyn regularly talks about the project on public platforms and, in August 2014, nominated it for a possible prize in a Southern African LandCare competition.

The idea of community-based/led and participatory development has been popular in international development circles since the 2000s (Yusuf 2009:34-35) and is evident also in post-apartheid thinking about job creation schemes. The EPWP encourages community participation and local 'ownership' of projects, and the predominantly rural Community-based Public Works Programme requires these (Adato *et al.* 2005). The Koup fencing project was 'community-led' in two senses. In the first instance, it was a project led by a community of farmers, but it was also community led in so far as the team leaders had responsibilities and the authority to hire team members. Yet the power of the team leaders was inevitably subordinate to that of the Koup farmers, and in this regard the project reflected the paternalistic relations that characterise farmer-farmworker relationships in the Karoo (Atkinson 2007; Botes 2011). Even so, the project had genuinely transformative dimensions not only through job creation, but through the learning process the farmers themselves went through.

The following section looks more specifically at how the fencing project affected the economic position of participating workers.

3. The fence workers within the socio-economic context of coloured urban dwellers in Laingsburg

The Koup fencing project employed between 24 and 30 workers grouped in teams of six. There was some attrition as a result of retirements, firing and resignations, and the number of months worked per year fluctuated depending on the availability of funding. During an off period in 2013, fifteen fence workers were interviewed about their socio-economic status and employment histories.¹⁰ We used this information, supplemented with data collected from the 24 fence workers employed as of August 2014, to locate the fencing workers within the socio-economic context of coloured residents of Laingsburg town.

Laingsburg town is a small agricultural centre straddling the border between the winter and summer rainfall region of the Karoo. The municipality, which extends beyond the town to cover about 8 800 square kilometres of farmland, has an average population density of one person per square kilometre (Laingsburg Municipality 2006:15). The regional economy is driven by agriculture and services: in 2009, 22% of value added in the Laingsburg district economy was generated by agriculture, 35% by finance insurance and real estate business, and 19% in community, social and personal services (Laingsburg Municipality 2012:10). Figure 2 shows the location of Laingsburg magisterial district within the Western Cape, as well as the position of the town. The Koup district lies to the north-west of Laingsburg.

¹⁰ The qualitative research was conducted at the Laingsburg Flood Museum during an all-day workshop lead by Inge Conradie with the assistance of Annabelle Wienand and under the supervision of Beatrice Conradie and Nicoli Natrass. The workers were given lunch and tea, as well as a grocery hamper and a water bottle. Ethical clearance was obtained from the University of Cape Town and all participants signed consent forms.

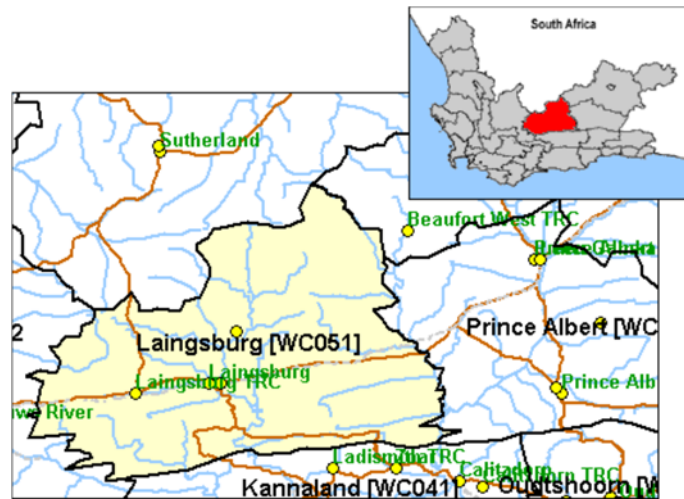


Figure 2: Laingsburg

Source: Laingsburg Municipality (2012:5)

Laingsburg comprises mostly coloured (mixed race) people. Figure 3 shows that there has long been a significant coloured urban population in Laingsburg, and that this population has grown as the rural population in the district declined. Such decline is partly a reflection of the wider South African agricultural trend of decreasing on-farm employment: on-farm employment shrunk from 1 185 000 in 1990 to 774 000 in 2007, and casual employment as a percentage of total employment in agriculture rose from 33% to 42% between 1996 and 2007 (Statistics South Africa 2000; 2007). This has been attributed mostly to changes in labour regulations and the related wage pressure in the post-apartheid period, as well to evictions by farmers fearful that workers would obtain tenure rights in the post-apartheid period (Simbi & Aliber 2000; Atkinson 2007:84; Sparrow *et al.* 2008; Bhorat *et al.* 2013). In the Karoo, the reduction in farm employment was further exacerbated by declining numbers of sheep farms and a rise in game farming, which is less labour intensive and hence requires fewer workers (Laingsburg Municipality 2006:18).

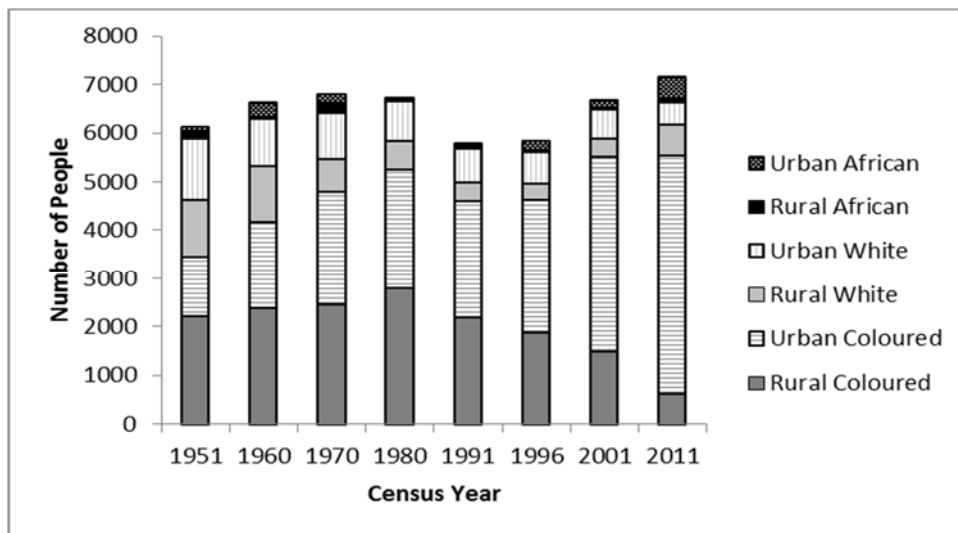


Figure 3: Population of Laingsburg (town and rural area)

Source: Statistics South Africa (population census, various years)

As can be seen in Figure 3, the white population of Laingsburg district (both urban and rural) has declined significantly since 1950. This reflects the economic pressures on sheep farming in particular, and the steady decline of this sector. As Nattrass and Conradie (2013) have shown, the real income of sheep farmers in South Africa is similar to what it was a century earlier. Total

agricultural factor productivity has fallen in the Central Karoo over the past fifty years, with Laingsburg recording the lowest productivity in the region (Conradie *et al.* 2009; 2013).

Table 1: A socio-economic profile of Laingsburg town (2011)

	Coloured	White	Black
Total population	4 922	454	446
Strict unemployment rate (i.e. active jobseekers only)	30%	6%	14%
Broad unemployment rate (i.e. including non-active job seekers)	36%	8%	15%
Average household size	3.9	2.1	2.3
% with annual household income below R19 600 (2011 prices)	35%	16%	25%
% with annual household income below R76 400 (2011 prices)	82%	49%	73%
Dependency ratio (dependants per earner)	3.9	2.5	2.5
% household heads without matric	86%	38%	74%
% households with a pit latrine	13%	0%	7%
% households with piped water within the house	64%	100%	74%

Source: Statistics South Africa (2013)

As shown in Table 1, the coloured residents of Laingsburg town in 2011 were substantially worse off in terms of unemployment rates,¹¹ dependency ratios, access to water and sanitation and educational achievement than the small number of white and (to a lesser extent) black people in the town. Table 2 sketches the socio-economic profile of the 15 fencing workers interviewed in 2013 and the 24 fencing workers who were participating in the project as of August 2014.¹² Comparative data from the 2011 census (Statistics South Africa 2013) is provided for the coloured population in Laingsburg, and all income data is in 2013 prices.

Table 2 suggests that the fence workers were typically worse off than other coloured people in Laingsburg town in that they had lower levels of education and lived in larger households. Excluding fencing income, their households fell mostly into the lower bands of the per capita household income distribution. Access to the fencing work assisted their households considerably, accounting for an average of 43% of household income for the sample of 15 workers interviewed in 2013, and 40% of household income for the 24 fence workers in 2014. As can be seen in Table 2, after accounting for earnings from the fencing project, the percentage of fencing workers living in the poorest income category dropped from over a third to under a tenth. This shows the extent to which access to low-paying jobs such as those provided by the fencing project can improve both the absolute and relative socio-economic position of those fortunate enough to obtain them.

¹¹ According to the Laingsburg Municipality (2012:8-9), unemployment was artificially low in 2011 because of an electrification project and it rose significantly the following year.

¹² Data for the 24 fencing workers was provided by Helene Coetzee (AgriReap). As of August 2014, only four teams of six workers were working.

Table 2: The fence workers and coloured people in Laingsburg town

	Fence workers 2014	Fence worker sample 2013	2011 census
Number of households	24	15	1204
Average household size	6.6	7.9	3.9
Education			
None	4%	27%	15%
Incomplete schooling	92%	73%	69%
Matric	4%	0%	12%
Post-school qualification	0%	0%	5%
Annual per capita household income (2013 prices) (for fence workers before including fencing wages)			
< R5 612	42%	47%	35%
R5 613–R10 937	54%	33%	23%
R10 938–R21 875	4%	20%	23%
> R21 875	0%	0%	19%
Annual per capita household income (2013 prices) (for fence workers including fencing wages)			
< R5 612	4%	7%	35%
R5 613–R10 937	67%	33%	23%
R10 938–R21 875	25%	60%	23%
> R21 875	4%	0%	19%

Note: For the census data, education is for the household head, and the average household size for coloured households of 3.9 is assumed to hold across the income distribution.

Source: Statistics South Africa 2013; data collected by Inge Conradie for 15 fence workers in 2013; and data provided by Helen Coetzee for 24 fencing workers in 2014.

Recruitment into the work teams was managed primarily by the team leaders as part of the empowerment and community-led dimension of the project. But a possible downside of this was that it introduced an inevitable selection bias, as team leaders were likely to select people they knew, who had useful skills, etc. – and these people were not necessarily the poorest people. However, as indicated in Table 2, it appears that better-off participants were not systematically selected for. Indeed, the project appears to have selected mostly for people in poor households. According to the 2011 population census (Statistics South Africa 2013), 58% of coloured households had an annual per capita income of less than R10 938, whereas 80% and 96% of the fencing workers interviewed in 2013 and 2014 respectively fell into this category prior to receiving wages from the fencing project (Table 2).

How did the fencing project succeed in selecting for relatively poor people? Discussions with team leaders about selection¹³ revealed two important factors. The first was that the fencing project was particularly challenging for workers because it involved living out on the land for two weeks at a time, budgeting for food, cooking communally and sharing a tent with five other men. Such physical hardship resulted in only those who really wanted the work signing up for it. A second factor selecting for relatively poor people was the role of suggestions and recommendations to team leaders by AgriReap and local community members to consider particularly needy people. Team leaders ultimately decided whom to employ (and there is evidence that family members and friends were hired), but they also took these external suggestions into account.

¹³ Discussions were held by Nicoli Natrass and Piet Gouws with team leaders and workers on 19 August 2014.

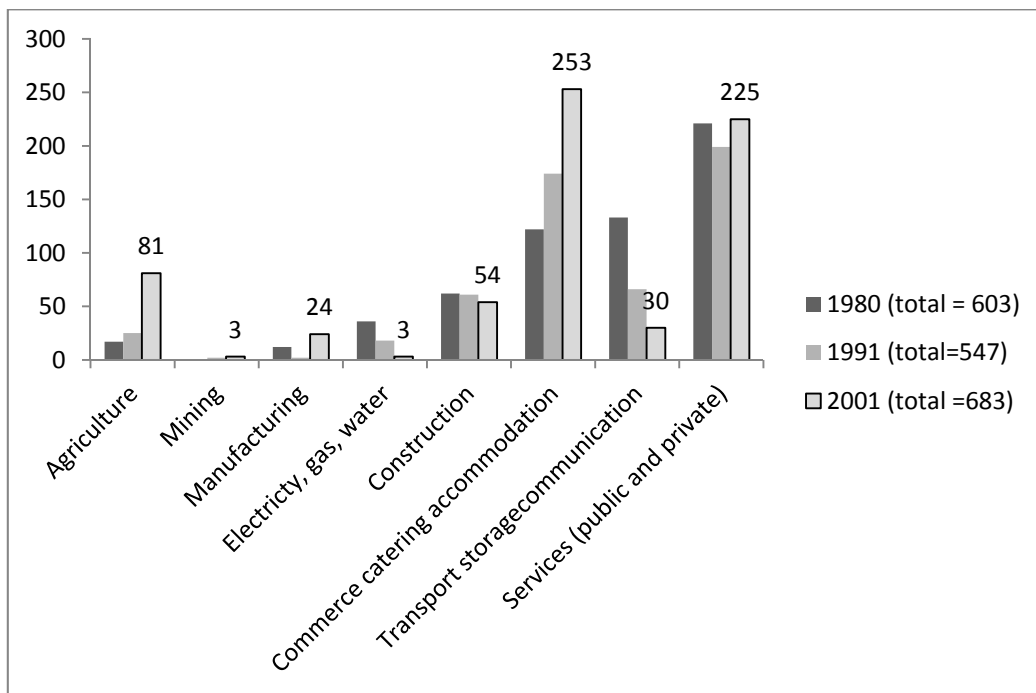


Figure 4: Sectoral distribution of coloured workers in Laingsburg town
 Source: Statistics South Africa n.d.; data for the 1980, 1991 and 2011 population census

What the project did select for, of course, were workers experienced in agricultural work. Figure 4 shows that, according to the 2001 census (the most recent data available for industry breakdown of employment; Statistics South Africa n.d.) there were 81 coloured workers in Laingsburg town classified as being employed in agriculture (i.e. 12% of total employment). This category of employment has clearly grown since 1980, suggesting that some of these workers might have been pushed off farms as full-time on-farm employment contracted over time. Interestingly, none of the 15 fencing workers fell into this category. Twelve had been born in Laingsburg and the other three had been born in other Karoo towns (Sutherland, Victoria West and Murraysburg). Although all had experience working on farms, none had ever been long-term live-in on-farm workers. And, although they self-identify as ‘agricultural workers’, their employment histories reveal that they have skills and experience in other sectors too, notably services and construction (see Table 3).

Table 3: Selected work histories

Respondent (age)	Important jobs	Education	Monthly household income (% from grants)	PWP earnings as % of household income
8 (59 years)	Municipal employee (32 years)	None	R4 310 (41% from grants)	59%
	Fence building			
13 (67 years)	Learned as a child to shear sheep	None	R5 536 (5% from grants)	76%
	Laingsburg Cooperative (19 years)			
	Picked apples in Ceres (21 years)			
	ESKOM in Sedgfield (6 years)			
11 (19 years)	Fence building (4 years)	Grade 9	R6 150 (59% from grants)	41%
	Building			
	Driver for firewood, harvesting (3 years)			
	Farm work			
3 (26 years)	Irrigator on vegetable seed farm (1 year)	Grade 10	R7 001 (25% from grants)	36%
	Paving sidewalk at school			
	Disability pension from age 21			
7 (38 years)	2004: Picked apples in Ceres (3 months)	Grade 10	R3 886 (7% from grants)	66%
	2005-2008: Mostly building work interspersed with some tractor driving			
	2009-2011: Casual work doing laundry and gardening			
	2012: Koup fence project			

Source: Data collected by Inge Conradie in 2013

Most research on agricultural employment in the Western Cape focuses on the fruit industry (e.g. Kritzing & Vorster 1996; Du Toit & Ally 2003; Kritzing *et al.* 2004; Ewert & Du Toit 2005; Conradie 2007; Theron 2012). Some work highlights the tradition of workers moving between farms in the arid Karoo (De Jongh & Steyn 1994; De Jongh 2002; Atkinson 2007), and recent literature highlights the negative impact on total agricultural employment of the shift to game farming in the area (Brandt & Spierenburg 2014). To our knowledge, our study is the only one that sheds light on the socio-economic status and employment histories of agricultural workers living in a Karoo town.

The standard analysis of South African poverty is that poor people are those without employment networks, living in rural areas and with limited skills and experience (Seekings & Nattrass 2005). This more qualitative aspect of the study indicates that the relatively poor men who had been selected into the public works programme had a range of skills, experience and related social networks, and that they used Laingsburg town as a base for migrating between jobs, mostly in agriculture. And, in contrast to studies emphasising the particular vulnerability of agricultural workers who have been pushed off farms and into towns (see Du Toit & Ally 2003; Barrientos & Kritzing 2004; Ewert & Du Toit 2005; Atkinson 2007), we show that the ranks of the Laingsburg poor include those who were born in towns and have been casual agricultural workers all their lives (see Nattrass *et al.* 2014 for more detail).

4. Conclusion

Our study shows that it is possible for government to facilitate and support community-led job-creation and empowerment projects that are transformative and poverty alleviating. However, collective action problems beset all area-wide initiatives. The analysis of the fencing project highlights the role of key supportive individuals in the community and in government, and the additional momentum provided by subsequent research and related interventions. Such conditions are not easily replicated. Those seeking to conduct future research in area-wide initiatives involving local farmers and workers need to consider this problem seriously and make every effort to secure

the involvement of committed individuals to help overcome inevitable collective action problems down the line.

Laingsburg is the smallest municipal district in South Africa. The N1 highway cuts through the middle of it, providing some economic opportunities (accommodation, petrol, etc.), but mostly serving as a reminder of how insignificant the town is to the wider economy. Yet Laingsburg and the broader Karoo region are an intrinsic part of the South African imaginary and cultural heritage. Many sheep farmers come from families dating back to the conquest of the dry interior and the tradition of itinerant coloured workers continues to this day. Yet, as this study of the Koup fencing project shows, there is significant potential for transformation even in traditionally conservative areas, and incentive-based government funding can support empowerment and job creation. Such process are never easy, yet the experience of the Koup fencing project shows that it is possible, and that there are good reasons to support such initiatives.

References

- Adato M, Hoddinott J & Haddad L, 2005. Power, politics and performance: Community participation in South African public works programs. Research Report 143, International Food Policy Research Institute, Washington DC. Available at <http://www.ifpri.org/sites/default/files/publications/rr143.pdf>
- Atkinson D, 2007. Going for broke: The fate of farmworkers in arid South Africa. Cape Town: HSRC Press.
- Barrientos S & Kritzing A, 2004. Squaring the circle: Global production and the informalization of work in South African fruit exports. *Journal of International Development* 16(1): 81–92.
- Bhorat H, Kanbur R & Stanwix B, 2013. Estimating the impact of minimum wages on employment, wages and non-wage benefits: The case of agriculture in South Africa. Cape Town: Development Policy Research Unit, University of Cape Town. Available at <http://www.dyson.cornell.edu/research/researchpdf/wp/2013/Cornell-Dyson-wp1305.pdf>
- Botes J, 2011. The social needs of farm workers in the Koup: Suggestions for employee assistance programmes (EAPs) from a social work perspective. MA thesis, Department of Social Work, University of South Africa (UNISA), Pretoria, South Africa..
- Brandt F & Spierenburg M, 2014. Game fences in the Karoo: Reconfiguring spatial and social relations. *Journal of Contemporary African Studies* 32(2): 220–37.
- Conradie B, 2007. What do we mean when we say casualisation of farm work is rising? Evidence from fruit farms in the Western Cape. *Agrekon* 46(2): 173–97.
- Conradie B & Piesse J, 2013. The effect of predator culling on livestock losses: Ceres, South Africa, 1979–1987. *African Journal of Agriculture and Resource Economics* 8(4): 265–74.
- Conradie B, Piesse J & Thirtle C, 2009. District level total factor productivity in agriculture: Western Cape Province, South Africa, 1952–2002. *Agricultural Economics* 40(3): 265–280.
- Conradie B, Piesse J, Thirtle C, Vink N & Winter K, 2013. Explaining declining total factor productivity in the Karoo districts of the Western Cape, 1952 to 2002. *Agrekon* 52(1): 1–23.
- De Jongh M, 2002. No fixed abode: The poorest of the poor and elusive identities in rural South Africa. *Journal of Southern African Studies* 28(2): 441–60.
- De Jongh M & Steyn R, 1994. Itinerancy as a way of life: The nomadic sheep-shearers of the South African Karoo. *Development Southern Africa* 11(2): 217–28.
- Du Toit A & Ally F, 2003. The externalisation and casualisation of farm labour in Western Cape horticulture: A survey of patterns in the agricultural labour market in key Western Cape districts, and their implications for employment justice. PLAAS Research Report No. 16, Programme for Land and Agrarian Studies, Centre for Rural Legal Studies, Cape Town.
- Ewert J & Du Toit A, 2005. A deepening divide in the countryside: Restructuring and rural livelihoods in the South African wine industry. *Journal of Southern African Studies* 31(2): 315–32.

- Kritzinger A & Vorster J, 1996. Women farm workers on South African deciduous fruit farms: Gender relations and the structuring of work. *Journal of Rural Studies* 12(4): 339–51.
- Kritzinger A, Barrientos S & Rossouw H, 2004. Global production and flexible employment in South African horticulture: Experiences of contract workers in fruit exports. *Sociologia Ruralis* 44(1): 17–39.
- Laingsburg Municipality, 2006. Laingsburg Municipal Integrated Development Plan: 2007-2012. Laingsburg: Laingsburg Municipality.
- Laingsburg Municipality, 2012. Draft Municipal Integrated Development Plan 2012/13. Laingsburg: Laingsburg Municipality.
- Nattrass N & Conradie B, 2013. Jackal narratives and predator control in the Karoo. CSSR Working Paper No. 324. Sustainable Societies Unit, Centre for Social Science Research Unit, University of Cape Town, Cape Town. Available at <http://cssr.uct.ac.za/pub/wp/324/>
- Nattrass N, Conradie B & Conradie I, 2014. The Koup fencing project: Community-led job creation in the Karoo. CSSR working paper 345. Available at www.cssr.uct.ac.za/publ/wp/345.
- Olson M, 1965. *The logic of collective action: Public goods and the theory of groups*. Cambridge MA: Harvard University Press.
- Seekings J & Nattrass N, 2005. *Class, race and inequality in South Africa*. New Haven CT: Yale University Press.
- Simbi T & Aliber M, 2000. The agricultural employment crisis in South Africa. Paper presented at the Trade and Industrial Policy Secretariat (TIPS) Policy Forum, September, Muldersdrift, Gauteng, South Africa.
- Sparrow GN, Ortman MC & Darroch MAG, 2008. Determinants of the demand for regular farm labour in South Africa, 1960-2002. *Agrekon* 47(1): 52–75
- Statistics South Africa, n.d. Available at <http://www.statssa.gov.za/>
- Statistics South Africa, 2000. *Employment trends in South Africa*. Pretoria: Statistics South Africa.
- Statistics South Africa, 2007. *Census of commercial agriculture, 2007: Financial and production statistics*. Census of Commercial Agriculture Report No. 11-02-01, Pretoria.
- Statistics South Africa, 2013. *National Census, 2011*. Available at <http://beta2.statssa.gov.za/>
- Theron, J. 2012. Changing employment trends on farms in the Hex and Breede River Valleys. A draft discussion document for the Cape Winelands District Municipality Roundtable Dialogue on trends in the rural economy, 10 May, De Doorns.
- Yusuf S, 2009. *Development economics through the decades: A critical look at 30 years of the World Development Report*. Washington DC: The World Bank.